

# 2017 | CENSUS *OF* AGRICULTURE

## History

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## CHAPTER 1. INTRODUCTION

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## HISTORY

The collection of agricultural census data was initially authorized by the United States Constitution in Article 1, Section 2, which required a census of population to be conducted every 10 years to proportionately distribute the representation of each State in the House of Representatives. While the delegates to the conventions that produced the Constitution discussed its various provisions, James Madison, its principal author, urged that the census be used for something more than just counting heads. Nothing came of his recommendations until 1810, after he became President Madison.

The agriculture census continued to unfold from the decennial population census as follows:

- 1810: Additional information was collected on manufacturing establishments and a single item asked whether the person interviewed was engaged in agricultural activities. Another 30 years passed before the census program included information on agricultural activities.
- 1840: The first agricultural census attempted to collect more detailed information on manufacturing, mining, and agriculture, with limited success. Because the value of agriculture data were so obvious, the census program was permanently expanded to cover economic and agricultural activities.
- 1850 through 1920: The agriculture census remained part of the decennial census program.
- 1915: Congress authorized the collection of agriculture data every 5 years.
- 1925: Economic data added to 5-year collection.
- Through 1940: U.S. Census Bureau conducted the agriculture census and other economic censuses but changed their respective schedules.
- By 1950: To use the Census Bureau's resources more efficiently and to distribute the workload over the 10-year census cycle, the agriculture census collected information for years ending in "4" and "9," while the economic censuses covered years ending in "2" and "7."
- 1976: Public Law 94-229 shortened the period after the 1974 agriculture census to 4 years, restoring the agriculture census to a schedule concurrent with the 1982 and later economic censuses.
- 1982 to Present: Agriculture census conducted concurrently with economic censuses for years ending in "2" and "7."
- 1997: Public Law 105-113 transferred the responsibility for conducting the 1997 Census of Agriculture and subsequent agriculture censuses from the U.S. Department of Commerce (DOC), Bureau of the Census (BOC), to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS).

The agriculture census is the only source of statistics on American agriculture showing comparable data, by county and classifying farms by size, tenure, legal status, primary occupation, age of producer, market value of agricultural products sold, combined government payments, operating arrangements, and North American Industry Classification System (NAICS) code. The 2017 Census of Agriculture covered agricultural operations meeting the definition of a farm in the 50 States, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands (CNMI), and American Samoa.

## LEGAL AUTHORITY

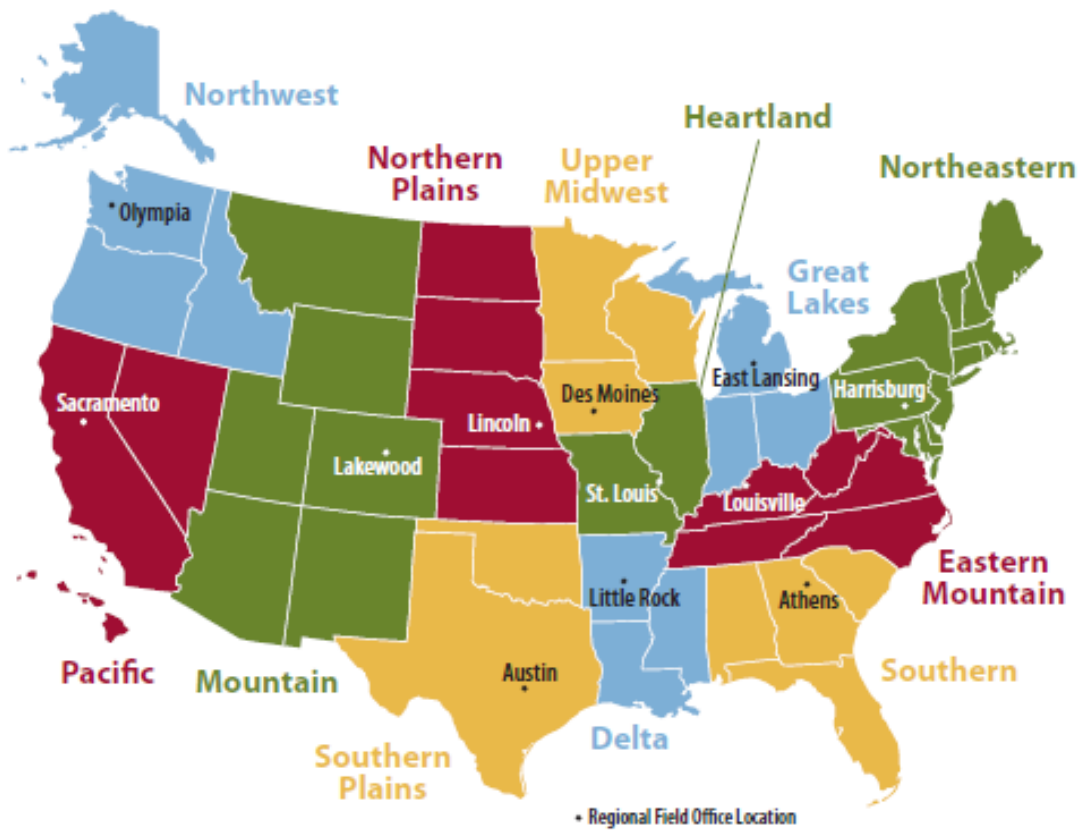
The 2017 Census of Agriculture was required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture every fifth year. The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands (CNMI), and American Samoa. (See Appendix A for excerpts of Title 7 applicable to the agriculture census.)

## ORGANIZATION AND STRUCTURE

NASS is a key information agency within the Research, Education, and Economics (REE) mission area of the USDA. The NASS mission is to provide timely, accurate, and useful statistics in service to U.S. agriculture. NASS has placed an emphasis on their core values of Trust, Credibility, Objectivity, Relevance, and Commitment. NASS has collected information on U.S. agriculture since the USDA was founded in 1862.

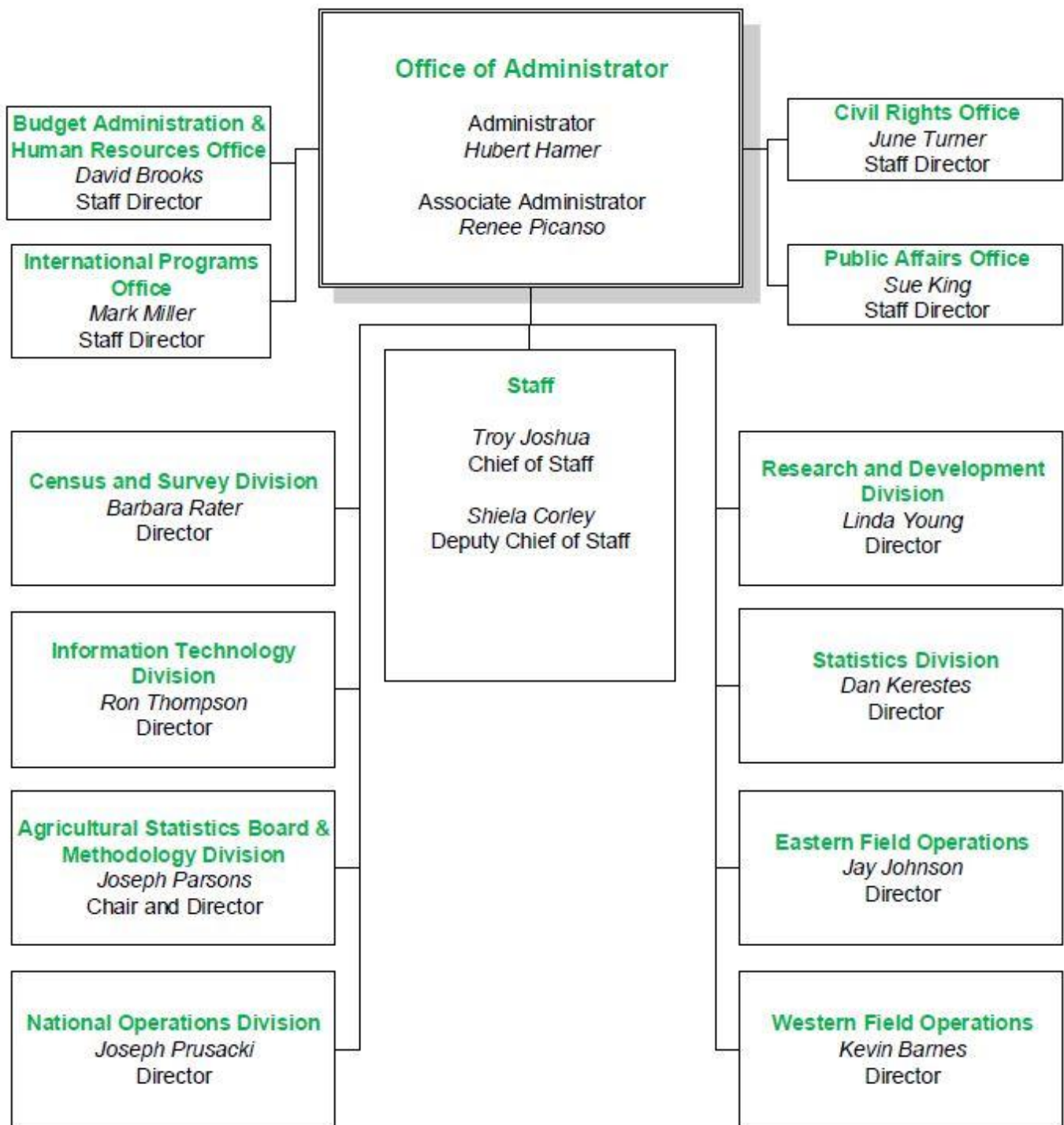
NASS has headquarters in Washington, D.C., 12 regional field offices (RFOs) each of which are responsible for the statistical work in several states, 33 state offices, and a National Operations Division (NOD) in St. Louis, MO. The NOD provides an infrastructure for increased telephone data collection capacity in a centralized environment, which centralizes sampling frame activities and experts, and consolidates telephone and field interviewer training. See Figure 1.1.

Figure 1.1 2017 NASS Regional Field Offices



Census processes associated with handling nonrespondent follow-up activities, editing report forms, and reviewing and analyzing tabulated data fully utilized NASS's field organization and State-level knowledge of farm operations. Displayed below is the organizational structure of NASS in December 2017.

Figure 1.2 2017 National Agricultural Statistics Service Organizational Chart



## USES OF CENSUS DATA

The census of agriculture is the leading source of facts and statistics about the Nation's agricultural production. It provides a detailed picture of U.S. farms and ranches every five years and is the only source of uniform, comprehensive agricultural data for every county or county equivalent.

Census of agriculture data are routinely used by farm organizations, businesses, State departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. The data are frequently used to:

- Show the importance and value of agriculture at the county, State, and national levels;
- Provide agricultural news media and agricultural associations' benchmark statistics for stories and articles on U.S. agriculture and the foods we produce;
- Compare the income and costs of production;
- Provide important data about the demographics and financial well-being of producers;
- Evaluate historical agricultural trends to formulate farm and rural policies and develop programs that help agricultural producers;
- Allocate local and national funds for farm programs, e.g. extension service projects, agricultural research, soil conservation programs, and land-grant colleges and universities;
- Identify the assets needed to support agricultural production such as land, buildings, machinery, and other equipment;
- Create an extensive database of information on uncommon crops and livestock and the value of those commodities for assessing the need to develop policies and programs to support those commodities;
- Provide geographic data on production so agribusinesses will locate near major production areas for efficiencies for both producers and agribusinesses;
- Measure the usage of modern technologies such as conservation practices, organic production, renewable energy systems, internet access, and specialized marketing strategies;
- Develop new and improved methods to increase agricultural production and profitability;
- Plan for operations during drought and emergency outbreaks of diseases or infestations of pests;
- Analyze and report the current state of food, fuel, and fiber production in the United States; and
- Make energy projections and forecast needs for agricultural producers and their communities.

## FARM DEFINITION

The census definition of a farm is any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. The definition has changed nine times since it was established in 1850. The definition used in 2017 was first used for the 1974 Census of Agriculture and was used in each subsequent agriculture census. This definition was consistent with the definition used for USDA surveys. The farm definition used for each U.S. territory varies.

### Puerto Rico

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In Puerto Rico, this included all places from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018. The farm definition is the same that was used for the 2012 Puerto Rico Census of Agriculture.

## **Guam**

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In Guam, this included all places from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018. The farm definition is the same that was used for the 2007 Guam Census of Agriculture, and is the same definition used for the rest of the U.S.

## **U.S. Virgin Islands**

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In the U.S. Virgin Islands, this included all places from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018. The farm definition is the same that was used for the 2007 U.S. Virgin Islands Census of Agriculture.

## **American Samoa**

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. The farm definition was any place that raised or produced any agricultural products for sale or home consumption. This is the same farm definition used in the 2008 American Samoa Census of Agriculture, but a broader farm definition than was used prior to that. The 1990 farm definition required a minimum of \$100 in sales, and previous censuses used sales or some minimum number of livestock to qualify as a farm. Commercial farms are defined as those with sales of \$100 or more, and noncommercial farms are those with less than \$100 in sales. Many of the commercial farms produce more for home consumption than for sale, but by virtue of having sales in excess of \$100 are classified as commercial.

## **Commonwealth of Northern Mariana Islands**

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In the CNMI, this included all places from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018. The farm definition is the same that was used for the 2007 CNMI Census of Agriculture, and is the same definition used for the rest of the U.S.

## **OVERVIEW OF CENSUS OPERATIONS**

### **Scope and Reference Dates**

The 2017 Census of Agriculture program collected and published statistical data for all agricultural operations meeting the farm definition in the 50 States, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa. Additionally, several studies were conducted as follow-on programs to the 2017 census. The follow-on programs included an aquaculture census, an irrigation and water management survey, a census of horticultural specialties, an organic survey, and a local food marketing practices survey.

Reference periods for the 2017 Census of Agriculture were similar to those used in the 2012 Census of Agriculture. Reference periods used were:

- Crop production was measured for the calendar year, except for a few crops such as avocados, citrus, and olives for which the production year overlapped the calendar year.
- Livestock, poultry, and machinery and equipment inventories, market value of land and buildings, and grain storage capacity were measured as of December 31 of the census year.
- Crop and livestock sales, other farm-related income, direct sales income, income from federal farm programs, Commodity Credit Corporation loans, Conservation Reserve, Farmable Wetlands, Conservation Reserve Enhancement, and Wetlands Reserve Program participation, farm expenses, chemical and fertilizer use, irrigated acreage, and hired farm labor data were measured for the calendar year.

## Data Collection

Data collection was accomplished primarily by mail, Computer-Assisted Self Interview (CASI) on the Internet, and personal enumeration for special classes of records in the census operations. Personal enumeration (interviewing) involved the use of both Computer-Assisted Telephone Interview (CATI) and Computer-Assisted Personal Interview (CAPI) data collection instruments. Enumerators at the five NASS Data Collection Centers conducted CATI data collection. In addition, enumerators under contract with NASS through the National Association of State Departments of Agriculture (NASDA) conducted phone and personal interviews with respondents. For the 2017 Census of Agriculture, NASS implemented a pre-notification strategy in an effort to increase awareness, improve overall responses, and encourage respondents to report early to avoid continued correspondence. All records with an e-mail address received an e-mail message marketing the improved web form and announcing the census mail packets were coming.

Operating concurrently with the Census Bureau's National Processing Center's (NPC) mail data collection efforts, NASS Data Collection Centers targeted selected groups of census nonrespondents for telephone enumeration. NASS regional field offices targeted selected groups of census nonrespondents for in-person enumeration.

NASS replaced the seven regional report forms and the national report form used in 2012 with four report forms. The 24-page general form (17-A100) facilitated reporting crops and livestock most commonly grown and raised in the U.S. The 16-page short form (17-A200) expedited reporting specific crops or livestock for pre-identified farms and ranches in the U.S. The 24-page Hawaii form (17-A101) targeted crops and livestock specifically grown or raised on farms and ranches in Hawaii. The 20-page American Indian report form (17-A300) facilitated reporting for producers and for operations on reservations in Arizona, New Mexico, and Utah. All of the forms allowed respondents to write in specific commodities that were not listed on their form.

After the removal of duplicate names and nonagricultural operations, the official Census Mail List (CML) was established on September 3, 2017. Pre-notification of census data collection began on November 17, 2017. Approximately 600,000 producers with an active e-mail address on the census mail list received a message informing them of the upcoming census data collection period and encouraging them to utilize the new census web form. Between November 27 and November 30, 2017, approximately 1 million producers received a letter with their survey code and instructions for completing their census online. The letter encouraged producers to report online early to avoid receiving mail and phone follow-up.

The initial mailout occurred at the end of December 2017. Approximately 3.0 million packets were mailed. Each packet contained a cover letter, instruction sheet, labeled report form, and return envelope. The initial mailout was followed by a thank-you reminder postcard that was mailed in January 2018 to all operations that received a mail package.

The first follow-up mail packets were mailed in mid-February 2018 to 1.5 million nonrespondents. The second follow-up mail packets were mailed in mid-March 2018 to approximately 1 million nonrespondents. Mail packet preparation, initial mailout, and the two follow-up mailings to nonrespondents, including the thank-you reminder postcards were handled by NPC in Jeffersonville, IN. In addition, NPC received, checked-in, scanned, and keyed (from image) returned report forms. NASS statisticians on site at NPC provided technical guidance and monitored NPC processing activities.

## **Data Processing**

NPC received mail returns for each of the 50 States, entered individually reported data into the computer file, and resolved edit failures. Data analysis and resolution of questionable data and data relationships took place in the respective NASS field offices through the summer of 2018. Report forms from Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, and the CNMI were processed by NPC in 2019.

## **Data Publication**

The Volume 1, Geographic Area Series publications provide data for more than 3,000 counties or county equivalents. In addition, selected data from the 2017 census were tabulated and published as Volume 2, Subject Series publications. Data include selected statistics ranked by congressional districts of the 116<sup>th</sup> Congress, statistics for each 6-digit Hydrologic Unit Code (watershed) boundaries, typology statistics, specialty crops statistics, and statistics for selected American Indian operations and producers on reservations.

Final results of the 2017 Census of Agriculture, U.S. and states, were released April 2019 and in June and July 2020 for the territories. Results for the Subject Series were released on a flow basis between July 2019 and January 2021.

## **SPECIAL ENUMERATION**

### **American Indian Reservations**

For the 2017 Census of Agriculture, NASS expanded their effort to collect more complete reservation-level data and included more reservations in all States. To maximize coverage of American Indian and Alaska Native farm and ranch producers, a concerted effort was made to get individual reports from every American Indian or Alaska Native farm or ranch producer in the country.

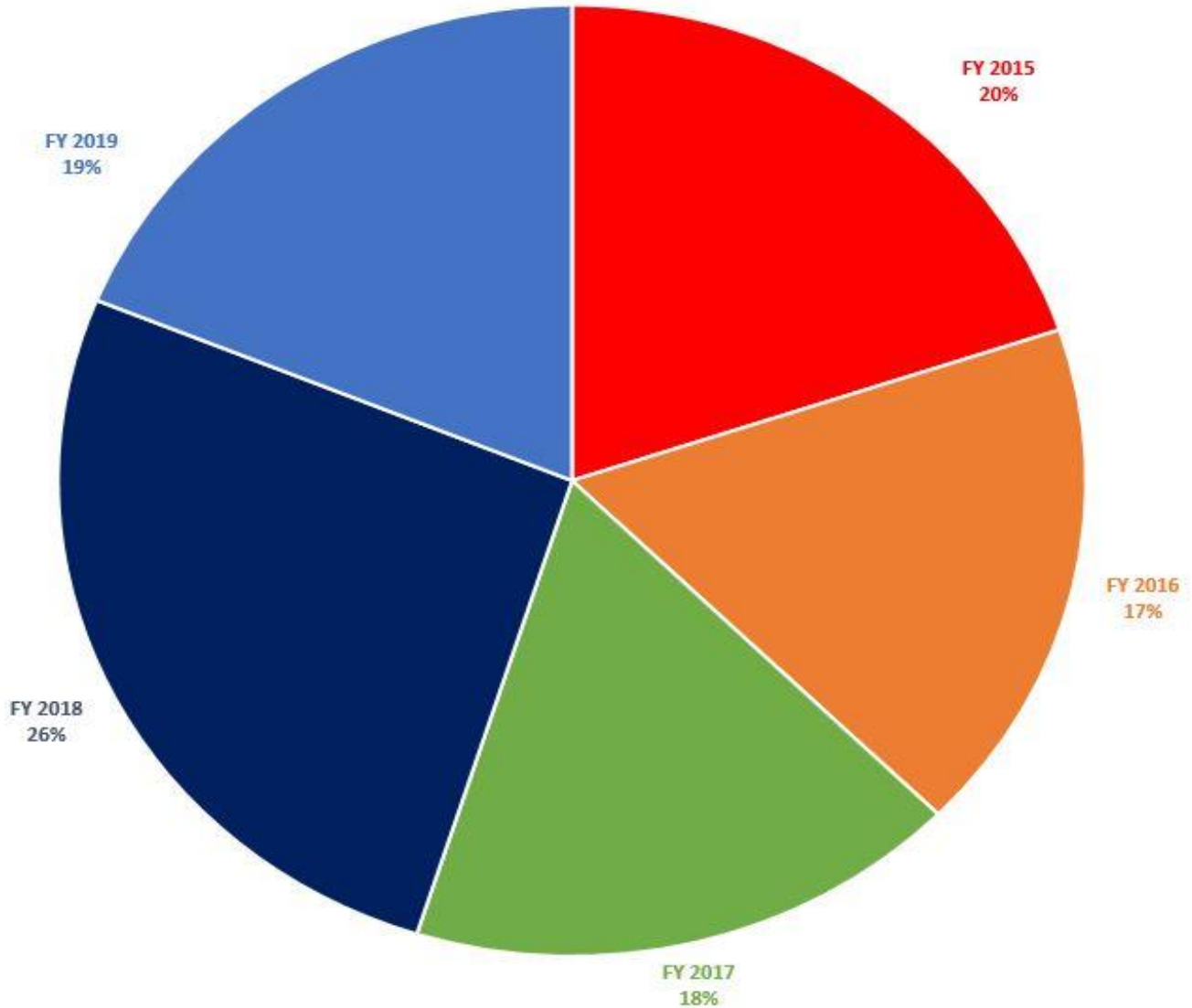
The American Indian Reservations publication provides data that supplement the 2017 Census of Agriculture. This publication presents selected operation and producer summary data for 73 American Indian reservations. This was the fourth report NASS published that focuses on agricultural activity on American Indian reservations based on individual farm and ranch reports.



## PROGRAM COST

The cost of the 2017 Census of Agriculture was approximately \$240.8 million. Over the 5-year budget cycle, the funding varied from a low of \$42 million in fiscal 2016 to a high of \$63 million in fiscal 2018. Funding included costs for the census follow-on programs. Funds for the 2017 agriculture census were considered “no year,” meaning unspent funds in a given fiscal year could be carried forward to the next year.

Figure 1.3 2017 Census of Agriculture - Total Obligations



Since the census of agriculture is a major undertaking conducted only once every five years, it was more cost-effective for NASS to outsource certain work on a contract basis. Four separate contracts covered a significant portion of work for printing, data collection, processing, and data editing. Commercial vendors were used for printing and preparing mail packages. Data collection costs included a contract with NASDA for providing enumerators. Data processing costs included a contract with NPC for covering mailout and returns and capturing data. Data editing costs included a contract with a recruitment firm to provide temporary staff.

The table below shows funding by fiscal year for major program areas.

**Figure 1.4 2017 Census of Agriculture Full-Cycle Costs by Fiscal Year**

| <b>Fiscal Year</b>                                   | <b>2015<br/>(\$1,000)</b> | <b>2016<br/>(\$1,000)</b> | <b>2017<br/>(\$1,000)</b> | <b>2018<br/>(\$1,000)</b> | <b>2019<br/>(\$1,000)</b> | <b>Total<br/>estimated<br/>2017<br/>full-cycle<br/>cost<br/>(\$1,000)</b> |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| <b>Total Obligations</b>                             | <b>47,842</b>             | <b>42,177</b>             | <b>42,177</b>             | <b>63,350</b>             | <b>44,300</b>             | <b>240,846</b>  |
| Direction  | 8,364                     | 8,373                     | 8,099                     | 8,600                     | 7,600                     | 41,036  |
| Content Determination and Design (includes printing) | 7,224                     | 5,350                     | 5,947                     | 4,200                     | 5,900                     | 28,621  |
| Mail List Development and Mailout                    | 7,995                     | 8,600                     | 6,250                     | 12,200                    | 7,000                     | 42,045  |
| Collection and Processing                            | 18,339                    | 15,047                    | 16,281                    | 32,300                    | 19,000                    | 100,967   |
| Publication and Dissemination                        | 5,920                     | 4,807                     | 5,600                     | 6,050                     | 5,800                     | 28,177  |

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## CHAPTER 2. PLANNING AND PRELIMINARY OPERATIONS

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## **PRELIMINARY PLANNING**

### **Review of 2017 Census of Agriculture Processing**

The 2017 Census of Agriculture (CoA) was conducted by USDA's National Agricultural Statistics Service (NASS). In preparation for the 2017 census, NASS made several changes to the 2017 census process. Following are some of the most significant changes.

- In an effort to reduce respondent burden, a short form was used to expedite reporting specific crops or livestock for pre-identified farms and ranches. A single, long form was used to facilitate reporting crops and livestock most commonly grown in the U.S. The report form content was restructured (reordered) to move the producer characteristics and hay sections closer to the beginning of the report form.
- A new version of the computer assisted web instrument (CAWI) was developed to increase the usability of the form and to incorporate features that are only available in an electronic instrument, such as automated routing, edits, and incorporation of reported data within the form.
- The Personal Characteristics section changed on the report form in 2017, which necessitated a new imputation process for records reporting three or more persons as producers. Information on an additional (fourth) producer was collected, and several new questions were added for each producer – specifically, whether or not the person was considered a “principal producer,” whether the person was a spouse of a principal producer, and whether the person was involved in any of five types of decisions with respect to the operation.
- A military veteran question was added for the first time on the 2017 CoA report form, which necessitated a new edit and summary procedure as well.
- In the 2017 Census of Agriculture, NASS enhanced the utilization of capture-recapture methodology (first used in the 2012 Census of Agriculture) to adjust for undercoverage, nonresponse, and misclassification.
- NASS conducted the 2015 Census of Agriculture Content Test in early 2016. Results from the testing produced a 24-page long form and a 16-page short form.

The changes to the 2017 Census of Agriculture led to significant improvements in overall processing efficiency and data quality.

## **COMPUTER HARDWARE**

Computer access and security issues were critically important throughout the census process. The computers used to process the 2017 census were owned and operated by NASS. The Census Bureau's National Processing Center (NPC) used Optical Mark Recognition (OMR) for data capture and transmission of files to NASS. Only sworn NASS employees could gain access to census data. This system protected the confidentiality of the data and allowed timely processing of the census.

In preparation for the census, and as a result of technological advancements, necessary upgrades were made to the computer system's hardware, software, infrastructure, and architecture.

## **DEVELOPMENT OF THE REPORT FORMS**

Prior to release of the results from the 2012 Census of Agriculture, NASS was preparing for the 2017 Census of Agriculture. The first teams established were the 2017 Data Collection Testing Team and the Census Content Team. These teams were tasked with content determination and report form development. They reviewed the 2012 report form content, solicited input from internal and external customers, developed criteria for determining acceptance and/or rejection of content for the 2017 Census of Agriculture report forms, tested the effectiveness of the report forms for various modes of data collection (mail, telephone, personal interview, and electronic data reporting), and made recommendations to NASS senior executives for final content determination and conduct of data collection.

Throughout development, NASS sought advice and input from the data user community (see Chapter 2, Consultation on the Census). Integral partners included the Advisory Committee on Agriculture Statistics, Expert Panel on Farm Demographics, State Departments of Agriculture and other State government officials, USDA agencies, Federal agency officials, land grant universities, agricultural trade associations, media, and various Community-Based Organizations.

Following the quinquennial census of agriculture, under Title 7, NASS is authorized to conduct several follow-on censuses:

|  |                     |
|--|---------------------|
| Irrigation and Water Management Survey ..... | (OMB No. 0535-0234) |
| Census of Horticultural Specialties .....    | (OMB No. 0535-0236) |
| Census of Aquaculture .....                  | (OMB No. 0535-0237) |
| Organic Survey.....                          | (OMB No. 0535-0249) |
| Local Food Marketing Practices Survey.....   | (OMB No. 0535-0259) |

The report form development for each of these follow-on censuses are explained within their specific chapters: Irrigation and Water Management (Chapter 10), Census of Aquaculture (Chapter 11), Census of Horticultural Specialties (Chapter 12), Organic Survey (Chapter 13), and Local Food Marketing Practices Survey (Chapter 14).

## **CONSULTATION ON THE CENSUS**

### **General Information**

NASS’s mission is to provide timely, accurate, and useful statistics to U.S. agriculture. Therefore, NASS must determine which statistical information is most needed. Since the data compiled in the statistical tabulations must be supplied by individuals and/or organizations outside the agency, NASS must know whether the respondents to its census of agriculture and surveys will be able to supply the information requested.

In planning for the 2017 Census of Agriculture, NASS sought advice from data users on current and future data needs, the ability of respondents to supply the data, general data collection methods, content and format of report forms, and publicity programs to support the census. NASS maintained regular contact with its advisory committee, Governors, departments of agriculture, land-grant (agricultural) universities, Federal departments and agencies, and other data users and suppliers via an extensive outreach program and welcomed their advice and suggestions.

### **Advisory Committee on Agriculture Statistics**

The Advisory Committee on Agriculture Statistics drew on the experience and expertise of its members to form a collective judgment concerning agriculture data needs and the statistics issued by NASS. This input was vital to keeping current with shifting data needs in the rapidly changing agricultural environment and keeping NASS informed of emerging developments and issues in the agriculture community that could affect agriculture statistics activities.

The committee, appointed by the Secretary, consisted of 24 members who represented a broad range of interests, including agricultural economists, rural sociologists, farm policy analysts, educators, State agriculture representatives, agriculture-related business and marketing experts, and members of major national farm organizations. In addition, a representative of the Bureau of the Census and of the Economic Research Service served as ex-officio members of the committee.

### **Governors, State Departments of Agriculture, and Land-Grant Universities**

Agriculture is the most important industry in a number of States and is a significant industry in all 50 States, as well as in Puerto Rico and the outlying areas. NASS routinely asks State governments for assistance in publicizing the census. Both the Governors and the State Departments of Agriculture have a considerable interest in the content of the census report forms and in the completeness and accuracy of the enumeration. Letters were mailed to the State Governors and departments of agriculture, as well as to their land-grant universities, asking for their requests and recommendations on data content for the 2017 census. The responses were considered in the design of the census report form.

## Federal Departments and Agencies

Numerous Federal departments and agencies use census of agriculture data. Consequently, appropriate Federal departments and agencies, including all U.S. Department of Agriculture agencies, were contacted and asked to define their data needs, provide a justification for why data were needed at the county level, and make suggestions for change.

## Content Selection Criteria

As a part of the preparation process for each census of agriculture, each data item on the report form was evaluated. For the 2017 Census of Agriculture, each department, agency, group, and organization were asked to identify and justify relevant data needs and indicate if the data item was:

- Directly mandated by Congress or if the item had strong Congressional support;
- To be used in proposed or pending legislation;
- Needed for evaluation of existing Federal programs;
- Essential, such that if omitted from the census of agriculture, would result in additional respondent burden and cost for a new survey for other agencies or users;
- Required for classification of farms by historical groupings; and
- Needed to provide information on current problems.

## CONTENT TEST

### Overview

NASS conducted a three phase content test (OMB No. 0535-0243) of the long and short census of agriculture forms. Phase 1 of this test began in early 2016 with a nationwide sample of approximately 30,000 farm producers (23,500 producers received the long form and 6,500 received the short form). NASS used mail, web, and phone to conduct this phase of the test. In Phase 2, NASS conducted two rounds of cognitive interviews to correct any problems or issues farm producers had with the Phase 1 report forms. Phase 3 was an Internet test used to test the usability of the system.

The different versions of the report form were tested for question phrasing, form design, form flow, respondent comprehension, and regional differences. Emphasis was placed on new items and items found to be problematic in the past. Content Test results were used to determine the final report form content and design.

Prior to most agriculture censuses, the census staff engaged in detailed studies and planning aimed at obtaining the most complete and efficient enumeration. Typically, this planning process included one or more field tests of materials and/or data-collection methodologies and provided an opportunity to evaluate suggested changes in data content, forms design, changes in instructions to respondents, and other factors that might affect the accuracy and completeness of the enumeration. In preparation for the 2017 Census of Agriculture, a content test was conducted in early 2016 that focused on several major proposed changes. These changes involved not only report form design and content, but also the data capture method and changes associated with data editing and processing procedures.

A Census Content Team was designated and charged with reviewing existing and proposed new content for the Census of Agriculture. The Content Team provided content to a separate Data Collection Testing Team (DCT), which drafted test forms and was responsible for the content testing. Specific changes for evaluation provided by the Content Team included:

- Substantial changes were introduced to the Personal Characteristics section of the form in 2017.
- The term “operator” was replaced with the term “producer.”
- Information on an additional (fourth) producer was collected.
- Several new questions were added for each producer – specifically, whether or not the person was considered a “principal producer,” whether the person was a spouse of a principal producer, and whether the person was involved in any of five types of decisions with respect to the operation.
- A new imputation process for records reporting three or more persons as producers.
- Additional changes to the type of organization section.

- Additional land use practices and crop data changes.

The content test also tested the effectiveness of the report forms for various modes of data collection (mail, telephone, personal interview, and electronic data reporting). Recommendations based on the results were provided to NASS senior executives for final determination.

## Test Methodology

**Phase 1, Mail Test Review** – Phase 1 consisted of a mail test of both the long and short forms conducted early January 2016. The report forms were mailed to a nationwide sample of approximately 30,000 farm producers (23,500 producers received the general form and 6,500 received the short form). The report forms were tested for question phrasing, form design and flow, respondent comprehension, and regional differences. NASS used mail, web, and phone follow-up to conduct this phase of the test. Items that had high missing rates or which were edited at a high rate were targeted for additional attention in the form revision and testing. In addition, information from the toll-free incoming telephone calls were reviewed. Sections of the form for which respondents most often called for help were also targeted.

**Phase 2, Cognitive Interviews** - Cognitive interviewing is a commonly used method of testing survey report forms. In cognitive interviews, respondents are asked to complete the report form and describe their reporting process. In addition, follow up probe questions are asked to gain further insight into respondents' cognitive processes, including how questions and terminology are interpreted, how respondents obtain their answers, potential accuracy of answers or other reporting problems.

Several rounds of cognitive interviews were conducted with draft versions of the CoA form. These interviews were conducted with farm and ranch operations that would be included in the CoA. Selected sections of the forms were targeted in separate subsets of the cognitive interviews. Respondents were asked to provide verbal protocols of their question answering processes and also were asked specific follow up probes focusing on question comprehension and their response process.

The interviews were conducted by survey methodologists in the Methodology Division (MD), Research and Development Division (RDD), and also by trained Regional Field Office (RFO) staff. Because cognitive interviews are more burdensome and time consuming than regular survey interviews, the form was subdivided and subsets of the form were completed in each interview. Recommendations for each round of cognitive interviews were provided to the team for approval. Some recommendations were accepted, some denied, and some were deferred for future testing.

The first round of cognitive interviews was conducted for the long form only in August 2015. Fifty interviews were targeted and 37 ultimately completed. Several different types of operations were targeted such as those growing field crops, hay, Christmas trees, vegetables, fruits, nuts, berries and those raising equine, cattle, sheep, goats, and hogs, as well as those participating in government programs, and those that had renewable energy systems, across 22 states.

Results from the first round of cognitive interviews were used to revise the forms in preparation for an additional testing. For the second round of cognitive interviews, two separate tests were included. The first test was focused on the impact of pre-printing commodities within the crop sections and to test sections of the form that were not tested in round one. The second test in this round was focused on the short form which was not included in the round one cognitive interviews.

Round 2, Test 1 interviews occurred between early January and mid-February 2016 and included 31 operations with fruit, nuts, berries, vegetables, nursery, aquaculture, other livestock, production contracts, and AUM land across over 7 regions. Round 2, Test 2 interviews occurred between mid-January and late February 2016 and included 40 interviews with operations with several different field crops, tobacco, cattle on feed, and agricultural activity on American Indian Reservations across over 7 regions. Analysis for both rounds took place in March 2016, with recommendations presented to the Census of Agriculture Data Collection Testing Team in April 2016 and referred to the Census of Agriculture Content Team in May 2016.

In addition to the primary rounds of cognitive interviews performing overall testing of the form, an additional set of eight cognitive interviews was also conducted focusing specifically on the “Personal Characteristics” section of the form and the changes due to the Expert Panel’s recommendations. Interviews were conducted in June 2015.

An additional round of 20 cognitive interviews was conducted to evaluate the use of preprinted commodities in the field crops, vegetables, and fruit and nut sections. Interviews were conducted between March and May 2016 by 14 interviewers in 7 regions. In past censuses, commodity sections contained a table with the most common commodities prelisted in the table and additional blank lines for respondents to list additional crops. A listing of the other crops (and their codes) valid for the section was printed at the bottom of the page. If respondents had crops for that section not pre-listed within the table, they were to write in the crop name and code and then enter their information in the table.

In order to save space on the forms so new additional content could be added, several alternatives to the commodity table sections were proposed. To reduce the number of lines in the tables, pre-listed commodities could be removed from the tables and respondents requested to write in all crops. In addition, the crop listing on the page could be kept on the page or it could be removed and respondents referred to the separate instruction sheet which had all the crop listings. This round of cognitive testing was specifically to evaluate the format of commodity tables that has appeared in prior censuses. The field crops, vegetables, and fruit and nut sections were all included in the test. In addition, a question about the number of cattle on feed was also tested.

**Phase 3, Internet Test** - Phase 3 was usability testing and large scale field testing of the internet form to evaluate the feasibility of the online submission system. The new instrument was reviewed by DCT members and suggestions for modifications were made and incorporated into the instrument. Usability testing for the instrument was conducted by NASS staff and recommendations for improvements were provided to the developers. Two rounds of usability testing were conducted with respondents and one round was conducted internally with NASS staff.

The large scale field testing for the internet form consisted of a national sample of 15,000 letters inviting respondents to report online were mailed out, simulating the procedures that were under consideration for the 2017 Census of Agriculture. The RFOs reviewed the sample and the final mailout sample size was 14,516. This test included only online response, no paper form was mailed and if respondents could not report online, they were considered nonrespondents. The toll-free telephone help line was available during the test. Comments from the calls to the telephone line were collected. The test also incorporated a collection of paradata, such as the type of device and browser used, the time taken to complete the form, etc. In addition, questions to calculate a Survey User Satisfaction score were added to the end of the instrument to gain insight into the user experience with the form. Results from the usability testing and the large scale field testing for the internet form were used to improve the web form before implementation during the 2017 Census of Agriculture.

## **DATA CHANGES TO THE 2017 CENSUS OF AGRICULTURE REPORT FORM**

The following are descriptions of the changes made between the 2012 and 2017 report forms.

### **Crop Data Changes**

Added items include:

- Aronia Berries
- Cherimoyas
- Chickpeas
- Coffee – first time collected in States other than Hawaii
- Elderberries
- Indian or traditional corn
- Raspberries, other



Deleted items include:

- Pineapples not harvested
- Sugarcane not harvested
- Berry acres harvested and not harvested
- Grain storage capacity

Other changes include:

- Ginger root added to the vegetable section; removed from the field crop section
- Pineapple added to the fruit, nuts, and berries section; removed from the field crop section
- Taro root added to the vegetable section; removed from the field crop section
- Berry acreage for 2017 was collected as bearing age and nonbearing age, similar to all other fruit; 2012 data were collected as harvested and not harvested acres

Items combined with another item(s) on the 2017 report form that were reported individually on the 2012 report form include:

- Small grain dry hay
- Wild dry hay
- Other tame dry hay excluding small grain hay and wild hay

## **Livestock and Poultry Data Changes**

Deleted items include:

- Hogs and pigs used or to be used for breeding
- Ewes one year old or older
- Number of hair sheep or wool-hair crosses
- Inventory of owned horses and ponies

Other changes include:

- Modified cattle in feedlots for slaughter market to exclude cows and bulls. Data series now includes steers and heifers only. Number of cattle sold or moved from feedlots also excludes cows and bulls.

## **Economic, Energy, Land Use Practices, Selected Practices, Organic, Producer Characteristics, and Type of Organization/Legal Status Data Changes**

Added items include:

- Number of acres irrigated in the past five years
- Military service
- Producers' involvement in day-to-day, land use, livestock, financial management, and estate planning decisions
- Number of male producers
- Some hay categories were combined
- Demographic characteristics for four persons (producers).
- Sales to retail, institutions, and food hubs
- Value-added sales
- Expenses for cover crop seed as a subcategory of seeds, plants, vines, trees, etc.
- Expenses for medical supplies, veterinary, and custom services for livestock
- Have a barn built before 1960

- Aware of right to appeal an adverse program decision to USDA's National Appeals Division

Deleted items include:

- Principal operator characteristics
- Percent of household income from the farm operation

Items reported individually on the 2012 and 2017 report forms that were published individually in 2012 and combined as Other crops in 2017:

- Grains and oilseeds delivered under a production contract
- Vegetables, melons, and potatoes delivered under a production contract
- Other crops delivered under a production contract

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## CHAPTER 3. PREPARATORY OPERATIONS

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## GENERAL INFORMATION

Preparatory operations for the 2017 Census of Agriculture (CoA) began in 2012 and consisted of four major activities:

- Report form supporting instructions;
- Preparation of the Census Mail List (CML);
- Printing and preparations of report forms for mailing, and related enumeration materials; and
- Formulation of a promotional program to encourage cooperation by agricultural producers.

## REPORT FORM SUPPORTING INSTRUCTIONS

Once report form content was finalized (See Chapter 2, section on “Consultation on the Census” and “Content Test” for details), the various supporting documents were prepared. Figure 3.3 provides descriptions and quantities of these commercially printed materials.

## CENSUS MAIL LIST DEVELOPMENT

### Overview

A mailout/mailback data collection method was used to collect census information since the 1969 Census of Agriculture. The self-enumeration procedure reduces costs compared to a personal-interview methodology, but requires a complete and accurate name and address list for operations meeting the census farm definition. It was essential to eliminate as many duplicate and nonfarm records from the list as possible. This was accomplished during the list building process. The final 2017 CML contained approximately 3.0 million names and addresses.

The development of the 2017 CML began in 2014 and the official list was established on September 3, 2017. The CML was built by obtaining a variety of outside source lists. These lists were matched to NASS’s list frame using record linkage programs. Records not found on the list were added as potential farm records. Records that were known to have agricultural activity as well as potential agricultural records were included in the CML.

### Sources

NASS built and improved the list frame by obtaining outside source lists. List sources included various State and federal government lists, producer association lists, seed grower lists, pesticide applicator lists, veterinarian lists, marketing association lists, and a variety of other agriculture related lists.

NASS also obtained special commodity lists to address specific list deficiencies. These outside source lists were matched to the NASS list using record linkage programs. Most names on newly acquired lists were already on the NASS list but records not on the NASS list were treated as potential farms until NASS could confirm their existence as a qualifying farm. Staff in NASS field offices routinely contacted these potential farms to determine whether they met the farm definition.

For the 2017 Census of Agriculture, NASS made a concerted effort to work with community-based organizations not only to improve list coverage for minorities but also to increase census awareness and participation.

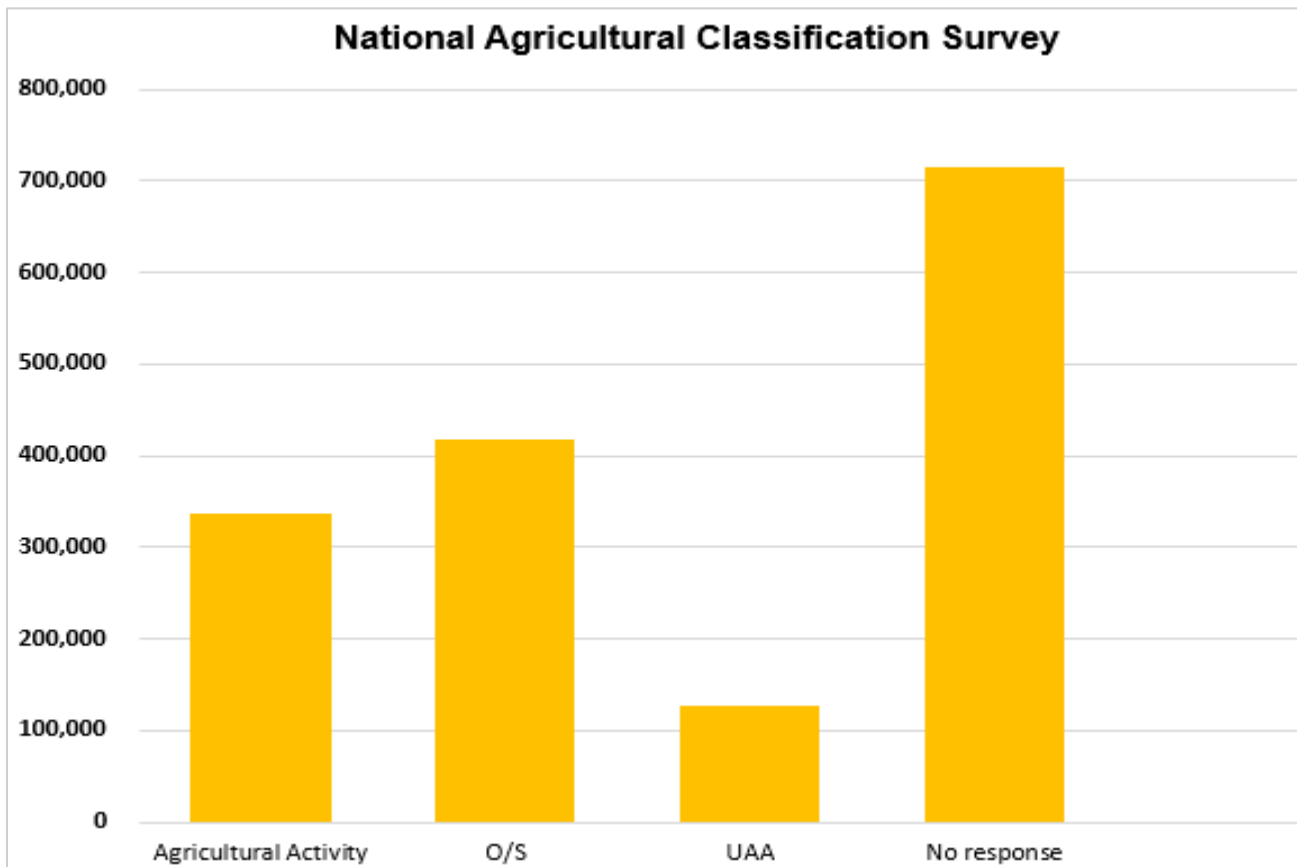
## National Agricultural Classification Survey (NACS)

For the 2017 census, the National Agricultural Classification Survey was used to screen list records before the final CML. Between 2015 and 2016, NASS conducted the first of a series of National Agricultural Classification Surveys that eventually screened approximately 1.6 million potential farms, before placing them on the CML. These records were typically mailed a four-page report form with a nonresponse follow-up mailing. The final and largest NACS was extracted and mailed in December 2016. The NACS form was designed to screen out respondents who did not have any agricultural acreage, production, federal farm program payments, or the potential for future agricultural sales.

Of the 1.6 million records included in the entire series of screeners, there were 336,369 operations that indicated agricultural activity that were added to the CML. Approximately 416,724 names were confirmed as out-of-scope (O/S) and were excluded from the CML.

There were 126,309 names returned as Undeliverable As Addressed (UAA) and excluded from further census mailings. The remaining approximately 714,000 names did not respond and were included in the final CML.

Figure 3.1 National Agricultural Classification Survey



## Not on the Mail List

To account for farming operations not on the CML, NASS used its area frame. The NASS area frame covered all land in the United States which included all farms and ranches. For the 2017 CoA, NASS used the 2017 June Agricultural Survey (JAS) and a supplemental area sample referred to as the Agricultural Coverage Evaluation Survey (ACES) to measure coverage and misclassification. Undercoverage and classification error measures were generated for all States, excluding Alaska. All records in Alaska were considered Must cases which meant they were all enumerated. Undercoverage assessment was quantitative and based solely on the Not-on-Mail List (NML) concept.

In previous censuses of agriculture, the methodology for the undercoverage adjustment was based on the assumption that tracts on the JAS and the ACES were correctly identified either as agricultural or non-agricultural. Non-agricultural tracts are classified into the following three types: with potential for agriculture, no potential for agriculture, and potential for agriculture unknown. Recent work has shown that, during JAS/ACES pre-screening efforts, some tracts were incorrectly classified as non-agricultural when agriculture was present, and vice versa.

Census of agriculture methodology accounted for farms missed on the CML by matching the CML to the JAS/ACES agricultural tracts and non-agricultural tracts. Tracts that did not match to the CML were considered part of the NML domain and constituted the census of agriculture undercoverage adjustment. Agricultural tracts and non-agricultural tracts not on the CML were included in the NML domain. These records were sent a 2017 CoA report form and the mailout was concurrent with the mailout of the CML. Direct measures of the CML undercoverage at the national and State level were the number of farms, farm type, size of farm, and the demographic characteristics generated using the data collected from the 2017 CoA.

The 2017 JAS sample was increased to improve the farm counts for operations that produced specialty commodities or had socially disadvantaged or minority producers. The total JAS sample consisted of 13,972 segments of which 3,012 were additional segments. This set of additional segments is referred to as the Agricultural Coverage Evaluation Survey (ACES) segments. The ACES segments were selected using a multivariate sampling design that targeted specific items at the U.S. level. The 2017 JAS consisted of sample segments from all States, with the exception of Alaska where NASS does not maintain an area frame.

During the JAS/ACES enumeration process, each tract is identified as either agricultural or nonagricultural. Each JAS/ACES agricultural tract is identified as a farm or non-farm in June based on the farm definition of \$1,000 of sales or potential sales of agricultural products. Non-agricultural tracts are further classified into categories: with farm potential, with unknown farm potential, or with no farm potential. The names and addresses collected in the 2017 JAS/ACES were matched to the CML. Those from the 2017 JAS/ACES that did not match were determined to be in the NML domain and sent a yellow census report form so that they could be differentiated from the green report form sent to those addressees on the CML. Instructions on the census report form directed any respondent who received duplicate forms to complete the CML form and to mail all duplicate forms back together. Those who returned a CML and an NML form had been misclassified as NML and were removed from the NML domain.

The initial NML mailout consisted of 42,430 records. A total of 41,787 NML records were summarized of which 2,799 records were confirmed to be NML and in-scope.

The farm/nonfarm status of each NML domain operation was determined based on the reported data in the census form. An operation in the NML domain that was determined to be a farm is referred to as an NML farm. Characteristics of NML farms and their producers provided a measure of the undercoverage of farms on the CML. The percentage of farms not represented on the CML varied by State. In general, NML farms tended to be small in acreage, production, and sales of agricultural products. Farm operations were missing from the CML for various reasons, including the possibility that the operation started after development of the CML, the operation was so small that it did not appear in any agriculture-related source list, or the operation was misclassified as a nonfarm prior to census mailout. The CML was used with the NML in a capture-recapture framework to represent all farming operations across all States in the JAS sample.

## Record Unduplication and Address Quality

During the spring and summer of 2017, NASS prepared the records that would ultimately be included in the 2017 CML. The field offices improved name and address quality and removed duplication both within their State and across States. They identified records with special operating arrangements that needed special treatment either during the census data collection or during the census analysis.

Because of the process of building and maintaining the NASS List Sampling Frame (LSF), duplication was sometimes inadvertently introduced onto the frame. To minimize the duplication, each field office's list sampling frame was unduplicated using probabilistic record linkage (PRL) techniques. This process brought together records with the same Social Security Number (SSN), Employee Identification Number (EIN), and phone number for field office personnel to review. In addition to these records, records with similar names and addresses were brought together for review. The processing and review were done just before the CML was compiled in the summer of 2017.

In addition to removing duplication within each State, an attempt was also made to identify duplication across States. For 2017, potential duplicates were identified based on common names and addresses as well as SSNs, EINs, and phone numbers. The potential cross State duplicates were also reviewed by field office personnel. The National Processing Center provided a service to check and reformat addresses to USPS standards for the 2017 CML. List addresses were processed through the U.S. Postal Service's National Change of Address Registry (NCOA) and the Locatable Address Conversion System (LACS) to ensure they were correct and complete.

Records on the list with missing or invalid phone numbers were matched against a nationally available telephone database to obtain as many phone numbers as possible. To reduce costs, operations with characteristics that indicated they were unlikely to be farms according to the farm definition were removed from the list.

A number of records on the NASS list frame had missing or invalid phone numbers. These records were matched against a nationally available phone database to obtain as many phone numbers as possible. This match process was done just before the mail list was pulled in the summer of 2017.

Headquarters personnel created a number of reports that field offices could review to identify and correct potential problems prior to the pull of the final 2017 CML. These reports generated errors that were classified as critical or warning errors. The critical error reports included the following types of records:

- Records with multiple people associated with the same operation (only one person should report data for the same operation);
- Governmental units (operations such as hospitals, prison farms, county homes, wildlife refuges, etc.);
- Church farms, camps, etc.;
- Research farms, State aquaculture hatcheries, university or college farms, etc.;
- Tribal government operations on reservations;
- Records with no person name or operation name;
- Records with a city or ZIP code that was not a valid U.S. Postal Service place/zip combination;
- Indian reservation records that were not marked;
- Records that did not have a county code;
- Records with a foreign address that were not marked;
- Records that were marked or institutional, research, experimental, and American Indian reservation farms, but did not meet the criteria for the final 2017 CML;
- Potential farm records that were identified as partnership, multiple operation, or special handling arrangements; and active grazing associations;
- Records with both the farm and agribusiness flags equal to 0.



The warning error reports included the following types of records:

- Records with a city, State, and ZIP Code, but no address;
- Records with a person name that contained two or more contiguous numbers;
- Records with an operation name that contained two or more contiguous numbers; and
- Records with agricultural data indicating that the record may have been agribusiness that was on the final 2017 CML.

### Finalizing the Census Mail List

- The official CML was established September 3, 2017. The list contained 2,999,180 records. There were 2,259,750 records that were thought to meet the NASS farm definition and 739,348 potential farm records, which included NACS nonrespondents, other records added to the CML by the NASS field offices, and late adds to the CML that were not included in any previous NACS or State screening survey.

Figure 3.2 **2017 Census of Agriculture Census Mail List**

| Breakdown by mail list status   | Number of records |
|---|-------------------|
| Total   | 2,999,180         |
| Active farm records   | 2,259,750         |
| Census Only Operation (records ineligible for all NASS survey except for the Census of Agriculture) | 2,507             |
| In Business Part of Census Year   | 321               |
| Criteria Record (Potential farm records)  | 225,263           |
| Criteria Record (Previous Inactive)   | 30,869            |
| Criteria Record (Potential CRP)   | 68,234            |
| Criteria Record (Potential Future Sales)  | 26,581            |
| Criteria Record (Nonresponse)   | 356,889           |
| Criteria Record (Refusal)   | 23,182            |
| Criteria Record (FO Specialty)  | 8,307             |
| Criteria Record (Previously active records with no farm or Ag business flag)                        | 23                |
| Partner Records Linked to an Active Target  | -                 |

## **TAGGED RECORDS FOR UNIQUE HANDLING**

During the final phase of the CML development process, each field office reviewed the names and addresses of respondents on the census list frame for their respective State and electronically tagged records that they thought would be better handled by personal enumeration rather than by the traditional mailout/mailback approach. Criteria used to select records for tagging included, but were not necessarily limited to:

- Coordination with other on-going NASS surveys;
- A respondent's desire to be contacted by personal interview;
- Knowledge of other needs for special handling; and
- Relative importance of the operation to the State's agriculture.

## PRINTING AND LABELING OF REPORT FORMS

### Printing of Report Forms and Supporting Materials

NASS contracted with the U.S. Government Printing Office (GPO), through the U.S. Census Bureau's National Processing Center (NPC) in Jeffersonville, IN with a commercial printer to print report forms, letters, instruction sheets, and envelopes. The contractors printed the various forms and assembled mailout packets for the initial and follow-up mailings using written specifications developed by NASS and NPC. Quality control was conducted at the printing plants by NPC and NASS quality control personnel. Completed packets were shipped to the NPC warehouse in Jeffersonville, IN for final preparation (essentially ink-jetting mailing labels and postal order sort) and mailout. The letters for the multi-unit follow-ups and the letter, instruction sheet, and report form for the American Indian mailout were printed by NPC. Quantities of commercially printed report forms and supporting materials are provided in Figure 3.3.

Figure 3.3 Quantities of Commercially Printed Mailout Materials (excludes Puerto Rico)

| Designation  | Description  | Quantity  |
|--|--|-----------|
| <i>Instruction Sheets and Form Letters:</i>  |  |           |
| 17-A01(I), 17-A01(H)(I),<br>17-A02(I)  | Instruction sheets   | 7,348,400 |
| 17-A01(L1) and 17-A01(L1A)   | Initial and Undeliverable as<br>Addressed (UAA) mailout<br>letters                               | 3,737,000 |
| 17-A01(L3) and 17-A01(L4)  | Follow-up letters  | 3,171,000 |
| <i>Envelopes:</i>  |  |           |
| 17-A7.1, (P), 17-A7.1(PR), (MU);<br>17-A7.2; 17-A7.2(PR)<br><br>17-A7.2/3(P), (MU);<br>17-A7.3;<br><br>17-A7(UAA); 17-A7(GR);<br>17-A7(BL), 17-A7(BL)P; 17-A7(NML) | Outgoing envelopes,<br>including partners, multi-<br>units, UAAs, general request,<br>and blanks | 7,532,800 |
| 17-A8, 17-A8(A), 17-A8(H),<br>17-A8(S), 17-A8(BL),<br>17-A8(PR), 17-A8(NML)  | Return envelopes   | 7,542,200 |
| <i>Report Forms:</i>   |  |           |
| 17-A100, 17-A101, 17-A200  | Report forms   | 7,463,000 |

## Mailing Packets Preparation

Mailing packet contents for the initial mailout in December 2017 and January 2018 are shown in Figures 3.4 and 3.5.

Figure 3.4 **Summary of Mailing Packages for the Initial Mailout**

| Type        | Report form                  | Information sheet                        | Outgoing envelope | Return envelope | Cover letter |
|-------------|------------------------------|--|-------------------|-----------------|--------------|
| Standard    | 17-A100, 17-A101,<br>17-A200 | 17-A01(I),<br>17-A01(H)(I),<br>17-A02(I) | 17-A7.1           | 17-A8           | 17-A01(L1)   |
| Multi-units | 17-A100,<br>17-A101, 17-A200 | 17-A01(I),<br>17-A01(H)(I),<br>17-A02(I) | 17-A7.1(MU)       | 17-A8           | 17-A01(L1)   |
| Partners    | 17-A100, 17-A101,<br>17-A200 | 17-A01(I),<br>17-A01(H)(I),<br>17-A02(I) | 17-A7.1(P)        | 17-A8           | 17-A01(L1)   |

Figure 3.5 **Summary of Mailing Packages for the American Indian Reservations**

| Type                         | Report form | Instruction Sheet | Postcard   | Return envelope | Outgoing envelope | Letters                                       |
|------------------------------|-------------|-------------------|------------|-----------------|-------------------|---|
| American Indian Reservations | 17-A300     | 17-A03(I)         | 17-A03(L2) | 17-A8(A)        | 17-A7.1           | 17-A300(L1),<br>17-A300(L3),<br>17 -A300(L3)S |

## Quality Control

The contractor printed and assembled the 2017 Census of Agriculture mailing packets to specifications supplied by NASS and NPC. NASS staff along with a Government Printing Office specialist and teams of two or more NPC quality control (QC) personnel made on-site inspections at each contractor's printing facility when the forms and packets were being printed and assembled. NPC quality control staff were on-site for most of the production. Report forms and envelopes were subject to a visual and quality assurance (QA) equipment review to make certain the printing was of acceptable quality using the ink density level stated in the contracts. Random samples of individual package types were opened and examined to ensure that the contractors adhered to the specifications.

## Labeling

The 2017 Census of Agriculture mail list was comprised of approximately 3.0 million names and addresses. NASS created a computerized mailing list and then electronically transmitted the list to NPC. Labeling equipment at NPC used the address list files to ink-jet the labels directly onto the report forms through the open windows of the outgoing envelopes using high-speed printers. Mail labels for all mailings were printed by form number in ZIP Code sequence. As labels were printed for the initial and both follow-up mailings, NPC Quality Control (QC) clerks monitored the printing to ensure that the address and bar codes were properly formatted, legible, and that the bar codes were visible through the envelope window. QC clerks checked the initial set of labels from each file for each form type from each printer. Each mailing pallet was required to have tags labeling the identity of the item, package type (Initial, 1st Follow-up, etc.), and pallet number (such as 1 of 50, 2 of 50, etc.). Quality control problems with any file resulted in partial or complete reprinting, as needed.

The labeling for the initial mailout began in late September 2017 and was completed by the end of November 2017. NASS released approximately 3.0 million mailing packets to the U.S. Postal Service for mailing. The initial mailing took place on a flow basis in December 2017 and January 2018.

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## CHAPTER 4. COMMUNICATIONS PROGRAM

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In preparation for the 2017 Census of Agriculture, NASS built on its 2012 census strategy of expanding outreach and communications to a wider, more diversified audience as well as on the agency-wide communications plan.

## BACKGROUND

For years, the agency took a “one size fits all” approach to outreach and information products. But as the agency’s customer base expanded and diversified, it became evident that NASS needed to become more strategic and effective in its communications. Toward that end, NASS developed and introduced a communications plan that outlined three main strategies to better reach this more diverse customer base and increase the perceived value of NASS:

- Introduce and establish a consistent NASS identity across the entire agency.
- Position NASS as a contemporary transparent agency.
- Customize resources and products at the local level to ensure NASS information better aligns with customer needs and industry trends.

The agency communications plan provides an overarching approach and guidance for census and other communications. The census of agriculture is the single largest initiative the agency undertakes. The success of the every-five-year census depends on the participation of all U.S. farmers and ranchers, not just the large producers who operate the majority of the land, produce the majority of the agricultural products, and are responsible for the majority of sales. For the last three censuses, NASS made the concerted effort to reach small, harder-to-reach farms and those with disadvantaged and minority producers.

For the 2017 census, NASS was committed to building on previously successful promotion efforts. The new strategy was largely focused on strengthening three areas: online response to ease respondent burden, partnerships to expand reach, and localized outreach. The 2017 census communications effort was led by the agency’s Public Affairs Office (PAO), with support from the communications firm, DAI. But the effort involved staff from throughout the agency, both at headquarters and in field offices around the country, including census administrators, State statisticians and other statistical staff, managers, and senior leadership as well as dozens of industry promotion partners. The PAO Communications Advisory Council (CAC) helped the effort by brainstorming outreach methods and providing feedback on draft plans and materials.

## OUTREACH PHASES

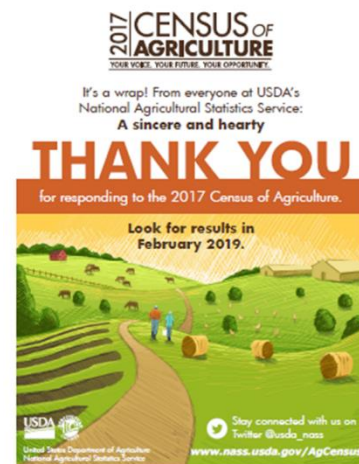
Communications efforts in support of the 2017 Census of Agriculture involved six distinct phases, five for data collection and one for data dissemination, each with targeted messages and materials aimed at internal and external audiences. Internal audiences included NASS staff, staff and leadership from various USDA agencies, and senior USDA leadership. External audiences included farmers and ranchers, all of the major producer associations, National Association of State Departments of Agriculture (NASDA) members, Communications Officers of State Departments of Agriculture (COSDA), commodity groups and other private sector partners, and community-based organizations (CBOs).



- **Phase I (November 2016 – June 2017).** This “Sign-up to be Counted” phase supported list building and increasing awareness among farmers, stakeholders, and partners about the upcoming census.
- **Phase II (July 2017 – November 2017).** This “Census is Coming” phase continued to promote awareness, education, and preparation among farmers and stakeholders as well as among staff and partners. The focus was on internal

and external stakeholder outreach to involve all in the promotion of the late November mailout. Throughout Phase I and II, the NASS senior executive team met with the NASS stakeholder list (including congressional outreach) to garner support, and PAO regularly met with the Public Affairs Directors throughout USDA, COSDA (quarterly teleconferences and annual networking event), and engaged the Secretary of Agriculture to participate in the effort.

- **Phase III (December 2017 – March 2018).** This “Respond Now” phase was in support of census data collection with messaging urging response, particularly online response, to the census of agriculture.
- **Phase IV (March 2018 – July 2018).** This “Still Time to Respond” phase continued to stress the importance of participation. Partners continued to be engaged as communication efforts became more homed in on and tailored to lower response areas.
- **Phase V (July 2018 – November 2018).** This “Thank you” phase was about appreciation, giving back to the producers and partners by sharing an update on response rate, letting them know what they could expect in the coming months, census product-wise, and introducing them to the upcoming series of census special studies.
- **Data Dissemination (April 2019 – January 2022).** The main census publication was released in April 2019. In the two years that followed, PAO continued to promote census results through the release of several additional census products, including but not limited to State and county profiles; congressional districts; race, ethnicity, and gender profiles; the census results of the U.S. territories and several special studies.



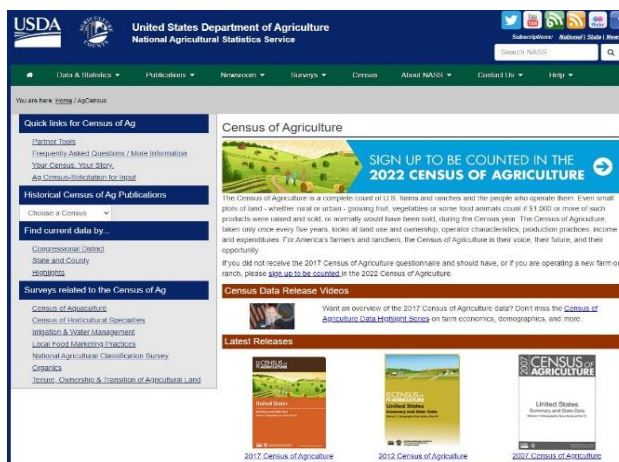
The data dissemination phase focused on disseminating the census findings to a wide range of audiences, including producers, media, policymakers, academics, and other data users.

From sign-up to data dissemination, the entire effort was informed by research before, during, and after the campaigns to determine which messages and tools would be most effective.

## MARKETING CAMPAIGN: Your Voice. Your Future. Your Opportunity.

For the 2017 census, NASS built a strong census brand focused on the theme “Your Voice, Your Future, Your Opportunity.” The theme was supported by a coordinated toolkit of messages and materials.

A key element in the campaign was the census of agriculture website, which later merged with the main NASS website for a better, one-stop-shop experience before data release. During the data collection phase, the census site included frequently asked questions, sample census report forms, video files, downloadable publicity materials and graphics, and links to past census of agriculture results. Importantly, in terms of promoting response, the site provided easily understood directions for producers, NASS field offices, and promotion partners. All of NASS’s census-related communications directed people back to this website for more information. After the websites merged, all census materials were loaded on a dedicated census tab on the main NASS website.





## Toolkit (Partner Tools)

NASS PAO provided a broad range of print and digital tools that were available to the public, media, partners, and NASS field offices to use in whatever combination was most appropriate for their audiences. These tools included:



- A census brochure that provided general information, including the importance of response, confidentiality laws, and more. It was available in English, Spanish, and Hmong.
- A Respond Online Rack Card was created to supplement and fit into the census brochure. It was a simple back and front informational piece that concisely highlighted the advantages of responding online.
- Frequently Asked Questions was a document with accurate, up-to-date information – a quick reference for the public and media.
- An animated video brought pertinent census information to life, and a “Respond Online” video highlighted instructions and the advantages of this mode of response. Three testimonial videos that were produced with some of our stakeholders offered a glimpse at why our data are important, how the data are used, and why producers should respond and be counted in NASS surveys and censuses. Additionally, two Secretary of Agriculture video PSAs were offered for use, one during census promotion and one for data release. All videos were uploaded to YouTube for sharing.
- Web buttons and banners for websites and email signatures.
- Print and digital ads for placement in social or print media, newsletters, event programs, and other communications.
- Flyers and posters for distribution and display; the flyers were often put in tradeshow welcome packets, brought to community meetings, left at USDA Service Centers, and more.

Additional tools available to NASS and USDA staff included:

- National news releases timed to promote continued interest and awareness as well as news release templates for field offices to localize and release.
- Video and audio public service announcement scripts, and feature story/blog templates.
- Sign Up to be Counted Cards for census list building; the cards were a tool to always have on hand to collect contact information.
- Enumerator Rack/Info Card was a tool conceptualized to be a simple yet handy leave-behind for enumerators, but this census informational card was beneficial for anyone to share with producers.

- Two Talking Points Cards were developed. One was a folded pocket card, designed with NASS leadership in mind, to serve as a quick reference for anyone who might need to say a few words about census. The second, produced with enumerators and State statisticians in mind, was larger (and not folded) but still small enough to fit into a shirt or back pocket and laminated to withstand heavy use.
- Partner Email Updates were compiled and sent to the NASS HQ partner/stakeholder list (mostly national-level organizations) every six to eight weeks during census promotion through data release; afterwards correspondence was sent every 12 weeks. The updates included pertinent census information (i.e. updates on promotion efforts, response, new tools, etc.) as well as a newsletter and at least two social media posts.

**Key Dates**

**June 2017:**  
Deadline to sign up to be counted.

**December 2017:**  
Look for your 2017 Census of Agriculture form in the mail.

**February 2018:**  
Deadline to complete your 2017 Census of Agriculture. Respond online at [www.agcounts.usda.gov](http://www.agcounts.usda.gov) or mail your complete questionnaire.

**February 2019:**  
NASS will release 2017 Census of Agriculture data.

**Who Should Report?**

If you produce or grow any agricultural products, including field crops, fruits, vegetables, floriculture and livestock, regardless of the size of your operation, you should fill out the 2017 Census of Agriculture form.

*Remember the Census of Agriculture is Your Voice, Your Future, Your Opportunity.*

**For more information:**  
Call (888) 424-7828  
Visit [www.agcensus.usda.gov](http://www.agcensus.usda.gov)

**USDA** **AGRICULTURE** **COUNTS**  
United States Department of Agriculture  
National Agricultural Statistics Service



- A PowerPoint (PPT) presentation template providing background information and key messages about the census, customizable slides, State map icons, and more to allow field offices to customize and localize presentations as needed.
- Floor and table-top-sized exhibit banners promoting the census to display at meetings, tradeshows, and other events.
- A limited amount of census swag for use at tradeshows and other appropriate events, including hats, visors, measuring cups, rain gauges, pens, key chains, notepads, and more. The swag was shared with field offices for their use.

### Key Messages

The key messages rolled out over the course of the marketing campaign were the following:

*The census of agriculture, taken every five years, is a complete count of America's farms and ranches and the people who operate them.*

- It is the most complete agricultural data resource.
- The census provides the only uniform, comprehensive, and impartial agricultural data for every State and county in the nation.
- All segments of agriculture are important.
- Sign up to be counted (new producers or those who do not currently receive NASS surveys or censuses).

*It is required by law that all farmers and ranchers must complete the census.*

- The census will be mailed out the last week of December 2017 and is due February 5, 2018.
- A "farm" is defined as any place that produced and sold, or had the potential to sell, at least \$1,000 of agricultural products during the census year (2017).
- All identifying information is secure and confidential by law.
- Respond online or by mail.
- Easier than ever, completing the census online is the quickest, most convenient way to respond.

NASS has made  
**SURVEY RESPONSE**  
Faster. Friendlier. Easier  
**Respond Online**  
Survey code required.

USDA

***The census provides information on:***

- Land use and ownership
- Producer characteristics
- Production practices
- Income and expenditures

***The census is used for reasons such as:***

- Developing farm policy and programs
- Shaping local government policy
- Determining infrastructure funding
- Making important agri-business decisions

***The 2017 census will collect new or additional information on:***

- On-farm decision making
- Military service
- Food marketing practices

## **Strategy**

The 2017 census communications plan had four broad strategic components:

**Internal and external partnerships.** One of the target audiences for NASS communications efforts were the previously identified internal and external individuals and groups who could effectively convey the importance of the census to producers.

By ensuring the ***internal USDA and NASS audiences*** had key information, talking points, and marketing tools, NASS PAO and the census team were able to deploy effective messengers and messages on behalf of the census. To formally launch the 2017 census communications campaign, PAO and NASS leadership hosted a webinar for NASS field office staff to introduce the marketing materials, generate enthusiasm, and respond to questions. It also provided basic media training for the work ahead.

The ***external audience*** included not only the farmers and ranchers receiving the census report form but also the national and community influencer groups and associations that could promote the census among their members. NASS leadership and PAO staff met with the leadership of more than a dozen major producer associations to enlist their active support in promoting the census. These meetings produced messages from the leaders to their members encouraging them to respond to the census, articles and guest columns in their newsletters emphasizing the importance of the census, ad placements, and other forms of support.

NASS worked actively with the community-based organizations that had been so significant in increasing responses from hard-to-reach farmers and ranchers during previous censuses. NASS held a workshop in September 2016 with CBO leaders and another in the fall of 2019 after the data release. At these meetings, NASS worked with several CBOs to outline the many ways NASS and CBOs could partner to promote the census. During data collection, NASS placed three articles, with the help of a freelancer, that were authored by CBO leaders in targeted small rural publications to reach American Indian, Black, and women farmers

**Field office outreach.** In addition to Washington D.C. headquarters staff, field staff across the country with their direct line to farmers and ranchers as well as working relationships with local stakeholders and media – were essential in promoting the census. Offices across the country customized the census toolkit materials for local use and made many of their own.



**Strategic paid advertising campaign.** With very limited funding for advertising, PAO conducted a strategic test from January 2018 to March 2018. The test included several NASS-approved digital and print ads, each with the same message but a different image to expand the reach during the “Respond Now” phase of data collection. The ads appeared on Facebook, several agriculture websites, including AgWeb.com, Agriculture.com, four regional Farm Progress sites, and LivingtheCountryLife.com, and were printed in Farm Journal Magazine, four regional Farm Progress publications, and in Successful Farming Magazine. The placements were chosen based on agriculture

population (i.e., big agriculture States with similar commodities grown or raised) and traditionally lower response rates. The ads ran in Nebraska, Iowa, Kansas, and Missouri. The monthly circulation of all the print publications combined was a reach of more than 330,000 readers (not accounting for overlap). The digital ad efforts earned more than 1.2 million impressions over the three-month run. The same ads were made available to State and regional field offices to place in appropriate outlets for their geographic areas.

**Public relations/media efforts.** Led by PAO, media relations efforts played a critical role in delivering key messages and helping NASS reach more producers at key points in the data collection process. This earned media enabled NASS to reach large numbers of farmers and ranchers by placing news stories and key messages on television, radio, the web, newspapers, and magazines. NASS field offices, stakeholder partner groups, and other government agencies used the content to help promote the 2017 census to their audiences.

PAO issued a dozen print news releases during the marketing campaign. All national-level materials were distributed electronically and posted to the NASS website for download. At the State level, NASS field offices customized the news releases with locally relevant information before distributing them to their own media contacts. In addition, PAO distributed three blogs with messages designed to encourage participation and actively employed an assertive Twitter strategy continually reinforcing the conversation about the 2017 census data collection.

Collectively these media relations efforts at the national and local levels helped ensure that NASS’s message about the census was continually in the media, including print and online publications, a variety of social media, radio, and some television programs. Media outlets included both those specializing in agriculture and more general outlets.

NASS staff regularly interviewed with a variety of farm broadcasters (i.e., RFD-TV) and recorded audio news clips for National Association of Farm Broadcasters members to air. NASS staff also interviewed with USDA Radio throughout data collection, resulting in more than a dozen pieces between census promotion and data release that were picked up and used by hundreds of other media outlets.

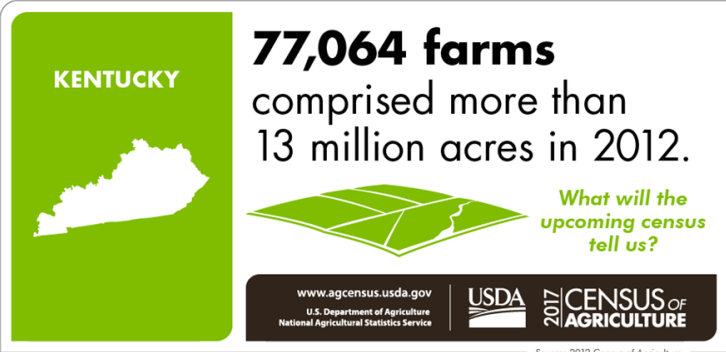
## DATA DISSEMINATION CAMPAIGN

Before and during the data collection phase of the 2017 census, NASS outreach efforts involved communicating with farmers, ranchers, media, and internal and external stakeholders about the importance of participating in the census of agriculture. Once data collection was complete, NASS outreach efforts turned to communicating the results of the census to those same audiences as well as to NASS data users, including policymakers, researchers, industry, and students.

The dissemination plan was to make census data more visible, understandable, and accessible to both data providers and data users than ever before. The plan involved continuous engagement through an integrated set of digital and print products distributed through conventional and new media, and regular stakeholder communication. It had four phases:

- **Phase I (July 2018 – November 2018).** Signaled through the website, social media, and several tools, the message was: *Thank you for responding. NASS is analyzing the Census data. Look for results in early 2019.* Note that data

release was pushed from February until April after important analysis time was lost due to the lapse in federal funding in the winter of 2018.

- **Phase II (December 2018 – March 2019).** Signaled through the website, social media, and several tools, the message was: *Results coming soon!* PAO developed a social media campaign, which included a blog and individual Twitter and Facebook infographics showcasing 2012 data and trends while teasing the 2017 data release. During this time, PAO helped plan the April data release event, produced three data highlight video presentations that the public could access on the NASS website as well as YouTube, promoted a new data query interface, and created an info card that would be used for months to come with info about the census data release on the front and info about upcoming census products and special studies on the back.
- 
- The infographic features a green background with a white outline of Kentucky. Text on the left reads 'KENTUCKY'. On the right, it states '77,064 farms comprised more than 13 million acres in 2012.' Below this is a green leaf graphic and the question 'What will the upcoming census tell us?'. At the bottom, it includes the website 'www.agcensus.usda.gov', the USDA logo, and '2017 CENSUS OF AGRICULTURE'. A small source note at the bottom right reads 'Source: 2012 Census of Agriculture'.
- **Phase III (April 11, 2019).** Signaled through the website, social media, and several tools, the message was: *Census of Agriculture Data Now Available!* The data release event included the live-streamed presentation of the publication and a speech by the Secretary of Agriculture. The event was preceded by a press release and followed by a brief press conference. To address questions about the 2017 Census of Agriculture data, PAO prepared NASS subject matter experts to host a live Twitter #StatChat (Q&A) for the public the day after data release.
  - **Phase IV (April 15, 2019 and on).** Continued message: Census data now available followed by a two-year promotion period of additional census data product releases and related special studies. Starting in May 2019 through the following 12 months, PAO showcased a series of State census blogs on the USDA blog site and created individual infographics for Twitter and Facebook showcasing the new census data.

## Events

NASS planned a census data release event for April 11, 2019.



**Ag Outlook Forum.** Taking advantage of the strong agriculture presence at the Ag Outlook Forum, PAO promoted the April census data release with banners and the info takeaway card as a schedule and resource reminder.

**Live-stream Data Release.** USDA hosted a live-streamed data release event on April 11, 2019. Hundreds of media, stakeholders, and other data users attended the event virtually in addition to the reporters and partners who attended in person. The Secretary of Agriculture and NASS leadership presented. The event was followed by a short press conference where the Secretary, NASS leadership, and census subject matter experts took questions. The format provided the opportunity to open the data release event to a broader audience than could have attended in person, particularly the partners, including CBO leaders, who had been so helpful in data collection.

**State and local briefings.** Using the census PowerPoint template, NASS field staff held data highlight briefings for State officials and other local stakeholders.

## Products

In addition to conventional and proven methods of engagement such as the agency website, news releases, and report results, NASS created new products and utilized its Twitter account (including the hashtag #AgCensus) and the USDA blog, Facebook, and YouTube accounts to engage the entire agriculture industry in talking about census of agriculture data.

**Census Website.** After data collection, NASS merged the census website with the NASS website and turned its focus toward data release, first signaling anticipation about the upcoming release and ultimately serving as a central source for the array of available print and digital communications products (all print products were available online for download). Traffic on the NASS website increased more than 107 percent during the month of census data release.

**News Releases and Media Interviews.** For the census results release and each of the census follow-on reports, NASS issued news releases to mainstream and agriculture media. The news releases announcing that census data were available generated hundreds of news stories and mentions that week and for weeks after, dozens of interview requests and data inquires, and resulted in the highest number of impressions since the previous census. The census of agriculture and its data are still mentioned almost daily in the media.

**Twitter @usda\_nass.** Twitter (and USDA Facebook) provided an excellent platform for the ongoing discussion NASS wanted to foster around census data, particularly reaching media, stakeholders, and other data users. Tweets with #AgCensus supported the overall strategy of breaking the data into manageable bites that could inform a broad public while serving as an entry point for those looking for in-depth information. Dozens of attractive, branded, individual factoid infographics were created to highlight the agriculture in our 50 States, and were scheduled for several months after census data release.

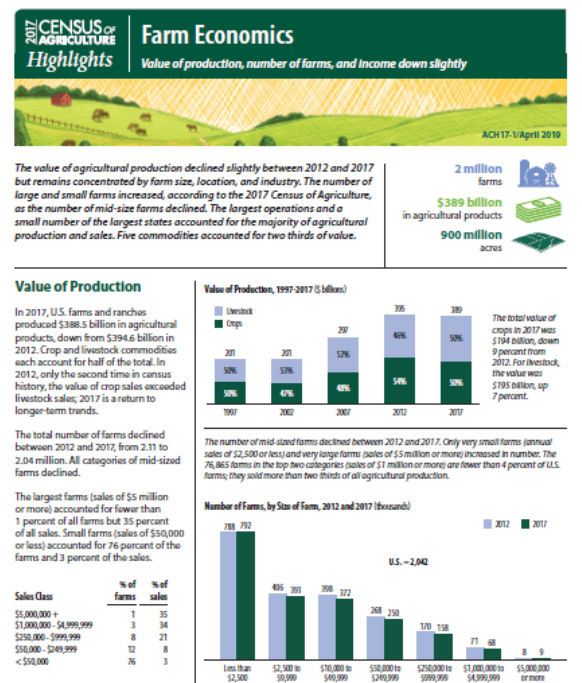
**Online Resources.** The detailed census reports (and the accompanying Quick Stats database) have a dedicated following among data users. In addition to Quick Stats, NASS created a series of videos, including a tutorial showing inexperienced users how to search the NASS database. The three other videos include an overview of Farms and Land in Farms, Economics, and Demographics data. The videos can be viewed on YouTube or the NASS website. PAO created these additional collateral products:

**Highlights.** NASS created a series of easy-to-read, short briefs on census topics of interest and special studies. These census of agriculture Highlights provide a quick overview for the casual reader and an entry point for those looking for more detailed information, making the census' 6 million data points more topical and encouraging more data use and citations. The 2012 *Ag Census Highlights* series was successful but received a redesign for the 2017 census data release with the goal of increasing readership by making the series more appealing, simpler to read with shorter text entries, and by incorporating more infographics. Most Highlights are two pages (back and front), including maps, graphs, and tables. In the two years after data release, NASS produced 27 Highlights covering a range of census topics.

**State Blogs.** In response to the public's continued demand for localized data, PAO scheduled a weekly blog series, featuring one State per week. Over the course of the year after data release, each State statistician wrote a State-specific USDA blog featuring the new census data.

## Stakeholder Communications

After the important role internal and external stakeholders played in supporting data collection, ongoing communications with this group was an important component of the data dissemination strategy – both to thank them for their efforts and to give them the tools and messages to communicate census results with their members. Through email, conference calls, in-



person meetings, and the data release web stream event complete with three data highlight videos, NASS leadership and PAO provided ongoing updates on the census program and tools they could use to tell their agricultural story. Our stakeholders' work broadened NASS's reach and helped immensely in getting census results back to the producers who provided the data.

## **POST CENSUS RELEASE**

Consistent with the outreach plan, NASS continued to produce Highlights, social media content, and other materials about the main census data in the two-year period after data release, continually reinvigorating the conversation. As the census program released special studies and additional compilations of the original data, PAO used these tools and channels to continually stimulate the census dialog. In addition, PAO surveyed and/or met with CBOs and other partners to help determine how NASS census promotion, data release efforts, and associated tools worked for them. The information gleaned will inform the communications plan for the 2022 Census of Agriculture.

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## CHAPTER 5. DATA COLLECTION

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## **GENERAL INFORMATION**

Data collection was accomplished primarily by mailout/mailback but was supplemented with Computer-Assisted Self Interviewing (CASI) on the Internet and personal enumeration for census operations. Personal enumeration (interviewing) involved the use of both Computer-Assisted Telephone Interviewing (CATI) and Computer-Assisted Personal Interviewing (CAPI). Enumerators hired through a federal, intermittent work arrangement at the five NASS Data Collection Centers (DCC) conducted CATI data collection. National Association of State Departments of Agriculture (NASDA) enumerators under contract with NASS conducted phone and personal interviews with respondents.

The U.S. Census Bureau, National Processing Center (NPC) in Jeffersonville, IN, under contract with NASS, carried out the mailout operations. The NPC mailed approximately 3.0 million census report forms in December 2017, carried out two follow-up mailings to nonrespondents, and other mailings.

### **National Agricultural Classification Survey**

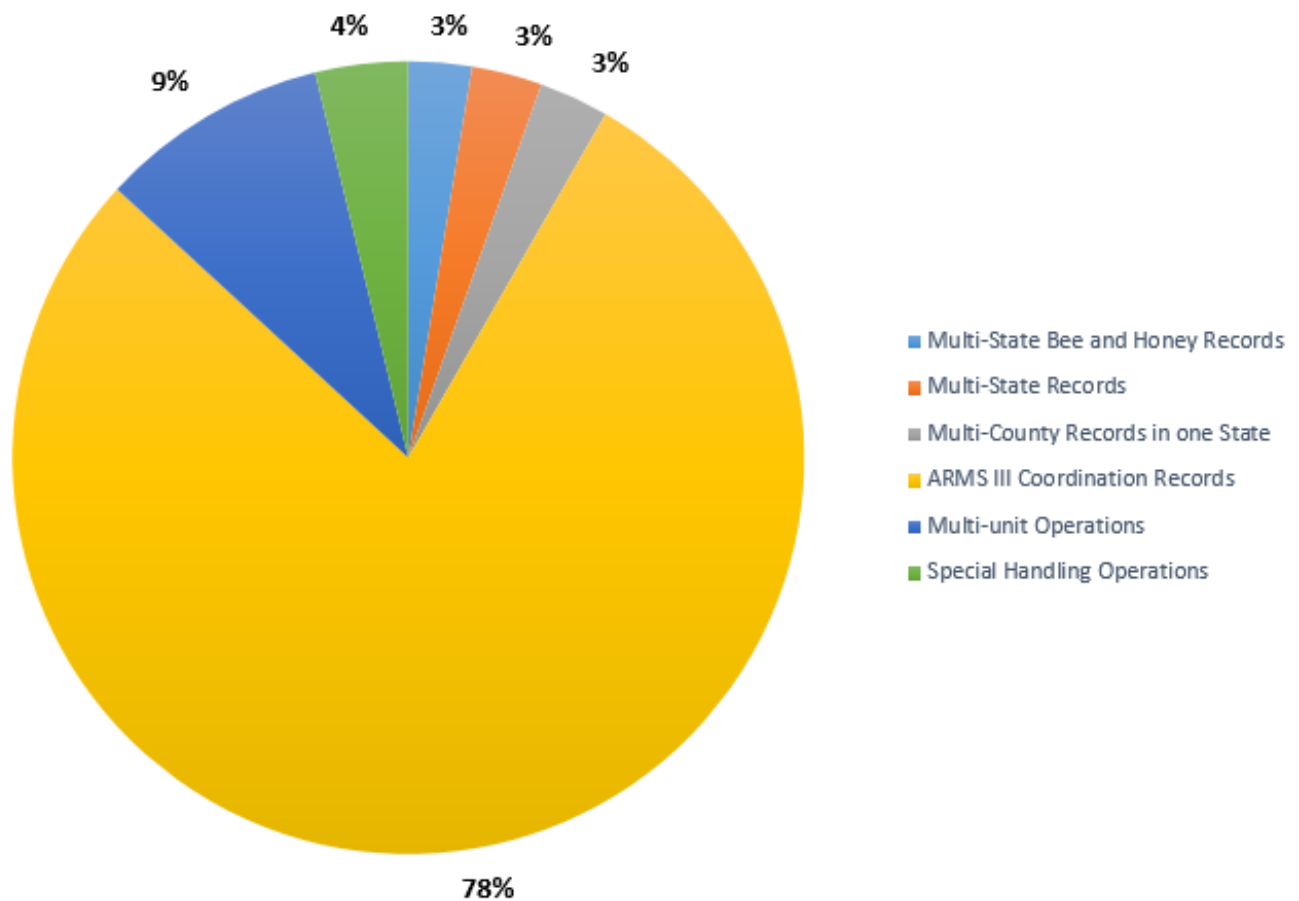
For the 2017 census, the National Agricultural Classification Survey (NACS) was used to screen list records before the final Census Mail List (CML) was established. Between 2015 and 2017, NASS conducted a series of National Agricultural Classification Surveys (NACS) on approximately 1.6 million records, which included nonrespondents from the 2012 census and newly added records from outside list sources. The NACS report forms collected information that was used to determine whether an operation met the farm definition. If the definition was met, the operation was added to the NASS list frame and subsequently to the CML. Addressees that were nonrespondents to a NACS were also added to the CML and identified with a special status code.

The NACS form was designed to identify potential agricultural operations in the United States. There were three NACS samples marked for extract in late 2014, 2015, and 2016. The data collection for each of the mailings was conducted from January through May in the years 2015, 2016, and 2017. The final and largest NACS was mailed in December 2016. (For the 2017 NACS information detail, see Chapter 3: Preparatory Operations, Census Mail List Development, and National Agricultural Classification Survey.)

### **TAGGED RECORDS**

Prior to the initial mailout, NASS's field offices identified records from the CML for enumeration for which they were directly responsible. These records were referred to as tagged records and accounted for 45,785 operations in the 2017 CML. Tagged records included multi-state bee and honey operations, operations in multiple states, operations in multiple counties in one state, operations that were also in the 2017 Agricultural Resources Management Study (ARMS) survey, multi-unit operations with 3 or more report forms, and special handling operations (i.e. operations that had existing data collection agreements with the field offices).

Figure 5.1 2017 Tagged Records



The tagged records were prepared at NPC and shipped to the field offices for enumeration. The field offices enumerated the tagged records via personal interviews, telephone interviews, or in some cases via mail from the field office. Tagged records were excluded from the NPC initial mailout and both follow-up mailings. Once enumerated, report forms for tagged records were sent to NPC for data capture.

Regional field offices managed the enumeration of these records effectively and tracked their progress. All tagged records were considered “must” records.

### CENSUS REPORT FORMS

For the 2017 Census of Agriculture, NASS utilized a 24-page report form with four versions. Each report form (17-A100 General form, 17-A200 Short form, 17-A101 Hawaii form, and 17-A300 American Indian form) was designed to facilitate better reporting. The general form facilitated reporting crops and livestock most commonly grown and raised in the U.S. The short form expedited reporting specific crops or livestock for pre-identified farms and ranches in the U.S. The Hawaii form targeted crops and livestock specifically grown or raised on farms and ranches in Hawaii. The American Indian form focused on crops and livestock for farms and ranches on reservations in Arizona, New Mexico, and Utah. All of the report forms allowed respondents to write in specific commodities that were not prelisted on their report form. In addition to the four mainland report forms, there were also specialized forms produced for each of the Outlying Areas. See Chapters 8 (Puerto Rico) and Chapter 9 (The Outlying Areas) for details.

## INITIAL MAILOUT AND FOLLOW-UP MAILINGS

### Background

NASS contracted with NPC to handle the mailout, receipt, check-in, and data capture processes for the census. The NPC addressed the report forms using name and address files provided by HQ and conducted the initial mailing to the entire CML, two follow-up mailings to nonrespondents, and sent a thank you/reminder postcard. The initial mailout envelope directed the addressees to respond by February 5, 2018. NASS staff in NPC directed mailout operations.

For the 2017 Census of Agriculture, NASS implemented a pre-notification strategy in an effort to increase awareness, improve overall responses, and encourage respondents to report early to avoid continued correspondence. Pre-notification of census data collection started in November 2017. Approximately 600,000 producers with an active e-mail address on the CML received a message informing them of the upcoming census data collection period and encouraging them to respond online using the new census web form. Between November 27 and November 30, 2017, approximately 1 million producers received a letter with their survey code and instructions for completing their census online. The letter encouraged producers to report online early to avoid receiving mail and phone follow-up. Approximately 3 million mail packets were mailed in December 2017 and January 2018.

Figure 5.2 **Summary of 2017 Census of Agriculture Initial and Follow-up Mailouts**

| Initial Mailout and Follow-up Mailings | Material Sent          | Mailing dates                       | Report Forms Mailed |
|--|------------------------|-------------------------------------|---------------------|
| Initial Mailout                        | Letter and Report Form | December 5, 2017 – January 17, 2018 | 3,000,000           |
| Follow-up Mailouts:                    |                        |                                     |                     |
| Thank You Reminder                     | Postcard               | January 16, 2018                    | 2,000,000           |
| First                                  | Letter and Report Form | February 9, 2018 – March 1, 2018    | 1,500,000           |
| Second                                 | Letter and Report Form | March 9, 2018 – March 30, 2018      | 1,000,000           |

## Initial Mailout and Undeliverable as Addressed (UAA) Mailout

The initial mailout began mid-December 2017 and finished up the first week of January 2018, totaling 3.0 million packages. Each packet contained a cover letter with CASI instructions, an instruction sheet, a labeled report form, and a return envelope. The cover letter asked the addressees to respond by February 2018. Standard A postage was used for most of the mailing packets, partnerships, and Hawaii addresses. First-class postage was used for packets addressed to multi-units (respondents with more than one operation) and for late/new mail list additions and remaining Undeliverable As Addressed (UAA) records.

Not all mail packets were deliverable as originally addressed. Mail packets that were Undeliverable As Addressed (UAA) were returned to the NPC. Those UAAs received from the post office with address corrections were checked-in, the addresses were updated, and they were included in the UAA re-mail operation. If no corrected address was available, electronic files of these UAAs were transferred to the field offices where field office resources were used to determine if a better address was available. If a better address was found, the address was corrected and a mail package was sent from the NPC facility in Indiana to the new address. Since this was the first time these respondents received the census report form, the mail packets included a special cover letter. A total of 194,786 UAAs were received during census processing.

## Follow-up Mailouts

The initial mailout was followed by a thankyou/reminder postcard that was mailed in January 2018 to all operations that received initial mail packets. Two follow-up report form mailings to nonrespondents were also conducted by NPC. The first follow-up was mailed mid-February 2018 and involved 1.5 million nonrespondent report forms. The second follow-up occurred in late March 2018 when 1 million nonrespondents were sent a third report form package.

Based on a total CML of approximately 3.0 million respondents (report forms mailed/delivered to respondents), the disposition of the report forms based on check-in results is shown in Figure 5.3.

Figure 5.3 **Summary of Check-in Results: 2017**

| Disposition                | Records   |
|----------------------------|-----------|
| Total census mail list     | 2,999,180 |
| Total receipts             | 1,876,547 |
| Responding farms           | 1,184,158 |
| Responding nonfarms        | 692,389   |
| Nonresponse                | 909,669   |
| Undeliverable as addressed | 194,786   |

## **TELEPHONE OPERATIONS**

Two kinds of telephone operations were used for the 2017 Census of Agriculture (except in Alaska); an Incoming Telephone Call (ITC) system and a Computer-Assisted Telephone Interviewing (CATI) instrument. The ITC system assisted respondents with questions throughout the census data collection period and all calls were logged into the NASS database called PRISM 3. A new Centralized Blaise Data Capture (BDC) CATI instrument was developed for the 2017 Census of Agriculture. Unlike the report form, the BDC instrument routed through the appropriate questions based on how questions were answered. CATI was used as an alternative to face-to-face enumeration in the DCCs and NASS field office locations.

### **Incoming Telephone Call (ITC) System**

As an alternative to written correspondence, a toll-free telephone number was established and printed on every report form. The intent of the toll-free number was to answer respondent questions and concerns pertaining to the census, and to assist respondents in completing their report forms. To assist ITC operators with respondent questions and requests, PRISM 3 was used to provide guidance on how to handle the various types of calls, e.g. respondent's considered themselves as not involved in agriculture, refused to complete the report form, needed a replacement report form sent, etc. All training materials were prepared by the Census Planning Branch - Census Section and provided to the National Operations Division (NOD)-Training Group by November 9, 2017. ITC system operators assisted respondents with general inquiries throughout the census data collection period and if necessary, used the CATI instrument to conduct an interview.

If an ITC operator could not resolve the caller's question, a call back form was completed by the operator and e-mailed to the respective State field office census coordinator for follow-up on the respondent's call. The coordinator either called the respondent back or forwarded the request for a call back to another statistician in the office for resolution of complex issues.

PRISM 3 also allowed recording the kind of calls received, e.g. "not in agriculture business," refusals, receipt of two or more report forms and not sure which to complete, needs a report form, name and address changes, etc. The information entered into PRISM 3 was then loaded into a database and tallied. This information was available on the NASS intranet in the Management Information System (MIS) reports. The ITC help line was operational throughout the entire data collection period, Monday through Friday between 8 a.m. and 5 p.m. CST.

### **Computer-Assisted Telephone Interviewing (CATI) Instrument**

The CATI instrument was used by the DCCs and individual field offices throughout the data collection phase of the census. Any questions or issues related to the Centralized Blaise setup, interactive edit, or readout was resolved by NASS staff in the Survey Development Group under the National Operations Division (NOD) in St. Louis, MO.

The DCCs and field office locations used CATI for "must" case follow-up from March 2018 through May 2018, after the initial and follow-up mailings. The Low Response National (LRN) Data Collection Strategy was used to maximize the 2017 Census of Agriculture return rates by providing all respondents an equal opportunity to respond following data collection. This approach allowed for continual data collection within the existing data collection timeframe to achieve higher return rates and ensured data were collected on high priority records needed for Dual System Estimation (DSE) modeling. CATI collected data were electronically transmitted by the DCCs and field offices to the main census data file. The data then were processed electronically, eliminating the need for paper report forms.

DCC coordinators and field office personnel were responsible for training CATI enumerator staff. All training material was assembled by the National Operation Division Training Group. Training included an introduction to the census, overview of the paper report form versions, and all special instructions. The CATI enumerator staff was given walk-through training during each different phase of data collection. Training included practice training modules that helped enumerators get a feel for exactly how the CATI instrument worked. In addition, enumerators were given reference materials for use during the interviews to help guide them through various procedures. CATI interviewing began in February 2018 and continued through July 2018.

## **FIELD OPERATIONS**

### **Computer-Assisted Personal Interviewing (CAPI) Instrument**

Computer-assisted personal interviewing (CAPI) refers to survey data collection by an in-person interviewer/enumerator (i.e. face-to-face interviewing) who uses a computer to administer the questionnaire to the respondent and captures the answers onto their computer. The CAPI data capture instrument was used by NASDA enumerators and individual field offices through the data collection phase of the census. CAPI was used to collect respondents' data via an iPad. This instrument was new for the 2012 Census of Agriculture and enhanced for the 2017 Census of Agriculture data collection.

## **FOLLOW-UP ACTIVITIES**

### **Background**

Operating concurrently with NPC's data collection efforts, the field offices targeted selected groups of census nonrespondents for enumeration. These efforts were referred to as:

- Must Case Follow-up;
- American Indian Producer Follow-up;
- National Nonresponse Follow-up; and
- Not on Mail List (NML) Follow-up.

### **Must Case Follow-up**

Must Case Follow-up was a very important component in ensuring a complete census. Must cases were known large or unique operations, the absence of which could have significantly affected the accuracy of census results. For the 2017 Census of Agriculture, 125,697 records were categorized as Must cases. Each active Must operation was accounted for by mail receipt, phone interview, or personal enumeration; if an operation was no longer in business, its nonfarm status was documented. CATI calling of nonrespondent Must cases was undertaken by call centers from March 2018 through May 2018, after the initial and first follow-up mailing. Following CATI calling, the remaining nonresponse Must cases were assigned to regional field offices for personal enumeration. Extensive efforts were made to contact and enumerate these operations. Because of the potential importance of Must cases, they were all accounted for and therefore not eligible for nonresponse weighting adjustment.

### **American Indian Producer Follow-up**

The American Indian report form (17-A300) was mailed to all operations in Arizona, New Mexico, and Utah thought to have an American Indian producer. It was included in the initial mailout, but due to poor mail response, a personal enumeration data collection strategy was utilized with no additional mail follow-up. A concerted effort was made to get individual reports from every American Indian farm producer in the country. If this was not possible within a reservation, a single reservation-level census report was obtained from knowledgeable reservation officials. These reports covered agricultural activity on the entire reservation. NASS staff reviewed these data and removed any duplicate data reported by American Indian or Alaska Native producers from that reservation who responded on an individual census report form. Additionally, NASS obtained, from knowledgeable reservation officials, the count of American Indian and Alaska Native farm producers on reservations who were not counted through individual census report forms, but whose agricultural activity was included in the reservation-level report form.

### **National Nonresponse Follow-up**

The National Nonresponse Follow-up activity was designed to focus nonresponse follow-up in a manner that would both reflect the characteristics of the nonrespondent and increase response rates. In April 2018, a sample of 249,521 nonrespondents was selected from the remaining 864,260 nonrespondents using a stratified random design. The strata were based on State, county, size of farm, type of farm, producer race, and propensity to respond. Beginning in mid-April 2018 and continuing through July 2018, extensive efforts were made to collect data for the sampled records, including an additional letter mailout encouraging producers to report online, autodial calls, CATI, and CAPI. Records in the same

stratum received the same set of collection methods. Of the 80,504 responses, 51,846 records were identified as being in-scope, resulting in a weighted farm count of 143,847 from the sample.

### **Not on Mail List (NML) Follow-up**

To account for farming operations not on the CML, NASS used its 2017 June Agricultural Survey (JAS) supplemented sample from the NASS area frame, augmented with the 2017 Agricultural Coverage Evaluation Survey (ACES) segments. The NASS area frame covers all land in the United States with the exception of Alaska and includes all farms. As previously described, NASS conducted a record linkage operation between the CML records and the records from the 2017 JAS and the 2017 ACES. Those 2017 JAS records that did not match records on the CML were designated as “Not on the Mail List” (NML) records. Those records were mailed a yellow census report form so that they could be differentiated from the green forms mailed to CML records upon return to NPC. The NML records were mailed at the same time as the census mailing and received the same follow-up procedures as the census mailing through the first follow-up in mid-February 2018. Beginning in March 2018, CATI was used for nonresponse follow-up for NML nonrespondents.

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## CHAPTER 6. DATA PROCESSING

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## INTRODUCTION

The 2017 census data processing system was designed to handle a large volume of paper report forms and a large number of report form images resulting from the use of key from image data capture. Components of the census data processing system included:

- 1) Receipt and check-in of respondent reported data;
- 2) Resolution of problems associated with returned report forms (e.g. blank forms, correspondence included, or 2 or more report forms (2+) returned for a single operation);
- 3) Imaging and data capture;
- 4) Editing and resolution of information on the report forms; and
- 5) Data tabulation and disclosure analysis.

Receipt/check-in, problem resolution, imaging and data capture, editing and resolution of data errors and inconsistencies, and data tabulation/disclosure analysis for the 2017 Census of Agriculture were split between three locations.

The National Processing Center (NPC) in Jeffersonville, IN was responsible for receiving, checking-in, problem resolution associated with returned report forms, scanning, imaging, and keying data from mail returns for all 50 States. NPC received approximately 1.49 million respondent report forms. A significant portion of data review and resolution of data errors and inconsistencies was completed by the Census Editing Unit in St. Louis, MO. A portion of the data review and analysis effort was completed at NASS headquarters in Washington, DC and other field offices. Data tabulation and application of the disclosure analysis was completed by headquarters staff and reviewed by the field offices.

## AUTOMATED TRACKING AND CONTROL SYSTEM

The Automated Tracking and Control System (ATAC) was developed to track each report form throughout each step of processing so NPC could control document handling during processing. ATAC served multiple purposes, including the following:

- Identified the location of each report form during processing;
- Provided the check-in information to PRISM which allowed daily status reports to be created for NASS headquarters.
- Produced batches for scanning; and
- Generated processing reports.

ATAC utilized an Oracle® database that contained records for all cases on the census of agriculture mail list. This database was populated initially from mail files provided by NPC's Document Services Branch and updated continuously from NASS headquarters. ATAC database records included both a unit location and status field. The initial unit location for all records was set to Unit 00 and Status 00. As the report forms were received in the mail from the respondents and moved through the processing pipeline, both the unit location and the status field were updated to reflect each report form's location and status. ATAC also was used to produce real time progress reports. ATAC tracked work from check-in through delivery of data and images to the U.S. Department of Agriculture's National Information Technology Center (NITC), covering all processing steps at NPC.

## RECEIPT, CHECK-IN, AND RESOLUTION OF ASSOCIATED PROBLEMS

Activities conducted at NPC included:

- Received and checked-in the report forms;
- Sorted the returned report forms and removed the contents from the envelopes;
- Evaluated and responded to census-related correspondence;
- Reviewed nonagricultural reports and 2+ reports;
- Scanned the report forms and created images;
- Captured reported data from scanned images using key from image and Optical Mark Recognition (OMR) technology;
- Transmitted data and image files to NASS headquarters; and
- Maintained electronic file cabinet of scanned report form images.

For the 2017 Census of Agriculture, NASS utilized a 24-page long form and a 16-page short form. The respondent's completed forms were received from the post office in mail trays, placed on rolling bins, and taken to the laser sorter for check-in. The sorter operator jogged the report form packages to make certain they did not stick together and to ensure that the report forms would not be damaged when the envelopes were sliced open. Confirming that the address barcodes were visible through the windows of the envelopes also occurred when loading sorting equipment. The forms were placed upside down when loading the sorter. When the sorter was started, a camera imaged the label on the returned report form mail package. The barcode was read from the image and this information was then used to generate a check-in action.

The check-in unit also received materials that were unable to be processed with automated check-in equipment (e.g. nonvisible barcodes, correspondence, etc.). Correspondence was scanned to determine whether it was a congressional, i.e., the return envelope or the letterhead was from a Senator, Member of the House of Representatives, or any representative of the legislative or executive branch of the Federal government, or if the letter was from a respondent and indicated that a copy had been sent to a Senator or Member of the House of Representatives. Congressional cases were referred to the unit supervisor. All other cases required the clerical staff to transcribe the State Person Operator Identification (StPOID) of the case on the upper right-hand corner of the letter and staple the correspondence to the back of the report form. Correspondence was referred daily to the Problem Solving Unit.

Check-in transmittal sheets were attached to each bin of work upon completion. The bins of mail receipts were then flowed in a "first in-first out" principle to the Remove Contents and Sort Unit. Report forms that could not be checked in and sorted on the automated sorter because the barcode was not visible through the window of the envelope or because the barcode could not be read by the laser were wanded or keyed in order to check them in. After completing check-in, the report forms were sent on to the Remove Contents and Sort Unit for further processing.

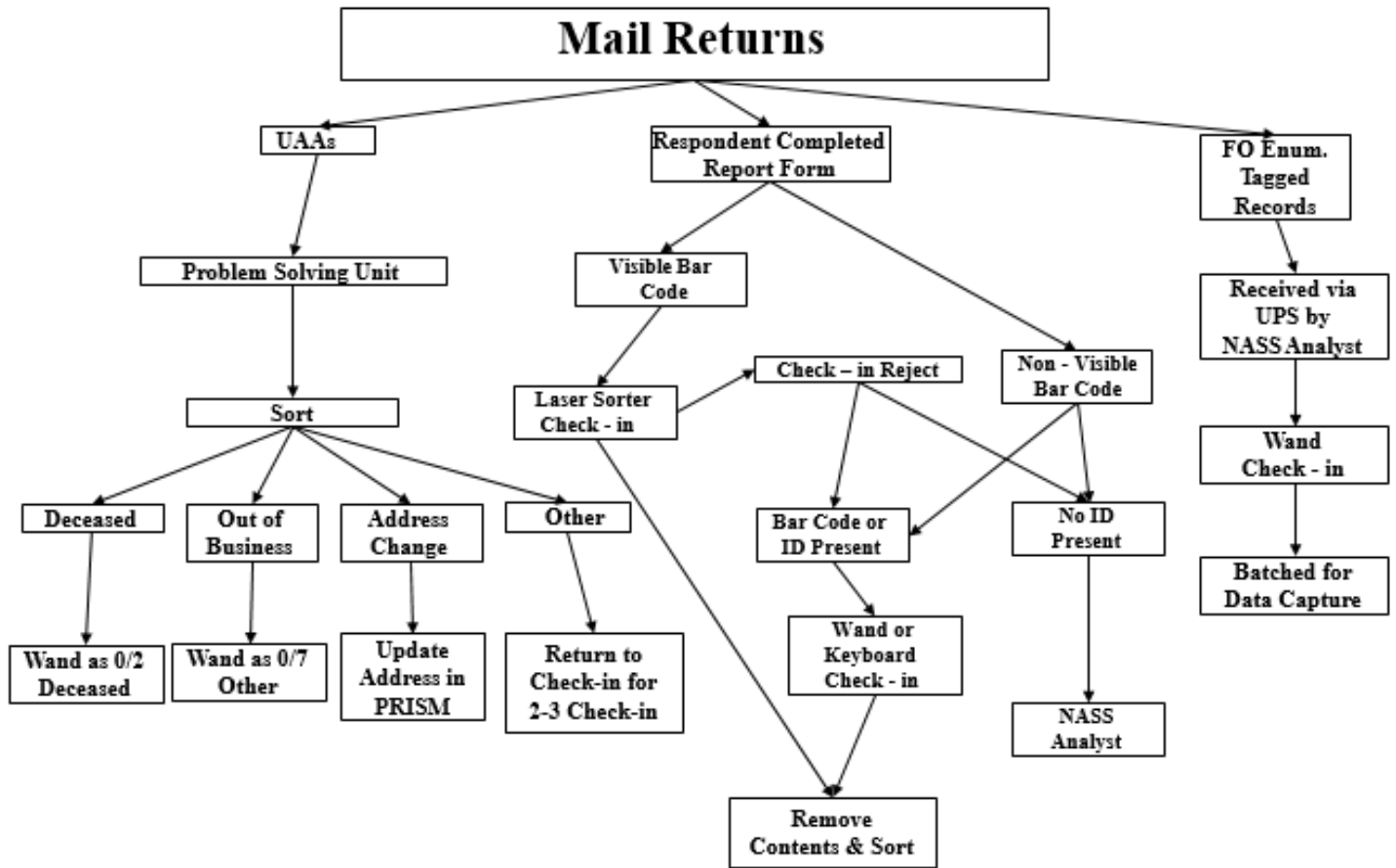
### Mail Receipts and Check-In

All mailed forms were returned to NPC in Jeffersonville, IN. All records were checked in and identified as in- scope or out-of-scope. The checked in report forms were then excluded from follow-up report form mailings. The in-scope records were scanned and images of the forms were created. These images were used to key all data into a database. Data were transmitted to USDA Headquarters daily.

Figure 6.1 Mail Receipts and Check-In: 2017



## 2017 Census of Agriculture Mail Receipts & Check-In



### Remove Contents and Sort

Once report forms were checked in, the contents were processed in the order in which they were received. The contents of each envelope were removed, examined, and sorted into the categories shown in Figure 6.2.

Figure 6.2 Receipts Sort Categories: 2017

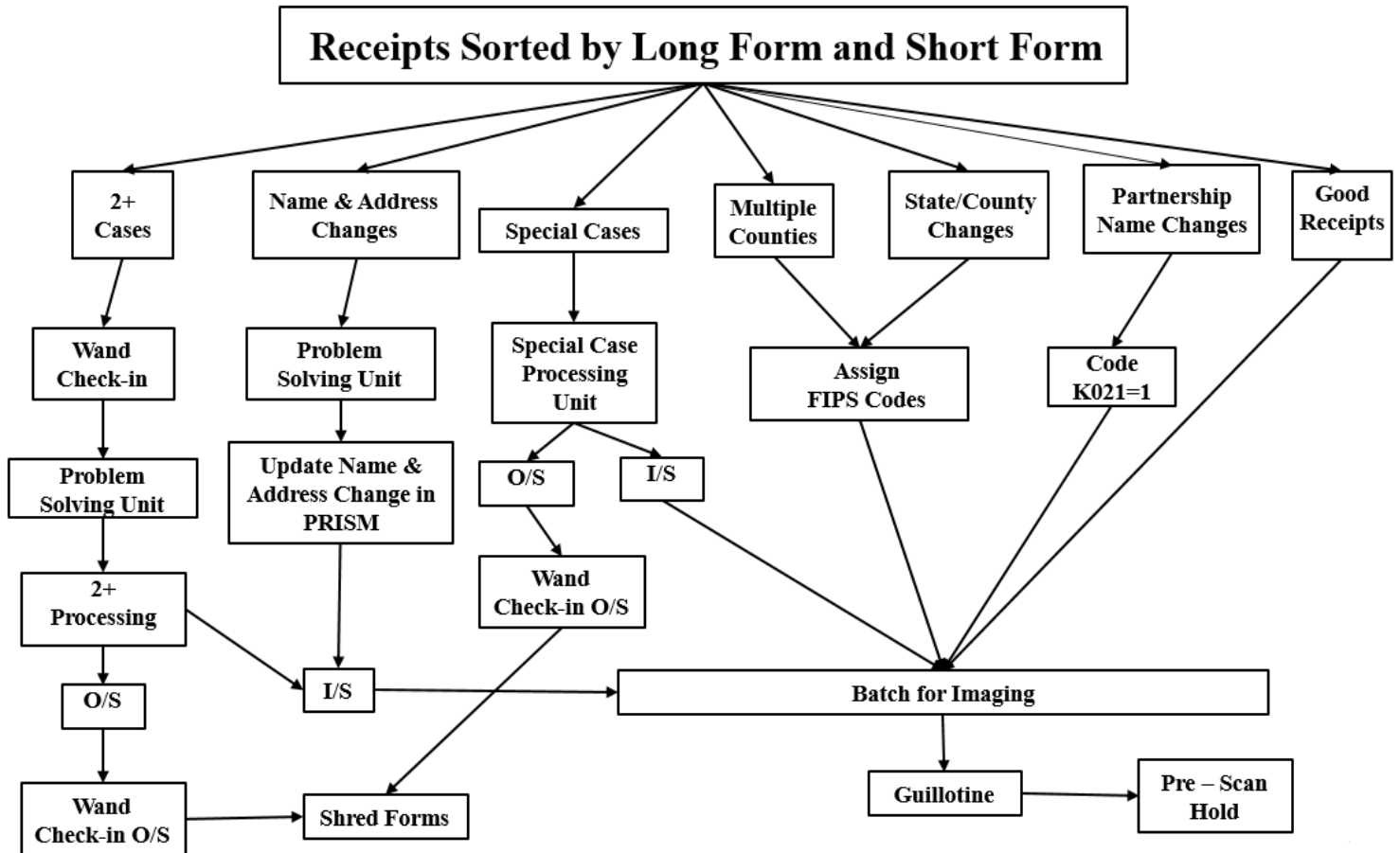
| Category                 | Description  |
|--------------------------|--|
| 2+ Cases                 | Two or more reports received in the same envelope or reports received with additional identification (ID) numbers written in the 2+ boxes on the front of the report form. |
| Partnership name changes | Any report form with changes in the pre-printed partnership name area on the front of the report form.   |
| Name and address changes | Any report form with changes to the mail label.  |
| Multiple counties        | Any report form with more than one county reported in Section 1, Item 7.   |
| State/county changes     | Any report form with a different principal county reported than the pre-printed county name in the mail label.   |
| Special cases            | Any report form with attached correspondence or remarks on the front or back, any report form returned blank, and damaged report forms that prevented scanning.            |
| Good receipts            | All report forms not meeting the above criteria.   |

Sorted work was maintained by questionnaire version and was transmitted to the proper unit for further processing. The 2+ cases were sent to the Problem Solving Unit and the special cases to the Special Case Processing Unit. Good receipts were sent to the Batch for Imaging Unit where they were wanded into scanning work units (by questionnaire version) and then sent to the Pre-scan Hold area awaiting scanning. Figure 6.3 is a graphic detailing the remove contents and sort process.

Figure 6.3 2017 Census of Agriculture - Remove Contents and Sort Process



## 2017 Census of Agriculture Remove Contents & Sort & Pre Key Processing



### PROBLEM RESOLUTION OF RETURNED REPORT FORMS

#### Correspondence

Correspondence generated in processing the 2017 Census of Agriculture totaled approximately 45,460 pieces. The need for recontacting a respondent was determined by the staff in the NPC Problem Solving Unit where the correct form letter was assigned. The letters and forms needed for mailing the correspondence were printed and assembled in the mailout area.

#### Special Cases

Special cases were report forms identified in the Remove Contents and Sort Unit that had attached correspondence, remarks on the front or back, were blank, or reports that were determined to be unscannable. The special case processing staff reviewed the report forms and attached materials using a condition/action table-based procedure. This procedure enabled the clerks to determine if a special case was in-scope of the census and the form was ready for imaging and data capture or if the respondent did not meet the farm definition and was out-of-scope of the census. Of the approximately 226,305 special cases processed, 45-percent were in-scope, 50-percent were out-of-scope, and 5-percent were referred to the Problem Solving Unit for additional processing.

Figure 6.4 **Special Cases Disposition: 2017**

| Priority Groups   | Disposition               |
|---|---------------------------|
| In-Scope (I/S)  | Batched for imaging       |
| 2+ cases  | Ag. problem solving       |
| REM, R-AG, or R-LL <sup>1</sup>                                       | Ag. problem solving       |
| Form letter assigned  | Ag. problem solving       |
| Correspondence analyst  | NASS agriculture analyst  |
| Successor, partnership, or claims filed                               | Ag. problem solving       |
| Out-of-Scope (O/S)  | O/S wandering within unit |
| Repair for imaging  | NASS analyst              |
| Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP) | Hold in unit              |

<sup>1</sup>A case was coded REM when attached correspondence conflicted with data reported on the form. Code R-AG indicated doubt about farm status, or that the place was a partnership, but the name of the senior partner was not provided. Code R-LL indicated that some land was rented out, but that crops were reported.

## 2+ Processing

2+ cases were identified in the Remove Contents and Sort Unit and occurred when:

- Two or more report forms were mailed to the same individual;
- Two or more report forms were mailed to different individuals involved in the same operation; and
- Unrelated report forms were mailed to an accountant or a bank trust manager who returned multiple report forms together in the same envelope.

All 2+ cases were reviewed by the staff in the Problem Solving Unit to determine whether they involved a single or multiple farm operation, and to ensure that all related report forms were checked-in and the records and farms were properly linked within the census mail file.

The clerical staff performing 2+ processing had to determine whether all the report forms involved in a specific 2+ folder had to be linked to prevent duplication of data. If so, did all the forms received together represent the same operation? Clerks interactively assigned linkage codes to each report form ID that required linking. A primary-linkage code was assigned to the report form that had been completed by the respondent while a secondary-linkage code was assigned to any duplicate reports returned by the respondent. Approximately 30,000 2+ cases were resolved during 2017 census processing at NPC.

## DATA CAPTURE

### Overview

The 2017 Census of Agriculture data capture operation utilized the Bureau of the Census's iCADE software. The goals of iCADE were the following:

- Capture a high volume of data quickly and efficiently;
- Maintain a high level of quality of captured data; and
- Provide easy access to respondent reported data.

The iCADE system was a cost efficient and time saving method of data capture. All report forms returned to NPC were checked in using the barcode printed on the mailing label, thereby removing them from the follow-up mailings. Forms with any data were scanned and an image was created of each page of the report form. Optical Mark Recognition (OMR) was used to capture the check boxes on the report forms and to identify the answer zones in which a mark was present. A snippet (a small portion of the full image) containing the answer zone with a mark was presented to the keying staff who performed data capture to the iCADE database.

### Implementation and Production

Production was scheduled to begin early January 2018. Planning for the clerical operations occurred during the summer of 2017. These preparations included, but were not limited to, developing the requirements for pre-scanning and post scanning operations. To meet these needs, operational units were staffed in early January 2018. To achieve a smooth flowing operation, the following clerical units were established:

- Check-in – Receipt and sorting of report forms from the postal service;
- Open and Sort – Sorted forms were forwarded to open and sort from check-in. Forms were removed from the envelopes and the contents were reviewed and sorted into good receipts or a special case category;
- Clerical Special Handling – This operation involved both the Special Case Processing and Problem Solving Units. These units reviewed report forms identified in the Open and Sort Unit with a high probability of being out-of-scope (O/S) – not meeting the definition of a farm – of the census of agriculture. Scope determinations were made and only those cases determined to be in-scope (I/S) – meeting the definition of a farm – were sent to data capture. The Problem Solving Unit was also responsible for making interactive name and address corrections in PRISM and assigning State and county codes for principal counties;  
Batch for Imaging – Batching clerks batched in-scope forms into scanning batches of 30 forms. Bins of batched work were taken to the guillotine area, where the spine was guillotined from the forms. After guillotining, batches were placed in pre-scan hold; Post-scan Hold – After scanning, batches were held in post-scan hold, and then sent to be shredded after confirmation was received that data and images were successfully transmitted.

### Transmission of Data and Images

Census of agriculture data and image files were transmitted from NPC to a remote server at the NITC. The data file transmission was synchronized to transmit with the associated image files every 20 minutes through the working day. The transmissions were completed utilizing a secure File Transfer Protocol (sFTP) application transmitting the files over a Virtual Private Network (VPN) maintained between the Bureau of Census and NITC.

Upon delivery of the data file, in American Standard Code for Information (ASCII) format, the data were processed through the format program and loaded into the PRISM 3 database. The image files were made available for the Feith sweeper application to load the images into the NASS image cabinet. When both the images and data were loaded, the records were available to the NASS field offices.

## COMPUTER PROCESSING

### General Information

After data were captured via the iCADE system and delivered to NITC along with the corresponding images, the data were formatted and edited. The data from each report form were edited, item-by-item, in a comprehensive check for consistency and reasonableness. During the edit, the computer corrected erroneous or inconsistent items, supplied missing data based on similar farms in the same county, and assigned any classification codes required.

### Format

Captured data were processed through a computer formatting program. The program verified that records were valid (the record identification number matched to the census records), that the reported counties of operation and production were valid, and that other related criteria were satisfied.

### Computer Edit

Rejected records were referred to analysts for correction. Accepted records were sent to a complex computer batch edit process. Each execution of the computer edit in batch mode consisted of records from only one State and flowed as the data were received from NPC, NASS Computer-Assisted Self Interview (CASI), or Computer-Assisted Telephone Interviewing (CATI) applications.

The computer edit determined whether a reporting operation met the qualifying criteria to be counted as a farm (in-scope). The edit examined each in-scope record for reasonableness and completeness and determined whether to accept the recorded value for each item or to take corrective action. Such corrective actions included removing erroneously reported values, replacing an unreasonable value with one consistent with other reported data, or providing a value for an overlooked item. To the extent possible, the computer edit determined a replacement value. Operations failing to meet the qualifying criteria were categorized as out-of-scope for the census; that is, they were classified as being a nonfarm. Out-of-scope records that NASS had reason to believe might be in-scope (indications of recent and/or significant agricultural activity reported on NASS surveys, for example) were referred to analysts for verification.

The edit systematically checked reported data section-by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts had previously defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. Prior to the census mailout, NASS established a group of analysts in a Census Editing Unit at the National Operations Center in St. Louis, MO who examined the scanned images, consulted additional sources of information, and determined an appropriate action. Regional field office analysts also participated using an interactive version of the edit program to submit corrected data and immediately re-edit the record to ensure a satisfactory solution.

### Imputing Data

The edit determined the best value to impute for reported responses that were deemed unreasonable and for required responses that were absent. If an item could not be calculated directly from other current responses, the edit determined whether acreage, production, or inventory items had been reported for that farm on a recent NASS crop or livestock survey. For producers who had not changed in five years, demographic variables such as race and gender were taken from the previous census. Administrative data from the Farm Service Agency were used for a few items such as Conservation Reserve Program acreage. When deterministic edit logic and previously reported data sources proved inadequate, data from a reporting farm of similar type, size, and location (a donor farm) were considered. In cases where a consistent report was not available, the record was referred to an analyst for resolution.

Separate system processes were established to efficiently provide data from a similar farm to the edit when donor imputation was required. The farm characteristics used to define similarity between a recipient record and its donor record were determined dynamically by the edit logic. Euclidean distance was used for similarity computations, with each contributing similarity characteristic scaled appropriately. The most similar farm based on this criterion (the “nearest neighbor”) was



identified and returned to the edit for use as a donor. The calculated distance between the centroids of the principal counties of production of the donor and recipient was always included as one of the measures of similarity.

To provide donors to the automated edit, a pool of successfully edited records was maintained for each section of the report form. These donor pools began with 2012 census data, were reconfigured to emulate 2017 data, and then edited using 2017 logic. Data from the 2015 Census Content Test were similarly remapped and edited before being added to the original donor pools. As 2017 records were successfully processed, they were added to the donor pools, which maintained the most recent data for each farm. Donor pools were updated approximately every other week, as determined by edit processing schedules. After several updates, all initial data records were dropped, leaving only 2017 records in the donor pools. After each update, donor pool records were grouped into strata containing farms in the same State of similar type and size, using a data-driven algorithm to define strata. Certain American Indian farms were treated as a separate group, effectively having their own donor pool.

In response to each donor request issued by the edit, a dedicated system process would search the appropriate stratum and respond with the most similar donor while giving preference to more recent donors. In relatively rare instances where it was unable to provide a donor, the donor selection process issued an appropriate failure message to the edit. Imputation failures occurred for several different reasons. The requirement that an imputed value be positive could have ruled out all available donors, as could have the necessity for the donor record to have cattle, but no milk cows. In general, an imputation failure occurred if there was no satisfactory donor in the same profile as the report being edited. Records with imputation failures were either held until more records were available in the donor pool or referred to an analyst. In addition, when a failure occurred in finding a donor for expenditure data, a program provided values from a table of donor pool averages in lieu of values from an individual donor, whenever possible. This ‘failover’ utility was reintroduced for the 2012 census imputation process, and significantly reduced the number of imputation failures among the expenditure and labor variables. During the early stages of editing, records requiring imputation for production (and hence yields) of field crops or hay, land values, or certain expenditure variables were set aside or “parked.” These records were edited when the donor pools contained only 2017 records, ensuring that 2017 data were used in imputations for these variables.

After receiving a donor’s data, the edit substituted the values into the edited record. In many cases, the donor record’s data value was scaled using another data field specified in the edit logic. In such cases, the size of the auxiliary field’s value in the edited record, relative to its value in the donor record, was used to inflate or reduce the donor record’s value for the imputed field. The imputed data were then validated by the same edit logic to which reported data were subject. Since imputation was conducted independently for each occurrence, reports requiring multiple imputations may have drawn from multiple donors.

Substantial changes were introduced to the Personal Characteristics section of the form in 2017. Information on an additional (fourth) producer was collected, and several new questions were added for each producer – specifically, whether or not the person was considered a “principal producer,” whether the person was a spouse of a principal producer, and whether the person was involved in any of five types of decisions with respect to the operation. These changes necessitated a new imputation process for records reporting three or more persons as producers. Records with one or two persons reported as producers had these data edited and imputed using the decision logic table edit and donor pool imputation process. Records with three or more persons reported as producers, and for which it was determined that these data were inconsistent or missing, had these data imputed using a fully conditional specification method. During the edit for records reporting three or more producers, the items needing imputation were marked, and the record was flagged. Periodically the data for these records (both the items needing to be imputed and the other variables needed by the model) were pulled and run through the imputation program. The resulting imputed values were loaded back to the records, and the records were made available for review. This process was conducted 19 times for the CML, and 6 times for the NML, during census production editing.

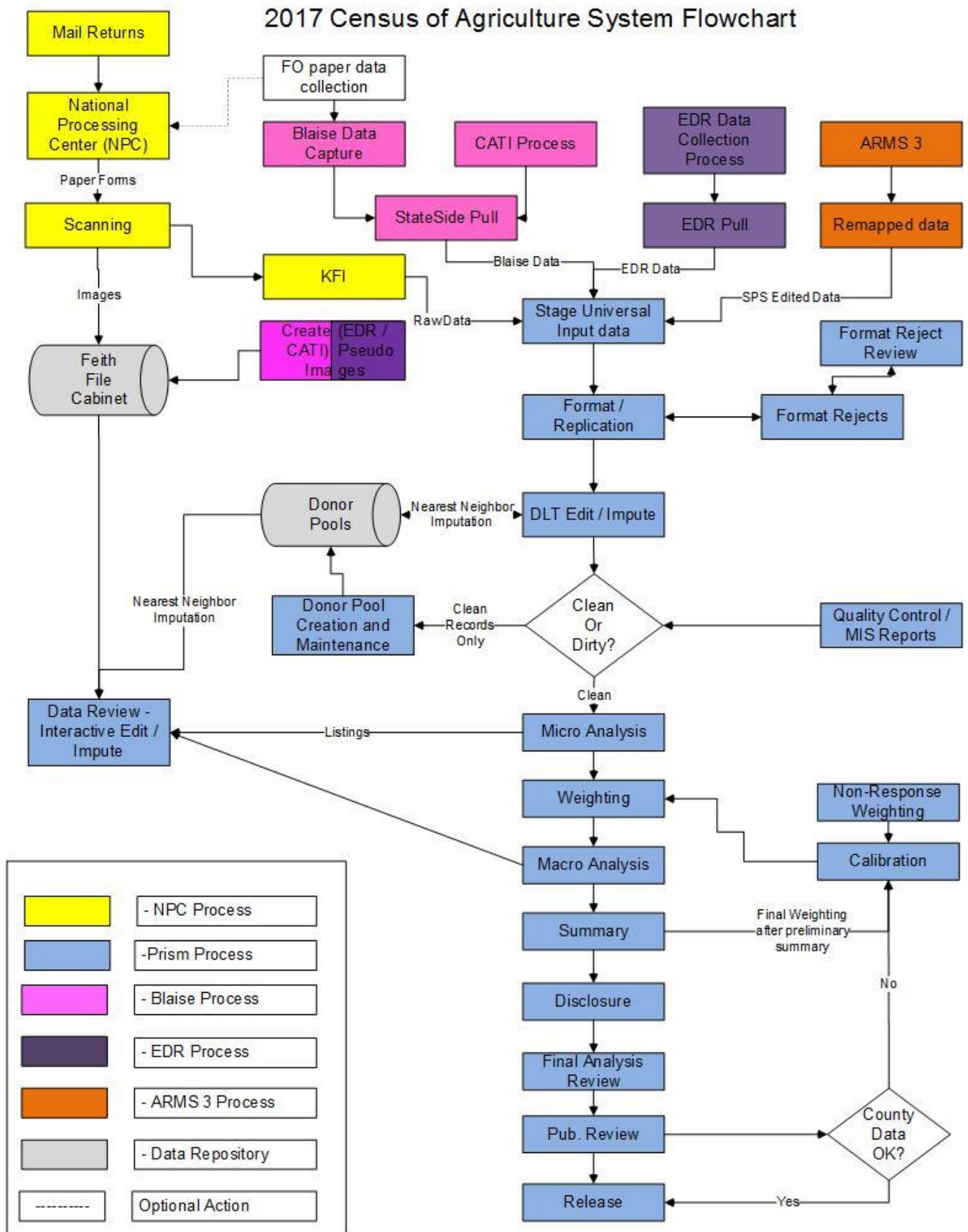
## Data Analysis

The complex edit ensured the full internal consistency of the record. Successfully completing the edit did not provide insight as to whether the report was reasonable compared to other reports in the county. Analysts were provided an additional set of tools, in the form of listings and graphs, to review record-level data across farms. These examinations revealed extreme outliers, large and small, or unique data distribution patterns that were possibly a result of reporting, recording, or handling

errors. Potential problems were researched and when necessary, corrections were made and the record interactively edited again.

When NASS summarized the data from the census of agriculture, each individual report was typically assigned to a single “principal” county. The principal county is the county in which the majority of an operation’s agricultural products are produced, as reported by the producer. For large operations that have significant production in multiple counties, their reports may be broken up into multiple source counties to more accurately summarize the data. Similarly, for large farms operating in more than one State, separate report forms are completed by State in order to assign the proper portion of the farm’s total agricultural production to each State in which the farm operates.

Figure 6.5 2017 Census of Agriculture System Flowchart



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## CHAPTER 7. METHODOLOGY AND QUALITY MEASURES

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## ACCOUNTING FOR UNDERCOVERAGE, NONRESPONSE, AND MISCLASSIFICATION

Although much effort was expended making the Census Mail List (CML) as complete as possible, the CML did not include all U.S. farms, resulting in list undercoverage. Some farm producers who were on the CML did not respond to the census, despite numerous attempts to contact them. In addition, although each operation was classified as a farm or a nonfarm based on the responses to the census report form, some were misclassified; that is, some nonfarms were classified as farms and some farms were classified as nonfarms. NASS's goal was to produce agricultural census totals for publication at the county level that were fully adjusted for list undercoverage, nonresponse, and misclassification.

In 2012 NASS used capture-recapture methodology to adjust for undercoverage, nonresponse, and misclassification. This same methodology was implemented for the 2017 Census of Agriculture. To implement capture-recapture methods, two independent surveys were required. The 2017 Census of Agriculture (based on the CML) and the 2017 June Area Sample (JAS), based on the area frame, were those two surveys. Historically, NASS has been careful to maintain the independence of these two surveys.

A second assumption was that the proportion of JAS farms with a given set of characteristics captured by the census was equal to the proportion of U.S. farms with those same characteristics captured by the census.

For a farm to be identified as a farm, and thus captured by the census, it must be on the CML, respond to the census report form and based on the census response, be classified as a farm. Only those nonrespondents included in the nonresponse sample had an opportunity to be captured and had a probability  $\pi_s$  of being included in the sample; respondents prior to drawing the nonresponse sample had  $\pi_s = 1$ . Thus, the capture probability  $\pi_c$  is of interest:

$$\pi_c = \pi(\text{CML, Responded, Farm on Census} | \text{Farm}) \pi_s$$

Two types of classification error can occur. First, a farm can be misclassified as a nonfarm. This type of misclassification is accounted for in determining the probability of capture  $\pi_c$ . The second type of classification error results when a response to the census is classified as a farm operation when it does not meet the definition of a farm. That is, some farms on the CML may be misclassified from their census report response and may be nonfarms. To account for the misclassification of nonfarms as farms, the probability of a farm on the census being classified correctly must be estimated; that is,

$$\pi_{CCFC} = \pi(\text{Farm} | \text{Farm on Census})$$

where *CCFC* represents Correct Census Farm Classification. To adjust for undercoverage, nonresponse, and misclassification, each CML record classified as a farm based on its response to the census report form was given a weight of the ratio of the estimated probability of correct classification of a farm on the census and the estimated probability of capture ( $\hat{\pi}_{CCFC} / \hat{\pi}_c$  where the hat symbol (^) denotes an estimate). To estimate the number of farms with a given set of characteristics, the weights of CML records responding as farms on the census and having that set of characteristics were summed. This estimator is referred to as the capture-recapture estimator (*CR*):

$$CR = \sum_{i \in F} \frac{\hat{\pi}_{CCFC, i}}{\hat{\pi}_{C, i}}$$

where *F* is the set of all CML records classified as farms based on their responses to the census report form.

To estimate the capture and correct census farm classification probabilities, a matched dataset consisting of JAS records and census records was created. Records in the 2017 JAS sample were matched to the 2017 census using probabilistic record linkage. The CML records that matched with JAS tracts represent the Census Sample.

Note: The Census Sample is a subset of the CML records and includes only those records matching a JAS tract. Both agricultural and non-agricultural tracts were included in the matched dataset.

## Resolving Farm Status

The farm status based on census responses to either the CML or Not on Mail List (NML) census data collection and the JAS agreed in most cases; these records are referred to as having resolved farm status. However, in other cases, a record was identified as a farm (nonfarm) on the JAS and as a nonfarm (farm) by the census through either the CML or the NML. Such records are said to have conflicting or unresolved farm status. An operation identified as a farm is referred to as in-scope; an operation identified as a nonfarm is referred to as out-of-scope. From the set of matched records, two groups with conflicting farm status were identified: 1) in-scope JAS records that were out-of-scope on the census, and 2) census in-scope and JAS out-of-scope records.

The records with conflicting farm status were sent to regional field offices for review. In each case, efforts were made to determine whether (1) the status had changed between June and December when the census was conducted, (2) the JAS farm status was correct, (3) the census farm status was correct, (4) the records were incorrectly matched, or (5) the farm status could not be resolved. Not all of the records with conflicting farm status could be resolved. In 2017, 8.1 percent of the records in the Census Sample had unresolved farm status.

The probability an operation is a farm was estimated for the records with unresolved farm status. Using the 2017 matched dataset, a logistic model of the probability an operation is a farm based on the records with resolved farm status was developed; that is, the operations where the farm (or nonfarm) status agreed between the JAS and the census were used to develop a missing data model, which was then used to resolve farm status. The final missing data model was used to impute the probability that each of the agricultural operations with unresolved farm status is a farm. For the resolved farms and nonfarms, the probability of the operation being a farm was 1 and 0, respectively. Five-fold cross-validation was used to develop and to compare competing models. The accuracy of the model was thereby not overstated due to fitting and evaluating the model on the same set of data. To ensure that each of the cross-validation samples covered the U.S., the five cross-validation samples of JAS segments were drawn within State-stratum combinations. Characteristics of the JAS tracts were considered as potential covariates in the model. Because limited information is available for JAS nonfarm tracts, other covariates considered included county-level socio-demographic variables from the most recent U.S. population census, segment-level data from the Cropland Data Layer, the county-level rural-urban code, State-level response rates, an indicator for records that are thought to be out-of-business, and an indicator for records in the national nonresponse sample. The sample weight associated with each JAS tract was multiplied by the probability of being a farm. This adjusted weight was used in all subsequent modeling.

## Capture Probabilities

Recall that, for a farm to be identified as a farm, and thus captured, by the census, it must be on the CML, respond to the census report form and based on the census response, be classified as a farm. These adjustments are dependent. Further, those nonrespondents at the time the nonresponse sample was drawn had a known probability  $\pi_S$  of being included in the sample; respondents before the sample was drawn had  $\pi_S = 1$ . Therefore, the probability of capture  $\pi_C$  may be written as  $\pi_C = \pi(\text{CML, Responded, Farm on Census}|\text{Farm}) \pi_S = \pi(\text{CML}|\text{Farm})\pi(\text{Responded}|\text{CML, Farm})\pi(\text{Farm on Census}|\text{CML, Responded, Farm}) \pi_S$

The probability of being included in the sample  $\pi_S$  is known for all responding farms. The other terms in the probability of capturing a farm depend on the characteristics of the farm. Using five-fold cross validation, three logistic models were developed based on the matched dataset. The first model estimated the probability of a farm being on the CML. The second model estimated the probability that a farm on the CML responded to the census report form. The final model estimated the probability that a farm that was on the CML and responded to the census was identified as a farm based on its response. The probability that a farm is captured by the census of agriculture is then the product of the three conditional probabilities that a farm is on the CML, responds, and is identified as a farm.

Note 1: Responses were required for Must cases. These operations were only excluded in modeling the probability of a farm responding given that it was on the CML.

Note 2: Because Alaska is not included in the JAS and thus has no area frame, the Alaskan agricultural operations were not included in the capture-recapture process. No adjustments were made for undercoverage or misclassification. To account for nonresponse, the CML records were divided into three groups: (1) the Must records, (2) the Criteria Records, and (3) the remaining CML records. The must records received a weight of one, thereby receiving no adjustment for nonresponse. The probability of response for each of the other two groups was the proportion of responders within the group. Each record within the group was then given a weight equal to the reciprocal of the probability of response.

## **Misclassification**

An operation is misclassified if: (1) it meets the definition of a farm but is classified as a nonfarm on the census or (2) it does not meet the definition of a farm, but is classified as a farm on the census. The first type of misclassification is accounted for when modeling the probability of capture. An adjustment is still needed for the misclassification of nonfarms as farms. As with farm status and capture, the probability of this misclassification depends on an operation's characteristics. Thus, a final logistic model was developed. Given that an operation was classified as a farm on the CML, the probability of its being a farm was modeled based on its characteristics. Five-fold cross-validation was used to ensure that the model was not over-fitted.

## **CALIBRATION**

Each operation identified as being in-scope on the CML was given a weight equal to the probability of misclassification divided by the probability of capture. This weight accounted for undercoverage, nonresponse, both types of misclassification, and the nonresponse sample.

The record weighting processes were initially applied at the State level to produce adjusted estimates of farm numbers and land in farms for 63 different categories of 8 characteristics of the farm operation or the farm producer: Value of agricultural sales (9); Age (2); Female; Race (3); Hispanic origin of principal farm producer; Four sales categories for each of 10 major commodities (40); and Farm type groups (7).

The State-level number of farms and land in farms were two additional adjusted estimates, resulting in 65 categories. To reduce the intercensal variation at the State level, the State targets were smoothed by averaging the 2017 estimates from capture-recapture and the published 2012 State estimates with the restrictions that the smoothed targets were within two standard errors of the capture-recapture estimates. The smoothed State targets were rescaled so that they summed to the national capture-recaptured estimates.

State estimates were general purpose in that they did not provide any control over expected levels of commodity production of the individual farm operation. As a result of this limitation, the procedures could have over-adjusted or under-adjusted for commodity production. To address this, a second set of variables, known as commodity targets, was added to the calibration algorithm. These targets were commodity totals from administrative sources or from NASS surveys of nonfarm populations (e.g. USDA Farm Service Agency program data, Agricultural Marketing Service market orders, livestock slaughter data, cotton ginning data). The introduction of these commodity coverage targets strengthened the overall adjustment procedure by ensuring that major commodity totals remained within reasonable bounds of established benchmarks.

Each State was calibrated separately. The calibration algorithm addressed commodity coverage. The algorithm was controlled by the 65 State farm operation coverage targets and the State commodity coverage targets. Because calibration targets are estimates subject to uncertainty, NASS allowed some tolerance in the determination of the adjusted weights. Rather than forcing the total for each calibration variable computed using the adjusted weights to equal a specific amount, NASS allowed the estimated total to fall within a tolerance range.

Tolerance ranges for the farm operation coverage targets were determined differently from the commodity targets. The tolerance range for the 65 State farm operation coverage targets was the estimated smoothed State total for the variable plus or minus one standard error of the capture-recapture estimate. This choice limited the cumulative deviation from the estimated total for a variable when State totals were summed to a U.S. total. Commodity coverage targets with acceptable

ranges were established based on the administrative source for each State. Ranges were not necessarily symmetric around the target value.

To ensure that all subdomains for which NASS published summed to their grand total, integer weights were produced by a discrete calibration algorithm. This eliminated the need for rounding individual cell values and ensured that marginal totals always added correctly to the grand total. If a weight was initially not in the interval [1,6], it was trimmed so that it was in that interval. That is, adjusted weights less than 1 were set to 1, and those greater than 6 were set to 6. The remaining non-integer weights were then rounded sequentially to reduce the distance of the estimated totals from the targets.

Calibration adjustments began with the computation of a priority index for each record. The priority index was the absolute value of the gradient of the relative error associated with increasing or decreasing a record's weight by one. The record with the highest priority index was then selected as a candidate to increase or decrease its weight by one to reduce the cumulative distance from the targets as measured by the relative error. If the new value produced an improvement and satisfied the range restrictions, the weight was updated and new priorities were assigned; otherwise, the record with the next highest priority index was processed. This process was iteratively performed until convergence was attained. Because census data collection was assumed to be complete for very large and unique farms, their weights were controlled to 1 during the calibration adjustment process. For all other farms, the final census record weights were forced to be an integer number in the interval [1, 6]. The calibration process considered all targets simultaneously through the priority index. Although calibration was seldom able to adjust weights so that all State targets were met, all targets were brought collectively as close to the targets as possible.

## **DISCLOSURE REVIEW**

After tabulation and review of the aggregates, a comprehensive disclosure review was conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Farm counts are not considered sensitive and are not subject to disclosure controls. Cell suppression was used to protect the cells that were determined to be sensitive to a disclosure of information.

Based on agency standards, data cells were determined to be sensitive to a disclosure of information if they failed either of two rules. The threshold rule failed if the data cell contained less than three operations. For example, if only one farmer produced turkeys in a county, NASS could not publish the county total for turkey inventory without disclosing that individual's information. The dominance rule failed if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. For example, if there are many farmers producing turkeys in a county and some of them were large enough to dominate the cell total, NASS could not publish the county total for turkey inventory without risking disclosing an individual respondent's data. In both of these situations, the data were suppressed and a "(D)" was placed in the cell in the census publication table. These data cells are referred to as primary suppressions.

Since most items were summed to marginal totals, primary suppressions within these summation relationships were protected by ensuring that there were additional suppressions within the linear relationship that provided adequate protection for the primary. A detailed computer routine selected additional data cells for suppression to ensure all primary suppressions were properly protected. These data cells are referred to as complementary suppressions. These cells are not themselves sensitive to a disclosure of information but were suppressed to protect other primary suppressions. A "(D)" was also placed in the cell of the census publication table to indicate a complementary suppression. A data user cannot determine whether a cell with a (D) represents a primary or a complementary suppression.

Regional field office analysts reviewed all complementary suppressions to ensure no cells had been withheld that were vital to the data users. In instances where complementary suppressions were deemed critically important to a State or county, analysts requested an override and a different complementary cell was chosen.



## CENSUS QUALITY

The purpose of the census of agriculture is to account for “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.” To accomplish this NASS develops a Census Mail List (CML) that contains identifying information for operations that have an indication of meeting the census definition, develops procedures to collect agricultural information from those records, establishes criteria for analyst review of the data, creates computer routines to correct or complete the requested information and provides census estimates of the characteristics of farms and farm producers with associated measures of uncertainty.

It is not likely that either the CML includes all operations that meet the definition of a farm or that all those that do meet the definition of a farm respond to the census inquiry. The goal is to publish data with a high level of quality. The quality of a census may be measured in many ways. One of the first indicators used is a measure of the response to the census data collection as it has generally been thought that a high response rate indicates more complete coverage of the population of interest. This is a valid assumption if the enumeration list, the CML here, has complete coverage of the population of interest. In the case of the census of agriculture, the definition requiring advance knowledge of sales makes achieving a high level of coverage difficult. To ensure that the census of agriculture is as complete as possible, records are included that might not meet the census definition of a farm – in fact, almost 50 percent more records than the anticipated number of qualifying farm operations were included in the 2017 CML. A second indicator of quality then is the coverage of the farm population by the CML. Other indicators of quality relate to the accuracy and completeness of the data, and the validity of the procedures used in processing the data.

In some cases, NASS was able to produce measures of quality – such as the response rate to the data collection, the coverage of the CML, and the variability of the final adjusted estimates. In other cases, measures were not produced but descriptions of procedures that NASS used to reduce errors from the procedures were subsequently provided.

### Census Response Rate

The response rate is one indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small, although this has been questioned recently in the literature. The response rate for the 2017 Census of Agriculture was 71.8 percent as compared with a response rate of 74.6 percent for the 2012 Census of Agriculture and 78.2 percent for the 2007 Census of Agriculture.

The 2017 Census of Agriculture’s response rate used the fourth response rate formula (RR4) from the American Association of Public Opinion Research’s Response Rate Standard Definitions manual:

$$RR4 = \frac{C_{adj}}{C_{adj} + R + NC + O + Replicated + e(U)} (100)$$

where

*C<sub>adj</sub>* = number of fully and partially completed records, excluding replicated records

*R* = number of explicit refusals

*NC* = number of non-contacted operations known to be eligible

*O* = number of other types of nonrespondents

*Replicated* = number of replicated records

*U* = number of operations of unknown eligibility

*e(U)* = estimated number of operations of unknown eligibility assumed to be eligible

Records were classified into the above variables based on the combination of their active status (AS) codes, in-scope status, and replication status. Active status refers to the eligibility status of records for selection on the CML. All replicated records were considered to be a form of nonresponse and were classified into other nonrespondents; in-scope status was considered immaterial.

Certain active status classifications indicated records of unknown agricultural status. These classifications included records to be removed from the CML but had data from outside sources indicating agricultural activity, new records from

outside data sources, nonrespondents and refusals to the NACS, records for regional office handling only, and records with Farm Service Agency or Conservation Reserve Program data on operations that are not owned by the principal producer. These records were stratified (grouped) based on their probabilities of being in-scope had they responded. The estimated number of in-scope nonrespondents was calculated for the  $h$ th stratum (group) by the following formula:

$$e(U_h) = \left( \frac{C_{in-scope,h}}{C_h} \right) U_h$$

where

$e(U_h)$  = estimated number of operations of unknown eligibility assumed to be eligible in the  $h$ th group

$C_{in-scope,h}$  = the number of completed and in-scope census records in the  $h$ th group

$C_h$  = the number of completed census records in the  $h$ th group

$U_h$  = number of operations of unknown eligibility in the  $h$ th group

## Census Coverage

As a side-product of the statistical adjustment used to account for undercoverage, nonresponse of farms on the CML and misclassification of responses to the census, the proportion of the adjustments due to each of those factors can be derived. The percentages of final estimates due to adjustments for undercoverage, nonresponse, and misclassification as well as the total percent adjustment for selected items are displayed in Tables A and C in the 2017 CoA Appendix A publication.

## MEASURED ERRORS IN THE CENSUS PROCESS

Although the census of agriculture does not inherently rely on a sample, NASS used a national nonresponse sample as part of its follow-up efforts in 2017. In addition to the uncertainty introduced by the nonresponse sample, NASS uses statistical procedures in compiling the CML, in its data collection procedures, in data editing and processing, and in compiling the final data. Additionally, it uses statistical procedures to both measure errors in the various processes and in making adjustments for those errors in the final data. One example is the statistical process used to account for undercoverage, nonresponse of farms on the CML, and misclassification of responses to the census. The basis of the undercoverage adjustment is the capture-recapture procedure that uses the area sample enumeration from the JAS. The largest contributors to error in the census estimates are due to the adjustments for nonresponse, undercoverage, misclassification, calibration, and integerization.

## Variability in Census Estimates due to Statistical Adjustment

In conducting the 2017 Census of Agriculture, efforts were initiated to measure error associated with the adjustments for farm operations that were not on the CML, for farm operations that were on the CML but did not respond to the census report form, and for farms and nonfarms that were misclassified as nonfarms and farms, respectively, for calibration. These error measurements were developed from the standard error of the estimates at the national, State, and county levels and were expressed as coefficients of variation (CVs) at the national and State levels and as generalized coefficients of variation (GCVs) at the county levels.

The standard error of an estimate is an estimate of the standard deviation of the sampling distribution of the estimator. Because Alaska was modeled separately from the other States, the variances of a national-level data item for this State was computed separately and added to the variance of that data item for the rest of the U.S. The standard error was then the square root of the total variance. In each case, standard errors were computed using an approach based on a combination of group jackknife and bootstrap methodologies. To conduct the jackknifing,  $k = 10$  mutually exclusive and exhaustive groups of JAS segments were formed. The groups were selected using a stratified random design so that each group reflected the survey design, including State and agricultural strata within a State. The weight of record  $i$  in jackknife group  $j$  is  $CR_i^{(j)}$  for  $j = 1, 2, \dots, k$ . Based on these weights, a group jackknife estimator to estimate the variance would account for the uncertainty associated with modeling the capture-recapture probabilities. To account for the additional uncertainty due to calibration, the weights within each jackknife group were transformed through bootstrap simulation; these transformed weights are called calibration-adjusted-jackknife weights. The full dataset, which is composed of the records of all responding farms on

the CML, is calibrated as described in the Calibration section, and the final calibration-adjusted weight of record  $i$  is denoted by  $\hat{w}_i$ . For each record  $i$  in jackknife group  $k$ , the calibration-adjusted-jackknife weights of that record can be approximated as  $w_i^{(j)} = a_i^{(j)} CR_i^{(j)}$  where  $a_i^{(j)} \sim N(1, (\hat{w}_i - 1) / \hat{w}_i)$ . The bootstrap process simulated the value of the adjustment  $a_i^{(j)}$  for each record on the CML to obtain the calibration-adjusted-jackknife weights. For a given data item, such as the number of farms, the estimate  $T^{(j)}$  was computed at the specified geographical level, such as nation, State, or county, using the  $(k - 1)$  groups remaining after deleting the calibration-adjusted jackknife group  $j$ . Estimates of the variance and standard error associated with the estimator  $T_i$  are then, respectively,

$$\sigma_i^2 = \frac{k-1}{k} \sum_{j=1}^k \left( T_i^{(j)} - \sum_{i=1}^k \frac{T_i^{(j)}}{k} \right)^2; \quad SE(T_i) = \sqrt{\sigma_i^2}$$

Increasing  $k$  improves the estimate of the variance but, as  $k$  increases, the observations become too sparse to reflect the survey design and to provide countrywide coverage. Ten (10) calibration-adjusted jackknife groups were used to provide standard errors for 2017 State and national estimates. For the estimate of the number of farms with a given set of characteristics, only the CML records with those characteristics were used to obtain the overall estimate as well as the estimates from each calibration-adjusted jackknife group.

Note that the calibrated jackknife groups were only constructed once and different subsets of the records were used to compute estimates and standard errors for the data items. The CV is a measure of the relative amount of error associated with the sample estimate:

$$CV_i = \frac{SE(T_i)}{T_i} 100\%$$

where  $SE(T_i)$  is the standard error of the capture-recapture estimate for data item  $i$ . This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. For county-level estimates, a generalized coefficient of variation (GCV) was determined for each estimate within a State. A generalized variance function relates a function of the variance of an estimator to a function of the estimator. Within a State, the standard error of an estimate for a data item was often found to be linearly related to the estimate of that item with an intercept of zero. Based on this modeled relationship, the GCV is the slope of the line relating the standard error to the estimate, multiplied times 100 to represent the GCV as a percentage. The standard error is the product of the CV (or GCV for county estimates) and the estimate divided by 100. As an example, if the GCV for a State is 25 percent and a county's estimate is 4, then the standard error is  $25(4)/100 = 1$ . The standard error of an estimated data item from the census provides a measure of the error variation in the value of that estimated data item based on the possible outcomes of the census collection, including variants as to who was on the CML, who returned a census form, who was misclassified either as a farm or as a nonfarm, and the uncertainty associated with calibration and integerization. With 95-percent confidence, an estimate is within two standard errors of the true value being estimated. For this example, with 95-percent confidence, the estimate of 4 is within  $2(1) = 2$  of the true county value. Table B presents the fully adjusted estimates with the coefficient of variation for selected items in the 2017 CoA Appendix A publication.

## NONMEASURED ERRORS IN THE CENSUS PROCESS

Sampling errors can be introduced from the coverage, nonresponse, and misclassification adjustment procedures. This error is measurable. However, non-sampling errors are imbedded in the census process that cannot be directly measured as part of the design of the census but must be contained to ensure an accurate count. Extensive efforts were made to compile a complete and accurate mail list for the census, to elicit response to the census, to design an understandable report form with clear instructions, to minimize processing errors through the use of quality control measures, to reduce matching error associated with the capture-recapture estimation process, and to minimize error associated with identification of a respondent as a farm operation (referred to as classification error). The weight adjustment and tabulation processes recognize the presence of non-sampling errors; however, it is assumed that these errors are small and that, in total, the net effect is zero. In other words, the positive errors cancel the negative errors.

## **Respondent and Enumerator Error**

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. Steps were taken in the design and execution of the census of agriculture to reduce errors from respondent reporting. Poor instructions and ambiguous definitions lead to misreporting. Respondents may not remember accurately, may give rounded numbers, or may record an item in the wrong cell. To reduce reporting and recording errors, the report form was tested prior to the census using industry accepted cognitive testing procedures. Detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. Computer-assisted telephone interviewing software included immediate integrity checks of recorded responses so suspect data could be verified or corrected. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

## **Processing Error**

Processing of each census report form was another potential source of non-sampling error. All mail returns that included multiple reports, respondent remarks, or that were marked out of business and report forms with no reported data were sent to an analyst for verification and appropriate action. Integrity checks were performed by the imaging system and data transfer functions. Standard quality control operators were in place that required that randomly selected batches of data keyed from image were re-entered by a different operator to verify the work and to evaluate the key entry operators. All systems and programs were thoroughly tested before going on-line and were monitored throughout the processing period.

Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of producers to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the producer's absence from the farm during the data collection period, and the producer's opinion that part or all of the operation does not qualify and should not be included in the census. During data collection and processing of the census, all operations underwent a number of quality control checks to ensure results were as accurate as possible.

## **Item Nonresponse**

All item nonresponse actions provide another opportunity to introduce measurement errors. Regardless of whether it was previously reported data, administrative data, the nearest neighbor algorithm, the fully conditional specification method, or manually imputed by an analyst, some risk exists that the imputed value does not equal the actual value. Previously reported and administrative data were used only when they related to the census reference period. A new nearest neighbor was randomly selected for each incident to eliminate the chance of a consistent bias.

## **Record Matching Error**

The process of building and expanding the CML involves finding new list sources and checking for names not on the list. An automated processing system compared each new name to the existing CML names and "linked" like records for the purpose of preventing duplication. New names with strong links to a CML name were discarded and those with no links were added as potential farms. Names with weak links, possible matches, were reviewed by staff to determine whether the new name should be added. Despite this thorough review, some new names may have been erroneously added or deleted. Additions could contribute to duplication (overcoverage) whereas deletions could contribute to undercoverage. As a result, some names received more than one report form, and some farm producers did not receive a report form. Respondents were instructed to complete one form and return all forms so the duplication could be removed.

Another chance for error came when comparing June Agricultural Survey (JAS) tract producer names to the CML. Area producers whose names were not found on the CML were part of the measure of list incompleteness, or NML. Mistakes in determining overlap status resulted in overcounts (including a tract whose producer was on the CML) or undercounts (excluding a tract whose producer was not on the CML). All tracts determined to not be on the list were triple checked to eliminate, or at least minimize, any error. NML tract producers were mailed a report form printed in a different color. In order to attempt to identify duplication, all respondents who received multiple report forms were instructed to complete to CML version and return all forms so duplication could be removed.

Records in the 2017 JAS were matched to the 2017 census using probabilistic record linkage. The records of operations with differing farm status were sent out to be reviewed by NASS regional field offices. If farm status could not be resolved, the probability of an operation being a farm was imputed using a missing data model. The uncertainty associated with this estimate, with the exception of model uncertainty, was accounted for, but errors not found through this process were not.

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## CHAPTER 8. 2018 PUERTO RICO CENSUS OF AGRICULTURE

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## INTRODUCTION

### History

In Puerto Rico, the 2018 Census of Agriculture was taken in accordance with a Cooperative Agreement signed by NASS, the Puerto Rico Department of Agriculture (PRDA), and the University of Puerto Rico Extension Service (UPR-ES). It was the Island's 18th census of agriculture, with the first being taken in 1910. The Census Bureau carried out the first agricultural census of Puerto Rico as part of the 1910 decennial census program, and the Commonwealth continued to be covered in the decennial agricultural censuses from 1910 through 1950. The responsibility was transferred to NASS by the 1997 Appropriations Act.

- 1910: First Puerto Rico census of agriculture.
- 1910 through 1950: Census of agriculture was taken every 10 years in conjunction with the decennial censuses.
- 1935: A special census of Puerto Rico was taken by the Puerto Rican Reconstruction Administration.
- 1957: An amendment was made to the law to conduct a Puerto Rico agriculture census every 5 years like the national census of agriculture.
- 1959: First census under the 5-year census cycle was taken separately from the 1960 decennial census.
- 1959 to 1974: A census of agriculture was taken for the years ending in "4" and "9."
- 1976: Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year to coincide with other economic censuses. This adjustment in timing established the agriculture census on a 5-year data collection cycle for the years ending in "2" and "7."

Originally, data for censuses in Puerto Rico were collected on a fiscal year basis, rather than on a calendar year basis. At the request of the local government agencies and other data users, the 2002 Census of Agriculture for Puerto Rico was the first taken on a calendar year basis, bringing the Puerto Rico census in line with the United States, and subsequent censuses have continued to be conducted on a calendar basis.

### Uses of Census Data

The census of agriculture is the leading source of statistics about Puerto Rico's agricultural production. Census statistics are used by Congress to develop and change farm programs, study historical trends, assess current conditions, and plan for the future. Government agencies, such as the Puerto Rico Department of Agriculture, use census data to estimate losses and damages caused by natural disasters such as plagues, hurricanes, flooding, and severe droughts. Private industry uses census statistics to develop more effective production and distribution systems for the agricultural community.

### Legal Authority

The 2017 Census of Agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, U.S.C., Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture every fifth year, covering years ending in "2" and "7." The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa.

The census data for Puerto Rico were collected in accordance with Cooperative Agreement approved by the Director of the Census and Survey Division of NASS, the Secretary of the Puerto Rico Department of Agriculture, the College of Agricultural Science of the University of Puerto Rico, and the Cooperative State Research, Education, and Extension Service.

### Farm Definition

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In Puerto Rico this included all places from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018.



## **Data Comparability**

Most island level data are comparable between the 2018 census and the 2012 census. Regional level data for the 2018 Puerto Rico Census of Agriculture are not directly comparable to 2012 and earlier municipio census level data. Due to low response rates to the 2018 Puerto Rico Census of Agriculture, NASS could only publish results at the regional levels, as opposed to the municipio level which have historically been used.

Users of the 2018 Puerto Rico Census of Agriculture data should note that the farm definition determined by NASS may differ from other organizations that provide agricultural statistics. For this reason, data provided in this report may not be directly comparable to data provided by the Puerto Rico Department of Agriculture or other sources.

All dollar values are expressed in current dollars, i.e., 2018 data are expressed in 2018 dollars and 2012 data in 2012 dollars. The dollar values have not been adjusted for changes in price levels between census years.

## **Impact of Hurricane Maria**

On September 20, 2017 Hurricane Maria devastated Puerto Rico. NASS had planned to collect data for the 2017 Puerto Rico Census of Agriculture along with the rest of the United States beginning in December 2017. Due to the lack of a communication infrastructure necessary to continue with census activities, NASS decided to delay the 2017 Puerto Rico Census of Agriculture a year to give farmers and government agencies time to recover from the massive devastation, hence the change in reference year for the census. The report forms were rescheduled for mailout in December 2018. That mailout date was delayed again due to the Federal government shutdown at the end of 2018. The report forms were finally mailed out to respondents on February 5, 2019.

## **Reference Periods**

Data for inventories (of livestock, poultry, machinery, equipment, building, and facilities) and data for agregados or sharecropper families reflect the number on hand as of December 31 of the census year (2018 or 2012). Data for production and sales of crops and livestock, production expenses, farm related income, hired workers, irrigation, and land use are for the 12-month period from January 1 through December 31 of the census year (2018 or 2012).

## **Respondent Confidentiality**

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

## **PREPARATORY OPERATIONS**

### **Interagency Working Group**

The Puerto Rico Institute of Statistics organized a committee composed of representatives of various agencies concerned with Puerto Rico agriculture to provide input to NASS on census issues affecting the island, such as special data needs or questions from the previous census which were not clearly understood by farmers. The following offices and agencies were represented on the committee: Puerto Rico Department of Agriculture, University of Puerto Rico's Cooperative State, Research, Education and Extension Service, and the University of Puerto Rico College of Agricultural Sciences. Members of the interagency working group, under the leadership of the Puerto Rico Institute of Statistics, made significant recommendations that helped establish data content. NASS appreciates the group's strong and consistent support of census programs.

Beginning in February 2016, NASS officials met with the interagency working group periodically and communicated with them on a continuing basis to discuss plans for report form content and enumeration methodology.

## List Frame Development

List building activities for the 2018 Puerto Rico Census of Agriculture started in 2015 by updating list information from respondents to the 2012 Puerto Rico Census of Agriculture. In addition, lists of farmers from the Puerto Rico Department of Agriculture, the Agricultural Extension Service of the University of Puerto Rico, and names and addresses of farm operations identified through other sources were compiled prior to the census. Measures were taken to improve name and address quality, and record linkage programs were run to detect and remove duplicate records.

## Data Collection Training Program

Selected staff members from the Puerto Rico Department of Agriculture and the Extension Service received special training for the census in accordance with instructions prepared by NASS. The training included an overview of the census of agriculture program, and a detailed discussion of the enumerator's instructions manual and the report form.

## Reference Materials

Headquarters staff prepared training and reference guides for use in the agriculture census in Puerto Rico. The principal reference material was the Enumerator's Manual. This document covered basic administrative procedures. Headquarters staff were responsible for training all personnel assigned to work on the census. Members of the PRDA, Office of Statistics, assigned to work on the census received a copy of the Enumerator's Manual as the primary reference for the field enumeration. They also were provided with a publicity package.

## Agricultural Extension Office and College of Agricultural Sciences Support

The University of Puerto Rico, Extension Service (ES), and College of Agricultural Sciences participation in the 2018 Census of Agriculture was part of cooperative agreements signed between NASS and the University of Puerto Rico. The ES functions in the same fashion as the U.S. Department of Agriculture's Extension Service, i.e., local offices assist farmers with information and advice on agricultural programs, problems, legal questions, and the like. The local offices have considerable knowledge of farming practices and farmers within their areas. They assisted NASS by:

- Providing its own list of farms for the census list frame compilation;
- Producing posters and other publicity materials for the census;
- Distributing publicity materials provided by NASS and promoting the enumeration among farmers in personal contacts; and
- Providing help to farmers in completing the census report forms.

In addition, NASS provided ES agents lists of farms in their respective municipios that were mailed a report form in the February 2019 mailout, for which no report form was received. The agents, after signing a confidentiality certificate, visited the nonrespondents and completed a report form by personal interview or resolved the case in a consistent matter. The College of Agricultural Sciences provided a select group of students that, as part of a course, and after signing a confidentiality certificate, visited the nonrespondents and completed a report form by personal interview.

## DATA COLLECTION OUTREACH AND PROMOTIONAL EFFORTS

NASS developed a communication plan largely based on promotional materials that were shared with local outreach partners, including but not limited to the University of Puerto Rico and the Puerto Rico Department of Agriculture, for the island's producers, enumerators, and media. The goals for these products included:

- 1) Encouraging participation in the census of agriculture, 2) Directing producers to the NASS website for online response, 3) Communicating how the census provides much needed data that are used by federal and local decision makers, 4) Explaining that response to the census of agriculture is required and that reported information is protected by federal law, and 5) Increasing general awareness and perceived value of NASS, its products, and services.

## **Partnership and Local-Level Outreach**

In addition to the contributions of the University of Puerto Rico Extension Service, which produced the census brochure and poster, several USDA agencies in Puerto Rico, including the Natural Resources and Conservation Service (NRCS) and the Farm Service Agency (FSA), helped spread the word about data collection. Before data collection began, the local government held a proclamation ceremony for the media and other stakeholders. Several dozen census folders were stuffed with associated content and provided to partners. Talking points in both English and Spanish were printed and laminated for local leadership, partners, and enumerators.

## **Public Relations**

In the public relations arena, NASS worked with internal and external stakeholders to equip them with communications tools and resources to deliver the census communications message to their audiences. Two news releases/stakeholder notices, two public service announcements, and a Frequently Asked Questions (FAQs) document were drafted in English and Spanish for local media and other stakeholder distribution. These materials were available both electronically and in hard copy. Other outreach tools also included census swag (e.g., pens, notepads) as well as copies of the 2012 Puerto Rico Census of Agriculture Highlights and instructions for responding online in English and Spanish.

## **CENSUS POPULATION**

The purpose of a census is to enumerate all members of a population with a defined characteristic. For the Puerto Rico census of agriculture, that goal is to account for “any place from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.” To do this, NASS creates a Census Mail List (CML) of agricultural operations that potentially meet the farm definition, collects agricultural information from those operations, reviews the data, and combines the data to provide information on the farm characteristics of farm operations and farm producers at the island and regional levels.

### **The Census Mail List**

The National Agricultural Statistics Service (NASS) maintains a list of farmers and ranchers from which the CML is compiled. The goal is to build as complete a list as possible of agricultural places that meet the farm definition. This list is compiled prior to the census, using the list of active farms from the 2012 Census of Agriculture, lists of farmers from the Puerto Rico Department of Agriculture, and the Agricultural Extension Service of the University of Puerto Rico, plus names and addresses of farm producers identified through other sources. Each record on the list includes a name, address, telephone number, and email plus additional information that is used to efficiently administer the census of agriculture. These outside source lists are matched to the NASS list using record linkage programs. Most names on newly acquired sources are already on the NASS list. Records not on the NASS list are treated as potential farms and added to the CML. List building activities for developing the 2018 Puerto Rico CML started in 2015 by updating list information from respondents to the 2012 Puerto Rico Census of Agriculture. Measures were taken to improve name and address quality. Additional record linkage programs were run to detect and remove duplicate records. The official CML for the 2018 Puerto Rico Census of Agriculture was established in September 2018. The list contained 21,378 records.

### **Not on the Mail List (NML)**

Extensive efforts are directed toward developing a CML that includes all farms in Puerto Rico. However, some farms are not on the list, and some agricultural operations on the list are not farms. NASS uses its Area Coverage Evaluation Survey (ACES) to quantify the number and types of farms not on the CML. The records in the ACES that are not on the CML are said to be in the Not-on-the Mail List (NML) domain. If an ACES record in the NML domain is determined to be a farm during the census, it is an NML farm. The NML farms are used to measure coverage associated with the census.

The ACES is based on an area frame, which covers all land in Puerto Rico and includes all farms. The land in Puerto Rico is stratified by characteristics of the land. A probability sample of segments is drawn within each stratum for the ACES. Segments of approximately equal size are delineated within each stratum and designated on aerial photographs. The ACES sample of segments is allocated to strata to provide accurate measures of cuerdas (1 cuerda = 0.97 acres) planted to widely grown crops, farm numbers, and inventories of livestock. The ACES sample consisted of 300 segments, which are personally enumerated. Each operation identified within a segment boundary is known as a tract.

During the ACES enumeration process, each tract is identified as either agricultural or nonagricultural. Each ACES agricultural tract is identified as a farm or non-farm in 2018 based on the farm definition of \$500 of sales or potential sales of agricultural products. Nonagricultural tracts are further classified into categories: with farm potential, with unknown farm potential, or with no farm potential. The names and addresses collected in ACES were matched to the CML. Those names from the ACES that did not match were determined to be in the NML domain and sent a census report form. Instructions on the census report form directed any respondent who received duplicate forms to complete only one form and to mail all duplicate forms back together. Those who returned a CML and an NML form had been misclassified as NML then were removed from the NML domain. The initial NML mailout consisted of 1,952 records. A total of 462 NML records were summarized of which 47 records were confirmed to be NML and in-scope.

The farm/nonfarm status of each NML domain operation was determined based on the reported data in the census form. An operation in the NML domain that was determined to be a farm is referred to as an NML farm. Characteristics of NML farms and their producers provided a measure of the undercoverage of farms on the CML. In general, NML farms tended to be small in acreage, production, and sales of agricultural products. Farm operations were missing from the CML for various reasons, including the possibility that the operation started after development of the CML, the operation was so small that it did not appear in any agriculture related source list, or the operation was misclassified as a nonfarm prior to census mailout. The CML was used with the NML in a capture-recapture framework to represent all farming operations across Puerto Rico.

## **DEVELOPMENT OF THE CENSUS REPORT FORM**

Prior to each agriculture census, the content of all census report forms is reviewed to eliminate inquiries no longer needed and to identify new items necessary to meet user needs, so that published data better describes the agricultural situation in the Nation. Data requests are solicited from farm organizations, land-grant colleges and universities, State and Federal agencies, State departments of agriculture, agribusinesses, and other users. Each user is asked to identify and justify its specific data needs.

The report form for the 2018 Census of Agriculture for Puerto Rico was prepared by NASS, in cooperation with an inter-agency working group that included members of the Puerto Rico Institute of Statistics, the Planning Board, the Puerto Rico Department of Agriculture, the College of Agricultural Sciences at the University of Puerto Rico - Mayagüez Campus (RUM), the Extension Service, and other data users. While similar to the report form used in 2012, changes were made to reflect changes in Puerto Rico's agriculture, to make the report form more similar in scope to the US report form and to make it easier to complete.

## DATA CHANGES

Based on feedback from data users, the following chart identifies the changes made to the 2018 report form.

Figure 8.1 **Data Changes to 2018 Report Form**

| Section  | Changes  |
|--|--|
| 1 - Cuerdas in 2018  | Added – Examples of type of land to the include and exclude listings for items 2 and 3.  |
| 2 - Land Use   | Added – Item 5a, Land located on an Agricultural Reserve.  |
| 3 - Irrigation   | Added – Oxidation ponds as a response option to item 5a.   |
| 4 - Field Crops  | Added – Corn for seed, cotton for seed, rice seeds, sugarcane for sugar, sunflower seeds, and wheat for grain or seed.   |
| 6 - Hay and Forage Crops                                       | Added – “Maralfalfa Dry Hay” to the crops list, and a column to report the pounds of hay and forage crops used or to be used on the operation for feed or seed.  |
| 7 - Nursery, Greenhouse, Floriculture, Sod, and Tree Seedlings | Added – Total area planted within section.<br>Added – Ornamental Tree Seedlings to the crops list.   |
| 8 - Vegetables and Melons                                      | Added – Coriander and spiny coriander to the crops list.   |
| 9 - Hydroponic Crops   | Added – Coriander and spiny coriander to the crops list.   |
| 10 - Fruits  | Added – Breadfruit to the crops list.<br>Added – Questions about organic certification.  |
| 17 - Organic Agriculture                                       | Added - Questions to report cuerdas used for organic production, cuerdas from which organic crops were harvested, and cuerdas dedicated for organic pastureland. |

|                               |   |
|-------------------------------|---|
| 21 - Production Expenses      | Added – Item 18 to report depreciation expenses for all capital assets.   |
| 25 - Practices                | Added – Item 1f to report use of agroecological or permaculture practices.  |
| 26 - Food Marketing Practices | Added – Reported sales of edible commodities directly sold for human consumption.   |
| 29 - Personal Characteristics | Added – Technical or Vocational School as a response option for Item 2e – Highest level of education attained by the producer.<br><br>Added – Item 2l to report military service. |

## DATA COLLECTION

### Method of Enumeration

Data collection was accomplished primarily by mail. A Computer-Assisted Self-Interviewing (CASI) instrument was also available for producers who preferred to report online. A letter with a unique survey code and instructions for completing their census online was included in each mail package. Enumerators from the Puerto Rico Department of Agriculture and the Extension Service conducted field follow-up visits to enumerate operations that did not respond by mail.

### Report Form

A single version of the report form, 18-A101(PR), in Spanish, was prepared by NASS, in cooperation with an inter-agency working group that included members of the Puerto Rico Institute of Statistics, the Planning Board, the Puerto Rico Department of Agriculture, the College of Agricultural Sciences at the University of Puerto Rico - Mayagüez Campus (RUM), the Extension Service, and other data users. The report form targeted crops and livestock specifically grown or raised in Puerto Rico but it also allowed respondents to write in specific commodities that were not prelisted on the report form.

### Report Form Mailings

Approximately 21,000 mail packets were mailed on February 5, 2019. The original mailout, scheduled for December 2017, was delayed due to Hurricane Maria. It was rescheduled for December 2018 and was delayed again, this time due to the Federal government shutdown. Each packet contained a cover letter, instruction sheet, a labeled report form, and a return envelope. The Census Bureau's National Processing Center (NPC) in Jeffersonville, IN was contracted to perform mail packet preparation, initial mailout, and one follow-up mailing to nonrespondents.

NPC printed the report forms, envelopes, instructions sheet, and letters and assembled the mailing packages before delivering them. The quantities of report forms and associated materials printed are shown in Figure 8.2.

Figure 8.2 Report Form, Envelopes, Instruction Sheet, Letters

| Form            | Description                                | Quantity |
|-----------------|--|----------|
| 18-A101(PR)     | Report form (Spanish)                      | 40,000   |
| 18-A1(PR)SP(L1) | Initial cover letter (Spanish & English)   | 25,000   |
| 18-A01(PR)SP(I) | Instruction sheet (Spanish)                | 40,000   |
| 18-A1(PR)SP(L2) | Follow-up cover letter (Spanish & English) | 15,000   |
| 18-A7.1(PR)     | Initial mailout envelope                   | 25,000   |
| 18-A7.2(PR)     | Follow-up mailout envelope                 | 18,000   |
| 18-A8(PR)       | Return envelope                            | 38,000   |

NASS printed mail labels on report forms for each address in the name/address file. The name/address file was provided to NPC in October 2018. Using high speed printers the mail label was printed directly on to the report forms through the open window of the mail package. The label included the name and mailing address, a barcode, and an ID. In addition, control data such as the farm size and farm type were included in the label below the barcode line. The name and address file were processed through postal software, per postal requirements, to provide a pre-sorted standard mailout.

### Nonresponse Follow-up

NASS targeted selected groups for in-person enumeration. These groups included:

- Puerto Rico Department of Agriculture list - large records (\$50,000 or more in sales)
- Puerto Rico Department of Agriculture list - other records (with less than \$50,000 in sales)
- Extension Service list

These records were identified as large or unique operations, the absence of which could have significantly affected the accuracy of census results. Enumerators from the Puerto Rico Department of Agriculture and the Extension Service conducted field follow-up visits to enumerate operations that did not respond by mail. If an operation was no longer in business, its nonfarm status was documented.

## REPORT FORM PROCESSING

### Data Capture

NPC processed returned mail packets. NASS staff on site at NPC provided technical guidance and monitored NPC processing activities. Report forms returned to NPC were immediately checked in, utilizing the barcodes printed on the mailing label. This ensured the case would be removed from follow-up report form mailings. All forms with data were scanned and an image was made of each page of the report form. Optical Mark Recognition (OMR) was used to capture categorical responses and to identify entries in numeric and alpha-character answer zones.

Data entry producers keyed data from the scanned images. Answer zones with entries, identified in the earlier OMR analysis were presented to the data entry operators. The keyer evaluated the contents and captured pertinent responses. Ten percent of the identified answer zones were keyed a second time for independent quality control. If differences existed between the first keyed value and the second, an adjudicator handled resolution. The adjudicator identified the correct entry and identified the “cause” of the error in the other entry.

The adjudication provided feedback to the keyers to improve data capture skills, reward skilled keyers, and ensure that the error rate did not exceed the Acceptable Quality Limit (AQL) of 1%. The data capture error rate for the 2018 Puerto Rico Census of Agriculture was measured at 0.27%. The images and captured data were transmitted to NASS’s centralized network and became available to NASS analysts on a flow basis. The images were then available for use in all stages of review.

### Editing Data

Captured data were processed through a computer formatting program that verified that records were valid – that the record ID number was on the list of census records, that the reported municipios of operation and production were valid, and other related criteria. Rejected records were referred to analysts for correction. Accepted records were sent to a complex computer batch edit process. Each execution of the computer edit in batch mode flowed as the data were received from NPC.

The computer edit determined whether a reporting operation met the qualifying criteria to be counted as a farm (in-scope). The edit examined each in-scope record for reasonableness and completeness and determined whether to accept the recorded value for each data item or take corrective action. Such corrective actions included removing erroneously reported values, replacing an unreasonable value with one consistent with other reported data, or providing a value for an item omitted by the respondent. To the extent possible, the computer edit determined a replacement value. Strategies for determining replacement values are discussed in the next section. Operations failing to meet the qualifying criteria for being classified as a farm were categorized as out-of-scope for the census. Records that NASS had reason to believe might have been erroneously classified as out-of-scope (indications of recent and/or significant agricultural activity reported on NASS surveys, for example) were referred to analysts for verification.

The edit systematically checked reported data section-by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts had previously defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. A group of analysts examined the scanned images, consulted additional sources of information, and determined an appropriate action.

### Imputing Data

The edit determined the best value to impute for reported responses that were deemed unreasonable and for required responses that were absent. For producers who had not changed in five years, demographics such as race and gender were taken from the previous census. Administrative data from the Farm Service Agency (FSA) were used for a few items, such as Conservation Reserve Program (CRP) acreage. When deterministic edit logic and previously reported data sources were unable to provide a current value, data from a reporting farm of similar type, size, and location were considered. In cases where automated imputation was unable to provide a consistent report, the record was referred to an analyst for resolution.

Separate system processes were established to efficiently provide data from a similar farm to the edit when donor imputation was required. The farm characteristics used to define similarity between a recipient record and its donor record were in part



defined beforehand, and in part determined by the edit logic. Euclidean distance was used for similarity computations, with each contributing similarity characteristic scaled appropriately. The most similar farm based on this criterion (the “nearest neighbor”) was identified and returned to the edit for use as a donor. The calculated distance between the centroids of the principal municipios of production of the donor and recipient was always included as one of the measures of similarity.

To provide donors to the automated edit, a pool of successfully edited records was maintained for each section of the report form. These donor pools began with 2012 census data, reconfigured to emulate 2018 data and then edited using 2018 logic. As 2018 records were successfully processed, they were added to the donor pools, which maintained the most recent data for each farm. Donor pools were updated periodically, as determined by edit processing schedules. After each update, donor pool records were grouped into strata containing farms of similar type and size, using a data driven algorithm to define strata.

In response to each donor request issued by the edit, a dedicated system process would search the appropriate stratum and respond with the most similar donor, while giving preference to more recent donors. In relatively rare instances where it was unable to provide a donor, the donor selection process issued an appropriate failure message to the edit. Imputation failures occurred for several different reasons. The requirement that an imputed value be positive could have ruled out all available donors, as could have the necessity for the donor record to satisfy a particular constraint – say, that the donor record has cattle, but no milk cows. In general, an imputation failure occurred if there were no satisfactory donors in the same profile as the report being edited. Records with imputation failures were either held until more records were available in the donor pool or referred to an analyst. In addition, when such a failure occurred in finding a donor for expenditure data, donor pool averages were provided in lieu of an individual donor, wherever possible. This “failover” utility was first introduced for the 2012 census imputation process, and significantly reduced the number of imputation failures among the expenditure and labor variables.

After receiving a donor's data, the edit substituted the values into the edited record. In many cases, the donor record's data value was scaled using another data field specified in the edit logic. In such cases, the size of the auxiliary field's value in the edited record, relative to its value in the donor record, was used to appropriately scale the donor record's value for the field to be imputed. The imputed data were then validated by the same edit logic to which reported data were subject. Since imputation was conducted independently for each occurrence, reports requiring multiple imputations may have drawn from multiple donors.

## **Data Analysis**

The complex edit ensured the full internal consistency of the record. All substantial changes to the data generated by the computer edits were reviewed and verified by analysts who were also provided an additional set of tools, in the form of listings and graphs, to review record-level data across farms. These examinations revealed extreme outliers, large and small, or unique data distribution patterns that were possibly a result of reporting, recording, or handling errors. Potential problems were investigated and, when necessary, corrections were made and the record interactively edited again.

Prior to publication, tabulated totals were reviewed by statisticians to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, as well as other available data. Tallies of all selected data items for various sets of criteria which included, but were not limited to, geographic levels, farm types, and sales levels were reviewed. When necessary, data inconsistencies were resolved.

## **ACCOUNTING FOR UNDERCOVERAGE, NONRESPONSE, AND MISCLASSIFICATION**

Although much effort was expended making the CML as complete as possible, the CML did not include all farms in Puerto Rico, resulting in list undercoverage. Some farm producers who were on the CML did not respond to the census, despite numerous attempts to contact them. In addition, although each operation was classified as a farm or a nonfarm based on the responses to the census report form, some were misclassified; that is, some nonfarms were classified as farms and some farms were classified as nonfarms. NASS's goal was to produce agricultural census totals for publication level that were fully adjusted for list undercoverage, nonresponse, and misclassification.

NASS implemented capture-recapture methodology to adjust for undercoverage, nonresponse, and misclassification for the 2012 Census of Agriculture. This same methodology was used for the 2017 Census of Agriculture and implemented for the first time for the 2018 Puerto Rico Census of Agriculture. To implement capture-recapture methods, two independent surveys were required. The 2018 Puerto Rico Census of Agriculture (based on the CML) and the 2018 Agricultural Coverage Evaluation Survey (ACES) (based on the area frame) were those two surveys. Historically, NASS has been careful to maintain the independence of these two surveys.

An assumption was that the proportion of ACES farms with a given set of characteristics captured by the census was equal to the proportion of Puerto Rico farms with those same characteristics captured by the census. For a farm to be identified as a farm, and thus captured by the census it must be on the CML, respond to the census report form and, based on the census response, be classified as a farm.

$$\pi_c = \pi(\text{CML, Responded, Farm on Census}|\text{Farm})$$

Two types of classification error can occur. First, a farm can be misclassified as a nonfarm. This type of misclassification is accounted for in determining the probability of capture  $\pi_c$ . The second type of classification error results when a response to the census is classified as a farm operation when it does not meet the definition of a farm. That is, some farms on the CML may be misclassified from their census report response and may be nonfarms. To account for the misclassification of nonfarms as farms, the probability of a farm on the census being classified correctly must be estimated that is,

$$\pi_{CCFC} = \pi(\text{Farm} | \text{Farm on Census})$$

where CCFC represents Correct Census Farm Classification.

To adjust for undercoverage, nonresponse, and misclassification, each CML record classified as a farm based on its response to the census report form was given a weight of the ratio of the estimated probability of correct classification of a farm on the census and the estimated probability of capture where the hat symbol (^) denotes an estimate. To estimate the number of farms with a given set of characteristics, the weights of CML records responding as farms on the census and having that set of characteristics were summed. This estimator is referred to as the capture-recapture estimator (CR):

$$\widehat{CR} = \sum_{i \in F} \frac{\hat{\pi}_{CCFC,i}}{\hat{\pi}_{C,i}}$$

where  $F$  is the set of all CML records classified as farms based on their responses to the census report form.

To estimate the capture and correct census farm classification probabilities, a matched dataset consisting of ACES records and census records was created. Records in the 2018 ACES sample were matched to the 2018 census using probabilistic record linkage. The CML records that matched with ACES tracts represent the Census Sample.

Note: The Census Sample is a subset of the CML records and includes only those records matching an ACES tract. Both agricultural and non-agricultural tracts were included in the matched dataset.

## Capture Probabilities

Recall that, for a farm to be identified as a farm, and thus captured, by the census, it must be on the CML respond to the census report form and based on the census response, be classified as a farm. These adjustments are dependent. Therefore, the probability of capture  $\pi_c$  may be written as

$$\pi_c = \pi(\text{CML, Responded, Farm on Census}|\text{Farm}) = \pi(\text{CML}|\text{Farm})\pi(\text{Responded}|\text{CML, Farm})\pi(\text{Farm on Census}|\text{CML, Responded, Farm})$$

The terms in the probability of capturing a farm depend on the characteristics of the farm. Using five-fold cross-validation, three logistic models were developed based on the matched dataset. The first model estimated the probability of a farm being on the CML. The second model estimated the probability that a farm on the CML responded to the census

report form. The final model estimated the probability that a farm that was on the CML and responded to the census was identified as a farm based on its response. The probability that a farm is captured by the census of agriculture is then the product of the three conditional probabilities that a farm is on the CML, responds, and is identified as a farm.

## **Misclassification**

An operation is misclassified if: (1) it meets the definition of a farm but is classified as a nonfarm on the census or (2) it does not meet the definition of a farm, but is classified as a farm on the census. The first type of misclassification is accounted for when modeling the probability of capture. An adjustment is still needed for the misclassification of nonfarms as farms. As with farm status and capture, the probability of this misclassification depends on an operation's characteristics. A logistic model was developed to estimate the nonprobability on nonfarms classified as a farm on the CML.

## **CALIBRATION**

Each operation identified as a farm on the CML was given a weight equal to the probability of misclassification divided by the probability of capture. This weight accounted for undercoverage, nonresponse, and both types of misclassification. These initial weights were used to calculate the farm operation coverage targets.

For calibration there were six farm operation targets; total number of farms, land in farms, three breaks for farms by value of agricultural sales, and female principal producers. These Island-level estimates were general purpose in that they did not provide any control over expected levels of commodity production of the individual farm operation. As a result of this limitation, the procedures could have overadjusted or under-adjusted for commodity production. To address this, a second set of variables, known as commodity targets, was added to the calibration algorithm. These targets were commodity totals from administrative sources (e.g. Puerto Rico's Department of Agriculture).

The introduction of these commodity coverage targets strengthened the overall adjustment procedure by ensuring that major commodity totals remained within reasonable bounds of established benchmarks. The calibration algorithm addressed commodity coverage. The algorithm was controlled by the 6 Island-level farm operation coverage targets and 3 Island-level commodity coverage targets. Because calibration targets are estimates subject to uncertainty, NASS allowed some tolerance in the determination of the adjusted weights. Rather than forcing the total for each calibration variable computed using the adjusted weights to equal a specific amount, NASS allowed the estimated total to fall within a tolerance range.

Tolerance ranges for the farm operation coverage targets were determined differently from the commodity targets. The tolerance range for the six Island-level farm operation coverage targets was the estimated Island total for the variable plus or minus one standard error of the capture-recapture estimate. Commodity coverage targets with acceptable ranges were established based on the administrative source for the Island. Ranges were not necessarily symmetric around the target value.

To ensure that all subdomains for which NASS publishes summed to their grand total, integer weights were produced by a discrete calibration algorithm. This eliminated the need for rounding individual cell values and ensured that marginal totals always added correctly to the grand total. If a weight was initially not in the interval [1,6], it was trimmed so that it was in that interval. That is, adjusted weights less than 1 were set to 1, and those greater than 6 were set to 6. The remaining non-integer weights were then rounded sequentially to reduce the distance of the estimated totals from the targets.

Calibration adjustments began with the computation of a priority index for each record. The priority index was the absolute value of the gradient of the relative error associated with increasing or decreasing a record's weight by one. The record with the highest priority index was then selected as a candidate to increase or decrease its weight by one to reduce the cumulative distance from the targets as measured by the relative error. If the new value produced an improvement and satisfied the range restrictions, the weight was updated and new priorities were assigned; otherwise, the record with the next highest priority index was processed. This process was iteratively performed until convergence was attained. Because census data collection was assumed to be complete for very large and unique farms, their weights were controlled to 1 during the calibration adjustment process. For all other farms, the final census record weights were forced to be an integer number in the interval [1, 6]. The calibration process considered all targets simultaneously through the priority index. Although

calibration was seldom not able to adjust weights so that all Island-level targets were met, all targets were brought collectively as close to the targets as possible.

## **DISCLOSURE REVIEW**

After tabulation and review of the aggregates, a comprehensive disclosure review is conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Cell suppression is used to protect the cells that are determined to be sensitive to a disclosure of information. Farm counts are not considered sensitive and are not subject to disclosure.

Based on agency standards, a data disclosure risk is determined to be present if a particular data cell being considered for publication violates either one of two criteria. First, the threshold rule is violated if the estimated number of farms in a data cell is less than three. For example, if the estimate of the number of farms producing hogs in a region is equal to exactly one farm, NASS could not publish the regional total for hog inventory without disclosing the reporting farm's information. Second, the dominance rule fails if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. For example, if many farmers produce hogs in a region and some of them were large enough to dominate the cell total, NASS could not publish the regional total for hog inventory without risking disclosing an individual respondent's data. In both situations, the data would be suppressed and a "(D)" is placed in the cell in the publication table. These data cells are referred to as primary suppressions.

Since most items are summed to marginal totals, primary suppressions within these summation relationships are protected by ensuring that there are additional suppressions within the linear relationship that provide adequate protection for the primary. A detailed computer routine selects additional data cells for suppression to ensure all primary suppressions are properly protected in all linear relationships in all tables. These data cells are referred to as complementary suppressions. These cells are not themselves sensitive to a disclosure but are suppressed to protect other primary suppressions. A "(D)" is placed in the cell of the publication table to indicate a complementary suppression. NASS analysts review all complementary suppressions to ensure no cells are withheld that are vital to the data users. In instances where complementary suppressions are deemed critically important to the Island, analysts can request an override and a different complement can be chosen.

## **TABULATIONS**

NASS prepared and published data tables for all data items on the report form. The 2018 CoA report, Volume 1, Geographic Area Series, Part 52, Puerto Rico, included data for all farms in the Island and for the 8 different regions. Tables 1-21 presented data for major items for all farms; tables 22-79 presented more detailed data for major items for all farms by regions, with totals for Puerto Rico; and tables 80-85 showed more detailed information broken out by different farm and producer characteristics. Data for tables 80-85 were classified by tenure of principal producer, type of organization, primary occupation and age of principal producer, size of farm, market value of agricultural products sold, and type of farm. The basic data shown for all farms included number of farms; land in farms and land use; tenure, characteristics, and main occupation of principal producer; hired farm workers, agregados, and sharecroppers; selected data on machinery, equipment, and buildings; use of agriculture chemicals and fertilizers; irrigation; selected farm production expenses; market value of agricultural products sold; farm-related income; livestock and poultry inventory and sales (including sales of livestock and poultry products); crops harvested, including horticultural specialties; and fish and other aquaculture.

## **CENSUS QUALITY**

The purpose of the census of agriculture is to account for “any place from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.” To accomplish this, NASS develops a CML that contains identifying information for operations that have an indication of meeting the census definition, develops procedures to collect agricultural information from those records, establishes criteria for analyst review of the data, creates computer routines to correct or complete the requested information, and provides census estimates of the characteristics of farms and farm producers with associated measures of uncertainty.

It is not likely that either the CML includes all operations that meet the definition of a farm or that all those that do meet the definition of a farm respond to the census inquiry. The goal is to publish data with a high level of quality. The quality of a census may be measured in many ways. One of the first indicators used is a measure of the response to the census data collection as it has generally been thought that a high response rate indicates more complete coverage of the population of interest. This is a valid assumption if the enumeration list, the CML here, has complete coverage of the population of interest. In the case of the census of agriculture, the definition requiring advance knowledge of sales makes achieving a high level of coverage difficult. To ensure that the census of agriculture is as complete as possible, records are included that might not meet the definition of a farm. A second indicator of quality then is the coverage of the farm population by the CML. Other indicators of quality relate to the accuracy and completeness of the data, and the validity of the procedures used in processing the data.

In some cases, NASS was able to produce measures of quality – such as the response rate to the data collection, the coverage of the census mail list, and the variability of the final adjusted estimates. In other cases, measures were not produced but descriptions of procedures that NASS used to reduce errors from the procedures were subsequently provided.

### **Census Response Rate**

The response rate is one indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small, although this is not always true. The response rate for the 2018 Puerto Rico Census of Agriculture CML was 29.1 percent, as compared with the 2012 Puerto Rico Census of Agriculture’s response rate of 55.5 percent.

The 2018 Puerto Rico Census of Agriculture’s response rate used the fourth response rate formula (RR4) from the American Association of Public Opinion Research’s Response Rate Standard Definitions manual. For additional details, please reference Chapter 7 Census Response Rate.

### **Census Coverage**

As a side-product of the statistical adjustment used to account for undercoverage, nonresponse of farms on the CML, and misclassification of responses to the census, the proportion of the adjustments due to each of those factors can be derived. The percentages of final census estimates due to adjustments for undercoverage, nonresponse, and misclassification as well as the total percent adjustment for selected items are displayed in Tables A and C of Puerto Rico’s 2018 Census of Agriculture Appendix A document.

## **MEASURED ERRORS IN THE CENSUS PROCESS**

Uncertainty is introduced into the data in compiling the CML, in NASS’s data collection procedures, in data editing and processing, and in compiling the final data. Additionally, NASS uses statistical procedures to both measure errors in the various processes and in making adjustments for those errors in the final data. One example is the statistical process used to account for undercoverage, nonresponse of farms on the CML, and misclassification of responses to the census. The basis of the undercoverage adjustment is the capture-recapture procedure that uses the ACES. The largest contributors to error in the census estimates are due to the adjustments for nonresponse, undercoverage, misclassification, and calibration.

## Variability in Census Estimates due to Statistical Adjustment

In conducting the 2018 Puerto Rico Census of Agriculture, efforts were initiated to measure error associated with the adjustments for farm operations that were not on the CML, for farm operations that were on the CML but did not respond to the census report form, and for farms and nonfarms that were misclassified as nonfarms and farms, respectively, and for calibration. These error measurements were developed from the standard error of the estimates at the Island and regional levels and were expressed as coefficients of variation (CVs) at the Island and regional levels.

The standard error of an estimate is an estimate of the standard deviation of the sampling distribution of the estimator. Standard errors were computed using an approach based on a combination of group jackknife and bootstrap methodologies. To conduct the jackknifing,  $k = 10$  mutually exclusive and exhaustive groups of ACES segments were formed. The groups were selected using a stratified random design so that each group reflected the survey design, including municipio and agricultural strata within a municipio. The weight of record  $i$  in jackknife group  $j$  is  $CR_i^{(j)}$  for  $j = 1, 2, \dots, k$ . Based on these weights, a group jackknife estimator to estimate the variance accounts for the uncertainty associated with modeling the capture-recapture probabilities. To account for the additional uncertainty due to calibration, the weights within each jackknife group are transformed through bootstrap simulation; these transformed weights are called calibration-adjusted-jackknife weights. The full dataset, which is composed of the records of all responding farms on the CML, is calibrated as described in the Calibration section, and the final calibration-adjusted weight of record  $i$  is denoted by  $\hat{w}_i$ . For each record  $i$  in jackknife group  $k$ , the calibration-adjusted-jackknife weights of that record can be approximated as  $w_i^{(j)} = a^{(j)}CR_i^{(j)}$  where  $a_i^{(j)} \sim N(1, (\hat{w}_i - 1) / \hat{w}_i)$ . The bootstrap process simulated the value of the adjustment  $a_i^{(j)}$  for each record on the CML to obtain the calibration-adjusted-jackknife weights. For a given data item, such as the number of farms, the estimate  $T^{(j)}$  was computed at the specified geographical level, such as Island or region, using the  $(k - 1)$  groups remaining after deleting the calibration-adjusted jackknife group  $j$ . Estimates of the variance and standard error associated with the estimator  $T_i$  are then, respectively,

$$\sigma_i^2 = \frac{k-1}{k} \sum_{j=1}^k \left( T_i^{(j)} - \sum_{l=1}^k \frac{T_i^{(l)}}{k} \right)^2; \quad SE(T_i) = \sqrt{\sigma_i^2}$$

Increasing  $k$  improves the estimate of the variance but, as  $k$  increases, the observations become too sparse to reflect the survey design and to provide island-wide coverage. Ten (10) calibration-adjusted jackknife groups were used to provide standard errors for island and regional estimates. For the estimate of the number of farms with a given set of characteristics, only the CML records with those characteristics were used to obtain the overall estimate as well as the estimates from each calibration-adjusted jackknife group. Note that the calibrated jackknife groups are only constructed once, and different subsets of the records are used to compute estimates and standard errors for the data items.

The CV is a measure of the relative amount of error associated with the sample estimate:

$$CV_i = \frac{SE(T_i)}{T_i} 100\%$$

where  $SE(T_i)$  is the standard error of the capture recapture estimate for data item  $i$ . This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. The fully adjusted estimates with the coefficient of variation for selected items are displayed in Table B of Puerto Rico's 2018 Census of Agriculture Appendix A document.

## **NONMEASURED ERRORS IN THE CENSUS PROCESS**

As noted in the previous section, sampling errors can be introduced from the coverage, nonresponse and misclassification adjustment procedures. This error is measurable. However, non-sampling errors are imbedded in the census process that cannot be directly measured as part of the design of the census but must be contained to ensure an accurate count. Extensive efforts were made to compile a complete and accurate mail list for the census, to elicit response to the census, to design an understandable report form with clear instructions, to minimize processing errors through the use of quality control measures, to reduce matching error associated with the capture-recapture estimation process, and to minimize error associated with identification of a respondent as a farm operation (referred to as classification error). The weight adjustment and tabulation processes recognize the presence of non-sampling errors; however, it is assumed that these errors are small and that, in total, the net effect is zero. In other words, the positive errors cancel the negative errors.

### **Respondent and Enumerator Error**

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. Steps were taken in the design and execution of the census of agriculture to reduce errors from respondent reporting. Poor instructions and ambiguous definitions lead to misreporting. Respondents may not remember accurately, may estimate responses, or may record an item in the wrong cell. To reduce reporting and recording errors, the report form was tested prior to the census using industry accepted cognitive testing procedures. Detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

### **Processing Error**

Processing of each census report form was another potential source of non-sampling error. All mail returns that included multiple reports, respondent remarks, or that were marked out of business and report forms with no reported data were sent to an analyst for verification and appropriate action. Integrity checks were performed by the imaging system and data transfer functions. Standard quality control procedures were in place that required that randomly selected batches of data keyed from image to be re-entered by a different operator to verify the work and evaluate key entry operators. All systems and programs were thoroughly tested before going on-line and were monitored throughout the processing period.

Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of producers to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the producer's absence from the farm during the data collection period, and the producer's opinion that part or all of the operation does not qualify and should not be included in the census. During data collection and processing of the census, all operations underwent several quality control checks to ensure results were as accurate as possible.

### **Item Nonresponse**

All item nonresponse actions provide another opportunity to introduce measurement errors. Regardless of whether it was previously reported data, administrative data, the nearest neighbor algorithm, the fully conditional specification method, or manually imputed by an analyst, some risk exists that the imputed value does not equal the actual value. Previously reported and administrative data were used only when they related to the census reference period. A new nearest neighbor was randomly selected for each incident to eliminate the chance of a consistent bias.

## Record Matching Error

The process of building and expanding the CML involves finding new list sources and checking for names not on the list. An automated processing system compared each new name to the existing CML names and “linked” like records for the purpose of preventing duplication. New names with strong links to a CML name were discarded and those with no links were added as potential farms. Names with weak links, possible matches, were reviewed by staff to determine whether the new name should be added. Despite this thorough review, some new names may have been erroneously added or deleted. Additions could contribute to duplication (overcoverage) whereas deletions could contribute to undercoverage. As a result, some names received more than one report form, and some farm operators did not receive a report form.

Another opportunity for error came when comparing Agricultural Coverage Evaluation Survey (ACES) tract producer names to the CML. Area producers whose names were not found on the CML were part of the measure of list incompleteness, or NML. Mistakes in determining overlap status resulted in overcounts (including a tract whose producer was on the CML) or undercounts (excluding a tract whose producer was not on the CML). All tracts determined to not be on the list were checked to eliminate, or at least minimize, any error. In order to attempt to identify duplication, all respondents who received multiple report forms were instructed to complete one form and return all other forms so duplication could be removed.

Records in the 2018 ACES were matched to the 2018 census using probabilistic record linkage. The uncertainty associated with this estimate, except for model uncertainty, was accounted for, but errors not found through this process were not.



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## CHAPTER 9. 2018 OUTLYING AREAS CENSUSES OF AGRICULTURE

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## INTRODUCTION

### History

The 2018 Outlying Areas Census of Agriculture covered the four U.S. territories of American Samoa, the Commonwealth of Northern Mariana Islands (CNMI), Guam, and the U.S. Virgin Islands (USVI).

The 2018 census is the twelfth census of agriculture of American Samoa, but only the fourth to be conducted strictly as a census of agriculture. The first eight agriculture censuses in American Samoa, beginning in 1920 were taken in conjunction with the decennial censuses and agriculture information was collected only for those households that answered affirmatively to a question about agricultural activities asked on the decennial report form.

The 2018 census is the seventh census of agriculture of the Commonwealth of the Northern Mariana Islands. The first agriculture census was taken in 1970 in conjunction with the decennial census, a practice that continued in 1980 and 1990. The 1997 census was the first agriculture census taken in the CNMI that was not done as part of the decennial census.

The 2018 census is the fifteenth census of agriculture of Guam. The first, taken in 1920, was a special census authorized by the Secretary of Commerce. The next agriculture census was taken in 1930 in conjunction with the decennial census, a practice that continued every 10 years through 1960. The 1964 Guam Census of Agriculture was the first quinquennial (5-year) census to be taken in Guam. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data-reference year to coincide with other economic censuses. After 1982, the agriculture census reverted to a 5-year cycle.

The 2018 census is the fifteenth census of agriculture of the U.S. Virgin Islands. The first, taken in 1920, was a special census authorized by the Secretary of Commerce. The next agriculture census was taken in 1930 in conjunction with the decennial census, a practice that continued every 10 years through 1960. The 1964 U.S. Virgin Islands Census of Agriculture was the first quinquennial (5-year) census to be taken in the U.S. Virgin Islands. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data-reference year to coincide with other economic censuses. After 1982, the agriculture census reverted to a 5-year cycle.

### Outlying Areas Censuses of Agriculture Timeline

- 1920: First census of agriculture for Guam, U.S. Virgin Islands, and American Samoa.
- 1920 through 1960: The censuses of agriculture for Guam, U.S. Virgin Islands, and American Samoa were taken every 10 years in conjunction with the decennial censuses.
- 1964: Guam and the U.S. Virgin Islands conducted the first quinquennial (5-year) census of agriculture in Guam and the U.S. Virgin Islands.
- 1970: First census of agriculture for the Commonwealth of the Northern Mariana Islands.
- 1976: Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year to coincide with other economic censuses. This adjustment in timing established the agriculture census on a 5-year data collection cycle for the years ending in “2” and “7.”
- 1997: First census of agriculture taken in the CNMI that was not done as part of the population census.

## Uses of Census Data

The census of agriculture is the leading source of statistics about the agricultural production of the outlying areas and the only source of consistent, comparable data at the island level. Census statistics are used to measure agricultural production and to identify trends in an ever-changing agricultural sector. The data are used by:

- The federal government to administer programs, including relief efforts after hurricanes or typhoons;
- The local governments to develop and change farm programs, measure the effects of these programs, benchmark their own data collection activities, and administer a variety of other programs. Also, data are used to estimate damages to crops and livestock due to hurricanes, typhoons, drought, and other natural disasters; and
- The private industry to provide a more effective production and distribution system for the agricultural community.

## Legal Authority and Special Agreement

The census of agriculture is required by law under the “Census of Agriculture Act of 1997,” Public Law 105-113 (Title 7, U.S.C., Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture every fifth year, covering years ending in “2” and “7.” The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa.

The 2018 census data for the outlying areas of American Samoa, the Commonwealth of Northern Mariana Islands, Guam, and U.S. Virgin Islands were collected in accordance with a Cooperative Agreement approved by the Administrator of NASS, the Director of the Census and Survey Division of NASS, the American Samoa Secretary of Commerce, the CNMI Secretary of Commerce, the University of Guam, College of Natural and Applied Sciences, and its Cooperative Extension and Outreach Service, and the University of the Virgin Islands, Cooperative Extension Service.

## American Samoa Farm Definition

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. The farm definition was any place that raised or produced any agricultural products for sale or home consumption. This is the same farm definition used in the 2008 American Samoa Census of Agriculture, but a broader farm definition than was used prior to that. The 1990 farm definition required a minimum of \$100 in sales, and previous censuses used sales or some minimum number of livestock to qualify as a farm. Commercial farms are defined as those with sales of \$100 or more, and noncommercial farms are those with less than \$100 in sales. Many of the commercial farms produce more for home consumption than for sale, but by virtue of having sales in excess of \$100 are classified as commercial.

## Commonwealth of the Northern Mariana Islands Farm Definition

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In the CNMI, this included all places from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1 and December 31, 2018. The farm definition is the same that was used for the 2007 CNMI Census of Agriculture, and is the same definition used for the rest of the U.S.

## Guam Farm Definition

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In Guam, this included all places from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2018 and December 31, 2018. The farm definition is the same that was used for the 2007 Guam Census of Agriculture, and is the same definition used for the rest of the U.S.

## **U.S. Virgin Islands Farm Definition**

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In the U.S. Virgin Islands, this included all places from which \$500 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1 and December 31, 2018. The farm definition is the same that was used for the 2007 U.S. Virgin Islands Census of Agriculture.

## **Data Comparability**

In general, the data from the 2018 census are comparable with those of previous censuses. All dollar values presented in their respective census reports are expressed in current dollars, i.e., 2018 data are in 2018 dollars and 2007 (i.e. 2008 for American Samoa) data in 2007 dollars. The dollar values have not been adjusted for changes in price levels between census years. For other data changes between censuses, refer to each 2018 Outlying Areas census publication, the section on Data Changes in Appendix B.

## **Reference Period**

Inventories of livestock, poultry, and machinery and equipment are the number on hand on the day of enumeration. Crop production, crop and livestock sales, and expense data are for the 12-month period between January 1 and December 31, 2018.

## **Respondent Confidentiality**

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

## **PREPARATORY OPERATIONS**

### **Interagency Working Group**

Members of the inter-agency working group, under the leadership of the University of Guam, College of Natural and Applied Sciences, made significant recommendations which helped establish data content.

In addition, NASS received advice and support from the U.S. Virgin Islands Department of Agriculture; University of the Virgin Islands; American Samoa Department of Commerce; American Samoa Department of Agriculture; American Samoa Community College; CNMI Department of Commerce; Northern Marianas College - Cooperative Research, Extension and Education Services; USDA agencies; farm organizations; stakeholder groups; and media outlets. They provided valuable advice during the planning, data collection, and promotional phases of the census, as well as critical assistance to local farmers completing census forms.

### **Training**

The project manager and enumerators employed for the census in America Samoa, CNMI, Guam, and U.S. Virgin Islands received special training in accordance with instructions prepared by NASS. Topics covered during the training included:

- An overview of the census agriculture program;
- Data collection methodology;
- Role of the enumerator in the census;
- The Enumerator's Instruction Manual;
- Report form contents; and
- Frequently asked questions on the census.

## Reference Materials

Headquarters staff prepared training and reference guides for use in the agriculture census in the outlying areas. The principal reference material used in the field was the Enumerator's Manual. This document covered basic administrative procedures for the data collection. Headquarters staff were responsible for training all personnel assigned to work on the census.

## DATA COLLECTION OUTREACH AND PROMOTIONAL EFFORTS

The Census Planning Branch (CPB), the Public Affairs Office (PAO), University of Guam - Cooperative Extension and Outreach Service, Guam Department of Agriculture, University of the Virgin Islands - Cooperative Extension Service, U.S. Virgin Islands Department of Agriculture, American Samoa Department of Commerce, American Samoa Department of Agriculture, American Samoa Community College – Land-Grant, CNMI Department of Commerce, Northern Marianas College - Cooperative Research, Extension, and Education Service, and local USDA agencies worked cooperatively to develop the publicity plan for the 2018 Outlying Areas Censuses of Agriculture. The goal with these promotional materials included:

- Encouraging participation in the census of agriculture
- Communicating how the census will provide much needed data that are used by federal and local decision makers
- Explaining that response to the census of agriculture is required and that reported information is protected by federal law
- Increasing general awareness and perceived value of NASS and its products and services.

## Partnership and Local-Level Outreach

NASS officials met with leaders from the different outlying areas' agricultural organizations and other USDA agencies to successfully secure their support in promoting the census among their constituencies. Stakeholders partnered with NASS to promote the 2018 Outlying Areas Censuses of Agriculture through publications (e.g. newsletters), special mailings, speeches, social media, websites, and other communications. Through grassroots-level outreach and efforts, NASS partnered with a number of community-based organizations to reach all farmers and ranchers. Among the highlights of these partnership efforts was the participation of local government officials on radio public service announcements promoting the importance of the 2018 Outlying Areas Censuses of Agriculture.

## Public Relations

In the public relations arena, NASS worked with internal and external stakeholders to equip them with communications tools and resources to deliver the census communications message to their audiences. The materials included but were not limited to: a press release/stakeholder notice, a public service announcement, flyers and posters, and a Frequently Asked Questions (FAQs) document that were drafted for local media and other stakeholder distribution. These materials were available both electronically and in hard copy. Other outreach tools included items such as pens and notepads.

## CENSUS POPULATION

For the 2018 Outlying Areas Censuses of Agriculture, lists of commercial farm producers were compiled by the following stakeholders: American Samoa Department of Commerce, American Samoa Department of Agriculture, American Samoa Community College – Land-Grant, CNMI Department of Commerce, Guam Department of Agriculture, University of Guam-Cooperative Extension and Outreach Service, University of the Virgin Islands-Cooperative Extension Service, and the U.S. Virgin Islands Department of Agriculture.

The enumerators contacted all persons or operations on the list and completed a census report form for all farm operations that met the farm definition. If the person on the list was not operating a farm, the enumerator recorded whether the land had been sold or rented to someone else and was still being used for agriculture. If the land was sold or rent out, the enumerator obtained the name of the new producer and contacted that person, to ensure that he/she was included in the census.

## DEVELOPMENT OF THE REPORT FORM

Prior to each agriculture census, the content of all census report forms is reviewed to eliminate inquiries no longer needed, to identify new items necessary to meet user needs, and to better describe the agricultural situation in each of the Outlying Areas. Data requests are solicited from farm organizations, land-grant colleges and universities, State and Federal agencies, State Department of Agriculture, agribusinesses, and other users. Each respondent is asked to identify and justify its specified data needs.

The report forms for the 2018 Census of Agriculture Outlying Areas were prepared by NASS, in cooperation with inter-agency working groups that included stakeholders from each of the islands. While similar to the report forms used in 2013, updates were made to reflect changes in the Outlying Areas' agriculture, to make the report forms more similar in scope to the US report form, and to make it easier to complete.

## DATA CHANGES

Based on feedback from data users, the following changes were made to the 2018 report form:

Figure 9.1 **Data Changes to 2018 Report Form**

| Report Form Section | Changes  |
|---------------------|--|
| Section 2           | <p><b>U.S. Virgin Islands</b> – Removed Field and Forage Crops - Dry beans, and Sorghum, from the list of printed crops.</p> <p><b>American Samoa</b> - Added Field Crops, Melons, and Vegetables - Sweet potatoes, Carrots, Lettuce, Asparagus, Radish, Sweet peppers, Pumpkins, Sprouts, Laupele (edible hibiscus), Sweet basil, Cilantro, Chives, and Kava, to the list of printed crops.</p> |
| Section 3           | <p><b>Guam</b> – Added Vegetables and Melons - Winged beans, and Pepino Melons as response options.</p> <p><b>U.S. Virgin Islands</b> – Removed Vegetables - Sorrel and Herbs, from the list of printed crops.</p> <p><b>American Samoa</b> – Added Fruit and Nuts – Soursop to the list of printed crops.</p>   |
| Section 4           | <p><b>Guam</b> – Added Fruit, Nuts, and Nursery Crops - Coffee and Dragon Fruits, as response options.</p> <p><b>U.S. Virgin Islands</b> – Added Fruit, Nuts, Trees, and Nursery Crops – Watermelons to the list of printed crops.</p>   |

|            |  |
|------------|--|
| Section 7  | <b>U.S. Virgin Islands</b> – Removed Colonies of Bees – from the report form.  |
| Section 9  | <p><b>Guam</b> – Added Aquaculture – Catfish, Milkfish, Shrimp, Tilapia and Other Aquaculture products, as response options.</p> <p><b>American Samoa</b> – Added Equipment and Facilities – Wood chipper to the preprinted list as a response option.</p>   |
| Section 11 | <b>CNMI</b> – Added Production Expenses – Gasoline, fuels, and oil purchased for the farm business, Water expenses, Transportation cost (excluding fuel expenses).   |
| Section 13 | <p><b>Guam</b> – Added Practices – To report computer use, internet access, and type of access utilized for the farm business.</p> <p><b>U.S. Virgin Islands</b> – Added Practices – To report computer use, internet access, and type of access utilized for the farm business.</p> <p><b>American Samoa</b> – Added Practices – To report computer use, internet access, and type of access utilized for the farm business.</p> <p><b>CNMI</b> – Added Practices – To report selected practices utilized in the farm business.</p> |
| Section 14 | <b>U.S. Virgin Islands</b> – Added Government Agricultural Programs – To report participation in any Federal or local agricultural program in 2018.  |



## DATA COLLECTION

### Method of Enumeration

Personal enumeration was used in the 2018 Outlying Areas Censuses of Agriculture, like the 2007 Outlying Areas Censuses of Agriculture (for American Samoa it was the 2008 census). Enumeration was based on a list of farm producers compiled by the Cooperative Extension and Outreach Service of the University of Guam, Guam Department of Agriculture, University of the Virgin Islands Cooperative Extension Service, U.S. Virgin Islands Department of Agriculture, American Samoa Department of Commerce, American Samoa Department of Agriculture, American Samoa Community College – Land-Grant, CNMI Department of Commerce, and Central Statistics Division.

The enumerators contacted all persons or operations engaged in agriculture in their assigned area and completed a census report form for all farm operations that met the farm definition. If the person on the list was not operating a farm, the enumerator recorded whether the land had been sold or rented to someone else and was still being used for agriculture. If the land was sold or rented out, the enumerator obtained the name of the new producer and contacted that person, to ensure that he/she was included in the census.

*American Samoa* - In the case of American Samoa, all of the producers on the list were enumerated with certainty, and a random sample of the remaining households was selected from an electric meter list to represent all operations not on the compiled list. The data from these households were given a weight equal to the inverse of their probability of selection to the sample. In a final effort to improve coverage in the western district, which is more heavily concentrated with agriculture activity, a phase 2 follow-up was aimed at any household found on the electric meter list. Data from these households did not receive a sampling weight. The 2018 American Samoa Census of Agriculture data were collected from farm producers during the period between May through October 2019.

The enumerators were hired for the data collection phase of the census by the American Samoa Department of Commerce. Enumerators were divided into teams, with each team responsible for a given area. The enumerators were required to contact all households identified on lists in their assigned area and complete a census report form for all farm operations. If the person on the list was not operating a farm, the enumerator recorded whether the land had been sold or rented to someone else and was still being used for agriculture. If the land was sold or rented out, the enumerator obtained the name of the new producer and contacted that person, to ensure that he/she was included in the census.

### Report Form

A single version of the report form for the 2018 American Samoa, CNMI, Guam, and USVI Censuses of Agriculture was prepared by NASS, in cooperation with the University of Guam College of Natural and Applied Sciences, and its Cooperative Extension and Outreach Service, Guam Department of Agriculture, University of the Virgin Islands - Cooperative Extension Service, U.S. Virgin Islands Department of Agriculture, American Samoa Department of Commerce, American Samoa Department of Agriculture and, the American Samoa Community College – Land-Grant in cooperation with the CNMI Department of Commerce, Northern Marianas College - Cooperative Research, Extension, and Education Service; and various USDA agencies. Based on their comments, the content of the 2018 census report form remained almost unchanged from the previous census.

## REPORT FORM PROCESSING

The Census Bureau's National Processing Center (NPC) in Jeffersonville, IN was contracted to print, label, and ship the report forms to all four outlying areas. Completed report forms were then returned to NPC for data capture and scanning. The quantities of report forms printed are shown in Figure 9.2.

Figure 9.2 **Report Form**

| <b>Form</b> | <b>Description</b>                | <b>Quantity</b> |
|-------------|-----------------------------------|-----------------|
| 18-A1(GU)   | Report form (Guam)                | 800             |
| 18-A1(USVI) | Report form (U.S. Virgin Islands) | 1,400           |
| 18-A1(USAS) | Report form (American Samoa)      | 12,000          |
| 18-A1(CNMI) | Report form (CNMI)                | 800             |

### **Data Capture**

NASS staff on site at the NPC provided technical guidance and monitored NPC processing activities. All report forms returned to NPC were immediately checked in, using bar codes printed on the mailing label. With the small survey universe, it was determined that a key from paper application would be most economical. All forms keyed were then scanned and loaded into the Feith file cabinet. The images were available for analytical review of the data as well as for archive purposes.

The keying staff evaluated the contents and captured pertinent responses. An independent quality control process occurred after initial keying where ten percent of the captured data were keyed a second time. If differences existed between the first keyed value and the second, an adjudicator handled resolution. The decision of the adjudicator was used to grade the performance of the keyers, who were required to maintain a certain accuracy level or receive additional training. The measured error rate for the entire survey was 0.39%. The images and the captured data were transferred to NASS's centralized network and became available to NASS analysts on a flow basis. The images were available for use in all stages of review.

### **Editing Data**

Captured data were processed through a computer formatting program. The program verified that record identifiers were valid and checked the basic integrity of the data fields. Rejected records were referred to analysts for correction. Accepted records were sent to a computer batch edit process. Each execution of the computer batch edit flowed as the data were received from the National Processing Center (NPC).

All census records were passed through a complex computer edit. The edit determined whether a reporting operation met the minimum criteria to be counted as a qualifying farm (in-scope). The edit examined each in-scope record for reasonableness and completeness and determined whether to accept the recorded value for each data item or take corrective action. Actions included removing erroneously reported values, replacing an unreasonable value with one consistent with other reported data. Strategies for determining replacement values are discussed in the next section.

### **Imputing Data**

The edit systematically checked reported data section by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. Analysts used additional information sources, examined the scanned image, and determined an appropriate action.

### **Data Analysis**

Once keyed, the data from each report form were available to NASS analysts in Washington, DC, via electronic media, for computer editing and analysis. Data from each report were subjected to a detailed item-by-item computer edit. The edit

performed comprehensive checks for consistency and reasonableness, corrected erroneous or inconsistent data; supplied missing data based on similar farms, and assigned farm classification codes necessary for tabulating the data.

Prior to publication, tabulated totals were reviewed by statisticians to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, as well as other available data. Tallies of all selected data items for various sets of criteria which included, but were not limited to, geographic levels, farm types, and sales levels were reviewed. When necessary, data inconsistencies were resolved.

## **ESTIMATION**

*American Samoa* - In the case of American Samoa, estimates were produced from two components, a list component and an electric meter component. The list component population was made up of some 2,428 commercial farm operations. All farm operations on the list were enumerated. Since all records did not respond a weight adjustment was completed for nonresponse.

Since the electric meter component involved sampling, on average, each of the operations found in the electric meter component represented about two other farms that would not have been included in the list component. As a result, the data from these farming operations found in the electric meter component were expanded, or weighted, to account for the farms not selected in the sample. For the phase 2 follow-up in the western district, the entire electric meter population was attempted to be contacted.

## **DISCLOSURE REVIEW**

After tabulation and review of the aggregates, a comprehensive disclosure review was conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Farm counts are not considered sensitive and are not subject to disclosure. Cell suppression will be used to protect the cells that are determined to be sensitive to a disclosure of information.

Based on agency standards, data cells were determined to be sensitive to a disclosure of information if they failed either of two rules. First, the threshold rule failed if the data cell contained less than three operations. For example, if only one farmer produced hogs on the island, NASS could not publish the island total for hog inventory without disclosing the individuals' information. Second, the dominance rule failed if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. A (p)-percent rule will be used to determine dominance. Under this rule, if the two largest contributing farms' values to the county total are subtracted from the estimated total, the remainder must exceed a specified (p)-percent of the largest contributed value. If the remainder fails to exceed the specified percentage, the value is not published. For example, if there are many farmers producing hogs on the island and some of them were large enough to dominate the cell total, NASS could not publish the county total for hog inventory without risking disclosing an individual respondent's data. In both of these situations, the data were suppressed and a "(D)" was placed in the cell in the census publication table. These data cells are referred to as primary suppressions.

Since most items were summed to marginal totals, primary suppressions within these summation relationships were protected by ensuring that there were additional suppressions within the linear relationship that provided adequate protection for the primary. A detailed computer routine selected additional data cells for suppression to ensure all primary suppressions are properly protected in all linear relationships in all tables. These data cells are referred to as complementary suppressions. These cells are not themselves sensitive to a disclosure of information but were suppressed to protect other primary suppressions. A "(D)" was also placed in the cell of the census publication table to indicate a complementary suppression. A data user cannot determine whether a cell with a (D) represents a primary or complementary suppression.

NASS analysts reviewed all complementary suppressions to ensure no cells had been withheld that were vital to the data users. In instances where complimentary suppressions were deemed critically important to the Island, analysts requested an override and a different complement cell was chosen.

## TABULATIONS

NASS prepared and published data tables for all data items on the report form. The report included data for all farms in Guam, U.S. Virgin Islands, American Samoa, and the Northern Mariana Islands.

**American Samoa** - Tables 1 through 11 show detailed island data for all farms, commercial farms, and noncommercial farms, accompanied by historic data from the previous census. Tables 12 through 25 show 2018 and 2008 data for the three categories of farms, presented by legal districts and counties. Tables 26 through 29 provide 2018 island data cross-tabulated by tenure of producer, size of farm, age of producer, and market value of agricultural products sold.

**CNMI** - Tables 1 through 13 show detailed island data accompanied by historic data from the previous census. Tables 14 through 28 show selected data items presented by municipalities. Tables 29 through 32 provide 2018 area data cross-tabulated by tenure of producer, age of producer, size of farm, and market value of agricultural products sold.

**Guam** - Tables 1 through 13 show detailed island data accompanied by historic data from the previous census. Tables 14 through 17 provide 2018 island data cross-tabulated by tenure of producer, age of producer, size of farm, and market value of agricultural products sold.

**USVI** - Tables 1 through 18 show detailed data for the U.S. Virgin Islands and for St. Croix and St. Thomas/St. John, accompanied by historic data from the previous census. Tables 19 through 22 provide 2018 area data cross-tabulated by tenure of producer, age of producer, size of farm, and market value of agricultural products sold.

## MEASURED ERRORS IN THE CENSUS PROCESS

Uncertainty is introduced into the data in compiling the list of farm producers, in NASS' data collection procedures, in data editing and processing, and in compiling the final data. Additionally, NASS uses statistical procedures to both measure errors in the various processes and in making adjustments for those errors in the final data.

### American Samoa Sampling Error

Estimates made for the 2018 American Samoa Census of Agriculture were subject to sampling error. This type of error arises because a sample of households are selected to estimate the electric meter component. Since resulting estimates were obtained based on a sample of households, these estimates were not necessarily equal to the actual values that would have been obtained had a complete canvas of all households been undertaken.

### Variability in Census Estimates due to Statistical Adjustment

In conducting the 2018 Outlying Areas Censuses of Agriculture, efforts were initiated to measure error associated with the adjustments for farm operations that were on the list of farm producers, but did not respond to the census report form. This error measurement was developed from the standard error of the estimates at the island level, where appropriate, and were expressed as coefficients of variation (CVs) at the island level. Coefficients of variation are displayed in NASS's Quick Stats database.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2018 Outlying Areas Censuses of Agriculture has a corresponding CV published with it. NASS identified the following index to use when evaluating coefficient of variation for the 2018 Outlying Areas Censuses of Agriculture.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

## **NONMEASURED ERRORS IN THE CENSUS PROCESS**

As noted in the previous section, sampling errors can be introduced from the nonresponse adjustment procedure. This error is measurable. However, non-sampling errors are imbedded in the census process that cannot be directly measured as part of the design of the census but must be contained to ensure an accurate count. Extensive efforts were made to compile a complete and accurate list of farmers for the census, to design an understandable report form with clear instructions, to train enumerators on how to ask the questions and record the answers on the report form, and to minimize processing errors through the use of quality control measures. The weight adjustment and tabulation processes recognize the presence of non-sampling errors; however, it is assumed that these errors are small and that, in total, the net effect is zero. In other words, the positive errors cancel the negative errors.

### **American Samoa Coverage Error**

The main objective of the American Samoa census of agriculture is to obtain a complete and accurate enumeration of all farms covered by the list frame and electric meter frame in American Samoa with accurate data for all aspects of the agricultural operation. However, the cost and availability of resources for the enumeration place restrictions on operationally feasible data collection methodologies. Such restrictions may lead to the exclusion from enumeration of farms which should have been included in the sample; this type of non-sampling error is known as coverage error.

Despite the use of intensive field quality control procedures designed to ensure complete enumeration of all selected households, coverage error may have resulted from the inability of enumerators to enumerate all farms in the sample assigned to them. During the 2018 American Samoa Census of Agriculture, coverage error may have resulted from the inability to correctly identify all duplicate records within the list frame or between the list and electric meter frames.

### **Respondent and Enumerator Error**

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. Steps were taken in the design and execution of the census of agriculture to reduce reporting errors. Poor instructions and ambiguous definitions lead to misreporting. Respondents may not remember accurately, may estimate responses, or enumerators may record an item in the wrong cell. To reduce reporting and recording errors, detailed instructions for completing the report form were provided to each enumerator, and questions were phrased as clearly as possible. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

### **American Samoa Processing Error**

All phases of processing of each census report form are sources for the introduction of non-sampling error. The processing of census report forms includes clerical screening for farm activity, follow-up of nonrespondents, keying and transmittal of completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors may ultimately remain undetected.

### **Item Nonresponse**

All item nonresponse actions provide another opportunity to introduce measurement errors. Regardless of whether it was previously reported data, administrative data, the nearest neighbor algorithm, the fully conditional specification method, or manually imputed by an analyst, some risk exists that the imputed value does not equal the actual value.

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## CHAPTER 10. 2018 Irrigation and Water Management Survey

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## **INTRODUCTION**

### **History**

The primary purpose of the Irrigation and Water Management Survey (IWMS), formerly known as the Farm and Ranch Irrigation Survey (FRIS), is to provide data relating to on-farm irrigation activities for use in preparing a wide variety of water-related local programs, economic models, legislative initiatives, market analyses, and feasibility studies. The survey name was changed for 2018 to be more inclusive of nursery and greenhouse growers. Selected irrigation data for on-farm irrigation operations have been collected in the census of agriculture since 1890.

The 2018 Irrigation and Water Management Survey is the ninth survey devoted entirely to collecting on-farm irrigation data for the U.S. The 1979, 1984, 1988, and 1994 surveys were conducted by the U.S. Department of Commerce, Bureau of the Census. Responsibility for the survey was transferred to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS) in 1997. The 1998 survey utilized NASS field offices, which expanded opportunities for telephone follow-up or personal enumeration of nonresponse cases. The 1998 Farm and Ranch Irrigation Survey was the first survey to collect and publish data for each of the 50 States. Previously, the farm and ranch irrigation surveys published data only for the leading irrigation States and the U.S. total without including Alaska and Hawaii. In 2008, horticultural specialty operations with sales of \$10,000 or greater were included in the survey for the first time.

### **Uses of Survey Data**

The 2018 Irrigation and Water Management Survey provides data that supplement the basic irrigation data collected from all farm and ranch producers in the 2017 Census of Agriculture. Irrigation data from this survey, combined with the 2017 census data, provide one of the most complete and detailed profiles for irrigation in the U.S.

Survey data are used by producers, farm organizations, businesses, State departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. The data are used to:

- Compare water use by application method;
- Develop improved technologies;
- Develop Federal programs;
- Appraise water use trends;
- Assess impact of congressional legislation; and
- Evaluate the impact of irrigated crops by State.

### **Legal Authority**

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2018 Irrigation and Water Management Survey was conducted under the provisions of this section.

### **Farm Definition**

A farm is any place from which \$1,000 or more of agricultural products were produced and sold or normally would have been sold during the census or survey year.



## Data Comparability

The data are mostly comparable between 2018 and 2013. For Tables 35, 36, and 38, the data are not comparable between 2018 and 2013. In the 2013 survey, acres of horticulture in the open were reported under the all other crops category. In the 2018 survey, horticulture in the open was reported in a separate category.

The report form for the 2018 Irrigation and Water Management Survey was very similar to the report form for the 2013 Farm and Ranch Irrigation Survey. Only a small number of questions were either split, dropped, or reworded. The data are mostly comparable between 2013 and 2018. There are slight differences due to the target population now including those who irrigated in the past five years instead of just those who had irrigated the prior year. However, the population they represent is still the same, which is all active irrigators in 2018 in the U.S.

The differences between the 2018 Irrigation and Water Management Survey and the 2013 Farm and Ranch Irrigation Survey are as follows:

- Number of hours pumps were operational during the survey year was removed from 2018.
- Horticulture in the open was recorded under Other cropland during 2013 while it was recorded as its own commodity during 2018. Therefore, Other cropland is not comparable between 2018 and 2013.

Differences exist between the expanded results of the 2018 Irrigation and Water Management Survey and the published data from the 2017 Census of Agriculture. Some of these are as follows:

- The survey includes data only for operations that irrigated sometime between 2013 and 2018. Operations in some areas, especially the eastern States, may irrigate only when moisture is needed. Operations with irrigation capabilities may not irrigate depending on the amount of rainfall for a particular year or geographic area. The number of operations that irrigated in 2017 but discontinued irrigation in 2018 is tabulated in Table 27 for all farms and in Table 44 for horticultural operations by reason of discontinuance.
- Some producers reported that they had been misclassified as irrigators and did not irrigate in either 2017 or 2018. Operations which indicated they had not irrigated in 2017 but had in the past five years were not counted as misclassified. In addition to errors in processing census data, some producers misreported or misinterpreted the questions. Most of the producers misreporting irrigation in the 2017 census reported irrigation of small acreages of vegetables, fruits and nuts, tobacco, field crops, or berries.
- Some respondents indicated they had retired, moved, sold or rented the land, etc., since 2017. These operations were dropped from processing because they were no longer farming. Special care was taken with large operations to ensure that they were not erroneously dropped due to reorganization or name change rather than discontinuing agricultural operations.
- New irrigators in 2018 (not included in the 2017 census) did not have a chance for selection in the sample and, therefore, were excluded from the survey. It is believed that the impact of new irrigators is probably minimal. This conclusion is supported by comparisons between the 2012 and 2017 Censuses of Agriculture irrigation data which show little change in irrigated acres. Comparing the 2018 survey (expanded) totals with the 2017 census totals showed that the survey accounted for 96.4 percent of all land reported as irrigated and all irrigation characteristics data associated with that land in the 2017 census.

## Reference Period

The reference period for the 2018 Irrigation and Water management Survey (IWMS) was January 1, 2018, through December 31, 2018.

## Respondent Confidentiality

In keeping with the provisions of Title 7 of the United States Code, no data were published that would disclose information about the operations of an individual farm or ranch. All tabulated data were subjected to an extensive disclosure review prior to publication. Any tabulated item that identified data reported by a respondent or allowed a respondent's data to be accurately

estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item was not considered confidential information and was provided even though other information was withheld.

## **SAMPLE DESIGN**

The target population for the 2018 Irrigation and Water Management Survey was composed of all farms irrigating in the reference year of 2018. From the 2017 Census of Agriculture, 198,368 records were identified as belonging to the general U.S. irrigation population based upon having irrigation activity on their farm or ranch. The target population was expanded to include any operations that had irrigated land in the past five years. Institutional, research, and experimental farms were excluded from the total number of irrigators that reported in the 2017 census.

The sample was drawn at a State level for all 50 States. This sample design targeted a U.S. level sample size of 35,000. A certainty stratum, with farms selected with probability one, was included for each State to ensure that the major irrigators in each State were sampled. The remaining strata were sampled systematically by irrigated acreage. The stratification boundaries varied among the States and were dependent on the distribution of total acres irrigated within the State. The stratified design ensured that the sample was reflective of the survey population and achieved the appropriate coefficients of variation (CV) levels at both the U.S. and State levels.

The final national sample size was 34,783 farms; 1,340 of these farms were selected from the certainty strata and the remaining 33,443 farms were systematically selected from the noncertainty strata.

## **DEVELOPMENT OF THE REPORT FORM**

Planning for the 2018 Irrigation and Water Management Survey started in 2014 with the closeout of the 2013 Farm and Ranch Irrigation Survey (FRIS). Extensive correspondence, discussions, and meetings took place with representatives of USDA's Economic Research Service (ERS) regarding 2013 FRIS content. Evaluations from NASS staff of the 2013 FRIS were reviewed. The decision was made to continue with the single report form design to collect irrigation data from both farm and ranch producers and horticultural producers. Under the leadership of the Methodology Division at NASS, a complete review of the 2013 FRIS and cognitive testing were conducted. As a result, the findings and recommendations led to the following notable changes for the 2018 Irrigation and Water Management Survey.

## **DATA CHANGES**

Some history concerning the data changes from 2003, 2008, 2013, and 2018 are described here.

### **Major Changes**

The only major change was the report form title. Other changes included combining the water practices sections.

### **Other Changes**

**Sections 1 and 2:** Include and exclude items were listed to gain the same improvements as the census of agriculture report forms. The horticultural area question was split to collect open acres separately from under protection areas.

**Section 3:** Items 4a to 4c were reordered to separate them from Number of wells. The reference text of "artesian wells" was removed to capture wells as "flowing wells that did not require a pump." Removed the Total Hours Operated column in items 5 and 5a.

**Section 6:** Removed Average Hours Operated column.

**Section 9:** The non-irrigated crop questions were removed. This change was made for multiple reasons. With the improved data collected in Section 2, too many operations did not report their non-irrigated land properly in later sections, resulting in inconsistencies between cropland harvested in the open acreage and the sum of both acres irrigated and non-irrigated. The source of this inconsistency was incomplete data in the non-irrigated crop columns. Analysts were required to update a large number of records manually to synchronize the items. The data user was also confused as to what this data meant. Many data users mistook the non-irrigated yield in FRIS as being equivalent to the state's non-irrigated yield when it was just the non-irrigated yields on irrigated farms only.

**Sections 9 and 10:** The All other crops grown in the open category was split to collect Horticulture in the open acres and All other non-horticulture crops grown separately.

## **Publication Changes**

**2003:** Data were published for irrigating farms and ranches and included data for horticultural operations that reported less than \$10,000 in sales in the 2002 Census of Agriculture. The 2003 FRIS table structure is similar to 2008 FRIS Chapter 1 tables.

**2008:** Two report forms were used – one for farm and ranch operations and another for horticultural operations with any sales in 2008. Data for farm and ranch operations were published in Chapter 1, Tables 1 through 43 (General Data). Horticultural operations data were published in Chapter 2, Tables 1 through 9 (Horticultural Operations Data). To bridge the 2003 tables with the 2008 Chapter 1 tables, the 2003 U.S. data were adjusted in the 2008 publication by removing data for horticultural operations with less than \$10,000 in sales.

**2013:** A single report form was used to collect data from irrigating farm and ranch operations and from horticultural operations with any level of sales. Data published in Tables 2 through 39 (Entire Farm Data) are for all irrigating operations – farms and ranches and horticultural operations combined. Data are not comparable between the 2013 and 2008 surveys because horticultural operations' data were reported separately in 2008 (Chapter 2). The 2013 horticultural operations data in Tables 40 through 45 are comparable with their corresponding 2008 Chapter 2 tables. To provide a measure of comparability in the 2013 tables, the 2008 U.S. data were adjusted, where possible, to include the 2008 horticultural operations data. In many of the first 27 tables, 2008 U.S. data were omitted.

Several tables were affected by changes to the report form sections. Some tables that appeared in the 2008 FRIS were not published in the 2013 FRIS, including Chapter 1 tables 13, 24, 31, and 40 and Chapter 2 tables 5, 6, and 7. Table 3 was updated to reflect changes that were made to the land use categories in Section 2 of the FRIS report form; specifically the types of pasture – permanent, woodland pastured, and other pasture. The change was made to align FRIS with the 2012 census.

The subirrigation method of water distribution for acres in the open was not included on the 2013 FRIS report form. This change affected Tables 28, 31, 32, and 39. The data for this method are reported in the Other gravity item. In 2008 data were collected for five categories of Uncontrolled flooding and Other gravity methods and were published in Table 7. Only data for the total acres of each of these conveyance systems were collected and published in 2013.

Wells capable of being used, irrigation water transfers, and other uses of irrigation water are no longer published. Crops with small acreages have high variability because of the sample size. Sugarbeets, barley, and tobacco were removed as individual items in the field crops sections. Respondents reported these in the Other small grains or Other crops categories on the report form. Water management practices for gravity irrigation were combined into four categories in Table 39.

**2018:** The title of the survey was changed from Farm and Ranch Irrigation Survey (FRIS) to Irrigation Water Management Survey (IWMS). The name of the survey changed because the name did not specify horticulture operations while the report form was designed to include all irrigators. Only a small number of changes were made to the combined report form to separate mixed values.

Horticulture in the open acreage was recorded under Other cropland on the 2013 report form and was recorded separately from Other cropland in 2018. This change affected tables 35, 36, and 38. Farm counts, acreage values, water application rates, and distribution methods for Other cropland are not comparable between 2013 and 2018.

## **DATA COLLECTION**

### **Method of Enumeration**

The 2018 Irrigation and Water Management Survey was conducted using multiple data collection strategies. Data were collected by mail, Computer Assisted Web Interviewing (CAWI) via the Internet, telephone enumeration, and personal enumeration. Enumeration methods used in the 2018 survey were similar to those used in the 2013 survey.

## Report Form

A single 20-page report form was used for the survey, similar to the 2013 report form. The report form was mailed to all the producers in the sample that reported irrigation in the 2017 Census of Agriculture.

## Report Form Mailings and Respondent Follow-up

The initial mailout took place in February 2019. Mail packets were mailed to 34,783 irrigators. The initial mail packets included a labeled report form, an instruction booklet, an instruction letter, and a return envelope. Mailout packet preparation, initial mailout, and one follow-up mailing to nonrespondents were handled by the U.S. Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. Telephone follow-up from a NASS Data Collection Center began April 2019 to nonrespondents who were mailed a report form from NPC.

Data were collected for a select group of operations by the NASS regional field offices. To minimize the number of agency contacts, operations were included in this group if they were scheduled for contact by NASS for other agricultural surveys. Report forms were labeled at NPC and sent to the regional field offices in November 2018. Regional field office staff collected data by personal enumeration or by phone from February 2019 through May 2019.

## REPORT FORM PROCESSING

### Data Capture

All report forms returned to NPC were checked in using bar codes printed on the mailing label. This check-in process removed them from follow-up mailings. All forms were reviewed prior to data keying to identify inconsistencies and ensure that the data could be keyed. Major inconsistencies, respondent remarks, blank report forms, and large irrigation cases were reviewed by analysts and adjusted prior to data keying as needed. All forms with any data were scanned and an image was created for each page of a report form.

### Data Editing and Analysis

Data from each report form were processed through a computer edit which flagged missing or inconsistent entries. Each report with a flagged entry was reviewed by regional field office and/or headquarters statisticians. Action was required for any record with reported data that were clearly incorrect, for example, in some cases, respondents may have failed to provide all the information requested, only indicating the presence of an item but not the amount. These items were tagged for machine imputation. After the initial edit, an imputation program supplied missing data based on responses of similarly sized farms within the same geographic area. Data entries by the computer edit process were reviewed and verified by analysts. Instances where imputed data failed edit checks were referred to statisticians for corrective action. The computer edits ensured the data on a report form were internally consistent.

Prior to publication, tabulated totals were reviewed to identify and resolve remaining irregularities. Comparisons were made with 2017 census data, 2013 Farm and Ranch Irrigation Survey data, and other available check data. The data were processed through a disclosure program to prevent data from being published that could be sourced back to an individual operation.

### Imputation

Many data items in the 2018 Irrigation and Water Management Survey used nearest neighbor hot-deck imputation. Records were sorted by State and strata to increase likelihood that the nearest neighbor donor record was within the same State and stratum as the recipient record. Some exceptions are described below.

- Imputation for items related to ground water from wells used a combination of techniques to maintain relationships between other items in the record. Based on available data, imputation techniques were prioritized as listed directly below:
  - Other data in the record that referenced the same well.
  - Other wells on the same farm.
  - Nearest neighbor hot-deck imputation (accounts for missing information from similar records in the same data set).

- Imputation for items related to acres harvested in the open and pastureland was based on ratios created at the State by stratum level, State level, and U.S. level using good donor records.
  - Priority was given to the ratio based on the most similar contributors when there was a sufficient number of donors.
- Imputation for sections that required categorical or yes/no responses was based on the distributions of farms that responded to the item.

Items that were imputed:

- Quantity of water applied;
- Well and pump characteristics;
- Energy costs of well pumps;
- Individual crop yields and quantity of water used;
- Horticulture water sources and methods; and
- Acres associated with expenditures, maintenance, and repair costs.

## ESTIMATION

Data were summarized for the Nation as a whole, for each of the 50 States, and for the geographic domains known as Water Resources Regions (WRR). The estimation methodology consisted of two weighting components that made up the total survey weight. The first component was the fully adjusted weight pulled in from the 2017 Census of Agriculture. This weight accounted for any list incompleteness and undercoverage from the 2017 census. The second component was the sampling rate used for the 2018 Irrigation and Water Management Survey. This expansion factor was the inverse of the selection probability for the sample farms in a stratum. This expansion factor was reweighted at the stratum level to account for whole-farm nonresponse. The nonresponse adjustment factor used to reweight the expansion factor was the ratio of the number of sample farms in a stratum to the number of sample farms that responded to the survey in that stratum. The assumption underlying this weighting approach to survey nonresponse was that survey respondents and nonrespondents within a stratum constitute a homogeneous population, thus allowing respondents to represent nonrespondents. An expanded data value for a sample record was obtained by multiplying the data value by the total 2018 Irrigation and Water Management Survey weight. State totals for a characteristic were estimated by summing the expanded data values from all responding sample records across all strata within the State. National estimates were obtained by summing across all States. The WRR estimates were obtained by summing the expanded data values for the portion of the sample falling into the WRR.

## TABULATIONS

NASS prepared and published data tables for all data items on the report form. The 2018 Irrigation and Water Management Survey publication, Volume 3, Special Studies, Part 1, included data published on irrigation and water usage across the agricultural industry at national, state, and water resources area levels. The publication tables are divided into three sections: Entire Farm, Crops Grown in the Open and Pasture, and Horticultural Operations data tables.

Table 1 shows farms and acres irrigated for the 2002 through 2017 Censuses of Agriculture for each State. Tables 2 through 27 present detailed irrigation data collected in the 2018 Irrigation and Water Management Survey from operations that reported irrigated land during 2018 and in the 2017 census. Excluded from these data are institutional, research, and experimental operations. Table 27 presents data on farm operations that irrigated in 2017 but discontinued irrigation either temporarily or permanently in 2018 while continuing to operate a farm or ranch. Comparable adjusted 2013 U.S. level survey data are also presented in some tables. Data are reported at the national level, for each State, and for the 20 Water Resources Regions. Tables 28 through 39 present detailed 2018 irrigation data collected on crops grown in the open and pasture. Excluded from these data are institutional, research, and experimental operations, and water use, and area of crops grown under protection. Data are reported at the national level and for each State. Tables 40 through 45 present detailed 2018 irrigation data collected on horticultural crops grown under protection. Data are from horticultural operations that reported irrigating in the 2017 census and also in the 2018 survey. Data are reported at the national level and for each State.

## MEASURES OF SURVEY QUALITY

The statistics in this report are estimates derived from a sample survey. There are two types of errors possible in an estimate-based sample survey: sampling and non-sampling. Sampling errors are caused by observing only a piece of the population instead of the entire population. These errors are subject to sample-to-sample variation. Non-sampling errors include all other errors and can arise from many different sources. These sources may include respondent error, enumerator error, or incorrect data keying, editing, or imputing for missing data. Non-sampling error due to mail list incompleteness and duplication, as well as misclassification of records on the mail list is referred to as coverage error.

Undercoverage existed in the frame population to the extent that there were irrigated farms that either erroneously reported they were not irrigating on the 2017 census, started irrigating in 2018, or had succeeding irrigators in 2018 (i.e., a producer who, since 2017, took control of an existing irrigating farm through sale, rental, or other arrangement).

Overcoverage also existed in the frame because some operations were misclassified as irrigators and did not irrigate in 2017 or had either stopped farming or irrigating in 2018. Farms in the sample that fell into these groups were identified during the survey and estimates.

### Survey Response Rate

The response rate is an indicator of the quality of data collection. It is generally assumed that if a response rate was close to 100 percent, the potential for nonresponse bias is small. Because this survey contains both farm and nonfarm records, the response rate is an indicator of replying to the survey data collection effort but does not reflect whether those responding met the farm definition or had the items of interest for the survey. The response rate for the 2018 Irrigation and Water Management Survey was 64.4 percent. This compares to 69.8 percent for the 2013 Farm and Ranch Irrigation Survey.

## MEASURES OF PRECISION

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The accuracy of data products may be evaluated through sampling and non-sampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Non-sampling error is evaluated by response rates and the percent of the estimate from respondents.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2018 Irrigation and Water Management Survey has a corresponding CV published with it. NASS has identified the following index to use when evaluating coefficient of variation for the 2018 Irrigation and Water Management Survey.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

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## CHAPTER 11. 2018 CENSUS OF AQUACULTURE

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## **INTRODUCTION**

The 2018 Census of Aquaculture expands the aquaculture data collected from the 2017 Census of Agriculture and provides a current and comprehensive picture of the aquaculture sector at the State and national levels. The aquaculture census collects detailed information relating to production methods, surface water acres and sources, production, sales, point of first sale outlets, and aquaculture distributed for restoration, conservation, enhancement, or recreational purposes.

## **History**

The 2018 Census of Aquaculture is the fourth national census conducted by the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), to collect data about the industry. The first aquaculture census was conducted in 1998, in response to the intense need for an accurate measure of the aquaculture sector. The second and third aquaculture censuses were conducted in 2005 and 2013, respectively. Since 1974, the census of agriculture has collected limited aquaculture data.

## **Uses of Census of Aquaculture Data**

The census of aquaculture data are needed by all those involved in the aquaculture sector – Federal, State, and local governments, agribusinesses, trade associations, producers, and many others. Some needs of the data include:

- Growers need census data to make informed decisions about the future of their own operations, including whether to expand production, and to compare production volumes and pricing points with State and U.S. averages.
- Aquaculture businesses and suppliers need the facts and figures to determine the best locations for facilities that serve producers and to plan production and marketing of new products.
- Legislators need census numbers to shape policies and programs, and to evaluate and determine government funding and resources. Extension and university representatives need the data to determine research needs and to justify research funding and programs to develop new and improved methods of aquaculture production and profitability.

## **Legal Authority**

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105- 113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2018 Census of Aquaculture was conducted under the provisions of this section.

## **Farm Definition**

Aquaculture is defined as the farming of aquatic organisms, including baitfish, crustaceans, food fish, mollusks, ornamental fish, sport or game fish, and other aquaculture products. Farming involves some form of intervention in the rearing process, such as seeding, stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated in a controlled environment at least part of the time. Fish, shellfish, and other aquatic products which are caught or harvested by the public from non-controlled waters or beds are considered wild caught and are NOT included as aquaculture farms. In addition, aquatic plants, except algae and sea vegetables, are not considered aquaculture for the census of aquaculture. For the 2018 Census of Aquaculture, an aquaculture farm is defined as any place from which \$1,000 or more of aquaculture products were produced and sold or produced and distributed for restoration, conservation, enhancement, or recreation during the census year.

## **Data Comparability**

Data definitions are comparable between the 2018 and 2013 aquaculture censuses, with the exception that during the 2018 Census of Aquaculture questions pertaining to water source, size of operation, and methods of production in the report form were asked of all operations and not just operations with sales. In 2013, operations that solely produced and distributed aquaculture for restoration, conservation, enhancement, or recreational purposes were instructed to complete only Section 13, Aquaculture Produced and Distributed. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation.



The census of aquaculture data are not directly comparable to the census of agriculture data, due to different priorities and data definitions. A census of agriculture priority is the value of production of all agriculture (including aquaculture) at the county level. A census of aquaculture priority is a more specific look at U.S. and State-level aquaculture sales and aquaculture distributed for restoration, conservation, enhancement, or recreational purposes.

In the 2017 Census of Agriculture, all agriculture production moved off the farm had a value of sales reported or assigned. Aquaculture which was moved for distribution, restoration, conservation, enhancement, or recreational purposes was assigned a value. In the 2018 Census of Aquaculture, farms with aquaculture which was produced and sold are included in tables 1 through 9, 13 through 21, and 24. Aquaculture which was not sold, but distributed for conservation is included in tables 22 and 23. Tables 10, 11, and 12 are not comparable to the 2013 Census of Aquaculture. In 2018, farms with aquaculture sales and/or distributed aquaculture products for conservation, recreation, enhancement, or recreational purposes are included. In 2013, only operations that had aquaculture sales were included in tables 10 through 12.

Differing priorities between the census of agriculture and the census of aquaculture explain some of the farm count differences between the two censuses. For the 2017 Census of Agriculture, there were several large farms that span across county lines. To capture the agricultural production in the correct county, these farms were split into multiple records. These operations were weighted and summarized as individual farms for the 2017 Census of Agriculture. The 2018 Census of Aquaculture allowed one respondent to report for multiple locations within the same State. All production, sales, and distributed aquaculture data may have been tabulated as one farm. As a result, farm counts were reduced in Tables 1 – 20 and 22 – 24 by a maximum of 349 farms throughout the United States. The 349 total farms are distributed as follows: Arkansas – 1 farm, Idaho – 26 farms, Louisiana – 5 farms, Mississippi – 2 farms, Oregon – 38 farms, Pennsylvania – 134 farms, and Washington – 143 farms.

Another difference with the census of agriculture is the minimum level of production. The census of agriculture has a minimum of \$1,000 of production or potential production of all agriculture items. For example, a farm with \$200 of crayfish and \$900 of rice is included. The census of aquaculture minimum is \$1,000 worth of aquaculture production either sold or distributed for restoration, conservation, enhancement, or recreational purposes which could reduce the number of farms. The last difference is that the census of agriculture food fish category excludes catfish and trout. The census of aquaculture includes catfish and trout in the food fish totals.

## **Reference Period**

The reference period for the 2018 Census of Aquaculture was January 1, 2018, through December 31, 2018.

## **Respondent Confidentiality**

In keeping with the provisions of Title 7 of the United States Code, no data were published that would disclose information about the operations of an individual farm or ranch. All tabulated data were subjected to an extensive disclosure review prior to publication. Any tabulated item that identified data reported by a respondent or allowed a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item was not considered confidential information and was provided even though other information was withheld.

## **CENSUS POPULATION**

The target population for the census of aquaculture was composed of all aquaculture farm operations that reported any amount of aquaculture activity on their 2017 Census of Agriculture report form. An effort was made to identify additional aquaculture operations of significance from new sources.

## **DEVELOPMENT OF THE REPORT FORM**

Planning for the 2018 Census of Aquaculture started in 2017 with the mailout for the 2017 Census of Agriculture. The report form was developed through input from other government agencies, special interest groups, and NASS's field offices. Report form testing was conducted in several States and included various types of aquaculture producers. Aquaculture producers were asked to evaluate the report form through cognitive interviews. Patterns that emerged from these interviews were considered when making changes to the report form.

## **DATA CHANGES**

Following are report form changes and their effect on the publication tables.

Added items included:

- Freshwater and saltwater area in square feet
- Crustacean and mollusk section, unit of pint

Deletions included:

- Screening skip pattern for aquaculture producers that solely produced and distributed aquaculture for restoration, conservation, enhancement, or recreational purposes.

## **Table Changes**

Aquaculture producers that solely produced and distributed aquaculture for restoration, conservation, enhancement, or recreational purposes are included in the following tables:

- Table 10. Freshwater and Saltwater Acres Used for Aquaculture Production
- Table 11. Sources of Water Used for Aquaculture Production
- Table 12. Methods Used for Aquaculture Production

## **DATA COLLECTION**

### **Method of Enumeration**

The 2018 Census of Aquaculture was conducted primarily by mail. It was supplemented with Computer Assisted Self Interviews (CASI) via the Internet, telephone calls, and personal enumeration. Enumeration methods were similar to those used in the 2013 Census of Aquaculture.

### **Report Form**

One version of the report form was used in all States. A 16-page 2018 Census of Aquaculture report form was designed to collect data from operations producing or distributing aquaculture. It was designed to collect data that also supported the agricultural surveys conducted for catfish and trout production which are part of the National Agricultural Statistics Service's (NASS) Estimates Program

### **Report Form Mailings and Respondent Follow-up**

The initial mailout took place in December 2018. Mail packets were mailed to approximately 3,800 farms thought to have produced aquaculture in 2017. The initial mail packets included a labeled report form, an instruction sheet, a letter that requested a prompt response and included instructions for completing the form via Internet, and a postage-paid return envelope. Mailout packet preparation, initial mailout, and one follow-up mailing to nonrespondents were handled by the Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. Telephone follow-ups, conducted from a NASS Data Collection Center, began in February 2019 to nonrespondents who were mailed a report form from NPC.

Data were collected for a select group of operations by the NASS field offices. To minimize the number of agency contacts, operations included in this group were flagged for contact by NASS for other agricultural surveys. Report forms were labeled at the NPC and sent to field offices in November 2018. Field office staff collected data by personal enumeration or by phone from December 2018 through May 2019. For a description of the adjustment for nonresponse, see Estimation.

## **REPORT FORM PROCESSING**

### **Data Capture**

All report forms returned to NPC were immediately checked in using bar codes printed on the mailing label. This check-in process removed the responding farms from follow-up mailings. All forms were reviewed prior to data keying to identify inconsistencies and ensure that the data could be keyed. Major inconsistencies, respondent remarks, blank report forms, and large aquaculture cases were reviewed by analysts and adjusted prior to data keying, as needed. All forms with any data were scanned and an image was created for each page of a report form.

### **Data Editing and Analysis**

Data from each report form were processed through a computer edit which flagged inconsistent entries. Each flagged entry was reviewed by staff. Reported data that were obviously incorrect due to misinterpretation of a question were either corrected or deleted prior to the computer edit. In some cases, respondents may have failed to provide all the information requested, only indicating the presence of an item but not the amount. Some data were estimated by the analyst based on other responses in the geographic area and by similarly sized farms.

Prior to publication, tabulated totals were reviewed to identify and resolve remaining inconsistencies and potential coverage problems. Comparisons were made to 2017 Census of Agriculture data, 2013 Census of Aquaculture data, and other available check data. The data were processed through a disclosure program to prevent data from being published that could be sourced back to an individual operation.

## **ESTIMATION**

Estimates were produced for the Nation and for each of the 50 States. All respondents to the 2017 Census of Agriculture that reported involvement with an aquaculture enterprise, regardless of its economic size, were included on the 2018 Census of Aquaculture mailing list.

The estimation methodology consisted of two weighting components. The first component was the fully adjusted weight pulled in from the 2017 Census of Agriculture. In processing the 2017 Census of Agriculture data, statistical weights were applied to each responding record. These weights were designed to account for 2017 Census of Agriculture mail list nonrespondents, farms that existed but were not included on the 2017 Census of Agriculture mail list, and various farm classification errors.

The second weighting component was from a 2018 Census of Aquaculture nonresponse adjustment factor. In spite of a determined effort to obtain aquaculture information from every operation on the 2018 Census of Aquaculture mailing list, not all operations responded. A nonresponse adjustment factor was used to account for active aquaculture operations on the list that did not respond to the 2018 Census of Aquaculture.

Together these two weighting components compensate for aquaculture farm data that were not obtained from either the 2017 Census of Agriculture or the 2018 Census of Aquaculture. Each farm on the 2018 Census of Aquaculture mail list was put into a weight adjustment group. All weight adjustment groups were formed within a given State. These groups were based on the economic size of the farm's aquaculture enterprise as indicated by the data obtained from the 2017 Census of Agriculture. The weights that were carried over from the 2017 Census of Agriculture were summed across every record within each aquaculture weight adjustment group. The resulting weight sum was the best available estimate of the number of aquaculture farms that existed for a given State in 2017.

The number of aquaculture farms for the weight adjustment group was divided equally among all aquaculture census respondents within the group. The resulting value became the statistically fully-adjusted weight for each respondent in the weight adjustment group. The sum of the adjusted weights across all respondents in the group necessarily equaled the target value.

The fully-adjusted weights applied to respondents on the 2018 Census of Aquaculture mail list were integerized using a random process. This process rounded each raw weight upwards to the smallest integer that exceeded the fully-adjusted raw weight using a probability equal to the non-integer portion of the raw weight, otherwise, the weight would have been rounded downwards to the largest integer that was less than the raw weight.

Example: The raw weight for a record is 1.75. It will be rounded up to 2.0 with a probability of 0.75 and rounded down to 1.0 with a probability of 0.25.

The State total for a particular characteristic being estimated was obtained by multiplying each record's value for the characteristic by the record's integerized weight. The weighted values were then summed up over all the responding records in that State to obtain the State-level estimate.

## **TABULATIONS**

NASS prepared and published data tables for all data items on the report form. The 2018 Census of Aquaculture publication, Volume 3, Special Studies, Part 2, included data published Data about the U.S. aquaculture sector at the national and state levels. The publication Table 1 shows the number of farms and the market value of aquaculture products sold for the U.S. and each State. Tables 2, 3, 6 and 7 provide summaries of aquaculture products sold by species and size category at the U.S. level. Tables 4, 5, and 8 provide summaries of aquaculture products sold by species at the U.S. level. Table 9 provides a summary by value of aquaculture products sold at the U.S. level. Tables 10, 11, and 12 present data items for operations producing aquaculture products at the U.S. and State level. This includes operations with sales and operations which produced and distributed aquaculture products for conservation, recreation, enhancement, or restoration purposes. Tables 13 through 20 present selected data items for operations with sales of aquaculture products at the U.S. and State level. Table 21 presents the percent of aquaculture product sales by the first point of sales. Tables 22 and 23 provide information by species for operations that distributed aquaculture products for conservation, recreation, enhancement, or restoration purposes. Table 22 is at the U.S. level; Table 23 is at the U.S. and State level. Table 24 provides data for acres used for hybrid catfish production at the U.S. and State level. Throughout the publication average weight and average price data are published. These values are based on the number of fish sold, pounds sold, and total sales at the U.S. and State level. Average weight and average price data may vary considerably among farms due to different size, use, or marketing channels.

## **MEASURES OF CENSUS QUALITY**

There are two main types of estimation error that affect all estimates obtained from almost any survey. These errors make it unlikely that estimates obtained from the 2018 Census of Aquaculture will exactly match the true value in the population for a given farm characteristic.

The first type of error, referred to as non-observation error, occurs in any estimate generated from a survey in which nonresponse occurs or data are not potentially obtainable from every unit in the target population. Statistical weighting as described in the Estimation section is used to reduce the effects of this type of error.

The second type of error is called non-sampling error. There are many sources of non-sampling error. Respondent reporting errors, data collection errors, data keying errors, and data editing errors are all examples of errors of this type. Quality controlled data processing is used to keep the effect of non-sampling errors to a minimum.

## Census Response Rate

The response rate is one indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small. Because the aquaculture mail list contained both farm and nonfarm records, the response rate is an indicator of replying to the data collection effort but does not reflect whether those responding records qualified for data summarization. The U.S. response rate for the 2018 Census of Aquaculture was 83.7 percent. The U.S. response rate for the 2013 Census of Aquaculture was 90.2.

## MEASURES OF PRECISION

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), NASS provides data users with quality metrics for its published data series. The accuracy of data products may be evaluated through sampling and non-sampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Non-sampling error is evaluated by response rates and the percent of the estimate from respondents.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2018 Census of Aquaculture has a corresponding CV published with it. NASS has identified the following index to use when evaluating coefficient of variation for the 2018 Census of Aquaculture. The coefficient of variation is used as an indicator of the precision in the census estimates.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

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## CHAPTER 12. 2019 CENSUS OF HORTICULTURAL SPECIALTIES

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## INTRODUCTION

### History

For more than 156 years, the U.S. Department of Commerce, Bureau of the Census, conducted the census of agriculture and related censuses and surveys. The 1997 Appropriations Act contained a provision that transferred the responsibility from the Bureau of the Census to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). The census of horticultural specialties is a part of the agriculture census program.

The 2019 Census of Horticultural Specialties (CHS) is the eleventh census of horticultural specialties. Previous horticultural specialties censuses were conducted in conjunction with the census of agriculture and were taken in 1889, 1929, 1949, 1959, 1970, 1979, 1988, 1998, 2009, and 2014. The 2019 Census of Horticultural Specialties includes producers of floriculture, nursery, and other specialty crops, such as sod, food crops produced under glass or other protection, transplants for commercial production, and propagative materials.

### Uses of Horticultural Specialties Census Data

The 2019 Census of Horticultural Specialties collects information that provides a comprehensive and detailed picture of the horticultural sector of the U.S. economy. It is the only source of detailed production and sales data for floriculture, nursery, and specialty crops for the entire United States. Census data are used by government agencies, academia, nursery and floriculture industries, and the general public to:

- Evaluate, change, promote, and formulate policies and programs that help horticultural specialty producers.
- Study historic trends, assess current conditions, and plan for the future.
- Design new and improved methods to increase horticultural specialty production and profitability.
- Analyze and report on the current state of horticultural specialty production in the U.S.

Multi-channel news media and agricultural associations also use census data as background material for stories, posts, and articles on U.S. horticultural specialty production.

### Legal Authority

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2019 Census of Horticultural Specialties was conducted under the provisions of this section.

### Horticultural Specialties Operation Definition

The definition of a horticultural specialty operation is any place that produced and sold \$10,000 or more of horticultural specialty products during 2019. This same definition has been used since 1998 in the census of horticultural specialties. The definition used for the censuses in 1988, 1979, 1970, and 1959 included operations growing and selling \$2,000 or more of horticultural products during the census year. The definition used prior to 1959 used a \$1,000 minimum sales limit.

The definition of a farm in the census of agriculture, which is the basis for identifying horticultural specialty operations has also varied. Since 1974 the census of agriculture has included all farms from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. Prior to 1974, the farm definition was based on a lower value of products sold and included a relationship to acres on the operation.



## **Data Comparability**

Most data are comparable between the 2019 and 2014 censuses of horticultural specialties. A few changes were made to the 2019 census that affect comparability for some data items. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation. The data published in this publication are not directly comparable to 2017 Census of Agriculture (CoA) data or 2019 Commercial Floriculture Survey data. Although data were collected for the 2019 Census of Horticultural Specialties and the 2019 Commercial Floriculture Survey with the same report form, differences in the kinds of statistics collected and in collection methodology do not allow for direct comparability.

## **Reference Period**

The 2019 Census of Horticultural Specialties covers operations for the 2019 calendar year, except for a small number of operations that maintained their records on a fiscal year basis. These operations were permitted to report their fiscal year that included at least half of the 2019 calendar year. Data for trees on operation were collected for January 1, 2020. Data on estimated value of land, buildings, machinery and equipment were reported for December 31, 2019.

## **Respondent Confidentiality**

In keeping with the provisions of Title 7 of the United States Code, no data were published that would disclose information about the operations of an individual farm or ranch. All tabulated data were subjected to an extensive disclosure review prior to publication. Any tabulated item that identified data reported by a respondent or allowed a respondent's data to be accurately estimated or derived was suppressed and coded with a 'D.' The number of operations reporting an item was not considered confidential information and was provided even though other information may be withheld.

## **CENSUS POPULATION**

The 2019 Census of Horticultural Specialties was designed to cover all operations from which \$10,000 or more of horticultural products were produced and sold, or normally would have been sold, during 2019. Horticultural products include annual bedding/garden plants, potted flowering plants, cut flowers, cut cultivated florist greens, trees, shrubs, ground covers, vines, fruit and nut trees, sod, dry bulbs, greenhouse produced vegetables, commercial vegetable transplants, vegetable and flower seeds, Christmas trees, short rotation woody crops, aquatic plants, unfinished or prefinished plants, propagation materials, and other nursery or greenhouse plants.

To reduce respondent burden, data collection for the 2020 Commercial Floriculture Survey was conducted in conjunction with the 2019 Census of Horticultural Specialties. Supplemental questions, not summarized in the 2019 Census of Horticultural Specialties, were included in the data collection to meet the requirements needed for the Floriculture Crops 2019 Summary report.

The 2019 CHS mail list was built from NASS's list frame. All records on the frame with \$10,000 or more in horticultural sales were included on the mail list. A sample was selected for other horticultural operations on the frame that had less than \$10,000 in horticultural sales or had unknown sales values. The final mail list included 38,598 operations.

## **DEVELOPMENT OF THE REPORT FORM**

The 2019 Census of Horticultural Specialties report form was developed with input from the horticultural industry and from each of NASS's field offices. The report form was tested in several States and included various types of producers. Producers were asked to evaluate the report form through response by mail and cognitive interviews.

In order to reduce respondent burden, the 2020 Commercial Floriculture Survey (CFS) was combined with the 2019 Census of Horticultural Specialties (CHS). The commercial floriculture records typically sampled for the CFS followed the same data collection, processing, editing, imputation, analysis, publication procedures, and schedules as the 2019 CHS. The Floriculture Crops 2019 Summary was published containing comparable data for prior years. The 2019 summary utilized the same clean dataset as the 2019 CHS and was released the same day as the 2019 CHS in December 2020, as opposed to June 2020.

## DATA CHANGES FROM 2014

Following are descriptions of changes to the report form since the last time the census of horticultural specialties was conducted in 2014.

|   |  |
|---|--|
| Potted Herbaceous Perennials  | <ul style="list-style-type: none"> <li>Added the following perennials: <i>Ajuga</i>, <i>Delosperma</i>, <i>Dicentra</i> (Bleeding Heart), <i>Gaura</i>, <i>Iberis</i>, and <i>Lithodora</i>.</li> </ul>        |
| Annual Bedding/Garden Plants  | <ul style="list-style-type: none"> <li>Added the following plants: <i>Bacopa</i>; <i>Euphorbia</i>; <i>Impatiens</i>, interspecific hybrids; <i>Lantana</i>; and Sweet Potato Vine (<i>Ipomea</i>).</li> </ul> |
| Foliage Plants for Indoor Use   | <ul style="list-style-type: none"> <li>Added the following plants: <i>Agave</i>, <i>Alocasia</i> (<i>Colocasia</i>), <i>Cordyline</i>, <i>Pothos</i>, and <i>Sanseveria</i>.</li> </ul>                        |
| Cut Cultivated Greens   | <ul style="list-style-type: none"> <li>Added the following species: <i>Aralia</i>, <i>Calathea</i>, <i>Magnolia</i>, <i>Monstera</i>, Olive, and <i>Ruscus</i>, other.</li> </ul>                              |
| Cut Christmas Trees   | <ul style="list-style-type: none"> <li>Changed the title from “Christmas Trees Cut and To Be Cut” to “Cultivated Christmas Trees.”</li> <li>Added the following Christmas tree: Nordmann fir.</li> </ul>       |
| Nursery Stock Production  | <ul style="list-style-type: none"> <li>Changed the title of the section from “Nursery Stock Production” to “Nursery Stock Production and Sales.”</li> </ul>  |
| Nursery Stock –Sales Categories   | <ul style="list-style-type: none"> <li>No longer exists as a separate section. It is now question 3 in the Nursery Stock Production and Sales section.</li> </ul>  |
| Propagative Horticultural Material, Bareroot and Unfinished Plants        | <ul style="list-style-type: none"> <li>Removed the following propagative materials: African Violet cuttings, Carnation cuttings, African Violet liners, and Carnation liners.</li> </ul>                       |
| Report form – Horticulture, Hawaii only: Cut Flowers                      | <ul style="list-style-type: none"> <li>Removed Lei Flowers, Protea (blossoms) from the report form.</li> </ul>   |
| Commercial Floriculture Program: Program States                           | <ul style="list-style-type: none"> <li>Added - Alaska, Colorado, Connecticut, Virginia, and Wisconsin.</li> <li>Dropped - Hawaii, Maryland, and South Carolina.</li> </ul>                                     |
| Changes to data item names in 2019 include: Annual bedding/Garden Plants: | <ul style="list-style-type: none"> <li><i>Impatiens</i>, other/(<i>I. wallerana</i>) was renamed <i>Impatiens</i>, other (including <i>I. walleriana</i>). Data are comparable between censuses.</li> </ul>    |

Differences between the 2019 U.S. and Hawaii forms:

- Lei flowers were included on the Hawaii form but not on the U.S. form.
- Pink ginger, Red ginger, Other ginger, and Heliconia were collected as separate items in Hawaii. These items were collected as Ginger and Heliconia on the U.S. form.
- Bromeliad was listed separately on the Hawaii form but was included in Other potted flowering plants on the U.S. form.
- Cut flowers/Oncidiinae orchids and Cut flowers/Vandaceous orchids were listed separately on the Hawaii form and were included in Cut flowers/Other orchids on the U.S. form.
- Potted flowering plants/Oncidiinae orchid was listed separately on the Hawaii form and was included in Potted flowering plants/Other orchids on the U.S. form.
- Ti leaves, floral use and Ti leaves, other uses were listed separately on the Hawaii form and were included in Other cut cultivated greens on the U.S. form.
- In Propagative Horticultural Material, Bareroot and Unfinished Plants - Plug seedlings, Cut flower seedlings, Orchids, Dendrobium; Cut flower seedlings, all other orchids; and Cut flower seedlings, all other were listed separately and were combined under Plug seedlings/Cut flowers on the U.S. form.
- Plug seedlings, Potted plant seedlings, Orchids, Dendrobium; Potted plant seedlings, all other orchids; and Potted plant seedlings, all other were listed separately on the Hawaii form and were combined into Plug seedlings, Potted flowering plants on the U.S. form.
- In Area used for horticultural production/Cut flowers - Anthurium, Dendrobium orchids, and All other cut flowers were listed separately on the Hawaii form but were combined into Area used for horticultural production/Cut flowers on the U.S. form.
- In Area used for horticultural production/Potted flowering plants - Dendrobium Orchids and All other potted flowering plants were listed separately on the Hawaii form and were combined into Area used for horticultural production/Potted flowering plants on the U.S. form.

Items with no data reported for 2019:

- Lei flowers/Carnation heads.
- Lei flowers/Orchids, Vandaceous
- Plug seedlings/Potted plant seedlings/Orchids, Dendrobium

## **DATA COLLECTION**

### **Method of Enumeration**

The 2019 CHS primary data collection method was mailout/mailback with paper forms, supplemented with Computer-Assisted Self Interviews (CASI) on the Internet, telephone enumeration, and personal enumeration for special classes of records. Personal enumeration (interviewing) involved the use of both Computer-Assisted Telephone Interviewing (CATI) and Computer-Assisted Personal Interviewing (CAPI). Office enumerators at the NASS National Operations Division (NOD) in St. Louis, MO, with assistance from NASS staff in MT and AR, conducted CATI data collection. In addition, field enumerators conducted phone and personal interviews with respondents. For the 2019 CHS, NASS implemented a pre-notification strategy in an effort to increase awareness, improve overall responses, and encourage respondents to report early to avoid continued correspondence. All records in the initial mailout received either a postcard or pre-recorded voice message announcing the census mail packets were coming.

## Report Form

Three 28-page report forms were used to capture the number of horticultural products produced and sold and the value of sales for both retail and wholesale sales. The various types of plants sold were grouped by sections in the report forms. Additionally, information was obtained for area in production for several types of crops; marketing channels; estimated value of land, buildings, machinery, and equipment; production expenses; and the number of hired workers employed by the operation in 2019.

The three report forms used for the 2019 CHS included a U.S. (excluding Hawaii) horticulture report form (19-A624), a U.S. (excluding Hawaii) floriculture report form (19-A625), and a Hawaii horticulture report form (19-A627). The U.S. horticulture report form and the U.S. floriculture report form were exactly the same with the exception that they were printed in different colors to differentiate between horticulture operations (green forms) and floriculture operations (rose forms). The Hawaii horticulture report form content was unique. The Hawaii horticulture report forms were yellow forms. All of the report forms allowed respondents to write in specific commodities that were not listed on their form.

## Report Form Mailings

The Census Bureau's National Processing Center (NPC) in Jeffersonville, IN was contracted to perform mail packet preparation, pre-census notification postcard printing and mailing, initial mailout, reminder/thank you postcard printing and mailing, and a follow-up mailing to nonrespondents. NPC began pre-notification by postcard on December 16, 2019. The 2019 CHS report form was mailed from NPC on December 30, 2019. Each operation selected for the census was mailed a packet that contained a cover letter, an EDR instruction letter, a report form instruction sheet, a labeled report form, and a return envelope addressed to either NPC or NOD for data capture. The report form carried a return due date of February 5, 2020. NPC mailed a reminder/thank you postcard on February 14, 2020. The follow-up mailing took place from NPC on February 24, 2020.

## Respondent Follow-up

Telephone follow-up interviews to nonrespondents took place from March 16 to July 23, 2020 from a NASS Data Collection Center. Data collection for the 2019 CHS was coordinated with other NASS surveys. In some cases, if a horticultural operation was also selected for a survey, NPC mailed the 2019 CHS materials to NASS regional field offices. Office personnel were responsible for collecting the horticulture data and completing other survey report forms in the most efficient way to reduce the number of contacts and minimize respondent burden.

## REPORT FORM PROCESSING

### Data Capture

NPC received and processed returned mail packets for all U.S. horticulture and floriculture report forms (19-A624, 19-A625, and 19-A627). NASS staff on site at NPC provided technical guidance and monitored NPC processing activities. All report forms returned to NPC were immediately checked in, using bar codes printed on the mailing label, and removed from follow-up report form mailings. All forms with any data were scanned and an image was made of each page of a report form. Optical Mark Recognition (OMR) was used to capture categorical responses and to identify the other answer zones in which some type of mark was present. All forms were reviewed prior to data keying to identify inconsistencies and ensure the data could be keyed. Major inconsistencies, respondent remarks, and blank forms were reviewed by analysts and adjusted prior to keying. In some cases, report forms were mailed to regional field offices for further editing.

Data entry operators keyed data from the scanned images using OMR results that highlighted the areas of the report forms with respondent entries. The keyers evaluated the contents and captured pertinent responses. Ten percent of the captured data were keyed a second time for quality control. If differences existed between the first keyed value and the second, an adjudicator handled resolution. The decision of the adjudicator was used to grade the performance of the keyers, who were required to maintain a certain accuracy level.

The images and the captured data were transferred to NASS's centralized network and became available to regional field offices and headquarters on a flow basis. The images were available for use in all stages of review. Images were computer generated for reports obtained from the telephone interviews and the Internet.

## **Data Editing**

Captured data were processed through a computer formatting program that verified records were valid. Rejected records were referred to analysts for correction. Accepted records were sent to a complex computer batch edit process. Each execution of the computer edit in batch mode consisted of records from only one State and flowed as the data were received from each data collection source.

The computer edit determined whether a reporting operation met the qualifying criteria to be counted as an in-business record. The edit examined each in-business record for reasonableness and completeness and determined whether to accept the reported value for each data item or to take corrective action. Such corrective actions included removing erroneously reported values, replacing an unreasonable value with a value consistent with other reported data, or providing a value for an item omitted by the respondent. To the extent possible, the computer edit assigned a value deterministically within the edit or marked the value for imputation for later resolution. Operations failing to meet the qualifying criteria were categorized as out-of-scope. Out-of-scope records that NASS had reason to believe might be in-business (indications of recent and/or significant horticultural activity reported on NASS surveys, for example) were referred to analysts for verification and action.

The edit systematically checked reported data section-by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts had previously defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. Regional field office analysts also participated using an interactive version of the edit program to submit corrected data and subsequently re-edit the record to ensure satisfactory resolution.

## **Imputation**

After the initial edit, an automated imputation program supplied data based on State or national averages. Post-imputation records were run back through the computer edit to ensure imputation actions provided acceptable results. Instances where imputed data failed edit checks were referred to analysts for corrective action.

## **Data Analysis**

The complex edit ensured the full internal consistency of the record. Successfully completing the edit did not provide insight as to whether the report was reasonable compared to other reports in the county. Analysts were provided an additional set of tools to review record-level data across operations. These examinations revealed extreme outliers, large and small, or unique data distribution patterns that were possibly a result of reporting, recording, or handling errors. Potential problems were researched and, when necessary, corrections were made and the record interactively edited again.

## **ESTIMATION**

### **Nonresponse Weighting**

The 2019 Census of Horticultural Specialties is a census of every operation on the NASS Horticulture Sampling Frame with at least \$10,000 of horticultural sales indicated. Operations on the frame that had indicators of horticultural sales below the \$10,000 threshold were sampled at an average rate of 1 out of 3.

Although much effort was expended to obtain a response from each operation selected for the census, it was not possible to obtain a complete set of responses. Nonresponse can lead to biases in published estimates because the information concerning the horticultural enterprise production on the nonresponding operations could not be factored into the estimates. Such estimates of totals will be biased low. To reduce this bias, NASS made nonresponse adjustments to the initial weights of the responding operations. The nonresponse weight adjustment increases the weight of responding operations to account for the data that would have been reported by the nonresponding operations. This increased the estimates of totals obtained by the respondents and reduced this bias.

Conceptually, each operation on the sample begins the weighting process with an initial weight equal to the inverse of the record's probability of selection. Records with sales of \$10,000 or more will have an initial weight of 1 because they are selected with certainty. Records with sales less than \$10,000 will have an initial weight of about 3.

If each operation selected for the census provided the requested data, the data could simply be multiplied by each record's initial weight then added up to attain an estimate for the total amount of the item of interest. In the presence of nonresponse, nonresponse adjustments are computed and applied to the initial weights of the responding operations resulting in a nonresponse-adjusted weight greater than the initial weight for these operations. The initial weight of each nonresponding operation is then adjusted to zero. The adjustments are computed in a manner that requires the sum of the nonresponse-adjusted weights across the responding operations on the census to equal the number of records on the sampling frame.

### **Nonresponse Weight-Adjustment Groups**

To compute nonresponse adjustments, each operation on the mail list was placed in a weight-adjustment group. Each operation was assigned to a group based on the characteristics used to define the group. It was necessary that the characteristics that defined the weight-adjustment groups were available for responding and nonresponding operations alike. Therefore, it was not possible to define weight adjustment groups using data collected via the 2019 CHS.

The information on the sampling frame was used to create the weight-adjustment groups and was a measure of the horticultural economic size (HES). The basic definition of the weight-adjustment groups is given below:

Definition:

HES < \$10,000

\$10,000 < = HES < \$50,000

\$50,000 < = HES < \$150,000

\$150,000 < = HES < \$250,000

\$250,000 < = HES < \$500,000

\$500,000 < = HES

Must Group (varies by State)

All records that were considered likely to be very large horticultural operations for a given State were considered "must" cases and put in a special group. For all records in a must group, nonresponse adjustment was not allowed, and data were imputed for any of these records that did not respond. Must group definitions varied by State.

### **Nonresponse-Adjustment Computation**

A separate nonresponse adjustment was calculated within each weight-adjustment group. All responding records within each group received the same nonresponse adjusted weight. The nonresponse adjustment was obtained by dividing the sum of the initial weights across all the records in the group by the sum of the initial weights of the responding operations in the group. If the sum of the initial weights across all records in the group was 50 and the sum of the initial weights of all responding operations in the group was 40, the nonresponse-adjustment for the responding operations was 50/40 or 1.25. The nonresponse-adjusted weight for all responding operations in the group was the product of the initial weight and the nonresponse adjustment of 1.25. This was simply (1 x 1.25). Note that 1.25\*40=50, the sum of the initial weights for all records in the group.

The assumption made when computing nonresponse adjustments in this way was that within each weight adjustment group, the data that the nonrespondents would have provided had they responded were collectively similar to the data provided by the respondents. This assumption was made somewhat more plausible because operations in the same group shared similar characteristics with respect to the information used to define the group - the HES.

### **Coverage Weighting Adjustments**

The target population for the 2019 CHS was all operations that had at least \$10,000 of commercial horticultural production in 2019. Unfortunately, it is impossible to compose a list of operations that is complete. Due to this incompleteness of the mail list, data produced from it, even if perfectly corrected to account for nonresponse, will still tend to be biased downwards because operations not on the list would not have any representation. This bias due to list incompleteness is called coverage bias, or more specifically, bias due to undercoverage of the sampling frame.

To reduce the amount of this bias, an additional adjustment was calculated and applied to the nonresponse-adjusted weight for each responding operation. This was called the coverage adjustment.

### **Coverage Adjustment Computation**

The majority of the 2019 CHS respondents were also respondents on the 2017 CoA. Operations that were respondents to both censuses were assigned the census of agriculture coverage adjustment computed for the operation in the 2017 CoA. The coverage adjustment for 2019 CHS respondents that did not match the 2017 CoA were calculated using records with similar information that did match the 2017 CoA.

The coverage adjustment was then applied to the nonresponse weight for each 2019 CHS respondent record. This resulted in a fully-adjusted weight. The fully-adjusted weight attempts to correct for nonresponse bias, as well as coverage bias.

### **Summary Weights**

Most of the fully-adjusted weights for the 2019 Census of Horticultural Specialties were not whole numbers (integers). Using these weights to create the estimates published in the tables would result in fractional values. These would be difficult to read and cause consistency problems between related tables. To avoid some of these problems, summary weights were created by randomly moving the fully-adjusted weights up or down to an integer in a way that preserved the overall sum of the fully adjusted weights. This process is called weight integerization. The resulting summary weights were used to produce the numbers published in the tables.

### **Census Response Rate**

The response rate is an indicator of the quality of data collection. It is generally assumed that if a response rate was close to 100 percent, the potential for nonresponse bias is small. Because this census contains both farm and nonfarm records, the response rate is an indicator of replying to the census data collection effort but does not reflect whether those responding met the farm definition or had the items of interest for the census. Using the fourth response rate formula (RR4) from the American Association of Public Opinion Research's Response Rate Standard Definitions manual the response rate for the 2019 Census of Horticulture Specialties survey is 66.3 percent. This compares to 68.9 percent for the 2014 Census of Horticulture Specialties Survey.

## **TABULATIONS**

NASS prepared and published data tables for all data items on the report form. The 2019 Census of Horticultural Specialties publication, Volume 3, Special Studies, Part 3, included published data at national and state levels on number and kinds of horticultural specialty operations, value of sales, and types of products. In Chapter 1 of the publication, Table 1 shows U.S. level historical data through the 1929 census. Tables 2 through 34 show detailed U.S. level data for 2019. In Chapter 2 of the publication, Tables 1 through 42 present selected 2019 data for all states reporting a data item.

## MEASURES OF PRECISION

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), NASS provides data users with quality metrics for its published data series. The accuracy of data products may be evaluated through sampling and non-sampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Non-sampling error is evaluated by response rates and the percent of the estimate from respondents.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2019 Census of Horticultural Specialties has a corresponding CV published with it. NASS has identified the following index to use when evaluating coefficient of variation for the 2019 Census of Horticultural Specialties. The coefficient of variation is used as an indicator of the precision in the census estimates.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.



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## CHAPTER 13. 2019 ORGANIC SURVEY

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## **INTRODUCTION**

### **History**

The 2019 Organic Survey is a special study conducted by the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) and is part of the 2017 Census of Agriculture program. The primary purpose of the survey is to collect value of sales information at the commodity level along with acreage, production, and practices data for a variety of certified organic crop and livestock operations.

The first organic survey was initiated in 2008 to support an emerging organic industry. The 2008 and 2014 organic surveys were conducted as part of the census of agriculture as special studies. These data collection efforts surveyed all known certified, exempt, and transitioning organic operations in the U.S. The 2011, 2015, and 2016 certified organic surveys were conducted in cooperation with USDA's Risk Management Agency in an effort to expand the number and variety of premium price elections for certified organic crops. The survey in these years were restricted to only certified organic operations in the U.S.

It is important that detailed, unbiased information is available to help determine the economic impact of certified organic production at the national and State levels. Data published from the survey provide the industry with a reliable source of timely information for use in justifying research projects and fund requests that benefit producers.

### **Uses of Survey Data**

The 2019 Organic Survey collected detailed information at the commodity level on acreage, production, and sales for a variety of organic crop and livestock commodities. Information was also collected on marketing and agricultural practices, crop insurance usage, select production expenses, and acres transitioning into organic production. All data except for the items related to land transitioning into organic production pertain only to certified organic farms.

The data are used to guide industry planning; monitor growth; shape decisions regarding farm policy, research, and funding allocations; and other key issues. Certified organic survey data are used by –

- Farm organizations to petition Congress or State legislatures for funding and support of industry related programs;
- Government, extension, and university scientists to determine research needs;
- Suppliers to the organic industry to plan production and marketing of new products; and
- USDA agencies, such as RMA, to provide better insurance coverage for certified organic crops through the Federal Crop Insurance Corporation (FCIC).

### **Legal Authority**

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2019 Organic Survey was conducted under the provisions of this section.

### **Certified Organic Definition**

According to the National Organic Program (NOP), USDA's National Organic Standards Board determined a national standard that organic food must be produced without the use of conventional pesticides, petroleum-based fertilizers, sewage-sludge-based fertilizers, herbicides, genetic engineering (biotechnology), antibiotics, growth hormones, or irradiation. Animals raised on an organic operation must meet animal health and welfare standards, not be fed antibiotics or growth hormones, be fed 100-percent organic feed, and must be provided access to the outdoors. Land must have no prohibited substances applied to it for at least three years before the harvest of an organic crop. The NOP states that all farms, ranches, and handling operations that display the "USDA Organic" seal must be certified organic by the State or by a private agency, accredited by the USDA, to ensure the NOP standards are followed. Farms that follow the National Organic Program standards and have less than \$5,000 in annual sales can be exempt from certification. The exempt farms may use the term

“organic” but may not use the “USDA Organic” seal. The 2019 Organic Survey did not include organic handlers and processors.

## **Data Comparability**

The 2019 Organic Survey published data from producers that were certified organic and transitioning to organic certification. The weighting methodology for the survey includes weight adjustments for nonresponse and undercoverage. Comparisons with other NASS publications and other non-NASS sources must allow for differences in list sources, report form design, reference periods, organic definitions, and weighting adjustments.

The 2016 and 2015 Certified Organic Surveys published data from certified organic farms and ranches and included weight adjustments for nonresponse and undercoverage.

The 2014 Organic Survey published data from producers that were certified organic, exempt from certification, and transitioning to organic certification. The weighting methodology for the survey included adjustments for nonresponse, undercoverage, and misclassification.

## **Reference Period**

Crop, livestock, and poultry production, production expenses, crop insurance usage, agricultural practices, and marketing practices are measured for January 1, 2019 through December 31, 2019.

## **Respondent Confidentiality**

In keeping with the provisions of Title 7 of the United States Code, no data were published that would disclose information about the operations of an individual farm or ranch. All tabulated data were subjected to an extensive disclosure review prior to publication. Any tabulated item that identified data reported by a respondent or allowed a respondent's data to be accurately estimated or derived, was suppressed and coded with a ‘D.’ However, the number of farms reporting an item was not considered confidential information and was provided even though other information was withheld.

## **SURVEY POPULATION**

The target population for the 2019 Organic Survey was all U.S. farms and ranches certified for meeting the standards of the National Organic Program (NOP) administered by the USDA’s Agricultural Marketing Service (AMS). (NOP standards are available on the internet at [www.ams.usda.gov/nop](http://www.ams.usda.gov/nop).) Only data from operations certified by an AMS approved agent are published.

To ensure that all certified organic farms and ranches were provided the opportunity to complete the survey, the list of farms and ranches contacted for this survey included producers identified as certified organic or to organic certification in NASS’ List Frame and the AMS NOP List. The final census count included 22,729 producers that met the criteria.

The census count is the number of records from the mail list that had certified organic production in 2019 or whose operational status was unknown. The census count for the U.S. was 16,589.

## **DEVELOPMENT OF THE REPORT FORM**

Planning for the 2019 Organic Survey began in the fall of 2018. NASS pretested an early draft of the report form by conducting cognitive interviews with certified organic producers. Results from the cognitive interviews, along with recommendations from federal representatives and lessons learned from the 2016 Certified Organic Survey, were considered carefully before the final report form was completed.

## **DATA CHANGES**

The crop and livestock sections had minor changes since the 2014 Organic Survey.

- In Section 2, Certified Organic Vegetables Grown in the Open, Squash was updated to Squash, All including zucchini to ensure that all squash were accurately accounted for on the report form.

- In Section 10, Certified Organic Livestock, Poultry, and Livestock Products, the screening question was updated to ask respondents to include items produced for home use. In 2014, items for home use were excluded.

## Report Form Changes

The order of sections in the report form were changed from the 2014 Organic Survey. A screener question was added which allowed respondents to skip fresh and processed utilization questions in the fruit and vegetable sections if the respondent only sold fresh market commodities.

| Section | Change Made   |
|---------|---|
| 4       | Certified Organic Cultivated Christmas Trees and Maple Syrup were removed from the Organic floriculture crops, nursery crops, mushrooms and vegetables/herbs grown under protection section and given a separate section (Section 4) on the 2019 report form.   |
| 6       | Certified Organic Apples, the number of specific apple varieties reported by respondents were reduced from 22 to 9. The varieties listed in 2019 were Braeburn, Cameo, Cripps Pink, Gold Delicious, Granny Smith, Honeycrisp, and Red Delicious. Any varieties not listed were reported as “varieties not listed” and specified on the report form.   |
| 7       | Certified Organic Citrus Fruits were removed from the Other Organic Fruits, Tree Nuts and Berries Section where they were included in 2014 and given a separate section (Section 7) on the 2019 report form.  |
| 8       | Certified Organic Berries, Tree Nuts, and Fruits were removed from the Other Organic Fruits, Tree Nuts and Berries Section where they were included in 2014 and were given a separate section in 2019 (Section 8).  |
| 12      | In Section 12, Marketing Practices, the questions regarding the location of the first point of sales for organic agriculture products produced by the operation and questions regarding production contracts were removed. The reporting of value added products was simplified to a single question regarding gross value of sales and a specification box for the type of value added product.  |
| 13      | In Section 13, Other Information, the number of reported production expenses were reduced from 15 to 7. Questions regarding the portion of reported production expenses resulting from organic production (percent) were removed.<br><br>In Section 13, Other Information, the Gross Value of Sales breakouts were reduced from 34 to 13. Questions regarding what portion of the Net Household Income came from the production and the sale of organic agricultural products were removed. |
| 15      | In Section 15, No Certified Organic Production, had a screener added for operations that reported “No certified organic production in 2019.” This section contained specific questions related to the operation not reporting certified organic production in 2019.   |

## DATA COLLECTION

### Method of Enumeration

The 2019 Organic Survey was conducted using multiple data collection strategies. Data were collected primarily by mail and supplemented with Electronic Data Reporting (EDR) via the Internet, telephone calls, and personal enumeration. Enumeration methods were similar to those used in the 2014 Organic Survey.

## Report Form

A 16-page report form (19-A623) was designed to collect information about certified organic production of field crops, vegetables, fruits, tree nuts, berries, horticulture, livestock, and poultry, as well as expenses, practices, and marketing questions. Seven cognitive interviews of the form were conducted in California, Iowa, Minnesota, Ohio, Washington, and Wisconsin with farms and ranches in the target population.

## Report Form Mailings and Respondent Follow-up

A pre-survey postcard was mailed to all respondents in early December with instructions on how to complete the survey online. The initial mailout occurred in late-December 2019. The initial mail packets included a labeled report form, an instruction sheet, a letter that requested a prompt response and included instructions for completing the form via Internet, and a postage-paid return envelope. One follow-up mailout to nonrespondents occurred in late February 2020. Printing, mail packet preparations, and mailouts were managed by the U.S. Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. Additional telephone follow-up interviews were conducted by NASS Data Collection Centers and in person by National Association of State Departments of Agriculture (NASDA) staff from February 2020 through May 2020.

Data were collected for a select group of producers by NASS field offices. To minimize the number of agency contacts, operations included in this group were flagged for contact by NASS staff in the Regional Field Offices (RFO) or by NASDA staff for other agricultural surveys. RFO and NASDA staff collected data by personal enumeration or by phone from February 2020 through May 2020.

## REPORT FORM PROCESSING

### Data Capture

All report forms returned to NPC were immediately checked in using bar codes printed on the mailing label and removed from the follow-up mailout. All forms with any data were scanned and an image was created for each page of a report form. After the images were created, the data were keyed as reported from the paper form received. Any inconsistencies and respondent remarks were reviewed by statisticians in the RFOs and corrected, if necessary, during data editing and analysis.

### Data Editing and Analysis

Data from each report form were processed through a computer edit which flagged missing or inconsistent entries. Each report with a flagged entry was reviewed by regional field office and/or headquarters statisticians. Action was required for any report with reported data that were clearly incorrect, for example, in some cases, respondents may have failed to provide all of the information requested, only indicating the presence of an item but not the amount. These items were tagged for machine imputation. After the initial edit, an imputation program supplied missing data and made adjustments based on responses of similarly sized farms within the same geographic area. Data entries by the computer edit process were reviewed and verified by analysts. Instances where imputed data failed edit checks were referred to statisticians for corrective action. The computer edit ensured the data on a report form were internally consistent.

Prior to publication, tabulated totals were reviewed to identify and resolve remaining irregularities. Comparisons were made with 2017 CoA data, 2016 Certified Organic Survey data, and other available check data. The data were processed through a disclosure program to prevent data from being published that could be sourced back to an individual operation.

### Imputation

For item level nonresponse in the 2019 Organic Survey, a multivariate sequential regression approach was used to impute for missing values. Reports were grouped by State, region, or strata for a better selection of covariates going into the regression model. This technique preserved the relationships within the data and allowed for comparable distributions post and pre imputation. Categorical variable imputations were performed using the multivariate sequential regression approach however taking into consideration the distribution of reported data.

Items that were imputed:

- Crop production, utilization, and gross value of sales;
- Livestock moved/sold and gross value of sales;
- Crop insurance; and
- Production expenses.

## **ESTIMATION**

NASS's goal was to produce certified and transitional organic agricultural totals for the publication that were fully adjusted for list undercoverage and nonresponse. Although much effort was expended making the 2019 Organic Survey list as complete as possible, it did not include all U.S. certified and transitional organic farms and ranches, resulting in list undercoverage. Some organic producers did not respond to the survey, despite numerous attempts to contact them.

Nonrespondents were accounted for in the final data by increasing the survey weights of the respondents inversely to the proportion of nonrespondents. Record-level list frame control data and 2016 Certified Organic Survey State-level number of organic farms and ranches were used to define weighting cells (strata) comprised of farms and ranches of similar size or production. The counts of survey respondents and nonrespondents were used to compute the adjustment factor for the weighting cell. The methodology assumed nonresponse was random. For example, a weighting cell has 100 farms and ranches of which 80 responded and 20 did not. Every respondent would have its original weight of 1 increased to 1.25 (100/80) to represent the farms and ranches not responding.

The 2017 Census of Agriculture (CoA) was used to adjust for undercoverage. The records of respondents to the 2019 Organic Survey were matched to the records responding on the 2017 CoA organic production section. For the records that responded as having organic production on both the 2019 survey and on the 2017 CoA, the undercoverage component was derived by multiplying the percent of adjustment of undercoverage for organics reports with the calibrated CoA weight and then applied to the 2019 survey response. These records were used to build a regression model of undercoverage weights using survey responses. For each 2019 survey response that did not match to a 2017 CoA record, the estimated weight from the regression model was that record's undercoverage weight.

## **TABULATIONS**

NASS prepared and published data tables for all data items on the report form. The 2019 Organic Survey publication, Volume 3, Special Studies, Part 4, included data published for certified organic farms and ranches at the U.S. and state levels. Tables 1 through 28 contain data only for certified organic farms. Tables 29 through 34 contain data on farms and land transitioning into organic production for both currently certified organic farms and farms transitioning into organic production.

## **MEASURES OF SURVEY QUALITY**

Results of the 2019 Organic Survey are subject to non-sampling errors. Sources of non-sampling errors include respondent reporting errors, recording errors, errors in data capture, or errors in action taken during editing and imputation. Extensive efforts were made to minimize these types of errors.

### **Survey Response Rate**

The response rate is an indicator of the quality of data collection. It is generally assumed that if a response rate was close to 100 percent, the potential for nonresponse bias is small. Because the survey contained both farm and nonfarm records, the response rate is an indicator of replying to the survey data collection effort but does not reflect whether those responding met the farm definition or had the items of interest for the survey. The response rate for the 2019 Organic Survey was 74 percent. This compared to 63 percent for the 2014 Organic Survey.

## MEASURES OF PRECISION

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The accuracy of data products may be evaluated through sampling and non-sampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Non-sampling error is evaluated by response rates and the percent of the estimate from respondents.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2019 Organic Survey has a corresponding CV published with it. NASS identified the following index for use when evaluating coefficient of variation for the 2019 Organic Survey. The coefficient of variation is used as an indicator of the precision in the survey estimates.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

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## CHAPTER 14. 2020 LOCAL MARKETING PRACTICES SURVEY

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## INTRODUCTION

The 2020 Local Food Marketing Practices Survey is a survey conducted by USDA's National Agricultural Statistics Service to produce data about local food marketing practices. This 2017 Census of Agriculture special study provides data on the marketing of locally and regionally produced agricultural food products, as directed under the 2018 Farm Bill. The 2020 Local Food Marketing Practices Survey was second time NASS conducted this survey.

### Uses of Survey Data

Local foods were linked to many USDA priorities – including enhancing the rural economy, the environment, food access and nutrition, and strengthening agricultural producers and markets. USDA stakeholders, including farmers and ranchers, various levels of government, and related businesses and organizations, benefited from the new information. The data were used for decisions and programs that supported local and regional food systems, including:

- USDA Agricultural Marketing Service's Farmers Market Promotion Program, Local Food Promotion Program, Specialty Crop Block Grants Program.
- USDA Farm Service Agency's Microloan Program.
- USDA Food Insecurity Nutrition Incentives Program, a collaboration between USDA's National Institute of Food and Agriculture and USDA's Food and Nutrition Service
- USDA Food and Nutrition Service's efforts to expand EBT availability at farmers markets
- State and local agencies' support and promotion of local food markets
- Farmers' and ag organizations' business and marketing strategies
- Researchers', extensions' and university members' local foods research

## SURVEY POPULATION

The 2020 Local Food Marketing Practices Survey (LFMPS) was designed to collect data related to the marketing of foods directly from farm producers to consumers, institutions, retailers who sell directly to consumers, and intermediate markets who sell locally or regionally branded products. The primary purpose of the 2020 Local Food Marketing Practices Survey was to produce important statistics on the number of operations that sell using direct marketing channels, the value of foods sales, and their marketing practices. The survey's scope excluded farms such as grazing associations, American Indian reservations, and government-operated units (i.e., hospitals, prisons, research farms, university and other school farms, and church farms). The survey was administered in all 50 States.

### Sampling & Sample Stratification

The LFMPS Sampling Frame comprises all active operations, in all States, on NASS's List Frame. The LFMPS Sampling Frame was stratified by region, state, direct sales type group and direct sales value or commodity group.

#### *Direct Sales Type Group Stratification:*

Group 1. Operations that had a direct market sales value.

Group 2. Operations that had a direct market sales indicator.

Group 3. Operations that did not have a direct market sales value or indicator.

Group 1 was stratified using direct market sales value as a measure of size. Groups 2 and 3 were stratified by commodity groups.

**Sample Size:** The 2020 Local Food Marketing Practices Survey U.S. sample size, after adjusting for an expected 56.9 percent response rate, was 64,540.

## **DEVELOPMENT OF THE REPORT FORM**

All federal data collections require approval by the Office of Management and Budget (OMB). NASS must document the public need for the data, show the design applies sound statistical practice, ensure the data do not already exist elsewhere, and show that the public is not excessively burdened. The 2020 Local Food Marketing Practices Survey report form displayed an active OMB number that gave NASS the authority to conduct the survey, as well as a statement of the purpose of the survey and the use of the data being collected. The report form included a response burden statement that gave an estimate of the time required to complete the form as well as a confidentiality statement explaining that the respondent's information was protected from disclosure.

In addition to asking marketing practice questions, all survey instruments collected information to verify that the sampled operation qualified for the target population. Any operation name or address changes were reviewed as well.

## **DATA COLLECTION**

All data collection instruments were tested prior to the start of data collection. In addition to asking marketing practice questions, all survey instruments collected information to verify the sampled unit, determined any changes in the name or address, and verified the operation still qualified for the target population.

### **Report Form Mailings and Respondent Follow-up**

The NASS National Operations Division (NOD) in St. Louis, MO, mailed respondents pre-survey postcards in December 2020. The report form, along with a cover letter and instructions for web reporting, were mailed in January 2021. Mail, web, and telephone interview modes of data collection were utilized for the survey. Respondents who did not return their survey by the end of February 2021 were sent a follow-up mailing at that time. In April 2021, NASS began telephone enumeration for remaining non-respondents. Data collection concluded in May 2021.

In December 2021, a supplemental sample was created and surveyed. The original sample came from farmers and ranchers who had previously reported local food marketing activity on the prior surveys and census. Considering the extreme dynamics of the COVID-19 pandemic and reliance on previous indicators of local food marketing based on the 2017 Census of Agriculture, contacting additional producers to get the complete picture of local food marketing practices was required. Respondents in this second sample received the same questionnaire and materials as respondents in the first sample, which included the cover letter and instructions for web reporting. The respondents in the supplemental sample utilized the same web reporting instrument as the first sample.

Respondents in the second sample were mailed a questionnaire in late November 2021, and non-respondents received a follow-up mailing in late December 2021. This data collection effort did not include phone follow-up or field enumeration. Data collection, for the second sample ended in late January 2022.

For consistency across data collection modes, the paper report form version was considered the master report form, while the web and telephone interviewing instruments were built to model the paper instrument. The USDA Agricultural Marketing Service, as well as representatives from Local and Regional Food Systems Working Group played a significant role in developing the report form. Report form content and format were evaluated by NASS through a specifications process, where requests for changes were evaluated and approved or disapproved. A NASS survey methodologist also conducted cognitive interviews before the report form was finalized. All data collection instruments were tested prior to the data collection.

## **DATA EDITING AND ANALYSIS**

As survey data were collected and captured, they were edited for consistency and reasonableness using automated systems. The edit logic ensured administrative coding followed the methodological rules associated with the survey design. Relationships between data items on the survey were verified. The edit determined the status of each record as either "dirty" or "clean." Dirty records were either updated or certified by an analyst as accurate. Corrected data were then reedited interactively.

Data were analyzed with an interactive tool. This tool displayed the data from all report forms and the data could be focused and sorted by individual report form items. The tool provided various scatter plots, tables, charts, and special tabulations that allowed analysts to compare an individual record to other similar records within the appropriate State and region. These tools identified outliers and unusual data relationships, which prompted NASS Regional Field Office and Headquarters staff to review and determine if they were correct. Suspect data found to be in error were corrected, while data found to be correct were kept.

## **ESTIMATION**

### **Non-sampling Errors**

These survey process errors include reporting, recording, editing, and imputation errors. Steps were taken to minimize the impact of these errors, such as with report form testing, comprehensive interviewer training, validation and verification of processing systems, detailed computer edits, and the analysis tool.

### **Weighting Methodology**

The survey utilized nonresponse weighting and coverage weights.

### **Nonresponse Weights**

When conducting a sampled survey, not all the operations selected in the sample will provide the requested information. Bias is introduced if these records are not taken into consideration for the final results. To compensate for this situation, a nonresponse weight was calculated. A nonresponse weight adjustment will increase the weights of the responding operations inversely proportioned to those records that did not respond.

To calculate the nonresponse weight adjustment, records were grouped by sampling region and strata. The number of operations that responded to the survey were used to calculate the adjustment for each group. The methodology assumes that the nonresponse is random

Nonresponse Adjustment = Total number sampled / Total number responded

### **Coverage Weights**

While NASS makes every effort to keep a complete and up-to-date list of all the farms in the United States, there are always farms coming in and out of business. Due to the fluid nature of the agriculture industry, it is difficult to create a frame that is complete. The majority of 2020 LFMPS respondents were also respondents on the 2017 Census of Agriculture. Operations that were respondents to both the 2017 Census of Agriculture and the 2020 LFMPS survey were assigned the 2017 Census of Agriculture coverage adjustment. The coverage adjustment for 2020 LFMPS respondents that did not match to the 2017 Census of Agriculture were calculated using regression modeling and information from similar operations.

### **Final Weights and Calibration**

The final weights for the in-scope farms on the NASS list frame were calculated as:

Final Weight = Sample Weight x Nonresponse Adjustment x Coverage Adjustment

However, once the final weights were calculated several of the final weights were largely inflated, because of some of the sample probabilities were small in some sampling strata. To reduce the effects of these records on the estimators, calibration was used to redistribute these weights. Target numbers were established for categories of interest. The targets used for calibration were:

- Total number of local foods operations by marketing channel

- Total gross value of sales for local food products

An algorithm was used to redistribute the final weight while providing a maximum weight that records could obtain. The algorithm adjusted the weights such that the sum of the calibrated weights met the target values within some error. The maximum possible weight that records were allowed to take was 150. 'Must' records (records with a sample probability of 1) had a maximum weight of 2. Once the records were calibrated, the values of interest were estimated by summing the weights for records belonging to the category of interest.

## MEASURES OF SURVEY QUALITY

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The metrics table below describe the performance data for the survey contributing to the publication. The accuracy of data products may be evaluated through sampling and non-sampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Non-sampling error was evaluated by response rates and the percent of the estimate from respondents.

- **Sample size** is the number of operations selected from the population (sampling frame).
- **Response rate** is the proportion of the sample that completed the survey. This calculation follows Guideline 3.2.2. of the Office of Management and Budget Standards and Guidelines for Statistical Surveys (Sept 2006).
- **Coefficient of variation** is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the Local Food Marketing Practices Survey project has a corresponding CV published with it. NASS has identified the following index to use when evaluating coefficient of variation for the Local Food Marketing Practices Survey.
  - **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.
  - **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent.
  - **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

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## CHAPTER 15. PUBLICATION PROGRAM

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## DISCLOSURE REVIEW

After tabulation and review of the aggregates, a comprehensive disclosure review was conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Farm counts are not considered sensitive and are not subject to disclosure controls. Cell suppression was used to protect the cells that were determined to be sensitive to a disclosure of information.

Based on agency standards, data cells were determined to be sensitive to a disclosure of information if they failed either of two rules. The threshold rule failed if the data cell contained less than three operations. For example, if only one producer produced turkeys in a county, NASS could not publish the county total for turkey inventory without disclosing that individual's information. The dominance rule failed if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. For example, if there are many producers producing turkeys in a county and some of them were large enough to dominate the cell total, NASS could not publish the county total for turkey inventory without risking disclosing an individual respondent's data. In both situations, the data were suppressed and a "(D)" was placed in the cell in the census publication table. These data cells are referred to as primary suppressions.

Since most items were summed to marginal totals, primary suppressions within these summation relationships were protected by ensuring that there were additional suppressions within the linear relationship that provided adequate protection for the primary. A detailed computer routine selected additional data cells for suppression to ensure all primary suppressions were properly protected. These data cells are referred to as complementary suppressions. These cells are not themselves sensitive to a disclosure of information but were suppressed to protect other primary suppressions. A "(D)" was also placed in the cell of the census publication table to indicate a complementary suppression. A data user cannot determine whether a cell with a (D) represents a primary or a complementary suppression.

Regional field office analysts reviewed all complementary suppressions to ensure no cells had been withheld that were vital to the data users. In instances where complementary suppressions were deemed critically important to a State or county, analysts requested an override and a different complementary cell was chosen.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

Figure 15.1 List of Abbreviations and Symbols

|      |   |         |                                   |
|------|---|---------|-----------------------------------|
| -    | Represents zero.  | (NA)    | Not available.                    |
| (D)  | Withheld to avoid disclosing data for individual farms.   | (X)     | Not applicable.                   |
| (H)  | Coefficient of variation is greater than or equal to 99.95 percent or the standard error is greater than or equal to 99.95 percent of mean. | (Z)     | Less than half of the unit shown. |
| (IC) | Independent city.   | sq. ft. | Square feet                       |
| (L)  | Coefficient of variation is less than 0.05 percent or the standard error is less than 0.05 percent of the mean.                             | cwt     | Hundredweight.                    |

## PUBLICATION OVERVIEW

The census of agriculture collects and disseminates comprehensive, complete statistics on U.S. agriculture to the general public, government offices, farm organizations, agribusinesses, and Congress. Results of the 2017 Census of Agriculture were published in a series of reports that provided data at the national, State, and county (or equivalent) levels for the United States.

2017 Census of Agriculture data were released in the following three specific report volumes:

- Geographic Area Series (Volume 1)
- Subject Series (Volume 2)
- Special Studies (Volume 3)

## PUBLICATION MEDIA

The 2017 Census of Agriculture Publication Program was designed to make census data available to users as economically and in as many formats as possible. Data were released in a variety of media formats including downloadable data from the NASS website in text, PDF, and CSV formats. Additionally, data were also available in Quick Stats and Census Data Query Tool, online statistical databases.

**Internet** - Data were available online at the NASS website [https://www.agcensus.usda.gov/Publications/2017/index.php\\_in](https://www.agcensus.usda.gov/Publications/2017/index.php_in) the following formats:

- TXT – Document information in plain text only.
- PDF – Portable Document Format information that includes the text, fonts, images, and graphics which compose the document.
- CSV – Comma-Separated Values file in a simple text format for a database table. Each record in the table is one line of the text file. Each field value of a record is separated from the next with a comma. CSV is a simple file format that was widely supported and often used to transfer information from a database program to a spreadsheet.

**Quick Stats** – Data in the Quick Stats application provided the public with an ad-hoc query tool to search and display the census of agriculture data in an interactive and innovative format.

**Census Data Query Tool** – Data in Census Data Query Tool application provided the public with searchable queries by census tables and are downloadable as PDF files. A more detailed description of this tool is found under the Online Resources section of this chapter.

## SPECIFIC REPORTS

### Geographic Area Series (Volume 1)

The Volume 1 Geographic Area Series, State and County Data (AC-17-A-1 to 51), included final State and county (or equivalent) detailed data for the 50 States, and national and State tables for the United States. These reports included data on number and size of farms; crop production; livestock, poultry, and their products; tenure, age, producer; type of organization; value of products sold; government payments plus market value of agricultural products sold; production expenses; direct marketing; landlord expenses; computer use; production contracts; fertilizers and chemicals; machinery and equipment; farm labor and migrant workers; value of land and buildings; agricultural activity on American Indian reservations; grain and storage capacity; land use; irrigation; organic farming; the North American Industry Classification System (NAICS); and more.

### U.S. Summary and State Report (AC-17-A-51)

- Chapter 1. National-level data
- Chapter 2. State-level data

## State and County Reports (AC-17-A-1 to 50)

- Chapter 1. State-level data
- Chapter 2. County-level data

## Outlying Areas Data (AC 17-A-52 to 56)

- Puerto Rico (AC-17-A-52) – Included agricultural data for the whole island and by region.

The following outlying area publications provided island and area-level data on production and value of agriculture, producer characteristics, and more:

- Guam (AC-17-A-53)
- U.S. Virgin Islands (AC-17-A-54)
- American Samoa (AC-17-A-55)
- Commonwealth of the Northern Mariana Islands (AC-17-A-56)

## Subject Series (Volume 2)

The 2017 Census of Agriculture subject series included seven products:

- History of the 2017 Census of Agriculture
- Ranking of Congressional Districts
- American Indian Reservations
- Watersheds
- Specialty Crops
- Specialty Crops for Outlying Areas
- Farm Typology

**Ranking of Congressional Districts (AC-17-S-2).** The congressional districts ranking report presented selected 2017 Census of Agriculture statistics ranked by the congressional districts of the 116th Congress. The statistics included producer characteristics, farm characteristics, selected livestock data, and selected crops harvested data. Data were released on the Internet in text, PDF, and CSV formats.

**American Indian Reservations (AC-17-S-5).** The American Indian Reservations report provided selected 2017 census agricultural and demographic reservation-level data for all farms on American Indian reservations. The statistics included farms and land in farms; tenure; market value of agricultural products sold; production expenses; selected livestock and poultry; producers by days worked off-farm, average age, and primary occupation; and more. Data were released on the Internet in text, PDF, and CSV formats.

**Watersheds (AC-17-S-6).** The Watersheds publication provided data for 38 individual land characteristics that were published at the 6-digit Hydrologic Unit Code (HUC) boundaries for the contiguous 48 States, Alaska, and Hawaii. The data tables reflected:

- number of farms;
- land in farms;
- cropland harvested;
- irrigated acres;
- acres treated with fertilizer;
- acres treated with chemicals;
- selected crop acreage; and
- inventory of selected livestock.



The maps used throughout the report were provided by the U.S. Geological Survey (USGS). Data were released on the Internet in text, PDF, and CSV formats.

**History of the 2017 Census of Agriculture (AC-17-S-7).** The 2017 history publication provided a detailed description of the planning and execution of the 2017 Census of Agriculture and related series. The report discussed the history of the agriculture census, mail list preparation, content determination, the public awareness campaign, data collection and processing, data quality, and census release details. This document was available on the Internet in PDF format.

**Specialty Crops (AC-17-S-8).** The Specialty Crops publication provided data that supplemented the 2017 Census of Agriculture, Volume 1, Geographic Area Series publications. As a service to agriculture and economic data users, the 2017 data for specialty crops were published at the U.S. and State-level. Section 101 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. §1621 note) and amended under section 10010 of the Agricultural Act of 2014, Public Law 113-79 (the Farm Bill) defined specialty crops as “fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops (including floriculture).” Eligible plants must be cultivated or managed and used by people for food, medicinal purposes, and/or aesthetic gratification to be considered specialty crops. Data were released on the Internet in text and PDF formats.

**Specialty Crops for Outlying Areas (AC-17-S-9).** The Specialty Crops for the U.S. Outlying Areas included data for Puerto Rico, Guam, U.S. Virgin Islands, and the Commonwealth of Northern Mariana Islands. Section 101 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. §1621 note) and amended under 10010 of the Agricultural Act of 2014, Public Law 113-79 (the Farm Bill) defined specialty crops as “fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops (including floriculture).” Eligible plants must be cultivated or managed and used by people for food, medicinal purposes, and/or aesthetic gratification to be considered specialty crops. Data were released on the Internet in text and PDF formats.

**Farm Typology (AC-17-S-10).** Farm Typology data provided selected statistics from the 2017 Census of Agriculture by a typology that groups farms with similar characteristics. The typology categories were defined by the USDA Economic Research Service. Data were released on the Internet in text and PDF formats.

### **Special Studies (Volume 3)**

The Volume 3, Special Studies series consisted of the following products: 2018 Irrigation and Water Management Survey, 2018 Census of Aquaculture, 2019 Census of Horticultural Specialties, 2019 Organic Survey, and 2020 Local Food Marketing Practices Survey.

**2018 Irrigation and Water Management Survey (AC-17-SS-1).** The Irrigation and Water Management Survey (IWMS), formerly known as the Farm and Ranch Irrigation Survey (FRIS), provided data relating to on-farm irrigation activities for use in preparing a wide variety of water-related local programs, economic models, legislative initiatives, market analyses, and feasibility studies. The survey name was changed for 2018 to be more inclusive of nursery and greenhouse growers.

**2018 Census of Aquaculture (AC-17-SS-2).** The 2018 Census of Aquaculture provided statistics about the U.S. aquaculture industry at national, regional, and State levels. The data collected included production methods, water acres and sources, production, sales, point of first sale outlets, and aquaculture for restoration, conservation, enhancement, or recreational purposes. The report was available online in text, PDF, and CSV files. Data were also available in Quick Stats.

**2019 Census of Horticultural Specialties (AC-17-SS-3).** The 2019 Census of Horticultural Specialties provided data collected from all horticultural specialty operations on the number of establishments, value of sales of horticultural products, types of horticultural products, and kinds of horticultural businesses for the United States and States. The report was available online in text, PDF, and CSV files. Data were also available in Quick Stats.

**2019 Organic Survey (AC-17-SS-4).** The 2019 Organic Survey responded to the intense need for detailed industry data. The survey collected data from operations that reported organic production or with acres in transition to organic production in the 2017 Census of Agriculture. The primary purpose of the survey was collecting value of sales information at the commodity level along with acreage, production, and practices data for a variety of certified organic crop and livestock operations. The report was available online in text, PDF, and CSV files. Data were also available in Quick Stats.

**2020 Local Food Marketing Practices Survey (AC-17-SS-6).** The 2020 Local Food Marketing Practices Survey was the second-ever survey conducted by USDA’s National Agricultural Statistics Service to produce benchmark data about local food and regional food systems grown, marketed, and sold in the United States. Information collected included the number of agricultural operations in the United States that produced local foods, the value of local food sales, and marketing practices and expenses. This census study provided data on the production and marketing of locally and regionally produced agricultural food products as directed under the 2018 Farm Bill. Data were available in Quick Stats only.

## **RANKINGS AND PROFILES**

Selected Volume 1 data were published in other formats. These products included the following: State and County Profiles; Race, Ethnicity, and Gender (REG) Profiles; Rankings of Market Value of Agricultural Products Sold (national and State tables); Congressional District Profiles, Congressional District Rankings, and Puerto Rico Island and Regional Profiles.

**State and County Profiles** provided a snapshot of agriculture activity by State and by all counties within a State. Statistics included number of farms, land in farms, market value of commodities produced, a listing of the top crops and livestock within the State or county, along with a host of other information that detailed the importance of agriculture in the specified areas.

**Race, Ethnicity, and Gender Profiles (REG)** provided a snapshot of agriculture activity for traditionally underrepresented populations, such as American Indian or Alaska Native Producers, Asian Producers, Black or African American Producers, Native Hawaiian or Other Pacific Islander Producers, Hispanic, Latino, or Spanish Producers, and Female Producers. This product came in response to the USDA’s emphasis on program availability to small or socially disadvantaged farmers.

**Rankings of Market Value of Agricultural Products Sold** provided selected statistics from the 2017 Census of Agriculture ranked by value of sales within each State. The ranked data included crops, livestock and livestock products.

**2017 Congressional District Profiles** provided a snapshot of agriculture activity by each State’s congressional districts. Data included number of farm producers and farms, land in farms, average size of farms, irrigated land, market value of products sold, gross income-farm related sources, government payments, value of sales by commodity groups, top livestock inventory items, top crop items, and other economic and producer characteristics.

**2017 Congressional District Rankings** – Detail description is found under the Subject Series category.

**Puerto Rico Island and Regional Profiles** provided a snapshot of agriculture activity for eight regions and an island summary. Data included land and number of farms, average size of farms, market value of agricultural products sold, government payments, value of sales by commodity groups, top livestock inventory items, top crop items, and other economic and producer characteristics.

## **ONLINE RESOURCES**

**Census Data Query Tool (CDQT)** allowed data users to query by census table or browse additional cross-tabulation tables not available in Quick Stats. All data queries were downloadable as PDF files. The CDQT replaced the Desktop Data Query Tool for the 2017 census.

**Quick Stats 2.0** allowed data users to query the 2017 Census of Agriculture database to retrieve customized tables at the national, state, and county levels. All data queries were downloadable as CSV files for use in spreadsheets.

**Agricultural Atlas** allowed data users to view profiles of the nation’s agriculture at the county-level in a series of multicolor pattern and dot maps.

**Ag Census Web Maps** application assembled maps and statistics from the 2017 Census of Agriculture in five broad categories: crops and plants, economics, farms, livestock and animals, and producers. The web maps corresponded to some, but not all Agricultural Atlas maps. The Ag Census Web Maps allowed data users to access county-level census data. The interactive maps and accompanying data helped users visualize, download, and analyze census of agriculture data in a geospatial context. NASS partnered with ERS to develop the Ag Census Web Maps.

**Ag Census Highlights** were summaries that highlighted key topics from the 2017 Census of Agriculture. Highlights combined narrative and data to illustrate trends among U.S. farm producers and agricultural operations. Highlights were available on the census publication website.

**Zip Code Tabulations** allowed data users to explore the 2017 Census of Agriculture counts of farm characteristics by five-digit postal Zip Code using Quick Stats database.

## CUSTOM CENSUS PRODUCTS

Custom census products vary each census based on resources, time, and budget. Additionally, in response to the USDA's emphasis on programs, customer needs, and/or to socially disadvantaged farmers and traditionally underrepresented communities.

**Navajo Nation Profiles and Data Visualization** were selected 2017 census statistics of producer and farm characteristics by Navajo Nation agency and chapter. There were a total of five agencies and 110 chapter profiles produced. Additionally, for the first time a Tableau data visualization was created which provided interactive maps and accompanying data that helped users visualize, download, and analyze census of agriculture data.

**Organic Tabulations** were selected statistics of producer and farm characteristics by all farms and farms with organic sales.

## 2017 CENSUS PUBLICATIONS RELEASE DATES

Figure 15.2 2017 Census Publications Release Dates

| 2017 Census Publications  | Release Date            |
|---|-------------------------|
| U.S. Summary and State Report (AC-17-A-51)<br>Chapter 1. National-level data<br>Chapter 2. State-level data | April 11, 2019          |
| State and County Reports (AC-17-A-1 to 50)<br>Chapter 1. State-level data<br>Chapter 2. County-level data   | April 11, 2019          |
| Quick Stats 2.0   | April 11, 2019          |
| Census Data Query Tool  | April 11, 2019          |
| Ranking: Market Value of Agricultural Products Sold   | April 11, 2019          |
| Agriculture Census Highlights   | April 11, 2019 (and on) |
| Agricultural Atlas (AC-17-S-1)  | April 11, 2019          |
| State and County Profiles   | May 30, 2019            |
| 2017 Congressional District Rankings (AC-17-S-2)  | June 26, 2019           |
| 2017 Congressional District Profiles (AC-17-S-4)  | June 26, 2019           |
| Watersheds (AC-17-S-6)  | July 25, 2019           |

|   |                    |
|---|--------------------|
| American Indian Reservations (AC-17-S-5)                  | August 26, 2019    |
| Zip Code Tabulations                                      | September 18, 2019 |
| Agriculture Census Web Maps                               | September 30, 2019 |
| Race, Ethnicity, and Gender Profiles                      | October 1, 2019    |
| Organics Tabulation                                       | October 21, 2019   |
| 2018 Irrigation and Water Management Survey (AC-17-SS-1)  | November 13, 2019  |
| Specialty Crops (AC-17-S-8)                               | December 5, 2019   |
| 2018 Census of Aquaculture (AC-17-SS-2)                   | December 19, 2019  |
| Navajo Nation Profiles                                    | May 18, 2020       |
| Puerto Rico and Island and Regional Profiles (AC-17-A-52) | June 9, 2020       |
| Guam (AC-17-A-53)   | July 21, 2020      |
| U.S. Virgin Islands (AC-17-A-54)                          | July 21, 2020      |
| American Samoa (AC-17-A-55)                               | July 21, 2020      |
| Northern Mariana Islands (AC 17-A 56)                     | July 21, 2020      |
| Specialty Crops for Outlying Areas (AC-17-S-9)            | August 28, 2020    |
| 2019 Organic Survey (AC-17-SS-4)                          | October 22, 2020   |
| 2019 Census of Horticultural Specialties (AC-17-SS-3)     | December 8, 2020   |
| Typology (AC-17-S-10)                                     | January 22, 2021   |
| 2020 Local Food Marketing Practices Survey (AC-17-SS-6)   | April 2022         |
| History (AC-17-S-7)                                       | June 2022          |

## CUSTOM TABULATIONS

Custom-designed tabulations were available when data were not published elsewhere. These tabulations were developed to individual user specifications on a cost-reimbursable basis and shared with the public. Quick Stats, NASS's online database that allows data users to build customized queries, should be investigated before requesting a custom tabulation.

All special studies and custom tabulations were subjected to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations were submitted via the internet from the NASS home page, by mail, or by e-mail to:

Data Lab  
National Agricultural Statistics Service  
Room 5305A, Stop 2054  
1400 Independence Avenue, S.W.  
Washington, D.C. 20250 – 2054

Or

[Datalab@nass.usda.gov](mailto:Datalab@nass.usda.gov)

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## APPENDIX A. PROVISIONS RELATING TO THE 2017 CENSUS OF AGRICULTURE

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### OVERVIEW

The 2017 Census of Agriculture and follow-on censuses and surveys were conducted under the provisions of Title 7 U.S.C. Prior to the 2007 Census of Agriculture, the census program was conducted under the provisions of Title 13 U.S.C. This change in legal authority resulted from the transfer of the census of agriculture from the U.S. Department of Commerce to the U.S. Department of Agriculture. Essentially, the provisions to conduct censuses and its components were the same.

In addition, the 2017 Census of Agriculture and follow-on censuses and surveys were conducted under the Confidential Information Protection and Statistical Efficiency Act of 2002 (Title V, Public Law 107-347, December 17, 2002).

Applicable sections of Title 7 U.S.C. as they relate to the 2017 Census of Agriculture follow.

#### **Provisions of Title 7, Chapter 55, United States Code – Department of Agriculture Section 2204g. Authority of Secretary of Agriculture to conduct census of agriculture**

##### **(a) Census of agriculture required**

###### **(1) In general**

In 1998 and every fifth year thereafter, the Secretary of Agriculture shall take a census of agriculture.

###### **(2) Inclusion of specialty crops**

Effective beginning with the census of agriculture required to be conducted in 2018, the Secretary shall conduct as part of each census of agriculture a census of specialty crops (as that term is defined in section 3 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. 1621 note; Public Law 108-465)).

##### **(b) Methods**

In connection with the census, the Secretary may conduct any survey or other information collection, and employ any sampling or other statistical method, that the Secretary determines is appropriate.

##### **(c) Year of information**

The information collected in each census taken under this section shall relate to the year immediately preceding the year in which the census is taken.

##### **(d) Enforcement**

###### **(1) Fraud**

A person over 18 years of age who willfully gives an answer that is false to a question, which is authorized by the Secretary to be submitted to the person in connection with a census under this section, shall be fined not more than \$500.

###### **(2) Refusal or neglect to answer questions**

A person over 18 years of age who refuses or willfully neglects to answer a question, which is authorized by the Secretary to be submitted to the person in connection with a census under this section, shall be fined not more than \$100.

###### **(3) Social Security number**

The failure or refusal of a person to disclose the person's Social Security number in response to a request made in connection with any census or other activity under this section shall not be a violation under this subsection.

**(4) Religious information**

Notwithstanding any other provision of this section, no person shall be compelled to disclose information relative to the religious beliefs of the person or to membership of the person in a religious body.

**(e) Geographic coverage**

A census under this section shall include —

- (1) each of the several States of the United States;
- (2) as determined appropriate by the Secretary, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the United States Virgin Islands, and Guam; and
- (3) with the concurrence of the Secretary and the Secretary of State, any other possession or area over which the United States exercises jurisdiction, control, or sovereignty.

**(f) Cooperation with Secretary of Commerce**

**(1) Information provided to Secretary of Agriculture**

On a written request by the Secretary of Agriculture, the Secretary of Commerce may provide to the Secretary of Agriculture any information collected under title 13 that the Secretary of Agriculture considers necessary for the taking of a census or survey under this section.

**(2) Information provided to Secretary of Commerce**

On a written request by the Secretary of Commerce, the Secretary of Agriculture may provide to the Secretary of Commerce any information collected in a census taken under this section that the Secretary of Commerce considers necessary for the taking of a census or survey under title 13.

**(3) Confidentiality**

Information obtained under this subsection may not be used for any purpose other than the statistical purposes for which the information is supplied. For purposes of sections 9 and 214 of title 13, any information provided under paragraph (2) shall be considered information furnished under the provisions of title 13.

**(g) Regulations**

A regulation necessary to carry out this section may be promulgated by —

- (1) the Secretary of Agriculture, to the extent that a matter under the jurisdiction of the Secretary is involved; and
- (2) the Secretary of Commerce, to the extent that a matter under the jurisdiction of the Secretary of Commerce is involved.

**Section 2276. Confidentiality of information**

**(a) Authorized disclosure**

In the case of information furnished under a provision of law referred to in subsection (d) of this section, neither the Secretary of Agriculture, any other officer or employee of the Department of Agriculture or agency thereof, nor any other person may—

- (1) use such information for a purpose other than the development or reporting of aggregate data in a manner such that the identity of the person who supplied such information is not discernible and is not material to the intended uses of such information;

- (2) disclose such information to the public, unless such information has been transformed into a statistical or aggregate form that does not allow the identification of the person who supplied particular information; or in the case of information collected under the authority described in subsection (d) (12) of this section, disclose the information to any person or any Federal, State, local, or tribal agency outside the Department of Agriculture, unless the information has been converted into a statistical or aggregate form that does not allow the identification of the person that supplied particular information.

**(b) Duty of Secretary; immunity from disclosure; necessary consent**

- (1) In carrying out a provision of law referred to in subsection (d) of this section, no department, agency, officer, or employee of the Federal Government, other than the Secretary of Agriculture, shall require a person to furnish a copy of statistical information provided to the Department of Agriculture.
- (2) A copy of such information—
  - (A) shall be immune from mandatory disclosure of any type, including legal process; and
  - (B) shall not, without the consent of such person, be admitted as evidence or used for any purpose in any action, suit, or other judicial or administrative proceeding.

**(c) Violations; penalties**

Any person who shall publish, cause to be published, or otherwise publicly release information collected pursuant to a provision of law referred to in subsection (d) of this section, in any manner or for any purpose prohibited in section 1(a) of this section, shall be fined not more than \$10,000 or imprisoned for not more than 1 year, or both.

**Specific provisions for collection of information**

For purposes of this section, a provision of law referred to in this subsection means—

- (1) the first section of the Act entitled “An Act authorizing the Secretary of Agriculture to collect and publish statistics of the grade and staple length of cotton”, approved March 3, 1927 (7 U.S.C. 471) (commonly referred to as the “Cotton Statistics and Estimates Act”);
- (2) the first section of the Act entitled “An Act to provide for the collection and publication of statistics of tobacco by the Department of Agriculture”, approved January 14, 1929 (7 U.S.C. 501);
- (3) the first section of the Act entitled “An Act to provide for the collection and publication of statistics of peanuts by the Department of Agriculture”, approved June 24, 1936 (7 U.S.C. 951);
- (4) section 203(g) of the Agricultural Marketing Act of 1946 (7 U.S.C. 1622 (g));
- (5) section 526(a) of the Revised Statutes (7 U.S.C. 2204 (a));
- (6) the Act entitled “An Act providing for the publication of statistics relating to spirits of turpentine and resin”, approved August 15, 1935 (7 U.S.C. 2248);
- (7) section 42 of title 13;
- (8) section 4 of the Act entitled “An Act to establish the Department of Commerce and Labor”, approved February 14, 1903 (15 U.S.C. 1516);
- (9) section 2 of the joint resolution entitled “Joint resolution relating to the publication of economic and social statistics for Americans of Spanish origin or descent”, approved June 16, 1976 (15 U.S.C. 1516a);



(10) section 3(e) of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 1642 (e));

(11) section 2204g of this title; or

(12) section 302 of the Rural Development Act of 1972 (7 U.S.C. 1010a) regarding the authority to collect data for the National Resources Inventory.

**(d) Information provided to Secretary of Commerce**

This section shall not prohibit the release of information under section 2204g (f) (2) of this title.

**PROVISIONS OF TITLE, Public Law 107-347, United States. Code – Confidential Information Protection and Statistical Efficiency Act of 2002**

**Section 512. Limitations on Use and Disclosure of Data and Information**

- (a) USE OF STATISTICAL DATA OR INFORMATION. — Data or information acquired by an agency under a pledge of confidentiality and for exclusively statistical purposes shall be used by officers, employees, or agents of the agency exclusively for statistical purposes.
- (b) DISCLOSURE OF STATISTICAL DATA OR INFORMATION. —
- (1) Data or information acquired by an agency under a pledge of confidentiality for exclusively statistical purposes shall not be disclosed by an agency in identifiable form, for any use other than an exclusively statistical purpose, except with the informed consent of the respondent.
- (2) A disclosure pursuant to paragraph (1) is authorized only when the head of the agency approves such disclosure and the disclosure is not prohibited by any other law.
- (3) This section does not restrict or diminish any confidentiality protections in law that otherwise apply to data or information acquired by an agency under a pledge of confidentiality for exclusively statistical purposes.
- (c) RULE FOR USE OF DATA OR INFORMATION FOR NONSTATISTICAL PURPOSES.—A statistical agency or unit shall clearly distinguish any data or information it collects for nonstatistical purposes (as authorized by law) and provide notice to the public, before the data or information is collected, that the data or information could be used for nonstatistical purposes.
- (d) DESIGNATION OF AGENTS.—A statistical agency or unit may designate agents, by contract or by entering into a special agreement containing the provisions required under section 502(2) for treatment as an agent under that section, who may perform exclusively statistical activities, subject to the limitations and penalties described in this title.

**Section 513. Fines and Penalties**

Whoever, being an officer, employee, or agent of an agency acquiring information for exclusively statistical purposes, having taken and subscribed the oath of office, or having sworn to observe the limitations imposed by section 512, comes into possession of such information by reason of his or her being an officer, employee, or agent and, knowing that the disclosure of the specific information is prohibited under the provisions of this title, willfully discloses the information in any manner to a person or agency not entitled to receive it, shall be guilty of a class E felony and imprisoned for not more than 5 years, or fined not more than \$250,000, or both.

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## APPENDIX B. DEFINITIONS AND EXPLANATIONS

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The following definitions and explanations provide a detailed description of specific terms and phrases used in the 2017 Census of Agriculture and its follow-ons. Items in the publication tables which carry the note “see text” also are explained. Report form section number references refer to the general version (17-A100). Many of the definitions and explanations are the same as those used in earlier censuses.

### **Acres and quantity harvested:**

Crops were reported in whole acres, except for the following crops that were reported in tenths of acres: tobacco, nursery and greenhouse crops in the open, vegetables including potatoes and sweet potatoes, fruit and nut crops including land in orchards, and berries. Totals for crops reported in tenths of acres were rounded to whole acres at the aggregate level during the tabulation process. Nursery and greenhouse crops grown under glass or other protection were reported in square feet and are published in square feet.

If two or more crops were harvested from the same land during the year (double cropping), the acres were counted for each crop. Therefore, the total acres of all crops harvested could exceed the acres of cropland harvested. No double cropping is allowed for hay or fruit and nut crops.

When more than one cutting of hay was taken from the same acres, the acres were counted only once. If there were multiple cuttings of one type of hay production, e.g., two cuttings of alfalfa for dry hay, acreage was reported once but the quantity harvested includes all cuttings. Acreage cut and tons harvested for both dry hay and haylage, silage, or greenchop were reported for each crop. For interplanted crops or “skip-row” crops, acres were reported according to the portion of the field occupied, whether by a crop or whether it was idle land. If a crop was interplanted in an orchard or vineyard and harvested, then the entire orchard or vineyard acreage was reported under the appropriate fruit crop and the interplanted estimated crop acreage was reported under the appropriate crop.

If a crop was planted but not harvested, the acres were not reported as harvested. These acres were reported in the Land Use section on the report form under the appropriate items – cropland on which all crops failed or were abandoned, cropland in summer fallow, cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed, or other pasture and grazing land that could have been used for crops without additional improvements. This does not include fruit and nut orchards, vineyards, berries, acres in production for cultivated Christmas trees, and acres in production for short rotation woody crops that were not harvested. Acreage in these commodities were included in cropland harvested regardless of whether the crop was harvested. Abandoned orchards were reported as cropland idle, not as harvested cropland, and the individual abandoned orchard crop acres were not reported.

Crops that were grazed by livestock were reported as "Other pasture and grazing land that could have been used for crops without additional improvements." Crop residue left in fields after the 2017 harvest and later grazed by livestock were reported as cropland harvested and not as other pasture and grazing land that could have been used for crops.

Quantity harvested was not obtained for crops such as fruits and nuts, berries, vegetables and melons, and nursery and greenhouse crops.

### **Agri-tourism and recreational services:**

See Total income from farm-related sources.

### **Agricultural products sold directly to individuals for human consumption:**

See Value of food sold directly to consumers.

### **All haylage, grass silage, and greenchop (tons):**

See Haylage, grass silage, and greenchop, all.

**All non-principal producers:**

See Producer.

**All other production expenses:**

See Total farm production expenses.

**All principal producers:**

See Producer.

**All producers:**

See Producer.

**American Indian and Alaska Native farm producers, total:**

Data are reported in Chapter 1, tables 52 through 77 and Chapter 2, tables 45 and 49. In Chapter 2, table 49 data are published for a maximum of four producers reported in the Personal Characteristics section of the report form. The individual producers were included on the census mail list for most reservations. Those reservations that did not include all the individual producers on the census mail list were identified and the data for the entire reservation, including the data for the producers that would have met the definition of a farm, were collected on one report form. The count of reservations and the number of producers that were reported on these reservations are included in the 2017 CoA publication, Appendix A, Table D.

**Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs:**

See Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP).

**Amount from State and local government agricultural program payments:**

See Total income from farm-related sources.

**Amount spent to repay CCC loans:**

See also Commodity Credit Corporation loans. Farming operations that receive a CCC loan can use cash to repay the loan, purchase certificates for use in the repayment, or deliver the pledged collateral as full payment at maturity. If a producer uses cash instead of certificates to repay the loan, the producer and the IRS receive an information return showing the market gain realized. The producer can repay the loan to the CCC and then sell the grain, feed the grain, or store it. These provisions only apply until the maturity date of the loan. After the maturity date of the loan, the entire original loan principal and all accrued interest must be repaid, or as an alternative choice, the crop may be forfeited to CCC.

**Animal production and aquaculture (112):**

See Farms by North American Industry Classification System (NAICS).

**Any poultry sold:**

The number of farms with any poultry sold included all farms with sales of poultry, poultry hatched, or eggs.

**Aquaculture:**

Aquaculture is defined as the farming of fish, crustaceans, mollusks, and other aquaculture products. The aquaculture production reported in the census requires some form of intervention in the rearing process and requires inputs such as seeding, stocking, feeding, and protection from predators, etc. It also requires ownership of the stock being cultivated and harvesting that is conducted in a controlled environment by the operation. The value of sales includes all sizes and eggs by species and includes aquaculture distributed for restoration, conservation, or recreational purposes, such as State and Federal hatcheries. Distributed fish with unknown values were assigned a value based on sales of farm-raised fish.

**Aquaculture and other animal production (1125, 1129):**

See Farms by North American Industry Classification System (NAICS).

**Aronia berries:**

This was a new item for 2017. In 2012 and previous censuses, data were included in Other berries.

**Aware of right to appeal an adverse program decision to USDA's National Appeals Division:**

This was a new item in 2017. The National Appeals Division (NAD) of the United States Department of Agriculture (USDA) provides an independent forum within USDA for program participants to seek administrative appeals of adverse agency decisions.

**Bantams:**

See Layers.

**Beans, Lima:**

In 2012 data were published as Beans, Green lima. This was a wording change only; data are comparable.

**Bees:**

See Colonies of honey bees and Honey collected.

**Berries:**

Aronia berries and Elderberries were new items for 2017. In 2012 and previous censuses, data were included in Other berries. A new summarization of Blueberries, all for 2017, which combined Blueberries, tame and Blueberries, wild data was added. Raspberries, other was added as an additional breakout for the Raspberries, all summarization in 2017. Berry acreage for 2017 was collected as bearing age and nonbearing age, similar to all other fruit crops; however, in 2012, data were collected as harvested and not harvested acres.

**Biodiesel production systems:**

See Renewable energy producing systems.

**Blueberries, all:**

This was a new summarization for 2017. It combined Blueberries, tame and Blueberries, wild data.

**Breeding livestock:**

See Total farm production expenses.

**By economic class:**

See Economic class of farms.

**Cattle on feed:**

Cattle on feed are steers and heifers being fed a ration of grain, silage, hay and/or protein supplement for slaughter market that are expected to produce a carcass that will grade select or better. It excludes cattle being "backgrounded only" for later sale as feeders or later placement in another feedlot.

**Cattle on feed sold:**

Data are for cattle on feed sold that weighed 500 pounds or more and were shipped directly from the feedlot to the slaughter market. This category excludes cattle that were pastured only, owned cattle that were shipped from feedlots operated by others, background feeder cattle, and veal calves.

**Cattle weighing 500 pounds or more:**

In 2012 this item was referred to as Cattle, including calves weighing 500 pounds or more. This was a wording change only; data are comparable.

**CCC loans:**

See Commodity Credit Corporation loans.

**Chemicals applied:**

For each type of chemical used, the acres treated were reported only once even if the acres were treated more than once. If multi-purpose chemicals were used, the acres treated for each purpose were reported. See Total farm production expenses; Chemicals.

**Cherimoyas:**

This was a new item for 2017. In 2012 cherimoyas were reported in other noncitrus fruit.

**Cherries:**

Cherries were reported as either sweet cherries or tart cherries. Combined crops or non-specified cherry acres were not options for the respondent. Total acres, bearing age acres, and nonbearing age acres were reported for each crop.

**Chickpeas:**

This was a new item for 2017. In 2012 chickpeas were reported as dry edible beans. See Dry edible beans, excluding chickpeas and limas.

**Christmas trees, cultivated:**

Data are for acres of Christmas trees - cut or to be cut - in production, acres irrigated, and number of trees cut. Sales data are included in the Cut Christmas trees and short rotation woody crops category. In 2012 this item was referred to as Cut Christmas trees. This was a wording change only; data are comparable.

**Christmas trees, live:**

Data were reported as nursery stock and include Christmas trees sold live, generally balled and burlapped from the operation.

**Coffee:**

This was a new item for 2017 in all States, except for Hawaii. In 2012 and previous censuses, except for Hawaii, data were included in other noncitrus fruit. Data included trees grown in the open as well as under shade or in greenhouses. Data for coffee relate to the July 2016 through June 2017 harvest season.

**Colonies of honey bees:**

Published colonies inventory is the total number of colonies owned on December 31, 2017. Colonies of bees were collected in their own section to clarify to respondents that only "owned" colonies were to be reported versus any colonies on the operation. In 2017 bee operations with multiple locations reported inventory on the location where the bees were present and the inventory was tabulated in those counties. Inventories in 2012 were tabulated in the county where the operation had the largest value of all agricultural products raised or produced. Data may not be comparable. Package bees were not included as separate colonies.

**Commodities raised and delivered under production contracts:**

A production contract is an agreement between a producer or grower and a contractor (integrator) setting terms, conditions, and fees to be paid by the contractor to the operation for the production of crops, livestock, or poultry. The grower receives a payment or fee from the contractor, generally after delivery, which is less than the full market price of the commodity. A production contract involves the shifting of some risk and control from the grower to the contractor. Marketing contracts, futures contracts, forward contracts, or other contracts based strictly on price are not considered production contracts. Commodities sold to a co-op where some of the input items were purchased from the same co-op at a discount price were also excluded. Many operations produce commodities only under production contracts or only independently. Some operations may produce a commodity under production contract and also produce more of the same commodity that they sell independently. The production contract data are totals for the portion of agriculture production raised and delivered under production contract. Crops and livestock inventory, production, and value of sales are the total of all production, both independent and raised under production contract.

*Custom fed cattle shipped directly for slaughter under a production contract.*

Cattle under production contract which were not shipped directly to slaughter were reported in either replacement dairy heifers under production contract or in the other cattle, sheep, livestock, or poultry under production contract category.

*Grains, oilseeds, vegetables, melons, potatoes, and other crops under production contract.*

This category is the number of farms that produced and delivered any crop grown under a production contract. This item was reported as three different categories (grains and oilseeds, vegetables/melons/potatoes, and all other crops).

*Layers under production contract.*

The production contract is based on eggs, but the layers are owned by the contractor and are also under contract. The layers are produced at the pullet farm, which may have a separate production contract.

*Other cattle, sheep, livestock, or poultry under production contract.*

The data for commodities raised and delivered under a production contract include cattle which were not shipped directly to slaughter (backgrounding), sheep, livestock, and poultry not listed separately.

**Commodity Credit Corporation loans:**

This category includes nonrecourse marketing loans for wheat, corn, sorghum, barley, oats, cotton, rice, soybeans, Austrian winter peas, honey, dry edible peas, lentils, chickpeas, peanuts, sunflower seed, flaxseed, canola and other rapeseed, safflower, mustard seed, crambe, sesame seed, wool and mohair.

**Corn, Traditional or Indian:**

This was a new item for 2017. Traditional corn is an open-pollinated (nonhybrid), non-GMO cultivar of *Zea mays* that was indigenously developed and consists of many heritage varieties of sizes, color, and drought tolerance. Traditional corn grown on southwest reservations has been passed from generation to generation through seed saving by American Indian and Hispanic communities. Traditional corn is culturally significant.

**Cover crop seed purchased:**

See Total farm production expenses.

**Crop and livestock insurance payments received:**

See Total income from farm-related sources.

**Crop units of measure:**

The report form allowed the producer to report the quantity of field crops harvested in a unit of measure commonly used in the region. When the producer reported in units different than the unit of measure published, the quantity harvested was converted to the published unit of measure.

**Crop year or season covered:**

Acres and quantity harvested are for the calendar year 2017, except for coffee. Data for coffee relate to July 2016 through June 2017.

**Cropland, harvested:**

See Harvested cropland.

**Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed:**

Cropland idle includes any other acreage which could have been used for crops without any additional improvement and which was not reported as cropland harvested, cropland on which all crops failed, cropland in summer fallow, or other pasture or grazing land that could have been used for crops without additional improvements. This category includes:

1. Land used for cover crops or soil improvement but not harvested or grazed.
2. Land in Federal or State conservation programs that was not hayed or grazed in 2017.
3. Land occupied with growing crops for harvest in 2018 or later years but not harvested or summer fallowed in 2017 (except fruit or nuts in an orchard, grove, or vineyard or berries being maintained for production). Examples are

acreage planted in winter wheat, strawberries, etc., for harvest in 2018 and no crop was harvested from these acres in 2017.

4. Land in "skipped" rows between rows of crops or field strips.

**Cropland in summer fallow:**

This includes cropland cultivated or treated with herbicides to control weeds and conserve moisture and not seeded or harvested in 2017. It includes cropland summer fallowed in 2017 and planted to a crop (i.e., winter wheat, etc.) for harvest in 2018. In 2012 this item was referred to as Cultivated summer fallow. This was a wording change only; data are comparable.

**Cropland, irrigated:**

See Irrigated land.

**Cropland on which intensive tillage practices were used:**

See Land use practices.

**Cropland on which reduced tillage, excluding no till, practices were used:**

See Land use practices.

**Cropland, other:**

See Other cropland.

**Cropland, total:**

See Total cropland.

**Cropland used only for pasture or grazing:**

See other pasture and grazing land that could have been used for crops without additional improvements.

**Crustaceans:**

These are invertebrate animals with jointed legs and a hard shelled segmented body. Examples include crawfish, lobster, prawns, shrimp, and softshell crabs.

**Cultivated Christmas trees.**

See Christmas trees, cultivated.

**Custom fed cattle shipped directly for slaughter:**

See Commodities raised and delivered under production contract.

**Customwork and custom hauling:**

See Total farm production expenses.

**Customwork and other agricultural services:**

See Total income from farm-related sources.

**Cuttings, seedlings, liners, and plugs:**

See Nursery, greenhouse, floriculture, and sod.

**Data are based on a sample of farms:**

For censuses from 1987 through 2002, selected data items were collected from only a sample of farms. These data were subject to sampling error.

**Depreciation expenses claimed:**

The calculation of total farm production expenses did not include depreciation because it is a capital expense. Depreciation allows the expensing of capital purchases over multiple years. It was not included in the calculation of Net cash farm income.

**Don't know:**

This was a new option in 2017 under the farms with internet access question. Those producers who were unable to determine how they received their internet were able to check "Don't know."

**Dry edible beans, excluding chickpeas and limas:** Dry edible beans do not include chickpeas, dry edible peas, dry lima beans, or dry southern (black eyed/cowpeas). In 2012, chickpeas (garbanzo beans) were included in dry edible beans. Data were not directly comparable to 2012.

**Ducks, geese, and other miscellaneous poultry:**

See Miscellaneous poultry.

**Economic class of farms:**

Economic class data were the classification of farms by the sum of market value of agricultural products sold and federal farm program payments. See Total market value of agricultural products sold and government payments. See Farms with sales and government payments of less than \$1,000.

**Elderberries:**

This was a new item for 2017. In 2012 and previous censuses, data were included in Other berries.

**Energy:**

See Renewable energy producing systems.

**Equine products:**

This category includes horse breeding fees, stud fees, semen, and other equine products and excludes boarding, training and riding facilities income. In 2012 equine products were included in Other livestock products.

**Ethanol production systems:**

See Renewable energy producing systems.

**Expenses:**

See Total farm production expenses.

**Farm or ranch producer:**

See Producer.

**Farms by combined government payments and market value of agricultural products sold:**

This category represents the value of products sold plus government payments. Total value of products sold combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans.

**Farms by economic class:**

See Economic class of farms and Total market value of agricultural products sold and government payments.



### **Farms by legal status:**

All farms were classified by legal status in the 2017 census. This section collects information for federal tax purposes to determine an operation's legal status. The classifications used were:

1. Family or individual (sole proprietorship), excluding partnership and corporation.
2. Partnership, including family partnership - in selected tables, partnership was further subclassified into:
  - a) Registered under State law.
  - b) Not registered under State law.
3. Corporation, including family corporations - in selected tables, partnership was further subclassified into:
  - a) Family held or other than family held.
  - b) More than 10 stockholders.
4. Other - estate or trust, prison farm, grazing association, American Indian reservation, etc.

### **Farms by North American Industry Classification System (NAICS):**

The NAICS classifies economic activities. It was jointly developed by Mexico, Canada, and the U.S. NAICS makes it possible to produce comparable industrial statistics for Mexico, Canada, and the U.S. For the 2017 census, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity or activities using the NAICS code. The 2017 census was the fifth census to use NAICS. Censuses prior to the 1997 census used the old Standard Industrial Classification (SIC) system to classify farms.

NAICS was developed to provide a consistent framework for the collection, analysis, and dissemination of industrial statistics used by government policy analysts, academia and researchers, the business community, and the public. It is the first industry classification system developed in accordance with a single principle of aggregation that production units using similar production processes should be grouped together. Though NAICS differs from other industry classification systems, statistics compiled on NAICS are comparable with statistics compiled according to the latest revision of the United Nations' International Standard Industrial Classification, Revision Four, (ISIC, Revision 4) for some 60 high level groupings. Following are explanations of the major classifications used in 2017.

#### *Oilseed and grain farming (1111).*

Comprises establishments primarily engaged in (1) growing oilseed and/or grain crops and/or (2) producing oilseed and grain seeds. These crops have an annual life cycle and are typically grown in open fields. This category includes corn silage and grain silage.

#### *Vegetable and melon farming (11121).*

Comprises establishments primarily engaged in one or more of the following: (1) growing vegetables and/or melon crops, (2) producing vegetable and melon seeds, and (3) growing vegetable and/or melon bedding plants.

#### *Fruit and tree nut farming (1113).*

Comprises establishments primarily engaged in growing fruit and/or tree nut crops. These crops are generally not grown from seeds and have a perennial life cycle.

#### *Greenhouse, nursery, and floriculture production (1114).*

Comprises establishments primarily engaged in growing crops of any kind under cover and/or growing nursery stock and flowers. "Under cover" is generally defined as greenhouses, cold frames, cloth houses, and lath houses. Crops grown are removed at various stages of maturity and have annual and perennial life cycles. The category includes short rotation woody crops and Christmas trees that have a growing and harvesting cycle of 10 years or less.

#### *Other crop farming (1119).*

Comprises establishments primarily engaged in (1) growing crops such as tobacco, cotton, sugarcane, hay, sugarbeets, peanuts, agave, herbs and spices, and hay and grass seeds, or (2) growing a combination of the valid crops with no one crop or family of crops accounting for one-half of the establishment's agricultural production (value of crops for market). Crops not included in this category are oilseeds, grains, vegetables and melons, fruits, tree nuts, greenhouse, nursery and floriculture products.

*All other crop farming (11199).*

Comprises establishments primarily engaged in (1) growing crops (except oilseeds and/or grains; vegetables and/or melons; fruits and/or tree nuts; greenhouse, nursery, and/or floriculture products; tobacco; cotton; sugarcane; or hay) or (2) growing a combination of crops (except a combination of oilseed(s) and grain(s)); and a combination of fruit(s) and tree nut(s) with no one crop or family of crops accounting for one-half of the establishment's agricultural production.

*Animal production and aquaculture (112).*

Industries in the Animal Production and Aquaculture subsector raise or fatten animals for the sale of animals or animal products and/or raise aquatic plants and animals in controlled or selected aquatic environments for the sale of aquatic plants, animals, or their products. The subsector includes establishments, such as ranches, farms, and feedlots primarily engaged in keeping, grazing, breeding, or feeding animals. These animals are kept for the products they produce or for eventual sale. The animals are generally raised in various environments, from total confinement or captivity to feeding on an open range pasture. The industries in this subsector are grouped by important factors, such as suitable grazing or pastureland, specialized buildings, type of equipment, and the amount and types of labor required. Establishments are classified to the Animal Production and Aquaculture subsector when animal production (i.e., value of animals for market) accounts for one-half or more of the establishment's total agricultural production. Establishments with one-half or more animal production with no one animal product or family of animal products of an industry accounting for one half of the establishment's agricultural production are treated as combination animal farming classified to Industry 11299, All Other Animal Production.

*Beef cattle ranching and farming (112111).*

Comprises establishments primarily engaged in raising cattle (including cattle for dairy herd replacements). Pastureland-only farms, those with only 100 or more acres of pastureland, were classified as "All other animal production farming (11299)."

*Cattle feedlots (112112).*

Comprises establishments primarily engaged in feeding cattle for fattening.

*Dairy cattle and milk production (112120).*

This industry comprises establishments primarily engaged in milking dairy cattle.

*Poultry and egg production (1123).*

This industry group comprises establishments primarily engaged in breeding, hatching, and raising poultry for meat or egg production.

*Sheep and goat farming (1124).*

This industry group comprises establishments primarily engaged in raising sheep, lambs, and goats, or feeding lambs for fattening.

*Aquaculture (1125).*

Comprises establishments primarily engaged in the farm raising of finfish, shellfish, or any other kind of animal aquaculture. These establishments use some form of intervention in the rearing process to enhance production, such as holding in captivity, regular stocking, feeding, and protecting from predators.

*Other animal production (1129).*

Comprises establishments primarily engaged in raising animals and insects (except cattle, hogs and pigs, poultry, sheep and goats, and aquaculture) for sale or product production. These establishments are primarily engaged in one of the following: bees, horses and other equine, rabbits and other fur-bearing animals, etc., and producing products such as honey and other bee products. Establishments primarily engaged in raising a combination of animals with no one animal or family of animals accounting for one-half of the establishment's agricultural production are included in this industry group. Farms with only 100 acres or more of pastureland were classified as "All other animal production farming (11299)".

**Farms by number of households sharing in net income of operation:**

Households that received funds because they were only landlords, custom equipment producers, or provided other production services were not included. Published data can exceed the number of producers listed under Producers, all.

**Farms by size:**

All farms were classified into size groups according to the total land area in the farm. The land area of a farm is an operating unit concept and includes land owned and operated as well as land rented from others. Land rented to or assigned to a tenant was considered part of the tenant's farm and not part of the owners.

**Farms by tenure of producer:**

All farms were classified by tenure of producers. The classifications used were:

- Full owners operated only land they owned.
- Part owners operated land they owned and land they rented from others.
- Tenants operated only land they rented from others or worked on shares for others.

Farms with hired managers are classified according to the land ownership characteristics reported. For example, a corporation owns all the land used on the farm and hires a manager to run the farm. The hired manager is considered the farm producer, and the farm is classified with a tenure type of "full owner" even though the hired manager owns none of the land he/she operates.

**Farms by type of organization:**

The data categorizes an operation's ownership.

*Operation more than 50 percent owned by one producer's household and/or extended family.*

The data are used to measure the principal producers' ownership interest in the organization. In 2012 this item was labeled Operations with 50 percent or more ownership interest held by producer and/or persons related by blood, marriage, or adoption. This was a wording change only; data are comparable.

*Limited Liability Company.*

This type of farm structure combines the pass-through taxation of a partnership or sole proprietorship with the limited liability of a corporation.

**Farms by value of sales:**

See Market value of agricultural products sold.

**Farms or farms reporting:**

The terms "farms" and "farms reporting" in the presentation of data are equivalent. Both represented the number of farms reporting the item. For example, if there are 3,710 farms in a State and 842 of them had 28,594 cattle and calves, the data for those farms reporting cattle and calves would appear as:

Cattle and calves farms.....842  
number.....28,594

**Farms with sales and government payments of less than \$1,000:**

This category includes farms with combined sales and government payments of less than \$1,000 but having the potential for sales of \$1,000 or more. It provides information on all items for farms that normally would be expected to sell agricultural products of \$1,000.

**Farms with sales of less than \$1,000:**

This category includes farms with sales of less than \$1,000 but having the potential for sales of \$1,000 or more. Some of these farms had no sales in the census year. It provides information on all report form items for farms that normally would be expected to sell agricultural products of \$1,000 or more.

**Fertilizer:**

See Total farm production expenses; Fertilizer, lime, and soil conditioners.

**Field and grass seed crops, all:**

Data are for all the field and grass seed crops not published as field crops and include field seed crops which did not have a specific code on the 2017 report form.

**Foliage plants, indoor (including hanging baskets):**

For 2017, "(including hanging baskets)" was added to the description for clarity. Data are comparable.

**Food marketing practices:**

This was a new section for 2017. This section consists of sales of edible agricultural products that are both produced and sold by the operation directly to consumers (farmers markets, on farm stores or farm stand, roadside stands or stores, u-pick, CSA, online marketplaces, etc.) or retail markets, institutions, or food hubs for local or regionally branding. Retail and institutional establishments include supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives, K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks, etc.

**Forage - land used for all hay and all haylage, grass silage, and greenchop:**

Data shown represented the area harvested with each acre counted only once if dry hay, haylage, grass silage, or greenchop were cut from the same acreage or if there were multiple cuttings of dry hay, haylage, grass silage, or greenchop. Data excluded corn silage and sorghum silage. Quantity produced is the sum of the quantity harvested of all hay including alfalfa, other tame, small grain, and wild hay and all haylage, grass silage and greenchop after converting the all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis (13-percent moisture). The green tons of all haylage, grass silage, and greenchop harvested were multiplied by a factor of 0.4943 to convert to a dry equivalent. This conversion factor is based on the assumption that one ton of dry hay is 0.87 ton of dry matter, one ton of haylage or grass silage is 0.45 ton dry matter, and one ton of greenchop is 0.25 ton dry matter. The all haylage, grass silage, and greenchop quantity harvested is assumed to be comprised of 90-percent haylage and grass silage and 10-percent greenchop. Therefore, the conversion factor used to adjust all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis =  $[(0.45*0.9) + (0.25*0.1)]/0.87 = 0.4943$ .

**Fruits and nuts tree:**

Total acres, bearing age acres, and nonbearing age acres were collected.

**Geothermal/Geoexchange system:**

See Renewable energy producing systems.

**Ginger root:**

In 2017 data for ginger root are included in the vegetable section. In 2012 and previous censuses, data were included in the field crop section.

**Government payments:**

This category consists of payments from Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP); loan deficiency payments; disaster payments; other conservation programs; and all other Federal farm programs under which payments were made directly to farm producers, including those specified in the 2014 Agricultural Act (Farm Bill), including Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC). Commodity Credit Corporation (CCC) proceeds, amount from State and local government agricultural program payments, and Federal crop insurance payments were not tabulated in this category.

**Grain and bean combines:**

Data were collected for self-propelled combines only.

**Grains, oilseeds, dry beans, and dry peas sales:**

Data are for the total market value of cash grains sold, including corn for grain, seed, or silage; wheat for grain; soybeans for beans; sorghum for grain, seed, or silage; barley for grain; rice; oats for grain; and other grains. Also included is the total market value of cash oilseeds sold, including sunflower seed (oil and non-oil), flaxseed, canola, rapeseed, safflower seed, mustard seed, dry beans, and dry peas.

**Grains, oilseeds, vegetables, melons, potatoes, and other crops:**

See Commodities raised and delivered under production contracts.

**Greenhouse fruits and berries:**

Data include strawberries, raspberries, etc. grown in greenhouses and high tunnels where the crops were always covered. See Nursery, greenhouse, floriculture, and sod.

**Gross cash rent or share payments:**

See Total income from farm-related sources, gross before taxes and expenses.

**Had a barn that was built prior to 1960:**

This was a new question asked of producers in 2017. The last time this question was asked was on the 2007 Census of Agriculture.

**Harvested cropland:**

This category includes land from which crops were harvested and hay was cut, land used to grow short rotation woody crops, Christmas trees, and land in orchards, groves, vineyards, berries, nurseries, and greenhouses. Land from which two or more crops were harvested was counted only once. Land in tapped maple trees was included in woodland not pastured. The 2017 census definition for harvested cropland was the same as the 2012 definition.

**Hay, all hay including alfalfa, and other dry.**

Data shown represent the acreage and quantity harvested of all types of dry hay. The quantity harvested was reported in dry tons (dry weight at the time the hay was removed from the field for storage or feeding). If two or more cuttings of dry hay were made from the same field, the acreage was reported only once as acres harvested of the appropriate dry hay category but the production from all dry hay cuttings was combined in the corresponding quantity harvested. Straw acreage and production are excluded.

If dry hay was cut from the same land that haylage, grass silage, or greenchop was cut, the acreage and production for the dry hay was reported in the appropriate category of dry hay and the acreage and production for haylage, grass silage, or greenchop was reported in the appropriate haylage, grass silage, or greenchop category. For example, if 20 acres of alfalfa were cut for hay and then the same land was used to produce alfalfa haylage, 20 acres and the quantity harvested of hay were reported as Alfalfa and alfalfa mixtures for dry hay and 20 acres and the quantity harvested of alfalfa haylage were reported as Haylage or greenchop from alfalfa or alfalfa mixtures

**Hay, other dry hay:**

Data shown represent acreage and dry tons of hay harvested from clover, fescue, lespedeza, timothy, Bermuda grass, Sudangrass, sorghum hay, and other types of legumes (excluding alfalfa) and tame grasses. For 2017, data include small grains harvested for hay including barley, oats, rye, and wheat as well as wild hay. In 2012 this item was reported in three categories – Small grain dry hay, Other tame dry hay, and Wild hay.

**Haylage, grass silage, and greenchop, all:**

Data shown represent the acreage and quantity harvested of all types (alfalfa and all other haylage, grass silage, and greenchop). The quantity harvested was reported in green tons. If two or more cuttings of haylage, grass silage, or greenchop were made from the same field, the acreage was reported as acres harvested in the appropriate haylage category only once, and the tonnage from all cuttings was combined in the corresponding quantity harvested. Straw acreage and production is excluded.

**Hired farm labor:**

Data are for total hired farm workers, including paid family members, by number of days worked. Data exclude contract laborers.

**Hired managers:**

A hired manager is someone who receives a wage to manage the farm operation. For 2017 up to four hired managers were reported for each farm operation. In 2012 only one hired manager per farm was published.

**Hispanic, Latino, or Spanish origin:**

Producers of Hispanic, Latino, or Spanish origin are found in all of the racial groups listed in the census and were tabulated according to the race reported, as well as on tables pertaining only to this group.

**Hogs and pigs by type of operation:**

Hog and pig farms were classified by primary type of operation. Operation types were farrow to wean, farrow to feeder, farrow to finish, nursery, finish only, and other. Each description was accepted and the reported inventory and sales data were assigned to each reported type.

**Hogs and pigs by type of producer:**

Hog and pig farms were classified by one type of producer. Producer types were independent grower, contractor, or integrator, and contract grower (contractee). Each description was accepted and the reported inventory and sales data were assigned to each reported type.

**Honey collected:**

Data are for pounds of honey collected but not necessarily sold. See Colonies of bees.

**Horses and ponies, sales:**

Data are for horses sold or moved off the farming operation regardless of ownership. In 2012 data only included value of owned horses sold.

**Income:**

Net cash farm income is published for the operation and producer. The difference between net cash income and net cash returns is that net cash returns does not include government payments and other farm-related income as income. See Net cash farm income of the operations and Net cash farm income of the producers.

**Income from farm-related sources:**

See Total income from farm-related sources.

**Institutional, research, experimental, and American Indian Reservation farms:**

Data for these farms are combined into a single category. Research farms include farms operated by private companies as well as those operated by universities, colleges, and government organizations for the purpose of expanding agricultural knowledge.

**Internet access:**

This item is the number of farms that reported using personal computers, laptops, or mobile devices (e.g., cell phones or tablets) to access the internet. This can be done using services such as dial-up, DSL, cable modem, fiber-optic, mobile internet service for a cell phone or other device (tablet), satellite, or other methods. In 2017 respondents were also able to report connecting with an unknown service type, labeled as "Don't know" in the publication tables.

**Involvement in decisionmaking:**

This was a new item in 2017. Questions were asked about each producer's involvement in farm-related decisions, including day to-day decisions, land use and/or crop decisions, livestock decisions, record keeping and/or financial management, and estate planning or succession planning.

**Irrigated land:**

This category includes all land watered by any artificial or controlled means, such as sprinklers, flooding, furrows or ditches, subirrigation, and spreader dikes. Included are supplemental, partial, and preplant irrigation. Each acre was counted only once regardless of the number of times it was irrigated or harvested. If an operation reported less than one acre irrigated, the irrigated land for the operation was rounded to one acre. Livestock lagoon wastewater distributed by sprinkler or flood systems was also included.

**Land area, approximate:**

The approximate land area represents the total land area as determined by records and calculations as of January 1, 2017. The proportion of land area in farms may exceed 100 percent because some operations have land in two or more counties, but all acres are tabulated in the principal county of operation. The approximate land area data were supplied by the U.S. Department of Commerce, Bureau of the Census. See Land in two or more counties.

**Land enrolled in crop insurance programs:**

The data are for all land enrolled in any Federal, private, or other crop insurance program. It includes acreage of pasture/rangeland enrolled in crop insurance programs in areas where it is provided.

**Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP):**

CRP is a program established by the USDA in 1985 that takes land prone to erosion out of production for 10 to 15 years and devotes it to conservation uses. In return, farmers receive an annual rental payment for carrying out approved conservation practices on the conservation acreage. The WRP, FWP, and CREP programs are included under the Conservation Reserve Program.

Operations with land enrolled in the CRP, WRP, FWP, or CREP were counted as farms, given they received \$1,000 or more in government payments, even if they had no sales and otherwise lacked the potential to have \$1,000 or more in sales.

**Land in berries:**

Data are for total land in berries. Respondents in 2017 reported bearing age acres and nonbearing acres by individual berry crops. In 2012 and previous censuses, respondents reported acres harvested and acres not harvested of individual berry crops.

**Land in farms:**

The acreage designated as "land in farms" consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm producer's total operation. Large acreages of woodland or wasteland held for nonagricultural purposes were deleted from individual reports during the edit process. Land in farms includes CRP, WRP, FWP, and CREP acres.

Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was reported as land rented from others. All grazing land, except land used under government permits on a per-head basis, was included as "land in farms" provided it was part of a farm or ranch. Land under the exclusive use of a grazing association was reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops, grazing livestock, or with the potential of grazing livestock was included as land in farms. Land in reservations not reported by reservation, individual American Indians, or non-Native Americans was reported in the name of the cooperative group that used the land. In many instances, an entire American Indian reservation was reported as one farm.

**Land in orchards:**

Starting in 2017, pineapples were moved from the field crops section to the fruit and nut section. As a result, land in orchards includes pineapples in 2017 and land in orchards is not directly comparable to 2012. This category includes land in bearing age and nonbearing age fruit trees, citrus or other groves, vineyards, and nut trees of all ages, including land on which all fruit crops failed. Respondents also reported bearing age acres and nonbearing age acres by individual fruit and nut crops.

**Land in two or more counties:**

With few exceptions, the land in each farm was tabulated as being in the producer's principal county. The principal county was defined as the one where the largest value of agricultural products was raised or produced. It was usually the county containing all or the largest proportion of the land in the farm or viewed by the respondent as his/her principal county. Reports received showing land in more than one county were separated into two or more reports if the data would substantially distort county totals.

**Land irrigated at least once in the past five years:**

Data represent the total number of acres irrigated on the operation over the past five years. Land from different years can be added together as long as the land was irrigated at least once and the plots of land were in different locations. While land can be irrigated multiple times over the course of five years, it can only be counted once. In some situations, operations can report more acres irrigated in the past than they currently have, e.g., operations that rented irrigated acres to or from others in the past had more irrigated land than their current operation.

**Land use practices:**

Includes all agricultural land used for the production of agricultural commodities.

*Drained by tile.*

Tile drainage is a practice that removes excess water from the soils subsurface.

*Artificially drained by ditches.*

A field ditch installed for surface drainage for collecting excess surface or subsurface water in a field.

*Conservation easement.*

A conservation easement is a legal agreement voluntarily entered into by a property owner and a qualified conservation organization such as a land trust or government agency. This category excludes land in CRP (Conservation Reserve Program) acres.

*No-till practices used.*

Using no-till or minimum till is a practice used for weed control and helps reduce weed seed germination by not disturbing the soil.

*Reduced tillage.*

Conserves the soil by reducing erosion and decreasing water pollution. In 2012 this category was labeled conservation tillage. This was a wording change only; data are comparable.

*Intensive tillage.*

Refers to tillage operations that use standard practices for a specific location and crop to bury crop residues. In 2012, this category was labeled conventional tillage.

*Cover crop.*

A crop planted primarily to manage soil fertility, soil quality, water, weeds, pests, diseases, or wildlife. This item does not include CRP acres.

**Land used for vegetables:**

Data are for the total land used for vegetable and melon crops. The acres were reported only once, even though two or more harvests of a vegetable or more than one vegetable were harvested from the same acres. Respondents also reported harvested acres, acres harvested for fresh market, and acres harvested for processing by individual vegetable crops.

**Landlord's share of the total sales:**

Data represent the share of the operation's total sales that went to landlord(s).

**Layers:**

This category includes table-egg type layers, hatching layers for meat-types, hatching layers for table egg types, and reported bantams.

**Legal status for tax purposes:**

See Farms by legal status.

**Less than \$1,000:**

See Farms with sales and government payments of less than \$1,000.



**Livestock and poultry purchased or leased:**

See Total farm production expenses; Livestock and poultry purchased or leased.

**Maple syrup:**

Data are for the number of taps set, syrup produced, and value of sales.

**Market value of agricultural products sold:**

This category represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 2017 regardless of who received the payment. It is equivalent to total sales and it includes sales by the producers as well as the value of any shares received by partners, landlords, contractors, or others associated with the operation. It includes value of organic sales, direct sales and the value of commodities placed in the Commodity Credit Corporation (CCC) loan program. Market value of agricultural products sold does not include payments received for participation in other Federal farm programs. It does not include income from farm related sources such as customwork and other agricultural services, or income from nonfarm sources.

The value of crops sold in 2017 does not necessarily represent the sales from crops harvested in 2017. Data may include sales from crops produced in earlier years and may exclude some crops produced in 2017 but held in storage and not sold. For commodities such as sugarbeets and wool sold through a co-op that made payments in several installments, respondents were requested to report the total value received in 2017.

The value of agricultural products sold was requested of all producers. If the producers failed to report this information, estimates were made based on the amount of crops harvested, livestock or poultry inventory, or number sold. Caution should be used when comparing sales in the 2017 census with sales reported in earlier censuses. Sales figures are expressed in current dollars and have not been adjusted for inflation or deflation. See Farms with sales and government payments of less than \$1,000.

**Market value of agricultural products sold and government payments:**

See Total market value of agricultural products sold and government payments.

**Medical supplies, veterinary, and custom services for livestock:**

See Total farm production expenses.

**Methane digesters:**

See Renewable energy producing systems.

**Migrant farm labor on farms reporting only contract labor:**

Data are for those operations that did not have hired farm workers but reported that they did have migrant contract workers on their operation in 2017.

**Migrant farm labor on farms with hired labor:**

Producers were asked whether any hired or contract workers were migrant workers. A migrant farm worker is a farm worker whose employment required travel that prevented the worker from returning to his/her permanent place of residence the same day.

**Migrant workers, total:**

Data are for total migrant farm workers whose employment requires travel that prevents the worker from returning to his or her permanent place of residence the same day.

**Military service:**

This item was new in 2017. A producer with military service is a person who currently or previously served on active duty in the U.S. Armed Forces.

**Mink, live:**

The data are for inventory and sales of live mink. Number of farms producing mink pelts are included in Other livestock products.

**Miscellaneous poultry:**

Data are for poultry other than chickens or turkeys. Data are published in Chapter 2, table 20.

**Misreported or miscoded crops:**

In a few cases, data may have been reported on the wrong line, in the wrong section, or the wrong crop code may have been assigned to a write-in crop code. A few of these errors may not have been identified and corrected during processing which resulted in rare cases of inaccurately tabulated data. Reports with significant acres of unusual crops for the area were examined to minimize the possibility that they were in error.

**Mobile internet service for a cell phone or other device:**

This includes counts of farm operations that reported accessing the internet from a mobile device, such as cell phone or tablet. In 2012 this item was labeled Mobile broadband plan for a computer or a cell phone. This was a wording change only; data are comparable.

**Mollusks:**

These are invertebrate animals with a soft body covering and shells of 1-18 parts or sections. Examples include abalones, clams, mussels, oysters, and snails. See Aquaculture.

**More than one race reported:**

This category represents those producers who chose to report more than one race on the census form.

**Mushroom spawn:**

Respondents reported only sales; growing area was not summarized.

**Mushrooms:**

All mushroom crops were considered grown under glass or other protection and no mushroom data were published as area in the open. Those reporting mushrooms grown in the open area were converted to an equivalent area of square feet under protection proportional to their sales.

**NAICS:**

See Farms by North American Industry Classification System (NAICS).

**Net cash farm income of the operations:**

This concept is derived by subtracting total farm expenses from total sales, government payments, and other farm-related income. Depreciation is not used in the calculation of net cash farm income. Net cash farm income of the operation includes the value of commodities produced under production contract by the contract growers.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those operations that broke even).
2. Farms with net losses.

**Net cash farm income of the producers:**

This value is the producers' total revenue (fees for producing under a production contract, total sales not under a production contract, government payments, and farm-related income) minus total expenses paid by the producers. Net cash farm income of the producer includes the payments received for producing under a production contract and does not include value of commodities produced under production contract by the contract growers. Depreciation is not used in the calculation of net cash farm income.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those producers who broke even).
2. Farms with net losses.

**New and beginning producers:**

This was a new category for 2017. It includes producers operating on any operation for 10 years or less. They may be on farms with producers who are not beginning producers.

**Noncitrus fruit, all:**

This is a summation of all acres reported as noncitrus such as apples, grapes, and plums. Data for 2017 include pineapples. In 2012 and previous censuses, pineapples were included in field crops. Data are not directly comparable.

**Number of female producers:**

This item is the total count of female producers involved in decisions for the operation reported by the respondent. Detailed demographic data are only available for up to four producers per farm operation.

**Number of male producers:**

This item is the total count of male producers involved in decisions for the operation reported by the respondent. Detailed demographic data are only available for up to four producers per farm operation.

**Number of persons living in producers' households:**

This is the count of people living in the households of the producers on the farm. If producers on the farm are living in the same household, the count is not duplicated for each producer.

**Number of producers:**

This item is the total count of producers involved in decisions for the operation reported by the respondent. Detailed demographic data are only available for up to four producers per farm operation.

**Nursery, greenhouse, floriculture, and sod:**

Data are for total square feet under protection and acres in the open. Individual crop data were collected for area under glass or other protection, area in the open, and sales of aquatic plants, floriculture and bedding crops, nursery crops, sod, propagative materials, food crops grown under protection, and mushroom crops. Total sales data are the summation of all crops.

**Nursery stock crops:**

Data include ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, and bare root herbaceous perennials.

**Nuts, all:**

Data include all nut trees.

**Occupation:**

See Producer characteristics.

**Operation more than 50 percent owned by one producer's household and/or extended family:**

See Farms by type of organization.

**Operations legal status for tax purposes:**

See Farms by legal status.

**Operators:**

The term "operators" has been replaced with the term "producers."

**Oranges, all:**

All oranges are a summation of Valencia oranges and Other oranges. Total acres, bearing age acres, and nonbearing age acres were collected by category.

**Oranges, other than Valencia – include Navel:**

This includes all oranges other than Valencia type. In 2012 this item was referred to as Other oranges. This was a wording change only; data are comparable.

**Organic agriculture:**

Respondents were instructed to indicate if they had organic production according to USDA's National Organic Program (NOP). Respondents reported whether their organic production was certified or exempt from certification and the sales from NOP produced commodities. They also reported whether they had acres transitioning into NOP production and the value of sales of USDA NOP certified or exempt organically produced commodities. Also see Total organic product sales.

**Organic fertilizer used:**

This was a new item for 2017. These are the acres of cropland or pastureland on which approved organic fertilizers were applied.

**Organic value of sales:**

See Total organic product sales.

**Ornamental fish:**

This category includes various fish raised for water gardens, aquariums, etc. Examples include angel fish, guppies, koi, ornamental goldfish, and tropical fish. The value of sales was tabulated for each specified species.

**Other animals and other animal products sold:**

This category includes number of farms and value of sales for all animals and animal products not listed elsewhere on that specific table.

**Other aquaculture products:**

This category includes aquaculture not listed separately. Examples include the production of alligators, frogs, leeches, eels, live rock, salamanders, and turtles.

**Other berries:**

This includes other berry varieties that were not pre-printed in the report form. In 2012 this category included Aronia berries and Elderberries which are reported separately in 2017. Data are not directly comparable.

**Other cattle:**

Data include heifers that had not calved, steers, calves, and bulls.

**Other cattle, sheep, livestock, or poultry:**

See Commodities raised and delivered under production contract.

**Other citrus:**

Data relate to any citrus crop not having a specific code on the report form.

**Other cropland:**

This includes all cropland other than harvested cropland or other pasture and grazing land that could have been used for crops without additional improvements. It includes cropland idle, used for cover crops or soil improvement, cropland which all crops failed or were abandoned, and cropland in cultivated summer fallow.

**Other crops:**

In Chapter 2, table 27, Other crops data relate to any field crops that did not have a specific code in the field crops section of the report form.

**Other crops and hay:**

Data are for the total market value of all crops not categorized into one of the prelisted crop sales categories on the report form and include hay sales. This category includes crops such as grass seed, hay and grass silage, haylage, greenchop, hops, maple syrup, mint for oil, peanuts, sugarcane, sugarbeets, etc.

**Other dry hay:**

See Hay, other dry.

**Other-farm related income sources:**

See Total income from farm-related sources.

**Other field and grass seed crops:**

Data relate to any field or grass seed crop not having a specified code on the report form.

**Other floriculture and bedding crops:**

Data relate to any floriculture and bedding crops not having a specific code on the report form.

**Other food fish:**

Data are for fish, other than catfish and trout, raised on farms primarily for food. Examples include hybrid striped bass, perch, salmon, sturgeon, and tilapia.

**Other greenhouse vegetables and fresh cut herbs:**

This category includes vegetable crops, other than tomatoes, that were grown under protection and fresh cut herbs grown under protection.

**Other land:**

This category includes land in house lots, barn lots, ponds, roads, ditches, wasteland, etc. It includes those acres in the farm operation not classified as cropland, pastureland, or woodland. See Land in farms.

**Other livestock:**

This category includes all livestock not having specific codes on the 2017 report form. In addition, package bees; bees, other than honey or package bees; laboratory animals; and worms are included. See Other animals and other animal products sold.

**Other livestock and poultry purchased or leased:**

See Total farm production expenses.

**Other livestock products:**

Data for this category include the number of farms that sold livestock products that did not have a specific code on the 2017 report form. In addition, beeswax, breeding fees, embryos, fur or pelts, horns, manure sold, and semen are included in this category. In 2012 equine products were included but in 2017 they were reported separately. Data are for farms with production, not necessarily sold. The data are not directly comparable.

**Other noncitrus fruit:**

Data relate to any noncitrus fruit not having a specific code on the census report form. Cherimoyas were included in this category prior to 2017 and were published as an individual item in 2017.

**Other nuts:**

This category includes any nut crop not having a specific code on the report form.

**Other pasture and grazing land that could have been used for crops without additional improvements:**

This category includes land used only for pasture or grazing that could have been used for crops without additional improvement. Also included are acres of crops grazed by livestock, but not harvested prior to grazing. However, cropland that was pastured before or after crops were harvested in 2017 was included as harvested cropland rather than cropland for pasture or grazing.

**Other poultry:**

Data are for other poultry not having a specific code on the report form.

**Other spring wheat for grain:**

In 2012 other spring wheat for grain was sometimes referred to as spring wheat for grain. In 2017, spring wheat is consistently referred to as other spring wheat for grain. See also Wheat for grain.

**Other vegetables:**

Data shown for other vegetables relate to any vegetable not having a specific code on the census form.

**Patronage dividends:**

See Total income from farm related sources.

**Payments received by the contractee for commodities produced under production contract:**

These data show the number of farms and the dollar amount the contractees received from contractors for commodities produced under contract. This is not the market value of the commodities delivered, but the payment or fee the producers received for commodities delivered.

**Peaches, all:**

In 2017 data were collected as Peaches, clingstone and Peaches, freestone in all States except Hawaii, which only collected Peaches, all. In 2012 and previous censuses, data for all peaches were collected as a category in all States except for California and Arizona. Peach data in California and Arizona were collected separately for clingstone and freestone peaches. The data were later combined as Peaches, all for publication. Data for clingstone and freestone are found in the California and Arizona publications only.

**Peacocks and peahens:**

Peacocks and peahens were reported as other poultry.

**Pears, all:**

In 2017 data were collected as Pears, Bartlett and Pears, other than Bartlett in all States except Hawaii, which only collected Pears, all. In 2012 and previous censuses, data for all pears were collected as a category in all States except for California, Arizona, Idaho, Oregon, Alaska, and Washington. These States collected data separately for Bartlett pears and Other pears which were later combined into the Pear, all category.

**Peas, green:**

Excludes all dry peas which were collected in the field crop section. Also excluded are Chinese peas and southern peas which were reported separately. In 2012 this item was labeled Peas, green (excluding southern). This was a wording change only; data are comparable.

**Peas, southern (cowpeas) – blackeyed, crowder, etc:**

Excludes dry peas which were collected in the field crop section. In 2012 this item was referred to as Peas, green southern (cowpeas). This was a wording change only; data are comparable.

**Pecans, all:**

All pecans is a summation of Pecans, improved and Pecans, native and seedling. Total acres, bearing acres, and nonbearing acres were collected by category.

**Pecans, improved:**

Improved pecans are varieties that have been genetically altered through breeding and grafting techniques to produce more nuts, and nuts with a greater percentage of nut meat. See Pecans, all.

**Pecans, native and seedlings:**

Native pecans are varieties that developed under natural conditions. Seedling pecans are produced from seed (the nut) and have not been budded or grafted. See Pecans, all.

**Peppers, Bell (excluding pimientos):**

Pimientos were reported as Other vegetables.

**Peppers, other than Bell (including chile):**

The data include all other peppers including chile. Pimientos were reported as Other vegetables.

**Permanent pasture and rangeland, other than cropland and woodland pastured:**

This land use category encompasses grazable land that does not qualify as woodland pasture or cropland pasture. It may be irrigated or dry land. In some areas, it can be a high quality pasture that could not be cropped without improvements. In other areas, it is barely able to be grazed and is only marginally better than wasteland.

**Pineapples:**

In 2017 pineapples were included in the noncitrus fruit section. Data for 2012 and previous censuses were included in the field crop section.

**Plumcots, pluots, and other plum-apricot hybrids:**

This category includes everything that is not a plum or prune. Pluot is a registered trademark of plumcots, which are genetic crosses between plums and apricots.

**Plums:**

In 2017 plums were published as a separate item. In 2012 plums were reported as an individual item only in California and Arizona. All other States reported plums in a combined plum and prune category.

**Potatoes:**

Potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected.

**Poultry hatched:**

This category includes all poultry hatched on the operation during the year. The number of poultry hatched is under the sales heading.

**Poultry, other:**

See Other poultry.

**Primary occupation of producer:**

Data on primary occupation were obtained from up to four producers per farm. The primary occupation classifications used were:

1. *Farm or ranch work.* The producer spent 50 percent or more of his/her worktime during 2017 farming or ranching.
2. *Other.* The producer spent less than 50 percent of his/her worktime during 2017 farming or ranching operations.

**Producer:**

The term producer designates a person who is involved in making decisions for the farm operation. Decisions may include decisions about such things as planting, harvesting, livestock management, and marketing. The producer may be the owner, a member of the owner's household, a hired manager, a tenant, a renter, or a sharecropper. If a person rents land to others or has land worked on shares by others, he/she is considered the producer only of the land which is retained for his/her own operation. The census collected information on the total number of male producers, the total number of

female producers, and demographic information for up to four producers per farm.

**Producer characteristics:**

Producers (up to four producers per farm) were asked to report primary occupation, sex, age, race, if they were of Hispanic, Latino or Spanish origin, place of residence, if retired from farming, number of days worked off farm, year in which his/her operation of the farm began, year began operating any farm, if they were a hired manager, if they had military service, and the number of persons living in their households. In addition, the total number of male and female producers was collected from each operation.

**Producer, primary:**

One primary producer is designated for each farm. A primary producer is a principal producer (comparable to 2012 principal producer). If multiple principal producers were reported on a farm, a primary producer was chosen by designating the person who made the most decisions for the farm. If equal decisions were made, the primary producer was the person who worked off the farm the least. If multiple principal producers worked the least off the farm, a random choice was made as to which producer was the single designated primary producer.

**Producers, all non-principal:**

Demographic data were collected for up to four producers per farm. Each producer was asked if they were a principal producer or senior partner. A non-principal producer is a producer who did not indicate they were a principal producer. There may be no non-principal producers on a farm.

**Producers, all principal:**

Demographic data were collected for up to four producers per farm. Each producer was asked if they were a principal producer or senior partner. A principal producer is a producer who indicated they were a principal producer. There may be multiple principal producers on a farm. Each farm has at least one principal producer.

**Producers, number:**

Demographic and other information were collected for up to four producers per farm. This may be fewer than the total number of producers on some farms.

**Producers of Hispanic, Latino or Spanish origin:**

This category was relabeled from 2012.

**Producers with military service:**

This category was new for 2017. A producer with military service is a person who currently or previously served on active duty in the U. S. Armed Forces.

**Production contracts:**

See Commodities raised and delivered under production contracts.

**Production expenses:**

See Total farm production expenses.

**Prunes:**

In 2017 prunes were published as a separate item. In 2012 and prior years, prunes were reported as an individual item only in California and Arizona. All other States reported prunes in a combined plum and prune category.

**Pullets for laying flock replacement:**

Data are for pullet inventory and the number sold or moved for laying flock replacement.

**Rabbits, live:**

The data are for inventory and sales of live rabbits. The number of rabbit pelts is included in Other livestock products.



**Race of producer:**

With the exception of Hawaii, data were collected for American Indian and Alaska Native, Asian, Black or African American, Native Hawaiian and Other Pacific Islander, and White producers. Respondents were asked to mark one or more of the race categories. In Hawaii producer race data were collected for American Indian (included Alaska Native), Chinese, Filipino, Japanese, Korean, Other Asian, Black or African American, Native Hawaiian, other Pacific Islander, and White. The combination of Native Hawaiian and Other Pacific Islander is equivalent to the Native Hawaiian or Other Pacific Islander category on the other forms. The combination of the Chinese, Filipino, Japanese, Korean, and Other Asian categories is equivalent to the Asian category on the other forms. The Volume 1, Geographic Area Series, U.S. Summary publication only displays counts for the categories of Native Hawaiian and Other Pacific Islander and Asian. Data for the 11 Hawaii race categories are published in chapter 2 of the Hawaii publication of the Volume 1 series.

**Raspberries, all:**

In 2017 data for raspberries were reported as black raspberries, red raspberries, and other raspberries (includes all other raspberries not listed on the report form) for all States except Hawaii. In 2012 and previous censuses, raspberries were reported as All raspberries except in Alaska, Idaho, Oregon, and Washington where data were reported separately for black and red raspberries. In these States, black raspberries and red raspberries data were combined and published as Raspberries, all for comparability with other States.

**Renewable energy producing systems:**

These types of systems produce power, heat, or mechanical energy by converting resources either to electricity or to motor power.

*Biodiesel production systems.*

Data are for production of non-petroleum based diesel fuel made from vegetable oil or animal fats. Biodiesel can be used alone or blended with conventional petroleum-based diesel fuel.

*Ethanol production systems.*

A fuel produced by converting crops such as corn and sugarcane, biomass crops, or wood. This fuel is generally blended with gasoline. Production of ethanol for fuel requires a permit from the Bureau of Alcohol, Tobacco, and Firearms (ATF). Only ethanol production for fuel was reported.

*Geothermal/geoexchange system.*

A system that uses temperatures from the earth to reduce the operational costs of heating and cooling.

*Methane digesters.*

It is a device which captures biogas resulting from the decomposition of manure, processing by-products, and other materials. Harvested biogas is used as a substitute for natural gas to power engines which generate electricity. It is fed into the natural gas pipeline or flared. Methane digesters were reported only if in production and used in 2017.

*Small hydro system.*

A water driven system, which produces electricity, by the gravitational force of falling or flowing water. It excludes water driven systems that only provide mechanical power, such as turning a grinding stone for a flour mill.

*Solar panels.*

A flat panel designed to capture the sun's energy. Includes photovoltaic systems, which convert light from the sun into electricity, and thermal systems that passively generate electricity.

*Wind turbines.*

A device which converts wind power into electricity. Includes wind generators, wind power units, wind energy converters, and aero generators. Excludes windmills, which do not produce electricity.

**Rental of farmland:**

See Total income from farm-related sources, gross before taxes and expenses; Gross cash rent or share payments.

**Sales, total:**

See Market value of agricultural products sold.

**Sex of producers:**

This item pertains only to four producers from whom detailed demographic data were collected. Total male and female producer counts may be larger.

**Sheep and lambs inventory:**

Data are for sheep and lambs of all ages owned regardless of location. Sheep and lambs were collected in their own section to clarify to respondents when to report “owned” sheep and lambs versus any sheep and lambs on the operation. Prior to 2017 in the Eastern States, data were collected for sheep and lambs regardless of ownership.

**Short-rotation woody crops:**

Data are for short rotation woody crops that grow from seed to a mature tree in 10 years or less. These are trees for use by the paper or pulp industry or as engineered wood. This does not include lumber. Acres in production were included in Cropland harvested in the Land use section of the report form

**Size of farm:**

See Farms by size.

**Small hydro system:**

See Renewable energy producing systems.

**Solar panel:**

See Renewable energy producing systems.

**Sport or game fish:**

Data are for sport or game fish raised on farms to be used primarily for sport. Examples include bluegill, crappie, largemouth bass, smallmouth bass, sunfish, muskie, northern pike, and walleye.

**Squash, all:**

All squash is a summation of summer squash and winter squash. Total acres, acres for fresh market, and acres for processing were collected by category.

**Summer fallow:**

In 2012 this category was labeled Cultivated summer fallow. This was a wording change only; data are comparable.

**Sweet potatoes:**

Sweet potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected.

**Tangerines:**

In 2017 data included Temples. In 2012 data for Temples were published separately. Data are not directly comparable.

**Taro:**

A tropical plant grown primarily for its edible corms or root. Beginning in 2017 data were reported in the vegetable section. In 2012 and previous censuses, data for taro root were reported in the field crop section.

**Tenure:**

See Farms by tenure of producer.

**Tobacco transplants:**

Data are for tobacco transplants that were sold for transplant to farm fields. Transplants grown for transplanting to the same operation were not reported or removed during data review.

**Tomatoes in the open:**

Data are for tomatoes grown in the open and excludes tomatoes produced under glass or other protection.

**Total cropland:**

This category includes cropland harvested, other pasture and grazing land that could have been used for crops without additional improvements, cropland on which all crops failed or were abandoned, cropland in summer fallow, and cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed.

**Total farm production expenses:**

Includes the production expenses provided by the producers, partners, landlords (excluding property taxes), and production contractors for the farm business in 2017. Tenant farmers reported expenses paid by landlords for the agricultural production on the operation, as well as their expenses. Farm or ranch producers who rented part of their land to others reported only the expenses for the land they actually used themselves and not expenses for land rented to others. The 2017 total farm production expenditure includes all farm-related expenses such as customwork, fuel costs, cost of cutting timber, services provided to hunters, cooperative membership fees, etc. However, if the income from these farm-related categories was not considered a part of the operation (i.e., if the income was regarded as derived from a separate business), then the associated expenses were not included. The contractor's portion of expenses was solely based on computer generated estimates for 2017.

This item excludes expenses relating to nonfarm activities such as trading and speculation in the commodities market or livestock trading activities. Explanations of selected production expenses are listed below.

*All other production expenses.*

This category is not comparable with 2012 data. In 2012 this category included *Medical supplies, veterinary, and custom services for livestock* but in 2017 this item was reported separately. All other production expenses include all expenses not listed on the report form. Examples include storage and warehousing, marketing and ginning expenses, insurance, etc. Health insurance premiums and payroll taxes are reported in hired labor expenses.

*Breeding livestock purchased or leased.*

These expenses include all breeding livestock and poultry purchased or leased during 2017 for production on the farm or ranch. The total includes amount spent for beef and dairy cows, heifers, bulls, sows, gilts, boars, rams, lambs, ewes, roosters, hens, layers, etc. Estimations of the value of livestock or poultry fed on a custom basis were to be made based on their value when they arrived on the farm or ranch.

*Cash rent paid in 2017 for land and buildings.*

These data include the cost of renting land and buildings that were part of the operation. Rent paid for the producer's dwelling or other non-farm property and the value of the shares of crops and livestock paid to landlords were excluded.

*Chemicals.*

These 2017 expenses include insecticides, herbicides, fungicides, and other pesticides including costs of custom application. Data exclude commercial fertilizer purchased.

*Contract labor.*

These data include payments made to contractors, crew leaders, cooperatives, or any other organization hired to furnish a crew of laborers to do a job that may involve one or more agricultural operations. In some cases, a crew leader may furnish some equipment. Data exclude expenses made on a contractual basis for repair or maintenance or for capital improvements, such as construction of farm buildings, installation of fences or irrigation systems, and land leveling.

*Cover crop seed purchased.*

This was a new category item in 2017. This expense category is a subset of total Seeds, plants, vines, and trees expense. It includes the cost of all seeds, bulbs, plants, propagation materials, trees, seed treatments, seed cleaning costs, etc. for cover crops purchased during 2017.

*Customwork and custom hauling.*

These expenses include costs incurred for having customwork done on the place and for renting machines to perform agricultural operations. The cost of cotton ginning is excluded. The cost of labor involved in the customwork service is included in the customwork expense. Some examples of customwork are planting, spraying, harvesting, preparation of products for marketing, grinding and mixing feed, corn picking, grain drying, and silo filling. The cost of custom application of fertilizer and chemicals is included in expenditures for fertilizer and chemicals in 2017, just as it was in the 2012 census. The cost of hired labor for operating rented or hired machinery is included as a hired farm and ranch labor expense.

*Feed purchased.*

These expenses include the cost of all feed purchased for livestock and poultry including grain, hay, silage, mixed feeds, concentrates, etc. during 2017.

*Fertilizer, lime, and soil conditioners.*

These 2017 expenses include fertilizer and lime including rock phosphate and gypsum, and the costs of custom application.

*Gasolines, fuels, and oils.*

These expenses include the cost of all gasoline, diesel, natural gas, LP gas, motor oil, and grease products for the farm during 2017. Expenses exclude fuel for personal use of automobiles by the family and others, fuel used for cooking and heating the farmhouse, and any other use outside of farmwork on the operation.

*Hired farm labor.*

These 2017 expenses include the total amount paid for farm or ranch labor including regular workers, part-time workers, and members of the producer's family if they received payments for labor. Expenses include Social Security taxes, State taxes, unemployment tax, payment for sick leave or vacation pay, workman's compensation, insurance premiums, and pension plans.

*Interest paid on debts.*

These expenses include interest and finance charges paid in 2017 for debts secured by real estate and on debt not secured by real estate. Interest expenses excluded from this category are non-farm interest expenses and interest expenses originating from machinery and equipment used for a separate customwork business or for other operations. Interest expense for the producer's dwelling, where the amount is separate from interest on farmland and buildings on the operation, is excluded. Interest paid on debts was reported in one of two categories:

- *Secured by real estate.* These data include all interest expenses paid in 2017 on debts secured by real estate for the farm.
- *Not secured by real estate.* These data include all interest expenses paid in 2017 on debts secured by machinery, tractors, trucks, other equipment, livestock, poultry, breeding stock, money borrowed for use as working capital, and interest paid on CCC loans for the farm.

*Livestock and poultry purchased or leased.*

These data include Breeding livestock purchased or leased and Other livestock and poultry purchased or leased.

*Medical supplies, veterinary, and custom services for livestock.*

This expense category was a new category in 2017. These expenses were included in All Other production expenses in 2012.

*Other livestock and poultry purchased or leased.*

These expenses include all non-breeding livestock and poultry purchased or leased during 2017 for production on the farm or ranch. The total includes amounts spent for cattle, calves, hogs, pigs, sheep, hatchery eggs, etc.

*Property taxes paid.*

These data include property taxes paid by the producers for the farm share of land, machinery, buildings, and livestock, excluding taxes paid by this producer's landlords.

*Rent and lease expenses for machinery, equipment, and farm share of vehicles.*

These data include the farm share cost of renting or leasing machinery, equipment, and vehicles during 2017. Rental and lease expenses of items used only for custom hire are excluded here.

*Repairs, supplies, and maintenance.*

These expenses include all costs for the repair and upkeep of buildings, motor vehicles, fences, and farm equipment used for the farm business during 2017. Repairs to equipment used both for the farm business and for performing customwork are included.

*Seeds, plants, vines, and trees.*

These expenses include the cost of all seeds, bulbs, plants, propagation materials, trees, seed treatments, seed cleaning costs, etc. purchased during 2017. Excluded were items purchased for immediate resale or the value of seed grown on the operation.

*Utilities.*

These data show the farm share cost of electricity, telephone charges, internet fees, and water purchased in 2017. Included in the water cost is water purchased for irrigation purposes, livestock watering, etc. Household utility costs were excluded from these items.

**Total female producers:**

See Number of female producers.

**Total greenhouse vegetables and fresh cut herbs:**

This category includes greenhouse tomatoes and other greenhouse vegetables and fresh cut herbs.

**Total horses and ponies:**

See Horses and ponies value of sales.

**Total income from farm-related sources:**

This includes gross income from farm-related sources received in 2017 before taxes and expenses from the sales of farm byproducts and other sales and services closely related to the principal functions of the farm business. The data exclude income from employment or business activities, which were separate from the farm business.

*Agri-tourism and recreational services.*

This income includes income from recreational services such as hunting, fishing, farm or wine tours, hay rides, etc.

*Amount from State and local government agricultural program payments.*

This income includes State and local government agricultural program payments. Respondents were to exclude the State and local portion of Conservation Reserve Enhancement Program (CREP) payments if they were reported in the amount received for participation in CREP in section 5, item 2 of the report form.

*Crop and livestock insurance payments received.*

This income includes insurance payments from crop and livestock losses.

*Customwork and other agricultural services.*

This income includes gross receipts received by the farm producers for providing services for others such as planting, plowing, spraying, and harvesting. Income from customwork and other agricultural services is generally included in the agriculture census if it is closely related to the farming operation. However, it is excluded if it constituted a separate business or was conducted from another location.

*Gross cash rent or share payments.*

This income includes gross cash or share payments received from renting out farmland, payments received from the lease or sale of allotments, and payments received for livestock pastured on a per-head, per month, or per pound basis. It excludes rental income from nonfarm property.

*Other-farm related income sources.*

This is other income which is closely related to the agricultural operation. This income includes animal boarding, breeding fees (horse breeding or stud fees received were reported in the Value of Sales section in the Other animals and other animal products category), tobacco quota buyouts, State fuel tax refunds, farm generated energy, etc. Crop and livestock insurance payments received and amount from State and local government agricultural program payments were published separately.

*Patronage dividends and refunds from cooperatives.*

This income includes payments to a farmer or rancher for business done with a cooperative to which he/she usually belongs. The payment is usually for goods sold through the co-op.

*Sales of forest products.*

This income includes gross receipts from sales of standing timber, pulpwood, firewood, etc. from the farm or ranch operation. It excludes income from nonfarm timber tracts, sawmill businesses, cultivated Christmas trees, maple products, and short rotation woody crops.

**Total market value of agricultural products sold and government payments:**

This category represents the value of products sold plus government payments. Total value of products sold combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans.

**Total male producers:**

See Number of male producers.

**Total organic product sales:**

The data represent the value of organically produced agricultural commodities sold from operations during 2017. It includes only the value of those products that were produced as organic according to the National Organic Standards and sold by certified or exempt from certification farm operations.

**Total payments received:**

See Commodities raised and delivered under production contracts.

**Total producers:**

See Number of producers.

**Total sales:**

See Market value of agricultural products sold.

**Turkeys:**

Turkey data are a combination of turkeys for meat production, turkey hens and toms kept for breeding, and turkey brooders tabulated from three questions. Turkey brooders are immature birds sent to another farm for further growout to meat production or breeding. This may result in a turkey being sold more than once from different operations.

**Type of organization:**

See Farms by type of organization.

**Unpaid workers:**

Data include agricultural workers not on the payroll who performed activities or work on a farm or ranch.

**Utilities:**

See Total farm production expense.

**Value of commodities:**

Data show the number of farms and the market value of all commodities delivered under a production contract. Also see commodities raised and delivered under production contract.

**Value of food sold directly to consumers:**

Data represent the value of edible products, including value added products, produced and sold for human consumption directly to consumers at farmers markets, on-farm stores or farm stands, roadside stands or stores, u-pick, CSA (Community Supported Agriculture), online marketplaces, etc. In 2012 this item was labeled Value of food sold directly to individuals for human consumption. Data are not directly comparable to 2012. In 2012 Value of food sold directly to individuals for human consumption excluded value added sales.

**Value of food sold directly to retail markets, institutions, and food hubs for local or regionally branded products:**

This item was new for 2017. Data represent the value of products, including value added products, produced and sold for human consumption directly to retail markets, institutions, or food hubs for locally or regionally branded products. Examples include supermarkets, restaurants, caterers, independently owned grocery stores, food cooperatives, K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, food banks, etc.

**Value of landlord's share of total sales:**

Data include the value of agricultural sales received by the landlords.

**Value of organically produced commodities:**

See Total organic product sales.

**Value of processed or value-added agricultural products sold:**

This was a new item for 2017. Data represent the value of products that originated from crop or livestock commodities produced on the operation. Through further manufacture or processing, these items are transformed into products worth more than the originally produced commodity.

**Value of sales:**

See Market value of agricultural products sold.

**Vegetable transplants:**

Data are for vegetable transplants grown and sold from the operation for transplanting to fields on another operation.

**Vegetables harvested for fresh market:**

Respondents reported the total vegetable acres harvested, harvested for fresh market, and harvested for processing.

**Vegetables harvested for sale:**

The acres of vegetables harvested is the summation of the acres of individual vegetables harvested. All of the individual vegetable items may not be shown. When more than one vegetable crop was harvested from the same acreage, acres were counted for each crop.

**Vegetables, melons, and potatoes:**

See Commodities raised and delivered under production contracts.

**Vegetables, other:**

See Other vegetables.

**Wheat for grain:**

Data were reported by type of wheat - Durum, winter, and other spring.

**Wind turbines:**

See Renewable energy producing systems.

**Woodland pastured:**

This category includes all woodland used for pasture or grazing during the census year. Woodland or forest land pastured under a per-head grazing permit was not counted as land in farms and, therefore, was not included in woodland pastured.

**Woodland, total:**

This category includes natural or planted woodlots or timber tracts, cutover and deforested land with young growth which has or will have value for wood products, and woodland pastured. Land covered by sagebrush or mesquite was reported as Permanent pasture and rangeland or Other land. Land planted for Christmas tree production and short rotation woody crops was reported in Cropland harvested, and land in tapped maple trees was reported as Woodland not pastured.

**Write-in crops:**

The respondent was asked to look at a list of crops in each section of the report form and write in the crop name and its code for all commodities produced. For crops that had no individual code listed on the report form, the respondent was to write in the crop name and code of the appropriate “all other” category for that section. Write-in crops coded as “all other” were reviewed and assigned a specific code when possible. Crops not assigned a specific code were left in the appropriate “all other” category.

**Years operating any farm:**

This number is based on the year each producer began operating any farm operation. The published categories changed after the 2012 census.

**Young producers:**

A young producer is defined as a producer 35 years of age or younger.



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**APPENDIX C. VOLUME OF 2017 CENSUS OF AGRICULTURE MAILOUT**

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**Figure C.1 Initial Mailout Report Forms Mailed From NPC**

| Report Form Type   | Quantity  |
|--|-----------|
| Total report forms                                       | 2,999,180 |
| Report forms mailed from the National Processing Center: |           |
| 17-A100 Long form  | 2,571,726 |
| 17-A200 Short form                                       | 400,000   |
| 17-A101 Hawaii form                                      | 8,990     |
| 17-A300 American Indian form                             | 18,464    |

**Figure C.2 Receipts and Corrected Undeliverable As Addressed (UAA) Report Form Packets**

| UAAs                        | Mailout dates                      | Forms   |
|-----------------------------|------------------------------------|---------|
| UAAs received               | NA                                 | 194,786 |
| Total corrected UAAs mailed | February 11, 2018 – March 22, 2018 | 24,253  |

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**APPENDIX D. SUMMARY OF U.S. NONRESPONSE AND COVERAGE ADJUSTMENTS**

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**Table A. Summary of U.S. Coverage, Nonresponse, and Misclassification Adjustments: 2017**

[For meaning of abbreviations and symbols, see introductory text.]

| Item  | Total       | Standard error | Adjustment as percent of total | Percent of total adjustment from coverage | Percent of total adjustment from nonresponse | Percent of total adjustment from misclassification |
|---|-------------|----------------|--------------------------------|---|--|--|
| Farms.....number  | 2,042,220   | 43,278         | 37.6                           | 15.1                                      | 13.9   | 8.6  |
| Land in farms.....acres   | 900,217,576 | 15,031,334     | 22.7                           | 4.4                                       | 11.8   | 6.5  |
| Farms by size:  |             |                |                                |   |  |  |
| 1 to 9 acres.....farms  | 273,325     | 23,216         | 57.2                           | 25.9                                      | 17.6   | 13.8   |
| .....acres  | 1,302,208   | 119,480        | 57.8                           | 25.1                                      | 17.0   | 15.7   |
| 10 to 49 acres.....farms  | 583,001     | 27,053         | 42.4                           | 19.1                                      | 13.8   | 9.5  |
| .....acres  | 14,787,940  | 728,067        | 41.3                           | 18.0                                      | 13.2   | 10.1   |
| 50 to 69 acres.....farms  | 135,126     | 2,902          | 34.6                           | 14.3                                      | 13.4   | 7.0  |
| .....acres  | 7,845,508   | 169,522        | 34.6                           | 14.2                                      | 13.3   | 7.0  |
| 70 to 99 acres.....farms  | 163,251     | 1,480          | 33.3                           | 12.3                                      | 13.1   | 7.9  |
| .....acres  | 13,414,191  | 117,725        | 33.2                           | 12.2                                      | 13.1   | 7.9  |
| 100 to 139 acres.....farms  | 149,478     | 2,564          | 32.1                           | 10.9                                      | 12.3   | 8.9  |
| .....acres  | 17,343,842  | 312,035        | 32.1                           | 10.9                                      | 12.2   | 9.0  |
| 140 to 179 acres.....farms  | 116,908     | 4,263          | 31.5                           | 9.7                                       | 11.5   | 10.2   |
| .....acres  | 18,399,918  | 669,574        | 31.5                           | 9.7                                       | 11.5   | 10.2   |
| 180 to 219 acres.....farms  | 74,086      | 1,276          | 28.2                           | 9.9                                       | 13.5   | 4.8  |
| .....acres  | 14,645,228  | 255,063        | 28.2                           | 9.9                                       | 13.6   | 4.8  |
| 220 to 259 acres.....farms  | 57,096      | 1,560          | 27.9                           | 9.5                                       | 13.4   | 5.0  |
| .....acres  | 13,586,644  | 372,774        | 27.9                           | 9.5                                       | 13.4   | 5.0  |
| 260 to 499 acres.....farms  | 183,835     | 3,483          | 29.3                           | 8.4                                       | 14.9   | 6.0  |
| .....acres  | 65,775,717  | 1,244,202      | 29.4                           | 8.3                                       | 15.0   | 6.1  |
| 500 to 999 acres.....farms  | 133,321     | 1,651          | 30.1                           | 8.5                                       | 17.6   | 4.1  |
| .....acres  | 92,872,530  | 1,164,377      | 30.3                           | 8.3                                       | 17.9   | 4.1  |
| 1,000 to 1,999 acres.....farms  | 87,666      | 2,592          | 30.2                           | 4.2                                       | 18.1   | 7.8  |
| .....acres  | 120,680,141 | 3,602,322      | 30.2                           | 4.2                                       | 18.0   | 8.0  |
| 2,000 acres or more.....farms   | 85,127      | 2,002          | 24.6                           | 2.8                                       | 18.2   | 3.5  |
| .....acres  | 519,563,709 | 16,173,465     | 16.8                           | 1.9                                       | 8.9  | 6.0  |
| Irrigated land use:   |             |                |                                |   |  |  |
| Harvested cropland.....farms  | 255,348     | 7,306          | 35.2                           | 13.6                                      | 15.1   | 6.6  |
| .....acres  | 53,959,077  | 1,097,813      | 22.5                           | 2.7                                       | 16.0   | 3.8  |
| Pastureland and other land.....farms  | 64,450      | 3,314          | 44.9                           | 19.6                                      | 15.0   | 10.2   |
| .....acres  | 4,054,830   | 170,744        | 24.8                           | 6.0                                       | 12.5   | 6.3  |
| Market value of agricultural products sold (see text).....\$1,000                                     |             |                |                                |   |  |  |
|   | 388,522,695 | 2,923,858      | 18.1                           | 3.4                                       | 11.1   | 3.6  |
| Farms by value of sales:  |             |                |                                |   |  |  |
| Less than \$1,000 (see text).....farms  | 603,752     | 26,259         | 51.2                           | 22.1                                      | 15.1   | 14.0   |
| .....\$1,000  | 93,210      | 5,223          | 60.6                           | 26.5                                      | 18.1   | 16.1   |
| \$1,000 to \$2,499.....farms  | 187,949     | 8,512          | 42.2                           | 20.3                                      | 14.0   | 7.8  |
| .....\$1,000  | 310,520     | 13,915         | 42.1                           | 20.2                                      | 14.0   | 7.9  |
| \$2,500 to \$4,999.....farms  | 185,341     | 4,777          | 38.5                           | 18.4                                      | 12.8   | 7.2  |
| .....\$1,000  | 662,980     | 17,382         | 38.3                           | 18.3                                      | 12.8   | 7.2  |
| \$5,000 to \$9,999.....farms  | 208,074     | 5,255          | 37.1                           | 17.0                                      | 12.9   | 7.2  |
| .....\$1,000  | 1,477,595   | 36,707         | 36.9                           | 16.8                                      | 12.9   | 7.2  |
| \$10,000 to \$19,999.....farms  | 174,780     | 4,230          | 25.7                           | 9.3                                       | 11.1   | 5.3  |
| .....\$1,000  | 2,468,212   | 57,415         | 25.7                           | 9.3                                       | 11.1   | 5.3  |
| \$20,000 to \$24,999.....farms  | 53,438      | 864            | 26.4                           | 9.3                                       | 11.6   | 5.4  |
| .....\$1,000  | 1,181,954   | 18,406         | 26.3                           | 9.3                                       | 11.6   | 5.4  |
| \$25,000 to \$39,999.....farms  | 100,490     | 2,235          | 26.3                           | 7.4                                       | 13.6   | 5.3  |
| .....\$1,000  | 3,162,749   | 65,497         | 26.3                           | 7.4                                       | 13.6   | 5.3  |
| \$40,000 to \$49,999.....farms  | 43,623      | 645            | 27.5                           | 7.8                                       | 14.2   | 5.5  |
| .....\$1,000  | 1,937,293   | 29,399         | 27.5                           | 7.8                                       | 14.2   | 5.5  |
| \$50,000 to \$99,999.....farms  | 119,434     | 2,473          | 28.0                           | 7.3                                       | 15.2   | 5.5  |
| .....\$1,000  | 8,477,635   | 170,770        | 28.1                           | 7.2                                       | 15.4   | 5.5  |
| \$100,000 to \$249,999.....farms  | 130,932     | 1,810          | 27.6                           | 3.8                                       | 17.9   | 5.9  |
| .....\$1,000  | 21,171,316  | 275,035        | 27.9                           | 3.7                                       | 18.3   | 5.9  |
| \$250,000 to \$499,999.....farms  | 87,839      | 1,376          | 30.9                           | 3.2                                       | 22.9   | 4.8  |
| .....\$1,000  | 31,318,548  | 505,169        | 31.1                           | 3.1                                       | 23.3   | 4.8  |
| \$500,000 to \$999,999.....farms  | 69,703      | 1,012          | 30.9                           | 2.2                                       | 25.9   | 2.8  |
| .....\$1,000  | 49,338,998  | 761,022        | 31.1                           | 2.3                                       | 26.0   | 2.8  |
| \$1,000,000 or more.....farms   | 76,865      | 922            | 20.7                           | 2.9                                       | 14.7   | 3.2  |
| .....\$1,000  | 266,921,684 | 2,573,412      | 12.6                           | 3.0                                       | 6.5  | 3.2  |
| Legal status for tax purposes (see text):   |             |                |                                |   |  |  |
| Family or individual.....farms  | 1,751,126   | 39,037         | 38.5                           | 15.8                                      | 13.9   | 8.8  |
| .....acres  | 541,071,476 | 6,917,125      | 27.3                           | 6.1                                       | 15.0   | 6.2  |
| Partnership.....farms   | 130,173     | 3,658          | 31.6                           | 9.4                                       | 14.9   | 7.3  |
| .....acres  | 158,051,459 | 3,722,094      | 17.7                           | 2.4                                       | 9.3  | 6.0  |
| Corporation:  |             |                |                                |   |  |  |
| Family held.....farms   | 104,155     | 1,350          | 31.3                           | 10.2                                      | 14.1   | 7.0  |
| .....acres  | 126,671,963 | 6,438,831      | 17.1                           | 2.1                                       | 8.0  | 7.0  |
| Other than family held.....farms  | 12,685      | 626            | 34.2                           | 12.3                                      | 14.3   | 7.5  |
| .....acres  | 12,889,821  | 1,116,353      | 11.8                           | 1.7                                       | 4.4  | 5.7  |
| Other - estate or trust, prison farm, grazing association, American Indian Reservation, etc.....farms |             |                |                                |   |  |  |
| .....acres  | 44,081      | 2,263          | 33.7                           | 13.6                                      | 11.4   | 8.7  |
|   | 61,532,857  | 3,091,251      | 8.9                            | 2.0                                       | 2.5  | 4.4  |
| Tenure:   |             |                |                                |   |  |  |
| Full owners.....farms   | 1,408,961   | 33,785         | 39.3                           | 16.9                                      | 12.8   | 9.6  |
| .....acres  | 310,218,983 | 6,470,335      | 21.9                           | 5.9                                       | 8.2  | 7.8  |
| Part owners.....farms   | 493,137     | 7,102          | 31.5                           | 8.9                                       | 16.8   | 5.9  |
| .....acres  | 503,138,279 | 8,927,625      | 22.8                           | 2.9                                       | 14.0   | 5.9  |
| Tenants.....farms   | 140,122     | 6,570          | 41.5                           | 14.7                                      | 20.2   | 6.7  |
| .....acres  | 86,860,314  | 1,990,706      | 24.8                           | 5.5                                       | 15.6   | 3.6  |
| All principal producer characteristics by 1- Sex of operator:   |             |                |                                |   |  |  |
| Male.....farms  | 1,787,998   | 39,842         | 36.2                           | 14.1                                      | 14.2   | 7.9  |
| .....acres  | 847,232,627 | 14,008,443     | 22.4                           | 4.0                                       | 12.1   | 6.3  |
| Female.....farms  | 766,474     | 21,918         | 43.0                           | 17.0                                      | 15.0   | 10.9   |
| .....acres  | 238,157,861 | 6,484,070      | 25.1                           | 5.2                                       | 12.8   | 7.2  |
| Primary occupation:   |             |                |                                |   |  |  |
| Farming.....farms   | 1,207,375   | 18,039         | 34.1                           | 11.5                                      | 14.4   | 8.1  |
| .....farms  | 1,533,078   | 55,236         | 41.3                           | 16.2                                      | 15.5   | 9.7  |

See footnote(s) at end of table.

continued

**Table A. Summary of U.S. Coverage, Nonresponse, and Misclassification Adjustments: 2017 (continued)**

[For meaning of abbreviations and symbols, see introductory text.]

| Item  | Total         | Standard error | Adjustment as percent of total | Percent of total adjustment from coverage | Percent of total adjustment from nonresponse | Percent of total adjustment from misclassification |
|---|---------------|----------------|--------------------------------|---|--|--|
| All principal producer characteristics by <sup>1</sup> - Con. |               |                |                                |   |  |  |
| Hispanic, Latino, or Spanish origin (see text)..... farms     | 77,416        | 7,488          | 55.9                           | 23.6                                      | 21.5   | 10.7   |
| ..... acres   | 26,041,600    | 1,211,639      | 26.7                           | 7.5                                       | 11.1   | 8.1  |
| Race:   |               |                |                                |   |  |  |
| American Indian or Alaska Native..... farms                   | 39,632        | 4,690          | 52.3                           | 17.2                                      | 22.4   | 12.7   |
| ..... acres   | 51,095,994    | 1,971,823      | 14.6                           | 3.8                                       | 6.5  | 4.3  |
| Asian..... farms  | 13,904        | 1,191          | 47.4                           | 14.7                                      | 21.6   | 11.1   |
| ..... acres   | 1,831,229     | 141,253        | 27.8                           | 6.0                                       | 14.9   | 6.9  |
| Black or African American..... farms                          | 32,052        | 2,720          | 59.9                           | 12.9                                      | 31.2   | 15.7   |
| ..... acres   | 3,862,936     | 288,775        | 52.5                           | 7.5                                       | 32.6   | 12.4   |
| Native Hawaiian or Other Pacific Islander..... farms          | 2,092         | 434            | 47.9                           | 15.3                                      | 20.5   | 12.1   |
| ..... acres   | 426,068       | 228,386        | 39.9                           | 7.8                                       | 23.4   | 8.7  |
| White..... farms  | 1,955,737     | 40,615         | 36.9                           | 15.1                                      | 13.4   | 8.4  |
| ..... acres   | 843,497,615   | 14,192,177     | 23.0                           | 4.4                                       | 12.0   | 6.6  |
| More than one race reported..... farms                        | 19,773        | 1,469          | 47.7                           | 17.9                                      | 19.1   | 10.8   |
| ..... acres   | 6,712,435     | 319,035        | 24.5                           | 4.4                                       | 12.8   | 7.3  |
| Military service (see text):                                  |               |                |                                |   |  |  |
| Never served..... producers                                   | 2,402,342     | 63,141         | 38.4                           | 14.2                                      | 15.3   | 8.9  |
| Served..... producers   | 338,111       | 9,391          | 36.1                           | 14.5                                      | 11.9   | 9.7  |
| All producers by age group <sup>1</sup> :                     |               |                |                                |   |  |  |
| Under 25 years..... farms                                     | 50,943        | 8,438          | 49.4                           | 13.2                                      | 24.3   | 11.9   |
| 25 to 34 years..... farms                                     | 234,496       | 27,511         | 50.5                           | 16.8                                      | 22.1   | 11.6   |
| 35 to 44 years..... farms                                     | 390,345       | 18,472         | 44.0                           | 16.8                                      | 20.4   | 6.8  |
| 45 to 54 years..... farms                                     | 614,654       | 27,200         | 40.4                           | 13.9                                      | 17.7   | 8.8  |
| 55 to 64 years..... farms                                     | 955,354       | 12,836         | 35.9                           | 15.0                                      | 12.8   | 8.0  |
| 65 to 74 years..... farms                                     | 757,936       | 13,931         | 34.4                           | 14.3                                      | 9.6  | 10.5   |
| 75 years and over..... farms                                  | 396,106       | 7,027          | 31.4                           | 12.3                                      | 9.2  | 10.0   |
| Net cash farm income of operations (see text):                |               |                |                                |   |  |  |
| Farms with gains of <sup>2</sup> :                            |               |                |                                |   |  |  |
| Less than \$1,000..... farms                                  | 66,633        | 1,074          | 35.7                           | 16.6                                      | 11.3   | 7.8  |
| \$1,000..... farms  | 31,436        | 699            | 34.5                           | 16.0                                      | 11.0   | 7.5  |
| \$1,000 to \$4,999..... farms                                 | 156,683       | 1,875          | 30.7                           | 13.7                                      | 10.3   | 6.7  |
| \$1,000..... farms  | 431,683       | 5,726          | 30.3                           | 13.4                                      | 10.3   | 6.6  |
| \$5,000 to \$9,999..... farms                                 | 103,942       | 2,032          | 27.1                           | 10.6                                      | 10.4   | 6.0  |
| \$1,000..... farms  | 756,426       | 15,498         | 27.0                           | 10.5                                      | 10.5   | 6.0  |
| \$10,000 to \$24,999..... farms                               | 153,619       | 2,497          | 26.1                           | 8.4                                       | 11.8   | 5.9  |
| \$1,000..... farms  | 2,525,811     | 39,809         | 26.1                           | 8.3                                       | 11.9   | 5.9  |
| \$25,000 to \$49,999..... farms                               | 114,269       | 2,015          | 26.5                           | 6.9                                       | 13.7   | 5.8  |
| \$1,000..... farms  | 4,097,569     | 73,458         | 26.5                           | 6.8                                       | 13.9   | 5.8  |
| \$50,000 or more..... farms                                   | 296,183       | 3,414          | 26.9                           | 4.0                                       | 18.2   | 4.7  |
| \$1,000..... farms  | 104,245,583   | 1,009,852      | 20.0                           | 3.3                                       | 12.9   | 3.8  |
| Farms with losses of -  |               |                |                                |   |  |  |
| Less than \$1,000..... farms                                  | 89,302        | 3,454          | 42.8                           | 19.3                                      | 13.2   | 10.3   |
| \$1,000..... farms  | 45,846        | 1,742          | 43.4                           | 19.4                                      | 13.5   | 10.5   |
| \$1,000 to \$4,999..... farms                                 | 342,608       | 13,270         | 46.6                           | 20.9                                      | 14.5   | 11.2   |
| \$1,000..... farms  | 988,554       | 41,411         | 47.0                           | 21.0                                      | 14.8   | 11.2   |
| \$5,000 to \$9,999..... farms                                 | 256,919       | 9,567          | 47.3                           | 20.7                                      | 15.6   | 11.0   |
| \$1,000..... farms  | 1,854,855     | 71,776         | 47.2                           | 20.6                                      | 15.6   | 11.0   |
| \$10,000 to \$24,999..... farms                               | 272,079       | 10,940         | 45.5                           | 19.1                                      | 15.5   | 11.0   |
| \$1,000..... farms  | 4,266,566     | 188,227        | 45.3                           | 18.8                                      | 15.6   | 11.0   |
| \$25,000 to \$49,999..... farms                               | 104,865       | 3,872          | 42.1                           | 16.5                                      | 15.7   | 10.0   |
| \$1,000..... farms  | 3,629,228     | 133,023        | 42.0                           | 16.3                                      | 15.7   | 10.0   |
| \$50,000 or more..... farms                                   | 85,118        | 2,038          | 35.7                           | 11.7                                      | 16.4   | 7.6  |
| \$1,000..... farms  | 13,380,008    | 254,975        | 30.2                           | 8.6                                       | 15.3   | 6.3  |
| Livestock and poultry:  |               |                |                                |   |  |  |
| Cattle and calves inventory..... farms                        |               |                |                                |   |  |  |
| ..... number  | 882,692       | 19,877         | 36.1                           | 13.5                                      | 16.3   | 6.3  |
| ..... farms   | 93,648,041    | 1,983,371      | 22.8                           | 4.0                                       | 13.7   | 5.1  |
| Beef cows inventory..... farms                                |               |                |                                |   |  |  |
| ..... number  | 729,046       | 14,946         | 34.4                           | 12.6                                      | 15.6   | 6.2  |
| ..... farms   | 31,722,039    | 809,066        | 24.7                           | 4.2                                       | 15.1   | 5.4  |
| Milk cows inventory..... farms                                |               |                |                                |   |  |  |
| ..... number  | 54,599        | 1,722          | 32.8                           | 9.3                                       | 20.5   | 3.0  |
| ..... farms   | 9,539,631     | 161,118        | 11.3                           | 2.3                                       | 7.7  | 1.3  |
| Hog and pigs inventory..... farms                             |               |                |                                |   |  |  |
| ..... number  | 66,439        | 3,424          | 42.7                           | 17.2                                      | 17.3   | 8.2  |
| ..... farms   | 72,381,007    | 1,322,671      | 24.5                           | 7.1                                       | 8.8  | 8.5  |
| Layers inventory..... farms                                   |               |                |                                |   |  |  |
| ..... number  | 232,500       | 10,221         | 50.0                           | 21.4                                      | 18.0   | 10.5   |
| ..... farms   | 368,241,393   | 10,596,560     | 1.4                            | 0.5                                       | 0.5  | 0.4  |
| Broilers sold..... farms                                      |               |                |                                |   |  |  |
| ..... number  | 32,751        | 1,582          | 41.8                           | 16.8                                      | 17.3   | 7.8  |
| ..... farms   | 8,889,759,283 | 248,694,312    | 27.2                           | 7.9                                       | 13.0   | 6.3  |
| Aquaculture sold..... farms                                   |               |                |                                |   |  |  |
| ..... number  | 5,350         | 201            | 28.4                           | 14.1                                      | 9.3  | 4.9  |
| ..... farms   | 1,778,587     | 88,052         | 6.1                            | 2.8                                       | 1.5  | 1.7  |
| Selected crops harvested:                                     |               |                |                                |   |  |  |
| Corn for grain..... farms                                     |               |                |                                |   |  |  |
| ..... acres   | 304,801       | 4,815          | 27.0                           | 5.4                                       | 16.9   | 4.7  |
| ..... farms   | 84,738,562    | 1,097,857      | 24.2                           | 2.3                                       | 18.8   | 3.2  |
| Durum wheat for grain..... farms                              |               |                |                                |   |  |  |
| ..... acres   | 3,093         | 161            | 23.2                           | 2.9                                       | 17.0   | 3.3  |
| ..... farms   | 2,206,169     | 117,367        | 19.7                           | 1.9                                       | 14.7   | 3.1  |
| Other spring wheat for grain (see text)..... farms            |               |                |                                |   |  |  |
| ..... acres   | 20,076        | 517            | 27.9                           | 3.8                                       | 20.3   | 3.8  |
| ..... farms   | 10,419,033    | 511,562        | 25.5                           | 2.3                                       | 19.4   | 3.8  |
| Winter wheat for grain..... farms                             |               |                |                                |   |  |  |
| ..... acres   | 86,596        | 1,103          | 25.4                           | 5.0                                       | 15.9   | 4.5  |
| ..... farms   | 26,186,417    | 210,542        | 21.9                           | 2.7                                       | 15.3   | 3.9  |
| Sorghum for grain..... farms                                  |               |                |                                |   |  |  |
| ..... acres   | 15,339        | 345            | 47.0                           | 4.7                                       | 17.9   | 4.4  |
| ..... farms   | 5,070,159     | 155,826        | 25.5                           | 2.7                                       | 19.1   | 3.8  |
| Soybeans for beans..... farms                                 |               |                |                                |   |  |  |
| ..... acres   | 303,191       | 3,615          | 27.1                           | 5.6                                       | 16.8   | 4.7  |
| ..... farms   | 90,149,480    | 1,746,145      | 25.3                           | 2.5                                       | 19.5   | 3.3  |
| Rice..... farms   |               |                |                                |   |  |  |
| ..... acres   | 4,637         | 466            | 27.8                           | 2.4                                       | 21.3   | 4.1  |
| ..... farms   | 2,395,054     | 638,071        | 19.9                           | 1.1                                       | 15.2   | 3.7  |
| Cotton..... farms   |               |                |                                |   |  |  |
| ..... acres   | 16,149        | 610            | 28.0                           | 4.0                                       | 20.6   | 3.4  |
| ..... farms   | 11,401,965    | 316,506        | 25.6                           | 2.4                                       | 20.4   | 2.9  |
| Peanuts..... farms  |               |                |                                |   |  |  |
| ..... acres   | 6,379         | 400            | 33.2                           | 4.8                                       | 23.5   | 5.0  |
| ..... farms   | 1,786,767     | 134,399        | 28.1                           | 2.4                                       | 22.2   | 3.5  |

See footnote(s) at end of table.  
continued

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**Table A. Summary of U.S. Coverage, Nonresponse, and Misclassification Adjustments: 2017 (continued)**

[For meaning of abbreviations and symbols, see introductory text.]

| Item  | Total      | Standard error | Adjustment as percent of total | Percent of total adjustment from coverage | Percent of total adjustment from nonresponse | Percent of total adjustment from misclassification |
|---|------------|----------------|--------------------------------|---|--|--|
| Selected crops harvested: - Con.  |            |                |                                |   |  |  |
| Barley..... farms   | 11,188     | 287            | 27.0                           | 4.7                                       | 18.0   | 4.2  |
| ..... acres   | 2,206,808  | 111,622        | 22.1                           | 2.1                                       | 16.7   | 3.4  |
| Oats..... farms   | 19,842     | 450            | 30.9                           | 7.6                                       | 17.5   | 5.8  |
| ..... acres   | 814,140    | 23,504         | 28.3                           | 4.7                                       | 19.0   | 4.7  |
| Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)..... farms |            |                |                                |   |  |  |
| ..... acres   | 799,627    | 15,837         | 34.5                           | 12.9                                      | 12.9   | 8.7  |
| ..... farms   | 56,858,622 | 729,705        | 28.2                           | 6.2                                       | 16.2   | 5.9  |
| ..... acres   | 74,276     | 4,298          | 37.0                           | 14.6                                      | 17.2   | 5.2  |
| ..... farms   | 3,965,622  | 102,015        | 10.6                           | 1.8                                       | 6.9  | 1.9  |
| ..... acres   | 16,554     | 1,099          | 33.7                           | 13.6                                      | 15.5   | 4.6  |
| ..... farms   | 1,133,128  | 36,604         | 6.6                            | 1.1                                       | 4.4  | 1.2  |
| ..... acres   | 28,673     | 1,806          | 37.2                           | 15.2                                      | 17.0   | 5.0  |
| ..... farms   | 335,348    | 21,300         | 6.2                            | 1.3                                       | 3.3  | 1.6  |
| ..... acres   | 20,784     | 1,179          | 32.5                           | 11.9                                      | 16.3   | 4.3  |
| ..... farms   | 496,096    | 16,260         | 13.2                           | 2.3                                       | 8.1  | 2.8  |
| ..... acres   | 10,869     | 949            | 39.3                           | 16.6                                      | 17.4   | 5.2  |
| ..... farms   | 342,965    | 7,049          | 6.5                            | 2.3                                       | 2.0  | 2.1  |
| ..... acres   | 111,955    | 3,892          | 36.0                           | 17.3                                      | 13.1   | 5.5  |
| ..... farms   | 5,665,600  | 210,257        | 20.1                           | 4.5                                       | 11.9   | 3.8  |
| ..... acres   | 26,408     | 1,296          | 35.6                           | 17.0                                      | 12.9   | 5.7  |
| ..... farms   | 381,718    | 18,529         | 14.2                           | 4.2                                       | 7.2  | 2.7  |
| ..... acres   | 28,387     | 911            | 34.3                           | 16.9                                      | 12.0   | 5.3  |
| ..... farms   | 1,136,155  | 69,903         | 22.5                           | 4.0                                       | 15.0   | 3.5  |
| ..... acres   | 7,973      | 267            | 36.2                           | 16.7                                      | 14.0   | 5.5  |
| ..... farms   | 602,830    | 29,323         | 11.3                           | 2.4                                       | 6.2  | 2.7  |
| ..... acres   | 7,954      | 348            | 33.2                           | 10.9                                      | 17.4   | 5.0  |
| ..... farms   | 1,266,160  | 35,893         | 20.7                           | 3.9                                       | 12.7   | 4.1  |
| ..... acres   | 33,919     | 1,472          | 36.4                           | 16.9                                      | 14.0   | 5.6  |
| ..... farms   | 302,199    | 6,508          | 13.3                           | 4.6                                       | 5.9  | 2.7  |
| ..... acres   |            |                |                                |   |  |  |

<sup>1</sup> Data were collected for a maximum of four producers per farm.

<sup>2</sup> Farms with total production expenses equal to market value of agricultural products sold, government payments, and farm-related income are included as farms with gains of less than \$1,000.

**Table B. Reliability Estimates of U.S. Totals: 2017**

[For meaning of abbreviations and symbols, see introductory text.]

| Item  | Total       | Coefficient of variation (percent) | Item  | Total         | Coefficient of variation (percent) |
|---|-------------|------------------------------------|---|---------------|------------------------------------|
| Farms.....number  | 2,042,220   | 2.1                                | All principal producer characteristics by <sup>1</sup> - Con. |               |                                    |
| Land in farms.....acres   | 900,217,576 | 1.7                                | Hispanic, Latino, or Spanish origin (see text).....farms      | 77,416        | 9.7                                |
| Farms by size:  |             |                                    | acres   | 26,041,600    | 4.7                                |
| 1 to 9 acres.....farms  | 273,325     | 8.5                                | Race:   |               |                                    |
| acres.....acres   | 1,302,208   | 9.2                                | American Indian or Alaska Native.....farms                    | 39,632        | 11.8                               |
| 10 to 49 acres.....farms  | 583,001     | 4.6                                | acres   | 51,095,994    | 3.9                                |
| acres.....acres   | 14,787,940  | 4.9                                | Asian.....farms   | 13,904        | 8.6                                |
| 50 to 69 acres.....farms  | 135,126     | 2.1                                | acres   | 1,831,229     | 7.7                                |
| acres.....acres   | 7,845,508   | 2.2                                | Black or African American.....farms                           | 32,052        | 8.5                                |
| 70 to 99 acres.....farms  | 163,251     | 0.9                                | acres   | 3,862,936     | 7.5                                |
| acres.....acres   | 13,414,191  | 0.9                                | Native Hawaiian or Other Pacific Islander.....farms           | 2,092         | 20.7                               |
| 100 to 139 acres.....farms  | 149,478     | 1.7                                | acres   | 426,068       | 53.6                               |
| acres.....acres   | 17,343,842  | 1.8                                | White.....farms   | 1,955,737     | 2.1                                |
| 140 to 179 acres.....farms  | 116,908     | 3.6                                | acres   | 843,497,615   | 1.7                                |
| acres.....acres   | 18,399,918  | 3.6                                | More than one race reported.....farms                         | 19,773        | 7.4                                |
| 180 to 219 acres.....farms  | 74,086      | 1.7                                | acres   | 6,712,435     | 4.8                                |
| acres.....acres   | 14,645,228  | 1.7                                | Military service (see text):                                  |               |                                    |
| 220 to 259 acres.....farms  | 57,096      | 2.7                                | Never served.....producers                                    | 2,402,342     | 2.6                                |
| acres.....acres   | 13,586,644  | 2.7                                | Served.....producers  | 338,111       | 2.8                                |
| 260 to 499 acres.....farms  | 183,835     | 1.9                                | All producers by age group <sup>1</sup> :                     |               |                                    |
| acres.....acres   | 65,775,717  | 1.9                                | Under 25 years.....farms                                      | 50,943        | 16.6                               |
| 500 to 999 acres.....farms  | 133,321     | 1.2                                | 25 to 34 years.....farms                                      | 234,496       | 11.7                               |
| acres.....acres   | 92,872,530  | 1.3                                | 35 to 44 years.....farms                                      | 390,345       | 4.7                                |
| 1,000 to 1,999 acres.....farms  | 87,666      | 3.0                                | 45 to 54 years.....farms                                      | 614,654       | 4.4                                |
| acres.....acres   | 120,680,141 | 3.0                                | 55 to 64 years.....farms                                      | 955,354       | 1.3                                |
| 2,000 acres or more.....farms   | 85,127      | 2.4                                | 65 to 74 years.....farms                                      | 757,936       | 1.8                                |
| acres.....acres   | 519,563,709 | 3.1                                | 75 years and over.....farms                                   | 396,106       | 1.8                                |
| Irrigated land use:   |             |                                    | Net cash farm income of operations (see text):                |               |                                    |
| Harvested cropland.....farms  | 255,348     | 2.9                                | Farms with gains of <sup>2</sup> :                            |               |                                    |
| acres.....acres   | 53,959,077  | 2.0                                | Less than \$1,000.....farms                                   | 66,633        | 1.6                                |
| Pastureland and other land.....farms  | 64,450      | 5.1                                | \$1,000.....farms   | 31,436        | 2.2                                |
| acres.....acres   | 4,054,830   | 4.2                                | \$1,000 to \$4,999.....farms                                  | 156,683       | 1.2                                |
| Market value of agricultural products sold (see text).....\$1,000                                     | 388,522,695 | 0.8                                | \$5,000 to \$9,999.....farms                                  | 431,683       | 1.3                                |
| Farms by value of sales:  |             |                                    | \$10,000 to \$24,999.....farms                                | 103,942       | 2.0                                |
| Less than \$1,000 (see text).....farms  | 603,752     | 4.3                                | \$1,000.....farms   | 756,426       | 2.0                                |
| \$1,000.....farms   | 93,210      | 5.6                                | \$10,000 to \$24,999.....farms                                | 153,619       | 1.6                                |
| \$1,000 to \$2,499.....farms  | 187,949     | 4.5                                | \$25,000 to \$49,999.....farms                                | 2,525,811     | 1.6                                |
| \$2,500 to \$4,999.....farms  | 310,520     | 4.5                                | \$1,000.....farms   | 114,269       | 1.8                                |
| \$5,000 to \$9,999.....farms  | 185,341     | 2.6                                | \$1,000.....farms   | 4,097,569     | 1.8                                |
| \$10,000 to \$19,999.....farms  | 662,980     | 2.6                                | \$50,000 or more.....farms                                    | 296,183       | 1.2                                |
| \$20,000 to \$24,999.....farms  | 208,074     | 2.5                                | \$1,000.....farms   | 104,245,583   | 1.0                                |
| \$25,000 to \$39,999.....farms  | 1,477,595   | 2.5                                | Farms with losses of -  |               |                                    |
| \$40,000 to \$49,999.....farms  | 174,780     | 2.4                                | Less than \$1,000.....farms                                   | 89,302        | 3.9                                |
| \$50,000 to \$99,999.....farms  | 2,468,212   | 2.3                                | \$1,000.....farms   | 45,846        | 3.8                                |
| \$100,000 to \$249,999.....farms  | 53,438      | 1.6                                | \$1,000 to \$4,999.....farms                                  | 342,608       | 3.9                                |
| \$250,000 to \$499,999.....farms  | 1,181,954   | 1.6                                | \$5,000 to \$9,999.....farms                                  | 988,554       | 4.2                                |
| \$500,000 to \$999,999.....farms  | 100,490     | 2.2                                | \$10,000 to \$24,999.....farms                                | 256,919       | 3.7                                |
| \$1,000,000 or more.....farms   | 3,162,749   | 2.1                                | \$25,000 to \$49,999.....farms                                | 1,854,855     | 3.9                                |
| Legal status for tax purposes (see text):   |             |                                    | \$10,000 to \$24,999.....farms                                | 272,079       | 4.0                                |
| Family or individual.....farms  | 1,751,126   | 2.2                                | \$1,000.....farms   | 4,266,566     | 4.4                                |
| Acres.....acres   | 541,071,476 | 1.3                                | \$25,000 to \$49,999.....farms                                | 104,865       | 3.7                                |
| Partnership.....farms   | 130,173     | 2.8                                | \$1,000.....farms   | 3,629,228     | 3.7                                |
| acres.....acres   | 158,051,459 | 2.4                                | \$50,000 or more.....farms                                    | 85,118        | 2.4                                |
| Corporation:  |             |                                    | \$1,000.....farms   | 13,380,008    | 1.9                                |
| Family held.....farms   | 104,155     | 1.3                                | Livestock and poultry:  |               |                                    |
| acres.....acres   | 126,671,963 | 5.1                                | Cattle and calves inventory.....farms                         | 882,692       | 2.3                                |
| Other than family held.....farms  | 12,685      | 4.9                                | number  | 93,648,041    | 2.1                                |
| acres.....acres   | 12,889,821  | 8.7                                | Beef cows inventory.....farms                                 | 729,046       | 2.1                                |
| Other - estate or trust, prison farm, grazing association, American Indian Reservation, etc.....farms | 44,081      | 5.1                                | Number  | 31,722,039    | 2.6                                |
| acres.....acres   | 61,532,857  | 5.0                                | Milk cows inventory.....farms                                 | 54,599        | 3.2                                |
| Tenure:   |             |                                    | number  | 9,539,631     | 1.7                                |
| Full owners.....farms   | 1,408,961   | 2.4                                | Hog and pigs inventory.....farms                              | 66,439        | 5.2                                |
| acres.....acres   | 310,218,983 | 2.1                                | Number  | 72,381,007    | 1.8                                |
| Part owners.....farms   | 493,137     | 1.4                                | Layers inventory.....farms                                    | 232,500       | 4.4                                |
| acres.....acres   | 503,138,279 | 1.8                                | Number  | 368,241,393   | 2.9                                |
| Tenants.....farms   | 140,122     | 4.7                                | Broilers sold.....farms                                       | 32,751        | 4.8                                |
| acres.....acres   | 86,860,314  | 2.3                                | Number  | 8,889,759,283 | 2.8                                |
| All principal producer characteristics by <sup>1</sup> - Sex of operator:                             |             |                                    | acres   | 5,350         | 3.8                                |
| Male.....farms  | 1,787,998   | 2.2                                | \$1,000   | 1,778,587     | 5.0                                |
| acres.....acres   | 847,232,627 | 1.7                                | Selected crops harvested:                                     |               |                                    |
| Female.....farms  | 766,474     | 2.9                                | Corn for grain.....farms                                      | 304,801       | 1.6                                |
| acres.....acres   | 238,157,861 | 2.7                                | acres   | 84,738,562    | 1.3                                |
| Primary occupation:   |             |                                    | farms   | 3,093         | 5.2                                |
| Farming.....farms   | 1,207,375   | 1.5                                | acres   | 2,206,169     | 5.3                                |
| Other.....farms   | 1,533,078   | 3.6                                | farms   | 20,076        | 2.6                                |
|   |             |                                    | acres   | 10,419,033    | 4.9                                |
|   |             |                                    | farms   | 86,596        | 1.3                                |
|   |             |                                    | acres   | 26,186,417    | 0.8                                |
|   |             |                                    | farms   | 15,339        | 2.3                                |
|   |             |                                    | acres   | 5,070,159     | 3.1                                |
|   |             |                                    | farms   | 303,191       | 1.2                                |
|   |             |                                    | acres   | 90,149,480    | 1.9                                |
|   |             |                                    | farms   | 4,637         | 10.1                               |
|   |             |                                    | acres   | 2,395,054     | 26.6                               |
|   |             |                                    | farms   | 16,149        | 3.8                                |
|   |             |                                    | acres   | 11,401,965    | 2.8                                |

See footnote(s) at end of table.  
continued

**Table B. Reliability Estimates of U.S. Totals: 2017 (continued)**

[For meaning of abbreviations and symbols, see introductory text.]

| Item   | Total      | Coefficient of variation (percent) | Item  | Total     | Coefficient of variation (percent) |
|--|------------|------------------------------------|---|-----------|------------------------------------|
| Selected crops harvested: - Con.   |            |                                    | Selected crops harvested: - Con. Land in vegetables (see text) - Con. |           |                                    |
| Peanuts .....farms   | 6,379      | 6.3                                | Sweet corn ..... farms  | 20,784    | 5.7                                |
| acres  | 1,786,767  | 7.5                                | acres   | 496,096   | 3.3                                |
| Barley .....farms  | 11,188     | 2.6                                | Lettuce .....farms  | 10,869    | 8.7                                |
| acres  | 2,206,808  | 5.1                                | acres   | 342,965   | 2.1                                |
| Oats .....farms  | 19,842     | 2.3                                | Land in orchards (see text).....farms                                 | 111,955   | 3.5                                |
| acres  | 814,140    | 2.9                                | acres   | 5,665,600 | 3.7                                |
| Forage - land used for all hay and all<br>haylage, grass silage, and<br>greenchop (see text).....farms | 799,627    | 2.0                                | Apples .....farms   | 26,408    | 4.9                                |
| acres  | 56,858,622 | 1.3                                | acres   | 381,718   | 4.9                                |
| Land in vegetables (see text).....farms  | 74,276     | 5.8                                | Grapes .....farms   | 28,387    | 3.2                                |
| acres  | 3,965,622  | 2.6                                | acres   | 1,136,155 | 6.2                                |
| Potatoes .....farms  | 16,554     | 6.6                                | Oranges .....farms  | 7,973     | 3.4                                |
| acres  | 1,133,128  | 3.2                                | acres   | 602,830   | 4.9                                |
| Tomatoes in the open.....farms   | 28,673     | 6.3                                | Almonds .....farms  | 7,954     | 4.4                                |
| acres  | 335,348    | 6.4                                | acres   | 1,266,160 | 2.8                                |
|  |            |                                    | Land in berries .....farms  | 33,919    | 4.3                                |
|  |            |                                    | acres   | 302,199   | 2.2                                |

<sup>1</sup> Data were collected for a maximum of four producers per farm.

<sup>2</sup> Farms with total production expenses equal to market value of agricultural products sold, government payments, and farm-related income are included as farms with gains of less than \$1,000.

**Table C. Summary of Coverage, Nonresponse, and Misclassification Adjustments by State: 2017**

[For meaning of abbreviations and symbols, see introductory text.]

| Geographic area              | Total (number) | Standard error | Adjustment as percent of total | Percent of total adjustment from coverage | Percent of total adjustment from nonresponse | Percent of total adjustment from misclassification |
|------------------------------|----------------|----------------|--------------------------------|---|--|--|
| <b>ALL FARMS (NUMBER)</b>    |                |                |                                |   |  |  |
| <b>United States Total</b>   |                |                |                                |   |  |  |
| United States .....          | 2,042,220      | 43,278         | 37.6                           | 15.1                                      | 13.9   | 8.6  |
| <b>States</b>                |                |                |                                |   |  |  |
| Alabama .....                | 40,592         | 1,545          | 39.5                           | 15.3                                      | 15.1   | 9.1  |
| Alaska .....                 | 990            | 13             | 3.2                            | (NA)                                      | 3.2  | (NA)   |
| Arizona .....                | 19,086         | 2,637          | 56.3                           | 20.5                                      | 22.7   | 13.1   |
| Arkansas .....               | 42,625         | 1,661          | 37.3                           | 14.0                                      | 15.1   | 8.3  |
| California .....             | 70,521         | 1,896          | 42.0                           | 18.4                                      | 15.5   | 7.7  |
| Colorado .....               | 38,893         | 3,173          | 39.6                           | 15.4                                      | 14.1   | 10.1   |
| Connecticut .....            | 5,521          | 464            | 49.6                           | 22.0                                      | 17.2   | 10.4   |
| Delaware .....               | 2,302          | 204            | 42.5                           | 16.3                                      | 17.2   | 9.1  |
| Florida .....                | 47,590         | 1,426          | 47.0                           | 20.5                                      | 16.2   | 10.2   |
| Georgia .....                | 42,439         | 1,215          | 36.1                           | 14.7                                      | 13.2   | 8.2  |
| Hawaii .....                 | 7,328          | 560            | 47.4                           | 21.1                                      | 17.2   | 9.1  |
| Idaho .....                  | 24,996         | 1,288          | 40.0                           | 17.9                                      | 12.5   | 9.6  |
| Illinois .....               | 72,651         | 1,894          | 26.0                           | 9.6                                       | 10.4   | 5.9  |
| Indiana .....                | 56,649         | 1,822          | 33.5                           | 13.2                                      | 12.8   | 7.5  |
| Iowa .....                   | 86,104         | 1,650          | 23.3                           | 8.3                                       | 9.8  | 5.2  |
| Kansas .....                 | 58,569         | 2,763          | 33.8                           | 10.5                                      | 15.6   | 7.7  |
| Kentucky .....               | 75,966         | 3,436          | 38.6                           | 15.7                                      | 13.4   | 9.6  |
| Louisiana .....              | 27,386         | 1,360          | 44.7                           | 15.8                                      | 18.9   | 9.9  |
| Maine .....                  | 7,600          | 1,065          | 45.5                           | 20.5                                      | 15.4   | 9.6  |
| Maryland .....               | 12,429         | 1,107          | 32.0                           | 13.3                                      | 11.1   | 7.7  |
| Massachusetts .....          | 7,241          | 723            | 46.0                           | 21.4                                      | 14.5   | 10.2   |
| Michigan .....               | 47,641         | 2,276          | 38.2                           | 16.4                                      | 13.3   | 8.5  |
| Minnesota .....              | 68,822         | 1,138          | 30.3                           | 10.9                                      | 12.4   | 7.0  |
| Mississippi .....            | 34,988         | 2,117          | 39.4                           | 13.7                                      | 16.6   | 9.1  |
| Missouri .....               | 95,320         | 3,297          | 33.7                           | 13.2                                      | 12.7   | 7.9  |
| Montana .....                | 27,048         | 2,046          | 37.5                           | 13.7                                      | 14.7   | 9.1  |
| Nebraska .....               | 46,332         | 1,383          | 37.8                           | 10.4                                      | 20.0   | 7.4  |
| Nevada .....                 | 3,423          | 264            | 50.8                           | 22.6                                      | 17.1   | 11.1   |
| New Hampshire .....          | 4,123          | 352            | 50.1                           | 22.8                                      | 16.6   | 10.7   |
| New Jersey .....             | 9,883          | 1,076          | 35.4                           | 15.7                                      | 11.2   | 8.5  |
| New Mexico .....             | 25,044         | 2,354          | 49.8                           | 21.2                                      | 17.0   | 11.6   |
| New York .....               | 33,438         | 1,263          | 37.0                           | 15.2                                      | 13.6   | 8.2  |
| North Carolina .....         | 46,418         | 1,604          | 41.2                           | 16.5                                      | 14.7   | 10.0   |
| North Dakota .....           | 26,364         | 787            | 37.9                           | 8.7                                       | 22.0   | 7.2  |
| Ohio .....                   | 77,805         | 2,385          | 32.2                           | 13.8                                      | 10.8   | 7.5  |
| Oklahoma .....               | 78,531         | 3,431          | 38.8                           | 14.0                                      | 15.8   | 9.0  |
| Oregon .....                 | 37,616         | 2,687          | 40.2                           | 18.2                                      | 12.7   | 9.3  |
| Pennsylvania .....           | 53,157         | 2,075          | 38.3                           | 16.5                                      | 13.5   | 8.3  |
| Rhode Island .....           | 1,043          | 186            | 47.0                           | 25.4                                      | 11.6   | 10.0   |
| South Carolina .....         | 24,791         | 1,346          | 44.8                           | 16.6                                      | 17.6   | 10.6   |
| South Dakota .....           | 29,968         | 717            | 36.5                           | 8.5                                       | 20.7   | 7.3  |
| Tennessee .....              | 69,983         | 2,066          | 35.5                           | 15.2                                      | 11.3   | 9.0  |
| Texas .....                  | 248,416        | 8,706          | 42.1                           | 17.8                                      | 14.5   | 9.8  |
| Utah .....                   | 18,409         | 1,780          | 42.1                           | 18.1                                      | 13.8   | 10.3   |
| Vermont .....                | 6,808          | 569            | 44.3                           | 17.6                                      | 17.0   | 9.7  |
| Virginia .....               | 43,225         | 1,037          | 39.0                           | 17.2                                      | 12.2   | 9.6  |
| Washington .....             | 35,793         | 2,013          | 41.8                           | 20.4                                      | 12.0   | 9.4  |
| West Virginia .....          | 23,622         | 1,297          | 34.7                           | 14.7                                      | 10.9   | 9.1  |
| Wisconsin .....              | 64,793         | 1,665          | 35.2                           | 14.2                                      | 13.2   | 7.8  |
| Wyoming .....                | 11,938         | 917            | 40.3                           | 15.1                                      | 15.1   | 10.2   |
| <b>LAND IN FARMS (ACRES)</b> |                |                |                                |   |  |  |
| <b>United States Total</b>   |                |                |                                |   |  |  |
| United States .....          | 900,217,576    | 15,031,334     | 22.7                           | 4.4                                       | 11.8   | 6.5  |
| <b>States</b>                |                |                |                                |   |  |  |
| Alabama .....                | 8,580,940      | 199,954        | 27.7                           | 8.6                                       | 12.1   | 7.0  |
| Alaska .....                 | 849,753        | 1,199          | 0.2                            | (NA)                                      | 0.2  | (NA)   |
| Arizona .....                | 26,125,819     | 1,432,761      | 11.1                           | 2.9                                       | 4.0  | 4.2  |
| Arkansas .....               | 13,888,929     | 310,057        | 23.5                           | 5.9                                       | 12.3   | 5.3  |
| California .....             | 24,522,801     | 3,248,717      | 17.7                           | 3.7                                       | 8.4  | 5.7  |
| Colorado .....               | 31,820,957     | 1,722,400      | 21.8                           | 4.0                                       | 11.3   | 6.4  |
| Connecticut .....            | 381,539        | 27,934         | 30.0                           | 11.1                                      | 11.3   | 7.5  |
| Delaware .....               | 525,324        | 36,130         | 23.7                           | 5.6                                       | 12.3   | 5.8  |
| Florida .....                | 9,731,731      | 344,544        | 19.2                           | 4.7                                       | 7.9  | 6.7  |
| Georgia .....                | 9,953,730      | 496,845        | 24.4                           | 7.0                                       | 10.9   | 6.5  |
| Hawaii .....                 | 1,135,352      | 42,889         | 6.3                            | 2.1                                       | 1.0  | 3.2  |
| Idaho .....                  | 11,691,912     | 703,194        | 18.8                           | 3.8                                       | 9.8  | 5.2  |
| Illinois .....               | 27,006,288     | 773,609        | 20.7                           | 3.1                                       | 14.4   | 3.2  |
| Indiana .....                | 14,969,996     | 297,098        | 20.6                           | 3.1                                       | 14.5   | 3.0  |
| Iowa .....                   | 30,563,878     | 515,336        | 24.7                           | 3.0                                       | 18.4   | 3.3  |
| Kansas .....                 | 45,759,319     | 974,716        | 26.2                           | 3.6                                       | 18.0   | 4.6  |
| Kentucky .....               | 12,961,784     | 377,113        | 27.3                           | 8.3                                       | 12.5   | 6.5  |
| Louisiana .....              | 7,997,511      | 580,578        | 30.7                           | 5.9                                       | 18.4   | 6.4  |
| Maine .....                  | 1,307,613      | 72,510         | 27.8                           | 10.3                                      | 11.1   | 6.4  |
| Maryland .....               | 1,990,122      | 72,254         | 15.7                           | 4.9                                       | 7.1  | 3.7  |
| Massachusetts .....          | 491,653        | 30,187         | 30.5                           | 12.4                                      | 10.9   | 7.2  |
| Michigan .....               | 9,764,090      | 371,324        | 21.7                           | 5.8                                       | 11.3   | 4.7  |
| Minnesota .....              | 25,516,982     | 402,371        | 25.1                           | 4.1                                       | 17.1   | 3.9  |
| Mississippi .....            | 10,415,136     | 251,770        | 26.6                           | 7.0                                       | 13.9   | 5.6  |
| Missouri .....               | 27,781,883     | 657,610        | 26.6                           | 6.2                                       | 14.5   | 5.8  |
| Montana .....                | 58,122,878     | 3,130,653      | 19.8                           | 2.3                                       | 12.0   | 5.5  |
| Nebraska .....               | 44,986,821     | 1,155,962      | 26.9                           | 3.1                                       | 18.4   | 5.4  |

--continued



**Table C. Summary of Coverage, Nonresponse, and Misclassification Adjustments by State: 2017 (continued)**

[For meaning of abbreviations and symbols, see introductory text.]

| Geographic area                     | Total (number) | Standard error | Adjustment as percent of total | Percent of total adjustment from coverage | Percent of total adjustment from nonresponse | Percent of total adjustment from misclassification |
|-------------------------------------|----------------|----------------|--------------------------------|---|--|--|
| <b>LAND IN FARMS (ACRES) - Con.</b> |                |                |                                |   |  |  |
| <b>States - Con.</b>                |                |                |                                |   |  |  |
| Nevada.....                         | 6,128,153      | 512,649        | 13.2                           | 2.4                                       | 2.7  | 8.0  |
| New Hampshire.....                  | 425,393        | 25,211         | 31.0                           | 14.1                                      | 8.5  | 8.4  |
| New Jersey.....                     | 734,084        | 53,129         | 18.3                           | 6.3                                       | 7.5  | 4.5  |
| New Mexico.....                     | 40,659,836     | 4,089,251      | 17.7                           | 3.2                                       | 5.5  | 9.0  |
| New York.....                       | 6,866,171      | 167,815        | 23.6                           | 7.0                                       | 11.8   | 4.7  |
| North Carolina.....                 | 8,430,522      | 262,971        | 24.0                           | 6.6                                       | 11.2   | 6.2  |
| North Dakota.....                   | 39,341,591     | 2,073,608      | 32.9                           | 2.9                                       | 24.7   | 5.3  |
| Ohio.....                           | 13,965,295     | 278,984        | 20.6                           | 5.7                                       | 10.6   | 4.4  |
| Oklahoma.....                       | 34,156,290     | 865,429        | 25.2                           | 5.8                                       | 13.3   | 6.1  |
| Oregon.....                         | 15,962,322     | 522,836        | 13.2                           | 2.7                                       | 6.1  | 4.5  |
| Pennsylvania.....                   | 7,278,668      | 228,467        | 28.4                           | 8.3                                       | 14.4   | 5.8  |
| Rhode Island.....                   | 56,864         | 3,981          | 25.7                           | 12.0                                      | 6.6  | 7.1  |
| South Carolina.....                 | 4,744,913      | 347,006        | 28.6                           | 8.5                                       | 13.3   | 6.8  |
| South Dakota.....                   | 43,243,742     | 1,100,330      | 29.5                           | 2.4                                       | 22.0   | 5.0  |
| Tennessee.....                      | 10,874,238     | 219,305        | 26.0                           | 8.3                                       | 11.2   | 6.4  |
| Texas.....                          | 127,036,184    | 3,219,092      | 23.0                           | 5.8                                       | 8.3  | 8.9  |
| Utah.....                           | 10,811,604     | 247,332        | 9.4                            | 2.1                                       | 4.3  | 3.0  |
| Vermont.....                        | 1,193,437      | 123,507        | 28.3                           | 7.1                                       | 14.9   | 6.3  |
| Virginia.....                       | 7,797,979      | 145,486        | 26.5                           | 8.7                                       | 10.8   | 7.1  |
| Washington.....                     | 14,679,857     | 291,923        | 13.4                           | 3.3                                       | 6.3  | 3.8  |
| West Virginia.....                  | 3,662,178      | 156,944        | 24.6                           | 10.3                                      | 7.5  | 6.9  |
| Wisconsin.....                      | 14,318,630     | 435,791        | 24.0                           | 5.8                                       | 13.8   | 4.4  |
| Wyoming.....                        | 29,004,884     | 3,226,928      | 14.0                           | 1.4                                       | 5.7  | 6.9  |
| <b>SALES (\$1,000)</b>              |                |                |                                |   |  |  |
| <b>United States Total</b>          |                |                |                                |   |  |  |
| United States.....                  | 388,522,695    | 2,923,858      | 18.1                           | 3.4                                       | 11.1   | 3.6  |
| <b>States</b>                       |                |                |                                |   |  |  |
| Alabama.....                        | 5,980,595      | 173,995        | 21.1                           | 5.5                                       | 11.7   | 4.0  |
| Alaska.....                         | 70,459         | 160            | 0.3                            | (NA)                                      | 0.3  | (NA)   |
| Arizona.....                        | 3,852,008      | 84,786         | 6.4                            | 1.8                                       | 3.1  | 1.5  |
| Arkansas.....                       | 9,651,160      | 375,713        | 22.7                           | 4.1                                       | 14.5   | 4.1  |
| California.....                     | 45,154,359     | 1,116,572      | 15.8                           | 3.3                                       | 9.0  | 3.5  |
| Colorado.....                       | 7,491,702      | 288,834        | 10.3                           | 2.5                                       | 4.5  | 3.3  |
| Connecticut.....                    | 580,114        | 25,685         | 11.1                           | 3.3                                       | 5.7  | 2.1  |
| Delaware.....                       | 1,465,973      | 87,913         | 37.2                           | 9.1                                       | 19.9   | 8.1  |
| Florida.....                        | 7,357,343      | 275,257        | 13.2                           | 3.0                                       | 6.7  | 3.6  |
| Georgia.....                        | 9,573,252      | 413,404        | 21.8                           | 4.8                                       | 12.9   | 4.1  |
| Hawaii.....                         | 563,803        | 96,131         | 10.3                           | 3.4                                       | 5.1  | 1.8  |
| Idaho.....                          | 7,567,439      | 555,829        | 11.3                           | 1.8                                       | 7.2  | 2.3  |
| Illinois.....                       | 17,009,971     | 425,802        | 18.5                           | 2.5                                       | 13.1   | 2.9  |
| Indiana.....                        | 11,107,336     | 377,238        | 17.2                           | 2.4                                       | 12.3   | 2.5  |
| Iowa.....                           | 28,956,455     | 363,219        | 25.1                           | 3.4                                       | 17.8   | 3.8  |
| Kansas.....                         | 18,782,726     | 278,393        | 14.4                           | 2.8                                       | 7.9  | 3.7  |
| Kentucky.....                       | 5,737,920      | 124,641        | 13.8                           | 3.2                                       | 7.4  | 3.2  |
| Louisiana.....                      | 3,172,978      | 93,001         | 25.6                           | 3.8                                       | 18.1   | 3.7  |
| Maine.....                          | 666,962        | 49,050         | 12.8                           | 3.5                                       | 7.4  | 2.0  |
| Maryland.....                       | 2,472,805      | 173,825        | 19.4                           | 5.8                                       | 9.6  | 4.0  |
| Massachusetts.....                  | 475,184        | 44,440         | 17.6                           | 4.1                                       | 10.5   | 3.0  |
| Michigan.....                       | 8,220,935      | 264,720        | 13.9                           | 2.9                                       | 8.2  | 2.8  |
| Minnesota.....                      | 18,395,390     | 327,929        | 25.3                           | 3.5                                       | 17.9   | 3.8  |
| Mississippi.....                    | 6,195,968      | 235,789        | 19.9                           | 4.2                                       | 12.2   | 3.5  |
| Missouri.....                       | 10,525,938     | 333,340        | 20.4                           | 3.4                                       | 12.9   | 4.1  |
| Montana.....                        | 3,520,623      | 179,935        | 24.0                           | 2.3                                       | 16.7   | 4.9  |
| Nebraska.....                       | 21,983,430     | 591,020        | 20.5                           | 2.6                                       | 13.6   | 4.3  |
| Nevada.....                         | 665,758        | 112,662        | 21.3                           | 2.8                                       | 13.4   | 5.1  |
| New Hampshire.....                  | 187,794        | 17,904         | 10.7                           | 3.3                                       | 5.4  | 2.0  |
| New Jersey.....                     | 1,097,950      | 28,911         | 8.5                            | 2.7                                       | 3.8  | 1.9  |
| New Mexico.....                     | 2,582,343      | 68,848         | 8.4                            | 2.2                                       | 3.8  | 2.4  |
| New York.....                       | 5,369,212      | 95,711         | 13.1                           | 2.9                                       | 7.9  | 2.3  |
| North Carolina.....                 | 12,900,674     | 239,004        | 20.4                           | 5.1                                       | 10.1   | 5.2  |
| North Dakota.....                   | 8,234,102      | 457,678        | 30.4                           | 2.0                                       | 25.0   | 3.5  |
| Ohio.....                           | 9,341,225      | 147,955        | 16.9                           | 3.9                                       | 9.7  | 3.4  |
| Oklahoma.....                       | 7,465,512      | 163,532        | 13.9                           | 3.2                                       | 6.8  | 3.8  |
| Oregon.....                         | 5,006,822      | 145,919        | 10.2                           | 2.3                                       | 5.9  | 2.0  |
| Pennsylvania.....                   | 7,758,884      | 227,164        | 17.0                           | 3.6                                       | 10.9   | 2.6  |
| Rhode Island.....                   | 57,998         | 3,127          | 11.7                           | 4.7                                       | 4.4  | 2.6  |
| South Carolina.....                 | 3,008,739      | 139,270        | 12.0                           | 2.6                                       | 7.2  | 2.2  |
| South Dakota.....                   | 9,721,522      | 323,047        | 29.0                           | 2.2                                       | 23.1   | 3.7  |
| Tennessee.....                      | 3,798,934      | 146,980        | 18.5                           | 3.3                                       | 11.8   | 3.4  |
| Texas.....                          | 24,924,041     | 417,770        | 14.1                           | 3.9                                       | 6.1  | 4.1  |
| Utah.....                           | 1,838,610      | 141,700        | 12.5                           | 2.7                                       | 7.3  | 2.5  |
| Vermont.....                        | 780,968        | 72,090         | 15.7                           | 2.3                                       | 11.5   | 2.0  |
| Virginia.....                       | 3,960,501      | 86,812         | 13.1                           | 3.6                                       | 6.4  | 3.0  |
| Washington.....                     | 9,634,461      | 355,103        | 10.6                           | 2.8                                       | 5.1  | 2.6  |
| West Virginia.....                  | 754,279        | 19,100         | 11.5                           | 4.7                                       | 3.4  | 3.3  |
| Wisconsin.....                      | 11,427,423     | 318,424        | 17.5                           | 2.7                                       | 12.5   | 2.3  |
| Wyoming.....                        | 1,472,113      | 56,575         | 17.3                           | 1.9                                       | 9.7  | 5.7  |

**Table D. American Indian or Alaska Native Producers: 2017**

[For meaning of abbreviations and symbols, see introductory text.]

| Geographic area            | American Indian or Alaska Native farm producers |                                    |                    | Geographic area      | American Indian or Alaska Native farm producers |                                    |                    |
|----------------------------|---|------------------------------------|--------------------|----------------------|---|------------------------------------|--------------------|
|                            | Total   | Individually reported <sup>1</sup> | Other <sup>2</sup> |                      | Total   | Individually reported <sup>1</sup> | Other <sup>2</sup> |
| <b>United States Total</b> |   |                                    |                    | <b>States - Con.</b> |   |                                    |                    |
| United States .....        | 79,597  | 79,198                             | 399                | Mississippi.....     | 321   | 321                                | -                  |
| <b>States</b>              |   |                                    |                    | Missouri.....        | 1,544   | 1,544                              | -                  |
| Alabama .....              | 1,326   | 1,326                              | -                  | Montana.....         | 2,130   | 2,130                              | -                  |
| Alaska.....                | 88  | 88                                 | -175               | Nebraska.....        | 210   | 210                                | -                  |
| Arizona.....               | 19,656  | 19,481                             | -1                 | Nevada.....          | 315   | 315                                | -                  |
| Arkansas.....              | 1,326   | 1,326                              | 222                | New Hampshire.....   | 39  | 39                                 | -                  |
| California.....            | 2,538   | 2,537                              | -                  | New Jersey.....      | 91  | 91                                 | -                  |
| Colorado.....              | 1,185   | 963                                | -                  | New Mexico.....      | 8,812   | 8,812                              | -                  |
| Connecticut.....           | 55  | 55                                 | -                  | New York.....        | 278   | 278                                | -                  |
| Delaware.....              | 8   | 8                                  | -                  | North Carolina.....  | 1,023   | 1,023                              | -                  |
| Florida.....               | 1,027   | 1,027                              | -                  | North Dakota.....    | 470   | 470                                | -                  |
| Georgia.....               | 524   | 524                                | -                  | Ohio.....            | 530   | 530                                | -                  |
| Hawaii.....                | 265   | 265                                | -                  | Oklahoma.....        | 17,102  | 17,102                             | -                  |
| Idaho.....                 | 461   | 461                                | -                  | Oregon.....          | 1,255   | 1,255                              | -                  |
| Illinois.....              | 332   | 332                                | -                  | Pennsylvania.....    | 302   | 302                                | -                  |
| Indiana.....               | 325   | 325                                | -                  | Rhode Island.....    | 5   | 5                                  | -                  |
| Iowa.....                  | 229   | 229                                | -                  | South Carolina.....  | 307   | 307                                | -                  |
| Kansas.....                | 961   | 961                                | -1                 | South Dakota.....    | 1,242   | 1,242                              | -                  |
| Kentucky.....              | 650   | 650                                | -                  | Tennessee.....       | 843   | 843                                | -                  |
| Louisiana.....             | 523   | 523                                | -                  | Texas.....           | 5,663   | 5,663                              | -                  |
| Maine.....                 | 113   | 112                                | -                  | Utah.....            | 1,467   | 1,467                              | -                  |
| Maryland.....              | 142   | 142                                | -                  | Vermont.....         | 90  | 90                                 | -                  |
| Massachusetts.....         | 66  | 66                                 | -                  | Virginia.....        | 440   | 440                                | -                  |
| Michigan.....              | 777   | 777                                | -                  | Washington.....      | 1,202   | 1,202                              | -                  |
| Minnesota.....             | 408   | 408                                | -                  | West Virginia.....   | 249   | 249                                | -                  |
|                            |   |                                    |                    | Wisconsin.....       | 293   | 293                                | -                  |
|                            |   |                                    |                    | Wyoming.....         | 389   | 389                                | -                  |

<sup>1</sup> Data were collected for a maximum of four producers per farm.

<sup>2</sup> Data represent American Indian or Alaska Native farm or ranch producers on reservations who did not report individually. Data obtained by reservation officials.

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## APPENDIX E. REPORT FORMS AND INSTRUCTION SHEETS

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# UNITED STATES 2017 CENSUS OF AGRICULTURE

Form Number: 17-A100  
(12/13/2016)



National Agricultural  
Statistics Service

Return your  
completed report to:

Census of Agriculture  
1201 East 10th Street  
Jeffersonville, IN 47132

**OFFICE USE ONLY**

|      |      |      |
|------|------|------|
| 0013 |      |      |
|      |      |      |
| 0011 | 0012 |      |
|      |      |      |
| 0014 | 0015 | 0016 |
|      |      |      |
| 0021 | 0022 | 0023 |
|      |      |      |

17-A100

*Make corrections to name, address, and ZIP code if necessary.*

Complete your report by mail or via the internet at [www.agcounts.usda.gov](http://www.agcounts.usda.gov).

- **Your report is due by February 5, 2018.**
- To fill out the paper form, use a black or blue ballpoint pen.
- **Duplicate forms?** If you received extra Census report forms for the SAME farming operation, return all report forms in the same envelope with this completed report.

Print the information below for the person completing this form:

|                            |  |   |
|----------------------------|--|---|
| Name                       |  |   |
| 1092                       | <input type="text"/>   |   |
| Area Code and Phone Number |  | Date Completed (MM-DD-YYYY)   |
| 1093                       | <input type="text"/> - <input type="text"/> - <input type="text"/> | 1094 <input type="text"/> - <input type="text"/> - <input type="text"/> |
| E-mail                     |  |   |
| 1095                       | <input type="text"/>   |   |

**THANK YOU FOR YOUR COOPERATION.**  
**Questions? Call us toll free at 1-888-424-7828.**  
 ¿Preguntas? Llámenos libre de cargos al 1-888-424-7828.

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: [www.nass.usda.gov/confidentiality](http://www.nass.usda.gov/confidentiality). Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 50 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

17100017



**SECTION 1 ACREAGE IN 2017**

Report land owned, rented, or used by you, your spouse, or by the partnership, corporation, or organization named on the front of this form. Include ALL LAND, REGARDLESS OF LOCATION OR USE - cropland, Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP) land, pastureland, rangeland, woodland, idle land, farmsteads, etc.

1. Number of acres OWNED. . . . . 0043  Mark "X" if None

| BOX A |
|-------|
|       |

2. Total number of acres RENTED or LEASED FROM OTHERS

|   |   |
|---|---|
| <p><u>INCLUDE</u></p> <ul style="list-style-type: none"> <li>• land worked by you on shares</li> <li>• land used rent free in exchange for services, payment of taxes, etc.</li> <li>• Federal, State, and railroad land leased on a per acre basis</li> <li>• land rented or leased by you for cash</li> </ul> | <p><u>EXCLUDE</u></p> <ul style="list-style-type: none"> <li>• land used on a fee per-head or animal unit month (AUM) basis. . . . . 0044 <input type="checkbox"/></li> </ul> |
|---|---|

| BOX B |
|-------|
|       |

3. Number of acres RENTED or LEASED TO OTHERS

|  |   |
|--|---|
| <p><u>INCLUDE LAND</u></p> <ul style="list-style-type: none"> <li>• worked on shares by others</li> <li>• subleased</li> <li>• rented or leased to others for cash</li> <li>• used rent free in exchange for services, payment of taxes, etc.</li> </ul> | <p><u>EXCLUDE acres enrolled in:</u></p> <ul style="list-style-type: none"> <li>• Conservation Reserve Program (CRP)</li> <li>• Wetlands Reserve Program (WRP)</li> <li>• Farmable Wetlands Program (FWP)</li> <li>• Conservation Reserve Enhancement Program (CREP)</li> <li>• acres rented or leased to others part of the year. . . . . 0045 <input type="checkbox"/></li> </ul> |
|--|---|

| BOX C |
|-------|
|       |

a. How many acres rented or leased to others (Box C above) did this operation own? . . . . . 0053  Mark "X" if None

| Number of Acres |
|-----------------|
|                 |

4. Enter the figures from the boxes above to determine your total acres operated:

|       |   |       |   |       |   |      |       |
|-------|---|-------|---|-------|---|------|-------|
| BOX A | + | BOX B | - | BOX C | = | 0046 | BOX D |
|       |   |       |   |       |   |      |       |

5. Does the figure in **Box D** = 0?

**Yes** - Refer to the instruction sheet to complete this form

**No** - Continue

6. Did this operation pay on a fee per-head or animal unit month (AUM) basis to use any land?

0040  **Yes** - Continue      3  **No** - Go to item 7

a. If yes, how many acres? . . . . . 1160  Don't Know 0041

| Number of Acres |
|-----------------|
|                 |

b. DO NOT include these acres in the boxes above. If you did, **GO BACK** and **EXCLUDE** them from the boxes above and recalculate BOX D.

7. Considering the total acres in Box D above, in what county was the largest value of this operation's agricultural products raised or produced?

| <p>0055</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Principal County Name</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | Principal County Name |  | <p>0060</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">State</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | State |  | <p>0056</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Number of Acres</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | Number of Acres |  |
|---|-----------------------|--|---|-------|--|---|-----------------|--|
| Principal County Name   |                       |  |   |       |  |   |                 |  |
|   |                       |  |   |       |  |   |                 |  |
| State   |                       |  |   |       |  |   |                 |  |
|   |                       |  |   |       |  |   |                 |  |
| Number of Acres   |                       |  |   |       |  |   |                 |  |
|   |                       |  |   |       |  |   |                 |  |

a. If this operation had agricultural activity in any **other** county, enter the county name(s), etc.

| <p>3026</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Other County Name(s)</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>3027</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Other County Name(s)</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>3028</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Other County Name(s)</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | Other County Name(s) |  | Other County Name(s) |  | Other County Name(s) |  | <p>3031</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">State</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>3032</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">State</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>3033</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">State</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | State |  | State |  | State |  | <p>0057</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Number of Acres</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>0058</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Number of Acres</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> <p>0059</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9ead3;"> <th style="text-align: center; padding: 2px;">Number of Acres</th> </tr> <tr> <td style="height: 20px;"></td> </tr> </table> | Number of Acres |  | Number of Acres |  | Number of Acres |  |
|--|----------------------|--|----------------------|--|----------------------|--|---|-------|--|-------|--|-------|--|---|-----------------|--|-----------------|--|-----------------|--|
| Other County Name(s)   |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| Other County Name(s)   |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| Other County Name(s)   |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| State  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| State  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| State  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| Number of Acres  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| Number of Acres  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
| Number of Acres  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |
|  |                      |  |                      |  |                      |  |   |       |  |       |  |       |  |   |                 |  |                 |  |                 |  |



**SECTION 2 LAND USE IN 2017**

Report how the acres in Box D on the previous page were used.

- For acres used for more than one purpose, report them in the first item that applies.
- Report each acre only once on this page.
- Report acres in CRP, WRP, FWP, and CREP in the most appropriate land use below.

**1. Cropland**

a. Cropland harvested

INCLUDE

- land from which field crops were harvested or hay was cut
- land used for vegetables
- land used for nursery and greenhouses (rounded to the nearest acre)
- land used for orchards, vineyards, citrus groves, Christmas trees, short rotation woody crops, fruits, nuts, and berries (bearing and nonbearing) . . . . . 0787

Mark "X" if None

Number of Acres

b. Cropland on which all crops failed or were abandoned – Exclude land in orchards and vineyards . . . . . 0790

c. Cropland in summer fallow (cultivated cropland on which no crops or hay were harvested during the 2017 growing season) . . . . . 0791

d. Cropland idle or used for cover crops or soil-improvement but not harvested and not pastured or grazed. . . . . 1062

**2. Pasture**

a. Permanent pasture and rangeland . . . . . 0796

b. Woodland pastured. . . . . 0794

c. Other pasture and grazing land (including rotational pasture) that could have been used for crops without additional improvements. . . . . 0788

**3. Woodland not pastured**

INCLUDE

- woodlots
- timber tracts
- sugarbush . . . . . 0795

**4. All other land**

INCLUDE

- farmsteads, home, and buildings
- livestock facilities
- ponds
- roads
- wasteland, etc. . . . . 0797

5. **TOTAL ACRES** - Add items 1-4 to determine your total acres operated . . . . . 0798

**BOX E**

6. Does **Box E** above = **Box D** on the previous page?

**Yes** - Continue

**No** - Go back and correct your figures. These figures should be the same.

The acres in Box E will be referred to as “this operation” for the remainder of this form.

17100033



| <b>SECTION 3</b>  |  | <b>LAND RENTED OR LEASED FROM OTHERS FOR CASH</b> |                 |
|---|--|---|-----------------|
| 1. In 2017, did this operation <b>rent or lease</b> any cropland or pasture acres from others for <b>cash</b> ? Exclude land rented or leased on a share basis, per-head or AUM basis, free of charge, and rent that includes buildings, such as barns. |  |   |                 |
| 3420 1 <input type="checkbox"/> <b>Yes</b> - Complete this section  | 3 <input type="checkbox"/> <b>No</b> - Go to SECTION 4 | Mark "X" if None                                  | Number of Acres |
| 2. How many acres of <b>non-irrigated cropland</b> were rented or leased for cash? Include fruit, nut, berry, vineyard, nursery, and hay land . . . . . 3421  | <input type="checkbox"/>                               |   |                 |
| 3. How many acres of <b>irrigated cropland</b> were rented or leased for cash? Include fruit, nut, berry, vineyard, nursery, and hay land . . . . . 3424  | <input type="checkbox"/>                               |   |                 |
| 4. How many acres of <b>permanent pasture, grazing, or grassland</b> were rented or leased for cash? Exclude Federal, State, and other types of land rented or leased on an animal unit month (AUM) basis . . . . . 3427                                | <input type="checkbox"/>                               |   |                 |
| <b>SECTION 4</b>  |  | <b>LAND USE PRACTICES</b>                         |                 |
| 1. During 2017, considering the <b>total acres</b> on this operation, how many acres –  |  |   |                 |
| a. Were drained by tile? . . . . . 3450   | <input type="checkbox"/>                               | Mark "X" if None                                  | Number of Acres |
| b. Were artificially drained by ditches? . . . . . 3451   | <input type="checkbox"/>                               |   |                 |
| c. Were under a conservation easement? . . . . . 3452   | <input type="checkbox"/>                               |   |                 |
| 2. During 2017, considering the <b>cropland acres</b> on this operation, [on] how many acres –  |  |   |                 |
| a. Were no-till practices used? . . . . . 3455  | <input type="checkbox"/>                               |   |                 |
| b. Were <b>reduced</b> (conservation) tillage, excluding no-till, practices used? . . . . . 3454  | <input type="checkbox"/>                               |   |                 |
| c. Were <b>intensive</b> (conventional) tillage practices used? . . . . . 3453  | <input type="checkbox"/>                               |   |                 |
| d. Were planted to a cover crop? (Cover crops are planted primarily for managing soil fertility, soil quality, and controlling weeds, pests, and diseases.) Exclude CRP acres. . . . . 3456   | <input type="checkbox"/>                               |   |                 |
| 3. During 2017, considering the <b>acres irrigated</b> by sprinklers, flooding, ditches or furrows, drip or trickle irrigation, etc. on this operation –  |  |   |                 |
| a. How many acres of harvested cropland were irrigated? . . . . . 0680  | <input type="checkbox"/>                               |   | Irrigated Acres |
| b. How many acres of pastureland, rangeland, abandoned cropland, and other land were irrigated? . . . . . 0681  | <input type="checkbox"/>                               |   |                 |
| 4. How many acres on this operation were irrigated at least once in the past five years (2013-2017)? . . . . . 5680   |  |   |                 |
|   | <input type="checkbox"/>                               |   |                 |

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| <b>SECTION 5 CROP INSURANCE AND GOVERNMENT PROGRAMS</b>  |  | Mark "X" if None | Number of Acres            |
|--|--|------------------|----------------------------|
| 1. How many acres in this operation were covered under any crop insurance policy in 2017? . . . . . 1067   | <input type="checkbox"/>   |                  |                            |
| 2. How many acres in this operation were enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) on September 30, 2017? . . . . . 0683   | <input type="checkbox"/>   |                  |                            |
|  |  |                  | Dollars                    |
| a. What was the amount received in 2017 for participation in these programs? . 0685  | <input type="checkbox"/>   | \$               | .00                        |
| 3. What was the amount received in 2017 for all other Federal agricultural program payments? Exclude any type of insurance payments received. . . . . 1422   | <input type="checkbox"/>   | \$               | .00                        |
| 4. What was the amount received in 2017 from state and local government agricultural program payments? . . . . . 1423  | <input type="checkbox"/>   | \$               | .00                        |
| 5. What was the total amount received in 2017 from Commodity Credit Corporation (CCC) loans for all commodities? . . . . . 1411  | <input type="checkbox"/>   | \$               | .00                        |
| 6. What was the total amount spent in 2017 to repay CCC loans? . . . . . 1414  | <input type="checkbox"/>   | \$               | .00                        |
| 7. Do you know that you have the right to appeal an adverse program decision to USDA's National Appeals Division? . . . . . 1416   | 1 <input type="checkbox"/>   | Yes              | 3 <input type="checkbox"/> |
| <b>SECTION 6 TYPE OF ORGANIZATION</b>  |  |                  |                            |
| 1. In 2017, was more than 50 percent of this operation owned by an operator's household and/or extended family?<br><br>Mark "yes" if more than 50 percent of the assets of this operation are owned by one of the operators, members of their household, and/or other persons related to them by blood, marriage, or adoption, including relatives not residing in his/her household. Consider only farm and ranch assets owned – not rented or leased – by this operation, and exclude the assets held by non-family landlords and contractors . . . . . 1672 | 1 <input type="checkbox"/>   | Yes              | 3 <input type="checkbox"/> |
| 2. Was this operation organized as a Limited Liability Company (LLC) under State law? . . . 1673   | 1 <input type="checkbox"/>   | Yes              | 3 <input type="checkbox"/> |
| 3. In 2017, what was this operation's legal status for tax purposes? Mark one answer only:<br>1671   | <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                 1 <input type="checkbox"/> Family or individual operation – Exclude partnerships and corporations.             </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                 2 <input type="checkbox"/> Partnership operation – Include family partnerships.<br/> <div style="margin-left: 20px;">  • Is this partnership registered under state law? . . . 1567                 </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                 3 <input type="checkbox"/> Incorporated under state law –<br/> <div style="margin-left: 20px;">  • Is this a family-held corporation? . . . . . 1681                 </div> <div style="margin-left: 20px;">  • Are there more than 10 stockholders? . . . . . 1683                 </div> </div> <div style="border: 1px solid black; padding: 5px;">                 4 <input type="checkbox"/> Other, such as estate or trust, prison farm, grazing association, American Indian Reservation, etc. Specify type. . . . . 1685             </div> |                  |                            |
|  |  |                  | Number                     |
| 4. In 2017, how many households shared in the net farm income of this operation? . . . . . 1608  | <div style="border: 1px solid black; width: 100px; height: 20px;"></div>   |                  |                            |





**SECTION 7 PERSONAL CHARACTERISTICS**

1. In 2017, how many men and women were involved in decisions for this operation (include family members and hired managers)? Exclude hired workers unless they were a hired manager or family member. . . . . 1571 

| Men |
|-----|
|     |

 1574 

| Women |
|-------|
|       |

2. Answer the following questions for up to four individuals who were involved in the decisions for this operation as of December 31, 2017.

|   | Person 1   | Person 2   | Person 3   | Person 4   |
|---|--|--|--|--|
|   | 1836   | 1852   | 1872   | 1873   |
| a. Full name . . . . .  |  |  |  |  |
| b. Is this person completing this form?   | 1610<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1611<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1612<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1613<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |
| c. Sex . . . . .  | 1926<br>1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  | 1586<br>1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  | 1597<br>1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  | 1614<br>1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  |
| d. What was this person's age on December 31, 2017?   | 1925 <input style="width: 50px; height: 20px;" type="text"/> age   | 1585 <input style="width: 50px; height: 20px;" type="text"/> age   | 1596 <input style="width: 50px; height: 20px;" type="text"/> age   | 1615 <input style="width: 50px; height: 20px;" type="text"/> age   |
| e. Is this person of Hispanic, Latino, or Spanish origin? . . . . .   | 1927<br>Hispanic, Latino, or Spanish origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | 1587<br>Hispanic, Latino, or Spanish origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | 1598<br>Hispanic, Latino, or Spanish origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | 1622<br>Hispanic, Latino, or Spanish origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| f. Race . . . . .   | <p><b>Mark one or more.</b></p> 2701 <input type="checkbox"/> White<br>2702 <input type="checkbox"/> Black or African American<br>2703 <input type="checkbox"/> American Indian or Alaska Native. Specify tribe <input style="width: 50px;" type="text"/><br>2733 <input style="width: 100px; height: 20px;" type="text"/><br>2705 <input type="checkbox"/> Asian<br>2704 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <p><b>Mark one or more.</b></p> 1801 <input type="checkbox"/> White<br>1802 <input type="checkbox"/> Black or African American<br>1803 <input type="checkbox"/> American Indian or Alaska Native. Specify tribe <input style="width: 50px;" type="text"/><br>1833 <input style="width: 100px; height: 20px;" type="text"/><br>1805 <input type="checkbox"/> Asian<br>1804 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <p><b>Mark one or more.</b></p> 1901 <input type="checkbox"/> White<br>1902 <input type="checkbox"/> Black or African American<br>1903 <input type="checkbox"/> American Indian or Alaska Native. Specify tribe <input style="width: 50px;" type="text"/><br>1933 <input style="width: 100px; height: 20px;" type="text"/><br>1905 <input type="checkbox"/> Asian<br>1904 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <p><b>Mark one or more.</b></p> 1616 <input type="checkbox"/> White<br>1617 <input type="checkbox"/> Black or African American<br>1618 <input type="checkbox"/> American Indian or Alaska Native. Specify tribe <input style="width: 50px;" type="text"/><br>1619 <input style="width: 100px; height: 20px;" type="text"/><br>1620 <input type="checkbox"/> Asian<br>1621 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander |
| g. At which occupation did this person spend the majority (50 percent or more) of his/her worktime in 2017? . . . . .   | 1928 <b>Mark one.</b><br>1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | 1580 <b>Mark one.</b><br>1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | 1591 <b>Mark one.</b><br>1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | 1623 <b>Mark one.</b><br>1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   |
| h. Is this person retired from farming or ranching? . . . . .   | 1924<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1582<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1593<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1624<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |
| i. How many days did this person work off the farm in 2017? Include days in which the person worked at least four hours per day in an off-farm job. Include work on someone else's farm for pay . . . . . | 1929 <b>Mark one.</b><br>1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more  | 1831 <b>Mark one.</b><br>1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more  | 1931 <b>Mark one.</b><br>1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more  | 1625 <b>Mark one.</b><br>1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more  |



**SECTION 7 CONTINUED -**

|  | Person 1, continued  | Person 2, continued  | Person 3, continued  | Person 4, continued  |   |
|--|--|--|--|--|---|
| j. Did this person live on this operation at any time in 2017? . . . . .                                       | 1923<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1581<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1592<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1626<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |   |
| k. In what year did this person begin to operate any part of THIS operation? . . . . .                         | 1930 <input type="text"/>  | 1584 <input type="text"/>  | 1595 <input type="text"/>  | 1627 <input type="text"/>  |   |
| l. In what year did this person begin to operate ANY farm operation? . . . . .                                 | 2834 <input type="text"/>  | 1851 <input type="text"/>  | 1871 <input type="text"/>  | 1628 <input type="text"/>  |   |
| m. Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard? . . . . . | 1633 <b>Mark one.</b><br>1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now | 1634 <b>Mark one.</b><br>1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now | 1635 <b>Mark one.</b><br>1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now | 1636 <b>Mark one.</b><br>1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now |   |
|  | n. How many people lived in this person's household in 2017? . . . . .   | Number living in household of Person 1<br>2577 <input type="text"/> number   | Number living in household of Person 2. Enter "0" if Person 2 was counted in the previous column.<br>1589 <input type="text"/> number  | Number living in household of Person 3. Enter "0" if Person 3 was counted in a previous column.<br>1600 <input type="text"/> number  | Number living in household of Person 4. Enter "0" if Person 4 was counted in a previous column.<br>1637 <input type="text"/> number |
|  | o. Was this person hired and paid a salary or wages to manage this operation? . . . . .  | 2576<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1588<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1599<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1641<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
|  | 3. Was this person involved in these specific decisions as of <b>December 31, 2017</b> ? For each person and for each item, mark all that apply.   |  |  |  |   |
|  | Person 1   | Person 2   | Person 3   | Person 4   |   |
| a. Day-to-day decisions  | 1642<br>1 <input type="checkbox"/>   | 1643<br>1 <input type="checkbox"/>   | 1644<br>1 <input type="checkbox"/>   | 1645<br>1 <input type="checkbox"/>   |   |
| b. Land use and/or crop decisions, including planting, crop spraying, or other, e.g., grazing . . . . .        | 1650<br>1 <input type="checkbox"/>   | 1651<br>1 <input type="checkbox"/>   | 1652<br>1 <input type="checkbox"/>   | 1653<br>1 <input type="checkbox"/>   |   |
| c. Livestock decisions, including purchases, sales, breeding, and pasturing. . . . .                           | 1654<br>1 <input type="checkbox"/>   | 1655<br>1 <input type="checkbox"/>   | 1656<br>1 <input type="checkbox"/>   | 1657<br>1 <input type="checkbox"/>   |   |
| d. Record keeping and/or financial management. . . . .   | 1776<br>1 <input type="checkbox"/>   | 1777<br>1 <input type="checkbox"/>   | 1778<br>1 <input type="checkbox"/>   | 1779<br>1 <input type="checkbox"/>   |   |
| e. Estate planning or succession planning . . . . .  | 1757<br>1 <input type="checkbox"/>   | 1758<br>1 <input type="checkbox"/>   | 1759<br>1 <input type="checkbox"/>   | 1760<br>1 <input type="checkbox"/>   |   |
|  | Person 1   | Person 2   | Person 3   | Person 4   |   |
| 4. Is this person a Principal Operator or Senior Partner?  | 1765<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1766<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1767<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1768<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |   |
| 5. Is this person the spouse of a Principal Operator or Senior Partner?  | 1769<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1590<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1601<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1773<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |   |

17100074



**SECTION 8 HAY AND FORAGE CROPS**

1. Were any hay or forage crops cut or harvested from this operation in 2017?

INCLUDE

- your landlord's share and crops grown under contract

EXCLUDE

- crops grown on land rented to others

1152 1  **Yes** - Complete this section 3  **No** - Go to SECTION 9

2. All land from which dry hay, haylage, grass silage, or greenchop was cut or forage was harvested in 2017. Exclude straw, corn silage, and sorghum silage. . . . . 1021

|                  |                 |                 |
|------------------|-----------------|-----------------|
| Mark "X" if None | Acres Harvested | Acres Irrigated |
|                  |                 |                 |

3. Report gross value of hay and forage sold from this operation in 2017. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts . . . . 1328

|                  |  |
|------------------|--|
| Mark "X" if None | Gross Value of Sales (Dollars)   |
|                  | \$ <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px;"></span> .00 |

For items 4 through 7, when both dry hay and haylage were cut from the same acres, report acres for each type. If two or more cuttings were made from the same acres, report acres for that item only once, but report total quantity harvested from all cuttings.

|  | Mark "X" if None         | Acres     |           | Total Tons Harvested | OR          | Total Number of Bales |  | Average Weight per Bale |
|--|--------------------------|-----------|-----------|----------------------|-------------|-----------------------|--|-------------------------|
|  |                          | Harvested | Irrigated |                      |             |                       |  |                         |
| 4. Alfalfa and alfalfa mixtures for dry hay. . . 0103  | <input type="checkbox"/> |           |           |                      | Tons, dry   |                       |  | Lbs., dry               |
| 5. Haylage or greenchop from alfalfa or alfalfa mixtures . . . . . 1070  | <input type="checkbox"/> |           |           |                      | Tons, green |                       |  |                         |
| 6. Other dry hay from barley, clover, fescue, lespedeza, oats, rye, timothy, wheat, wild, Bermuda grass, Sudangrass, etc. . . . . 4111 | <input type="checkbox"/> |           |           |                      | Tons, dry   |                       |  | Lbs., dry               |
| 7. All other haylage, grass silage, and greenchop. . . . . 1073  | <input type="checkbox"/> |           |           |                      | Tons, green |                       |  |                         |

**SECTION 9 CULTIVATED CHRISTMAS TREES, SHORT ROTATION WOODY CROPS, AND MAPLE SYRUP**

1. Were any Christmas trees or woodland crops grown, harvested, or tapped on this operation in 2017?

INCLUDE

- your landlord's share and crops grown under contract

EXCLUDE

- crops grown on land rented to others

1153 1  **Yes** - Complete this section 3  **No** - Go to SECTION 10

For items 2 through 4, fill in the columns below for this operation in 2017.  
 • Include the value of your landlord's share, marketing charges, taxes, hauling, etc.  
 • Exclude from sales dollars for items produced under production contracts.

|  |                  |                     |                     |                 |  |
|--|------------------|---------------------|---------------------|-----------------|--|
| 2. Cultivated Christmas trees - cut or to be cut. Exclude wild harvested trees. Report live trees sold in SECTION 11. . . 1023 | Mark "X" if None | Acres in Production | Number of Trees Cut | Acres Irrigated | Gross Value of Sales (Dollars)   |
|  |                  |                     |                     |                 | \$ <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px;"></span> .00 |

|  |                  |                     |                 |                 |  |
|--|------------------|---------------------|-----------------|-----------------|--|
| 3. Short rotation woody crops - trees with growth cycles of 10 years or less. Exclude nursery trees, evergreens for replanting, and timber. Report nursery stock in SECTION 11. . . . . 1025 | Mark "X" if None | Acres in Production | Acres Harvested | Acres Irrigated | Gross Value of Sales (Dollars)   |
|  |                  |                     |                 |                 | \$ <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px;"></span> .00 |

|                              |                  |                |                |  |
|------------------------------|------------------|----------------|----------------|--|
| 4. Maple syrup. . . . . 0800 | Mark "X" if None | Number of Taps | Syrup Produced | Gross Value of Sales (Dollars)   |
|                              |                  |                |                | Gallons \$ <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px;"></span> .00 |



**SECTION 10 FIELD CROPS**

1. Were any field crops, such as corn, soybeans, wheat, etc., harvested from this operation in 2017?

INCLUDE

- your landlord's share and crops grown under contract

EXCLUDE

- crops grown on land rented to others

1011 1  **Yes** - Complete this section      3  **No** - Go to SECTION 11

| Acres Harvested | Acres Irrigated |
|-----------------|-----------------|
|                 |                 |

2. Acres from which field crops were harvested in 2017.  
Report multiple cropped acreage only once . . . . . 1780

3. Fill in the columns below for all field crops harvested from this operation in 2017. Enter the crop name and code from the table below.

- Report production in the units specified next to the crop.
- Include the value of your landlord's share, marketing charges, taxes, hauling, etc.
- Exclude from sales dollars for items produced under production contracts.

| Enter Field Crop Name | Enter Code | Acres Harvested | Total Production Harvested | Acres Irrigated | Gross Value of Sales (Dollars) |
|-----------------------|------------|-----------------|----------------------------|-----------------|--------------------------------|
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |
|                       |            |                 |                            |                 | \$ .00                         |

If more space is needed, use a separate sheet of paper.

| FIELD CROPS                                    | CODE | FIELD CROPS  | CODE | FIELD CROPS   | CODE |
|--|------|--|------|---|------|
| Alfalfa seed (pounds) . . . . .                | 542  | Hops (pounds) . . . . .                            | 623  | Sorghum for grain or seed -                         |      |
| Bahia grass seed (pounds) . . . . .            | 551  | Indian corn (pounds) . . . . .                     | 695  | include milo (bushels) . . . . .                    | 082  |
| Barley for grain or seed (bushels) . . . . .   | 079  | Jojoba (pounds) . . . . .                          | 626  | Sorghum for silage or greenchop -                   |      |
| Beans, dry edible - exclude chickpeas          |      | Kentucky bluegrass seed (pounds) . . . . .         | 629  | exclude sorghum-sudan crosses (tons) . . . . .      | 085  |
| and limas (hundredweight) . . . . .            | 554  | Lentils (hundredweight) . . . . .                  | 635  | Sorghum for syrup (gallons) . . . . .               | 704  |
| Bentgrass seed (pounds) . . . . .              | 560  | Lespedeza seed (pounds) . . . . .                  | 638  | Soybeans for beans (bushels) . . . . .              | 088  |
| Bermuda grass seed (pounds) . . . . .          | 563  | Lima beans, dry (hundredweight) . . . . .          | 557  | Sudangrass seed (pounds) . . . . .                  | 713  |
| Birdsfoot trefoil seed (pounds) . . . . .      | 566  | Mint, peppermint (pounds of oil) . . . . .         | 047  | Sugarbeets for seed (pounds) . . . . .              | 716  |
| Bromegrass seed (pounds) . . . . .             | 569  | Mint, spearmint (pounds of oil) . . . . .          | 050  | Sugarbeets for sugar (tons) . . . . .               | 719  |
| Buckwheat (bushels) . . . . .                  | 575  | Mint, tea leaves (pounds) . . . . .                | 767  | Sugarcane for seed (tons) . . . . .                 | 725  |
| Camelina (pounds) . . . . .                    | 608  | Miscanthus (tons) . . . . .                        | 641  | Sugarcane for sugar (tons) . . . . .                | 722  |
| Canola, edible (pounds) . . . . .              | 614  | Mustard seed (pounds) . . . . .                    | 650  | Sunflower seed, non-oil variety (pounds) . . . . .  | 776  |
| Chickpeas, all (garbanzos)                     |      | Oats for grain or seed (bushels) . . . . .         | 076  | Sunflower seed, oil variety (pounds) . . . . .      | 773  |
| (hundredweight) . . . . .                      | 2816 | Orchardgrass seed (pounds) . . . . .               | 653  | Sweet corn for seed (pounds) . . . . .              | 740  |
| Clover, crimson clover seed (pounds) . . . . . | 593  | Peanuts for nuts (pounds) . . . . .                | 656  | Switchgrass (tons) . . . . .                        | 647  |
| Clover, red clover seed (pounds) . . . . .     | 671  | Peas, Austrian winter peas                         |      | Timothy seed (pounds) . . . . .                     | 746  |
| Clover, white clover seed (pounds) . . . . .   | 761  | (hundredweight) . . . . .                          | 548  | Tobacco (pounds) - Report to                        |      |
| Corn for grain or seed (bushels) . . . . .     | 067  | Peas, dry edible (hundredweight) . . . . .         | 659  | the nearest tenth acre . . . . .                    | 094  |
| Corn for silage or greenchop (tons) . . . . .  | 070  | Peas, dry southern/cowpeas (bushels) . . . . .     | 584  | Triticale for grain (bushels) . . . . .             | 749  |
| Cotton, Pima (bales) - include                 |      | Popcorn (pounds shelled) . . . . .                 | 662  | Vetch seed (pounds) . . . . .                       | 755  |
| cottonseed in value of sales only . . . . .    | 644  | Potatoes - report in SECTION 12                    |      | Wheat, durum for grain or seed                      |      |
| Cotton, Upland (bales) - include               |      | Proso millet for grain or seed (bushels) . . . . . | 665  | (bushels) . . . . .                                 | 578  |
| cottonseed in value of sales only . . . . .    | 581  | Rapeseed (pounds) . . . . .                        | 668  | Wheat, other spring for grain or seed               |      |
| Dill for oil (pounds) . . . . .                | 596  | Rice (hundredweight) . . . . .                     | 677  | (bushels) . . . . .                                 | 728  |
| Emmer and spelt (bushels) . . . . .            | 599  | Rye for grain or seed -                            |      | Wheat, winter for grain or seed (bushels) . . . . . | 572  |
| Fescue seed (pounds) . . . . .                 | 602  | exclude ryegrass (bushels) . . . . .               | 686  | Wheatgrass seed (pounds) . . . . .                  | 758  |
| Flaxseed (bushels) . . . . .                   | 605  | Ryegrass seed (pounds) . . . . .                   | 689  | Wild rice (hundredweight) . . . . .                 | 764  |
| Guar (pounds) . . . . .                        | 617  | Safflower (pounds) . . . . .                       | 692  | Other seeds, specify above (pounds) . . . . .       | 770  |
| Herbs, dried (pounds) . . . . .                | 620  | Sesame (pounds) . . . . .                          | 701  | Other field crop, specify above (pounds) . . . . .  | 752  |



**SECTION 11 NURSERY, GREENHOUSE, FLORICULTURE, SOD, MUSHROOMS, VEGETABLE SEEDS, AND PROPAGATIVE MATERIALS**

1. Were any nursery, floriculture, or greenhouse crops, including ornamental plants, flowers, mushrooms, aquatic plants, sod, food and other crops grown under protection, vegetable seeds, flower seeds, or other propagative materials grown for sale on this operation in 2017? Report food crops temporarily covered for early germination, frost protection, etc. in SECTION 12 or 13.

**INCLUDE**

- crops produced, including under contract
- food crops grown in greenhouses, caves, and high tunnels where crops were always covered

**EXCLUDE**

- home garden, personal or home use crops
- finished plants purchased from others and resold

1032 1  **Yes** - Complete this section      3  **No** - Go to SECTION 12

2. Report total area and irrigated area on which nursery, greenhouse, floriculture, sod, mushrooms, and propagative materials were grown under glass or other protection in 2017 . . . . . 0474

Mark "X" if None

| Square Feet Under Glass or Other Protection |                |
|---|----------------|
| Total Area                                  | Irrigated Area |
|   |                |

3. Report total acres and irrigated acres on which nursery, greenhouse, floriculture, sod, mushrooms, and propagative materials were grown in the open in 2017. . . . . 0476

| Acres in the Open |        |                 |        |
|-------------------|--------|-----------------|--------|
| Total Acres       | Tenths | Irrigated Acres | Tenths |
|                   |        |                 |        |

4. Fill in the columns below for all nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown for sale on this operation in 2017. Enter the crop name and code from the table below.  
 • Include the value of your landlord's share, marketing charges, taxes, hauling, etc.  
 • Exclude from sales dollars for items produced under production contracts.

| Enter Nursery, Greenhouse, Floriculture, Sod, Mushroom, Vegetable Seed, or Propagative Material Name | Enter Code | Square Feet Under Glass or Other Protection | Acres in the Open |        | Gross Value of Sales (Dollars) |
|--|------------|---|-------------------|--------|--------------------------------|
|  |            |   | Acres             | Tenths |                                |
|  |            |   |                   |        | \$ .00                         |
|  |            |   |                   |        | \$ .00                         |
|  |            |   |                   |        | \$ .00                         |
|  |            |   |                   |        | \$ .00                         |
|  |            |   |                   |        | \$ .00                         |
|  |            |   |                   |        | \$ .00                         |

If more space is needed, use a separate sheet of paper.

|   |             |   |             |
|---|-------------|---|-------------|
| <b>FLORICULTURE AND BEDDING CROPS</b>   | <b>CODE</b> | <b>PROPAGATIVE MATERIALS SOLD</b>                           | <b>CODE</b> |
| Bedding/Garden plants - annuals, herbaceous perennials, vegetable plants - Include hanging baskets . . . . .  | 0479        | Bulbs, corms, rhizomes, and tubers, dry. . . . .            | 0482        |
| Cut flowers and cut florist greens . . . . .  | 0485        | Cuttings, seedlings, liners, plugs . . . . .                | 1002        |
| Foliage plants, indoor - Include hanging baskets . . . . .  | 0707        | Flower seeds . . . . .                                      | 0882        |
| Potted flowering plants . . . . .   | 0710        | Tobacco plants sold for transplant to farm fields . . . . . | 1004        |
| Other floriculture and bedding, specify above. . . . .  | 1015        | Vegetable seeds . . . . .                                   | 0884        |
|   |             | Vegetable transplants to farm fields . . . . .              | 1006        |
| <b>NURSERY CROPS</b>  | <b>CODE</b> | <b>FOOD CROPS GROWN UNDER GLASS OR OTHER PROTECTION</b>     | <b>CODE</b> |
| Nursery stock - ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, and bareroot herbaceous perennials . . . . . | 0488        | Tomatoes. . . . .   | 1019        |
| Aquatic plants. . . . .   | 0880        | Other vegetables and fresh cut herbs. . . . .               | 0503        |
| SOD   | CODE        | Fruits and berries. . . . .                                 | 1008        |
| Sod harvested. . . . .  | 0497        | <b>MUSHROOM CROPS</b>                                       | <b>CODE</b> |
|   |             | Mushrooms - Report growing area and sales. . . . .          | 0494        |
|   |             | Mushroom spawn - Report sales only. . . . .                 | 2495        |



**SECTION 12 VEGETABLES, POTATOES, AND MELONS**

1. Were any vegetables, potatoes, sweet corn, or melons harvested from this operation in 2017? Report crops grown under glass or other protection in SECTION 11.

**INCLUDE**

- crops grown under contract

**EXCLUDE**

- home garden, personal or home use crops

1101 1  **Yes** - Complete this section      3  **No** - Go to SECTION 13

2. Acres from which vegetables, potatoes, and melons were harvested in 2017. Report multiple cropped acreage only once. . . . . 0375

| Acres Harvested |        | Acres Irrigated |        |
|-----------------|--------|-----------------|--------|
| Acres           | Tenths | Acres           | Tenths |
|                 |        |                 |        |

3. Report gross value of vegetables, potatoes, and melons sold from this operation in 2017. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts. . . . . 1388

Mark "X" if None

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

4. Fill in the columns below for all vegetables, potatoes, and melons harvested from this operation in 2017. Enter the crop name and code from the table below.

- If more than one vegetable crop was harvested from the same acres, report acres for each crop.
- For two or more pickings of the same crop, report the area harvested only once.
- Processing refers to vegetables that have been altered by heat, pressure, or freezing.

| Enter Vegetable, Potato, or Melon Name | Enter Code | Total Acres Harvested |        | Acres Harvested for Fresh Market |        | Acres Harvested for Processing |        |
|--|------------|-----------------------|--------|----------------------------------|--------|--------------------------------|--------|
|  |            | Acres                 | Tenths | Acres                            | Tenths | Acres                          | Tenths |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |
|  |            |                       |        |                                  |        |                                |        |

If more space is needed, use a separate sheet of paper.

| CROP NAME  | CODE | CROP NAME  | CODE | CROP NAME   | CODE |
|--|------|--|------|---|------|
| Artichokes - exclude Jerusalem . . . . .           | 0377 | Garlic. . . . .  | 0421 | Peppers, other than bell - include chile. . . . . | 0445 |
| Asparagus, bearing age . . . . .                   | 0418 | Ginger root. . . . .   | 0611 | Potatoes . . . . .                                | 0097 |
| Beans, lima . . . . .                              | 0429 | Ginseng. . . . .   | 0446 | Pumpkins . . . . .                                | 0449 |
| Beans, snap (bush and pole). . . . .               | 0381 | Herbs, fresh cut . . . . .                                   | 0455 | Radishes . . . . .                                | 0451 |
| Beets . . . . .                                    | 0383 | Honeydew melons . . . . .                                    | 0423 | Rhubarb. . . . .                                  | 0453 |
| Broccoli . . . . .                                 | 0385 | Horseradish . . . . .  | 0424 | Spinach . . . . .                                 | 0457 |
| Brussels sprouts. . . . .                          | 0387 | Kale . . . . .   | 0425 | Squash, summer. . . . .                           | 0468 |
| Cabbage, Chinese (nappa, bok choy, etc.) . . . . . | 0389 | Lettuce, head . . . . .                                      | 0428 | Squash, winter . . . . .                          | 0470 |
| Cabbage, head. . . . .                             | 0391 | Lettuce, leaf. . . . .                                       | 0430 | Sweet corn. . . . .                               | 0461 |
| Cabbage, mustard . . . . .                         | 0393 | Lettuce, Romaine . . . . .                                   | 0432 | Sweet potatoes. . . . .                           | 0100 |
| Cantaloupes and muskmelons . . . . .               | 0395 | Mustard greens. . . . .                                      | 0431 | Taro. . . . .                                     | 0743 |
| Carrots. . . . .                                   | 0397 | Okra . . . . .   | 0437 | Tomatoes in the open. . . . .                     | 0463 |
| Cauliflower . . . . .                              | 0399 | Onions, dry. . . . .   | 0433 | Turnip greens. . . . .                            | 0467 |
| Celery . . . . .                                   | 0401 | Onions, green. . . . .                                       | 0435 | Turnips. . . . .                                  | 0465 |
| Chicory. . . . .                                   | 0403 | Parsley. . . . .   | 0439 | Watercress. . . . .                               | 0471 |
| Collards . . . . .                                 | 0407 | Peas, Chinese (sugar, snow). . . . .                         | 0405 | Watermelons . . . . .                             | 0473 |
| Cucumbers and pickles. . . . .                     | 0411 | Peas, green. . . . .   | 0441 | Other vegetables, specify above . . . . .         | 0475 |
| Daikon. . . . .                                    | 0413 | Peas, southern (cowpeas) - blackeyed, crowder, etc . . . . . | 0409 |   |      |
| Eggplant . . . . .                                 | 0415 | Peppers, bell - exclude pimientos. . . . .                   | 0443 |   |      |
| Escarole and endive . . . . .                      | 0417 |  |      |   |      |



**SECTION 13 FRUIT, NUTS, AND BERRIES**

1. Were any fruit or nut trees, including grapevines, or berries on this operation in 2017?

**INCLUDE**

- crops grown under contract

**EXCLUDE**

- abandoned acres
- home garden, personal or home use crops

1039 1  **Yes** - Complete this section

3  **No** - Go to SECTION 14

2. Acres and irrigated acres in bearing and nonbearing fruit orchards, vineyards, nut trees, and berries in 2017. . . . . 0121

| FRUIT AND NUTS |        |                 |        | BERRIES     |        |                 |        |
|----------------|--------|-----------------|--------|-------------|--------|-----------------|--------|
| Total Acres    |        | Irrigated Acres |        | Total Acres |        | Irrigated Acres |        |
| Acres          | Tenths | Acres           | Tenths | Acres       | Tenths | Acres           | Tenths |
|                |        |                 |        |             |        |                 |        |

3. Report gross value of fruits, nuts, and berries sold from this operation in 2017. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts. . . . . 1329

| FRUIT AND NUTS                            |        | BERRIES                                   |        |
|---|--------|---|--------|
| Gross Value of Sales (Dollars)            |        | Gross Value of Sales (Dollars)            |        |
| Mark "X" if None <input type="checkbox"/> | \$ .00 | Mark "X" if None <input type="checkbox"/> | \$ .00 |

4. Fill in the columns below for all fruit, nut trees, and berries on this operation in 2017. Enter the crop name and code from the table below.  
 • Include acres even if not harvested because of low prices, damage from hail, frost, etc.

| Enter Fruit, Nut, or Berry Name | Enter Code | Total Acres |        | Bearing Age Acres |        | Nonbearing Age Acres |        |
|---------------------------------|------------|-------------|--------|-------------------|--------|----------------------|--------|
|                                 |            | Acres       | Tenths | Acres             | Tenths | Acres                | Tenths |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |
|                                 |            |             |        |                   |        |                      |        |

If more space is needed, use a separate sheet of paper.

|                                      |             |   |             |  |             |
|--------------------------------------|-------------|---|-------------|--|-------------|
| <b>NON-CITRUS FRUIT</b>              | <b>CODE</b> | <b>NON-CITRUS FRUIT</b>                     | <b>CODE</b> | <b>NUTS</b>                            | <b>CODE</b> |
| Apples . . . . .                     | 0123        | Plumcots, pluots, other                     |             | Hazelnuts (Filberts) . . . . .         | 0327        |
| Apricots . . . . .                   | 0129        | plum/apricot hybrids . . . . .              | 0264        | Macadamia nuts . . . . .               | 0333        |
| Avocados . . . . .                   | 0135        | Plums . . . . .                             | 0243        | Pecans, improved . . . . .             | 0336        |
| Bananas . . . . .                    | 0141        | Pomegranates . . . . .                      | 0255        | Pecans, native and seedling . . . . .  | 0342        |
| Cherimoyas . . . . .                 | 0293        | Prunes . . . . .                            | 0249        | Pistachios . . . . .                   | 0351        |
| Cherries, sweet . . . . .            | 0345        | Other non-citrus fruits,                    |             | Walnuts, English . . . . .             | 0357        |
| Cherries, tart . . . . .             | 0587        | specify above . . . . .                     | 0261        | Other nuts, specify above . . . . .    | 0363        |
| Coffee (2016-2017 crop) . . . . .    | 0153        | <b>CITRUS FRUIT</b>                         | <b>CODE</b> | <b>BERRIES</b>                         | <b>CODE</b> |
| Dates . . . . .                      | 0159        | Grapefruit . . . . .                        | 0267        | Aronia berries . . . . .               | 0507        |
| Figs . . . . .                       | 0165        | Kumquats . . . . .                          | 0273        | Blackberries and dewberries -          |             |
| Grapes . . . . .                     | 0366        | Lemons . . . . .                            | 0279        | include marionberries . . . . .        | 0509        |
| Guavas . . . . .                     | 0183        | Limes . . . . .                             | 0285        | Blueberries, tame . . . . .            | 0512        |
| Kiwifruit . . . . .                  | 0189        | Tangelos . . . . .                          | 0303        | Blueberries, wild . . . . .            | 0515        |
| Mangos . . . . .                     | 0195        | Tangerines (Mandarins) . . . . .            | 0309        | Boysenberries . . . . .                | 0518        |
| Nectarines . . . . .                 | 0201        | Temples . . . . .                           | 0144        | Cranberries . . . . .                  | 0521        |
| Olives . . . . .                     | 0207        | Oranges, Valencia . . . . .                 | 0150        | Currants (black or red) . . . . .      | 0524        |
| Papayas . . . . .                    | 0213        | Oranges, other than Valencia -              |             | Elderberries . . . . .                 | 0508        |
| Passion fruit . . . . .              | 0219        | include Navel . . . . .                     | 0174        | Loganberries . . . . .                 | 0530        |
| Peaches, clingstone . . . . .        | 0222        | Other citrus fruit, specify above . . . . . | 0315        | Raspberries, black . . . . .           | 0490        |
| Peaches, freestone . . . . .         | 0216        | <b>NUTS</b>                                 | <b>CODE</b> | Raspberries, red . . . . .             | 0491        |
| Pears, Bartlett . . . . .            | 0234        | Almonds . . . . .                           | 0321        | Raspberries, other . . . . .           | 0506        |
| Pears, other than Bartlett . . . . . | 0240        | Chestnuts . . . . .                         | 0324        | Strawberries . . . . .                 | 0536        |
| Persimmons . . . . .                 | 0237        |   |             | Other berries, specify above . . . . . | 0539        |
| Pineapples . . . . .                 | 1297        |   |             |  |             |



**SECTION 14 CATTLE AND CALVES**

1. Did you or anyone else have any cattle or calves, including dairy cattle, on this operation in 2017?

INCLUDE

- cattle on this operation
- cattle on public or industrial property under a grazing permit
- cattle on land used rent free by this operation
- cattle grown or fed on this operation for others on a custom or contract basis

EXCLUDE

- cattle grown or fed by someone else on a custom or contract basis

1201 1  **Yes** - Complete this section      3  **No** - Go to SECTION 15

2. Of the total number of cattle and calves on hand December 31, 2017, how many were –

|   | Mark "X" if None         | Number on this operation<br>December 31, 2017 |
|---|--------------------------|---|
| a. Beef cows? Include beef heifers that had calved.<br>Exclude heifers that had not calved, steers, calves, and bulls. . . . . 0804 | <input type="checkbox"/> |   |
| b. Milk cows kept for production of milk? Include dry milk cows and milk heifers that had calved. . . . . 0805                      | <input type="checkbox"/> |   |
| c. Other cattle and calves? Include heifers that had not calved, steers, calves, and bulls . . . . . 1206                           | <input type="checkbox"/> |   |
| d. <b>TOTAL</b> cattle and calves on hand December 31, 2017.<br>Add items 2a, 2b, and 2c . . . . . 0803                             | <input type="checkbox"/> |   |

3. Of the cattle and calves sold or moved from this operation during 2017, how many were –

|   |                          | Total number sold or moved in 2017 |
|---|--------------------------|------------------------------------|
| a. Calves sold or moved from this operation in 2017 weighing less than 500 pounds? . . . . . 0808                 | <input type="checkbox"/> |                                    |
| b. Cattle sold or moved from this operation in 2017, including calves weighing 500 pounds or more? . . . . . 0810 | <input type="checkbox"/> |                                    |

4. Report gross value of sales of cattle and calves in 2017. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts.

INCLUDE

- beef and dairy cattle for breeding stock, and beef and dairy cull animals
- fed cattle, stockers, and feeders
- veal calves, etc. . . . . 1339

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |
| \$                             | .00 |

5. Sales of milk from cows . . . . . 1380

**6. CATTLE IN FEEDLOTS FOR SLAUGHTER MARKET**

INCLUDE

- steers and heifers for slaughter market
- fed a ration of grain or other concentrates that are expected to produce a carcass that will grade select or better

EXCLUDE

- cows and bulls
- cattle being backgrounded, pastured only, fed for home use, or veal

|  |                          |   |
|--|--------------------------|---|
| a. How many steers and heifers reported in item 2c above were on feed December 31, 2017, and were or will be shipped directly from your feedlot to slaughter market? Exclude cattle being backgrounded. . . . . 1207   | <input type="checkbox"/> | Number on this operation<br>December 31, 2017 |
| b. How many of the steers and heifers sold during 2017 reported in item 3b above were shipped directly from your feedlot to a slaughter market? Exclude any of your cattle custom fed in feedlots operated by others. Exclude cattle sold as feeders. . . . . 0812 | <input type="checkbox"/> | Number sold or moved in 2017                  |

17100132





**SECTION 15 HOGS AND PIGS**

1. Did you or anyone else have any hogs or pigs on this operation in 2017? If you are a contractor or integrator, report only the hogs on the land you operate.

INCLUDE  
• hogs grown for others on a contract basis

EXCLUDE  
• hogs grown by someone else on a custom or contract basis

1211 1  **Yes** - Complete this section      3  **No** - Go to SECTION 16

|   |                          |   |
|---|--------------------------|---|
|   | Mark "X" if None         | <b>Number on this operation<br/>December 31, 2017</b> |
| 2. Total number of hogs and pigs on hand December 31, 2017. . . . . 0815  | <input type="checkbox"/> | [ ]   |
|   |                          | <b>Total number sold or<br/>moved in 2017</b>         |
| 3. Number of hogs and pigs sold or moved from this operation during 2017,<br>including feeder pigs . . . . . 0820   | <input type="checkbox"/> | [ ]   |
|   |                          | <b>Gross Value of Sales<br/>(Dollars)</b>             |
| 4. Report gross value of sales for hogs and pigs sold from this operation in<br>2017. Include the value of your landlord's share, marketing charges, taxes,<br>hauling, etc. Exclude dollars for items produced under production contracts . . . . 1341 | <input type="checkbox"/> | \$ [ ] .00  |

5. Mark **one** item which best describes this type of operation:

1241  Farrow to wean      1242  Farrow to finish      1243  Finish only      1118

1244  Farrow to feeder      1245  Nursery      1246  Other, specify → [ ]

6. Mark **one** item which best describes this type of producer:

1214  Independent grower      1216  Contract grower (contractee)      1215  Contractor or integrator

**SECTION 16 HORSES, PONIES, MULES, BURROS, AND DONKEYS**

1. Did you or anyone else have any horses, ponies, mules, burros, or donkeys on this operation in 2017?

1247 1  **Yes** - Complete this section      3  **No** - Go to SECTION 17

Report inventory and sales for this operation in 2017  
• Include the value of your landlord's share, marketing charges, taxes, hauling, etc.

|   | Mark "X" if None         | Number on this operation<br>December 31, 2017 | Total Number Sold<br>in 2017 | Gross Value of Sales in 2017<br>(Dollars) |
|---|--------------------------|---|------------------------------|---|
| 2. Horses and ponies OWNED<br>by this operation. . . . . 0872     | <input type="checkbox"/> | [ ]   | [ ]                          | \$ [ ] .00                                |
| 3. Horses and ponies NOT<br>owned by this operation. . . . . 0822 | <input type="checkbox"/> | [ ]   | [ ]                          | \$ [ ] .00                                |
| 4. Mules, burros, and donkeys . . . . . 0833                      | <input type="checkbox"/> | [ ]   | [ ]                          | \$ [ ] .00                                |

|  |                          |   |
|--|--------------------------|---|
|  | Mark "X" if None         | <b>Gross Value of Sales in 2017<br/>(Dollars)</b> |
| 5. Horse breeding or stud fees, semen, and other equine products<br>(Exclude income from boarding, training, or riding facilities which<br>should be reported in SECTION 32, item 7). . . . . 1406 | <input type="checkbox"/> | \$ [ ] .00  |



**SECTION 17 SHEEP AND GOATS**

1. Did this operation own or custom feed for others any sheep, lambs, goats, or kids in 2017, regardless of location?

**INCLUDE**

- sheep and goats on public or industrial property under a grazing permit
- sheep and goats on land used rent free by this operation
- sheep and goats grown or fed on this operation for others on a custom or contract basis

**EXCLUDE**

- sheep and goats grown or fed by someone else on a custom or contract basis

1102 1  **Yes** - Complete this section      3  **No** - Go to SECTION 18

Report for this operation in 2017.

- Include in the value of sales the value of your landlord's share, marketing charges, taxes, hauling, etc.

Mark "X" if None

|    |   | Number owned or custom fed on December 31, 2017 | Total number sold or moved in 2017        | Gross Value of Sales (Dollars)        |
|----|---|---|---|---------------------------------------|
| 2. | Sheep and lambs . . . . . 0824                          | <input type="checkbox"/>                        |   | \$ .00                                |
| 3. | Goats and kids  |   |   |                                       |
| a. | Angora goats and kids . . . . . 0847                    | <input type="checkbox"/>                        |   | \$ .00                                |
| b. | Milk goats and kids. . . . . 0843                       | <input type="checkbox"/>                        |   | \$ .00                                |
| c. | Meat goats and kids, other goats and kids. . . . . 0851 | <input type="checkbox"/>                        |   | \$ .00                                |
|    |   | <b>Total amount produced in 2017</b>            | <b>Total amount sold or moved in 2017</b> | <b>Gross Value of Sales (Dollars)</b> |
| 4. | Sheep and goat products                                 |   |   |                                       |
| a. | Wool shorn . . . . . 0828                               | <input type="checkbox"/>                        | lbs.                                      | \$ .00                                |
| b. | Mohair clipped. . . . . 0849                            | <input type="checkbox"/>                        | lbs.                                      | \$ .00                                |
| c. | Milk from sheep and goats . . . 1389                    | <input type="checkbox"/>                        |   | \$ .00                                |

**SECTION 18 AQUACULTURE**

1. Did you or anyone else have any aquaculture on this operation in 2017? Include production for others on a contract basis.

1157 1  **Yes** - Complete this section      3  **No** - Go to SECTION 19

2. Fill in the columns below for all aquaculture raised on this operation in 2017. Report aquatic plants in SECTION 11.
- Include the value of your landlord's share, marketing charges, taxes, hauling, etc.
  - Include all sizes for each type.
  - Include food size, fingerlings, fry, and eggs.
  - Exclude wild-caught products.

| Enter Aquaculture Type | Enter Code | Total pounds sold or moved in 2017 | OR | Total number sold or moved in 2017 | Gross Value of Sales (Dollars) |
|------------------------|------------|------------------------------------|----|------------------------------------|--------------------------------|
|                        |            |                                    | OR |                                    | \$ .00                         |
|                        |            |                                    | OR |                                    | \$ .00                         |
|                        |            |                                    | OR |                                    | \$ .00                         |
|                        |            |                                    | OR |                                    | \$ .00                         |

If more space is needed, use a separate sheet of paper.

|   |             |  |             |  |             |
|---|-------------|--|-------------|--|-------------|
| <b>AQUACULTURE</b>  | <b>CODE</b> | <b>AQUACULTURE</b>   | <b>CODE</b> | <b>AQUACULTURE</b>   | <b>CODE</b> |
| Catfish . . . . .   | 0860        | Crustaceans (crawfish for food, shrimp, softshell crabs, etc.) . . . . . | 0902        | Sport or game fish . . . . .   | 0984        |
| Trout . . . . .   | 0863        | Mollusks (clams, oysters, etc.) . . . . .                                | 0978        | Other aquaculture products - include algae, alligators, caviar, turtles, etc., specify above . . . . . | 0869        |
| Other food fish - include salmon, specify in table. . . . . | 0896        | Ornamental fish . . . . .  | 0980        |  |             |
| Baitfish - include crawfish for bait. . . . .               | 0900        |  |             |  |             |



**SECTION 19 POULTRY**

1. Did you or anyone else have any poultry, such as chickens, turkeys, ducks, emus, ostriches, etc., on this operation in 2017? Include poultry grown for others on a contract basis.

1217  **Yes** - Complete this section      3  **No** - Go to SECTION 20

2. VALUE OF SALES - Report gross value of sales for poultry, chicks, eggs, and other poultry products. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts. . . . . 1344  Mark "X" if None

|   |
|---|
| Gross Value of Sales (Dollars)                  |
| \$ <input style="width: 80%;" type="text"/> .00 |

3. CHICKENS

|   | Mark "X" if None         | Number on this operation<br>December 31, 2017 | Total number sold or moved<br>from this operation in 2017 |
|---|--------------------------|---|---|
| a. Broilers, fryers, and other chickens raised for meat production, including capons and roasters. . . . . 0898 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
| b. Table egg layers – Include those for home use. . . . . 1229  | <input type="checkbox"/> | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
| c. Hatching layers for meat-types – Include layers for broilers, roasters, and other meat-types . . . . . 1231  | <input type="checkbox"/> | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
| d. Hatching layers for table eggs . . . . . 1233  | <input type="checkbox"/> | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
| e. Pullets for laying flock replacement . . . . . 1221  | <input type="checkbox"/> | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |

4. TURKEYS

|  |                          |   |   |
|--|--------------------------|---|---|
| a. Turkeys raised for meat production – Exclude breeders . . . . . 1225              | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |
| b. Turkey hens and toms kept for breeding. . . . . 1227                              | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |
| c. Turkey brooders, immature birds for further growout on another farm. . . . . 1219 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |

5. ALL OTHER POULTRY – Fill in the columns below for all other poultry on this operation in 2017. Enter the poultry type and code from the table below.

| Enter Poultry Type | Code | Number on this operation<br>December 31, 2017 | Total number sold or moved<br>from this operation in 2017 |
|--------------------|------|---|---|
|                    |      | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
|                    |      | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |
|                    |      | <input style="width: 100%;" type="text"/>     | <input style="width: 100%;" type="text"/>                 |

If more space is needed, use a separate sheet of paper.

| OTHER POULTRY     | CODE | OTHER POULTRY                 | CODE | OTHER POULTRY                          | CODE |
|-------------------|------|-------------------------------|------|--|------|
| Bantams . . . . . | 0934 | Guineas . . . . .             | 0966 | Pigeons or squabs . . . . .            | 0908 |
| Chukars . . . . . | 1275 | Hungarian partridges. . . . . | 1277 | Quail . . . . .                        | 0912 |
| Ducks . . . . .   | 0904 | Ostriches . . . . .           | 0878 | Rheas . . . . .                        | 1281 |
| Emus. . . . .     | 0845 | Peacocks or peahens . . . . . | 1279 | Roosters . . . . .                     | 0968 |
| Geese . . . . .   | 0906 | Pheasants . . . . .           | 0910 | Other poultry, specify above . . . . . | 0865 |

6. POULTRY HATCHED

|   |                          |                  |   |
|---|--------------------------|------------------|---|
| a. All poultry hatched in this operation's hatcheries in 2017. Include chicks, poults, ducklings, etc. Include poultry custom hatched for others . . . . . 0916 | <input type="checkbox"/> | Mark "X" if None | Number hatched on this operation in 2017  |
|   |                          |                  | <input style="width: 100%;" type="text"/> |

b. What type(s) of poultry was hatched in this operation's hatcheries in 2017? Mark all that apply:

1291  Egg-type chickens      1292  Broiler-type chickens      1293  Turkeys      1294  All other poultry



**SECTION 20 COLONIES OF HONEY BEES**

1. Did this operation own honey bees in 2017, regardless of location?  
 1104 1  **Yes** - Complete this section 3  **No** - Go to SECTION 21

| Number of colonies owned on December 31, 2017  | Largest number of colonies owned for all purposes in 2017 | Largest number of honey producing colonies owned in 2017 | Honey collected in 2017, regardless of location (Pounds) | Gross Value of Sales of Honey (Dollars) |
|--|---|--|--|---|
| 2. Colonies of honey bees owned . . . . . 0839 |   |  |  | \$ .00                                  |

**SECTION 21 OTHER LIVESTOCK AND LIVESTOCK PRODUCTS**

1. Did you or anyone else have other livestock or livestock products on this operation in 2017?  
 1239 1  **Yes** - Complete this section 3  **No** - Go to SECTION 22

2. Fill in the columns below for all other livestock on this operation in 2017. Enter the livestock type and code from the table below.

- Include the value of your landlord's share, marketing charges, taxes, hauling, etc.
- Exclude from sales dollars for items produced under production contracts.

| Enter Livestock Type | Enter Code | Number on this operation December 31, 2017 | Total number sold in 2017 | Gross Value of Sales (Dollars) |
|----------------------|------------|--|---------------------------|--------------------------------|
|                      |            |  |                           | \$ .00                         |
|                      |            |  |                           | \$ .00                         |
|                      |            |  |                           | \$ .00                         |
|                      |            |  |                           | \$ .00                         |

If more space is needed, use a separate sheet of paper.

|  |      |                              |      |  |      |
|--|------|------------------------------|------|--|------|
| OTHER LIVESTOCK                                  | CODE | OTHER LIVESTOCK              | CODE | OTHER LIVESTOCK                          | CODE |
| Alpacas . . . . .                                | 0876 | Deer in captivity . . . . .  | 0888 | Mink, live (exclude pelts) . . . . .     | 1106 |
| Package bees . . . . .                           | 4790 | Elk in captivity . . . . .   | 0890 | Rabbits, live (exclude pelts) . . . . .  | 1108 |
| Bees, other than honey or package bees . . . . . | 4840 | Laboratory animals . . . . . | 4892 | Worms . . . . .                          | 4895 |
| Bison . . . . .                                  | 0886 | Llamas . . . . .             | 0874 | Other livestock, specify above . . . . . | 4898 |

3. Fill in the columns below for other livestock products produced on this operation in 2017. Enter the livestock product type and code from the table below.

- Include the value of your landlord's share, marketing charges, taxes, hauling, etc.
- Exclude from sales dollars for items produced under production contracts.

| Enter Livestock Product Type | Enter Code | Quantity Produced in 2017 | Unit | Gross Value of Sales (Dollars) |
|------------------------------|------------|---------------------------|------|--------------------------------|
|                              |            |                           |      | \$ .00                         |
|                              |            |                           |      | \$ .00                         |
|                              |            |                           |      | \$ .00                         |
|                              |            |                           |      | \$ .00                         |

If more space is needed, use a separate sheet of paper.

|                          |      |   |      |
|--------------------------|------|---|------|
| OTHER LIVESTOCK PRODUCTS | CODE | OTHER LIVESTOCK PRODUCTS                                  | CODE |
| Beeswax . . . . .        | 4961 | Horns . . . . .   | 4949 |
| Breeding fees . . . . .  | 4940 | Manure sold . . . . .                                     | 4952 |
| Embryos . . . . .        | 4943 | Semen . . . . .   | 4955 |
| Fur or pelts . . . . .   | 4946 | Other animal products not listed, specify above . . . . . | 4958 |



**SECTION 22 PRODUCTION CONTRACTS AND CUSTOM FEEDING**

1. During 2017, were you a production contract grower for a processor or contractor for whom you grew a crop, raised livestock or poultry, or custom fed any livestock that **you did not own**? A production contract is an agreement setting terms, conditions, and fees to be paid by the contractor to this operation for the production of crops, livestock, or poultry. Exclude commodities grown or raised for marketing contracts.

1301  **Yes** - Complete this section      3  **No** - Go to SECTION 23

2. Report number of head, bushels, etc. that were grown or raised under production contracts and moved from this operation in 2017.

|      |   | Mark "X" if None              | Total quantity moved from this operation in 2017 | Unit    |      | Total dollar amount received in 2017 for delivering commodities under production contracts (Dollars) |
|------|---|-------------------------------|--|---------|------|--|
| a.   | Broilers and other meat-type chickens. . . . .  | 1304 <input type="checkbox"/> |  | birds   | 3304 | \$ .00   |
| b.   | Chicken eggs . . . . .  | 1305 <input type="checkbox"/> |  | dozen   | 3305 | \$ .00   |
| c.   | Layers . . . . .  | 1302 <input type="checkbox"/> |  | birds   | 3302 | \$ .00   |
| d.   | Pullets for laying flock replacement. . . . .   | 1306 <input type="checkbox"/> |  | birds   | 3306 | \$ .00   |
| e.   | Turkeys . . . . .   | 1307 <input type="checkbox"/> |  | birds   | 3307 | \$ .00   |
| f.   | Custom fed cattle shipped directly for slaughter – Exclude cattle custom fed for you by others. . . . . | 1308 <input type="checkbox"/> |  | head    | 3308 | \$ .00   |
| g.   | Replacement dairy heifers. . . . .  | 1303 <input type="checkbox"/> |  | head    | 3303 | \$ .00   |
| h.   | Hogs and pigs. . . . .  | 1309 <input type="checkbox"/> |  | head    | 3309 | \$ .00   |
| i.   | Other cattle, sheep, livestock, or poultry – specify type ↴   |                               |  |         |      |  |
| 1140 | <input type="text"/>  | 1310 <input type="checkbox"/> |  |         | 3310 | \$ .00   |
| j.   | Grains and oilseeds – specify type ↴  |                               |  |         |      |  |
| 1141 | <input type="text"/>  | 1311 <input type="checkbox"/> |  | bushels | 3311 | \$ .00   |
| k.   | Vegetables, melons, and potatoes – specify type ↴   |                               |  |         |      |  |
| 1142 | <input type="text"/>  | 1312 <input type="checkbox"/> |  |         | 3312 | \$ .00   |
| l.   | Other crops – specify type ↴  |                               |  |         |      |  |
| 1143 | <input type="text"/>  | 1313 <input type="checkbox"/> |  |         | 3313 | \$ .00   |

3. Mark all inputs that were partially or completely paid or provided by contractor(s) –

- |  |   |   |
|--|---|---|
| 1317 <input type="checkbox"/> Feed                         | 1325 <input type="checkbox"/> Seed                | 1320 <input type="checkbox"/> Supplies                              |
| 1316 <input type="checkbox"/> Feeder livestock and poultry | 1318 <input type="checkbox"/> Fertilizer and lime | 1322 <input type="checkbox"/> Utilities                             |
| 1324 <input type="checkbox"/> Breeding livestock           | 1319 <input type="checkbox"/> Chemicals           | 1326 <input type="checkbox"/> Other, specify → <input type="text"/> |
| 1323 <input type="checkbox"/> Veterinary services          | 1321 <input type="checkbox"/> Fuels               | 1315 <input type="checkbox"/> None                                  |

4. Enter the name of the contractor that provided inputs and owned the commodity ↴

1327



**SECTION 23 ORGANIC AGRICULTURE**

1. During 2017, did this operation produce organic products according to USDA's National Organic Program (NOP) standards or have acres transitioning into USDA NOP production? Exclude processing and handling.

3501 1  **Yes** - Complete this section      3  **No** - Go to SECTION 24

2. Report type of production. Mark all that apply.

3502  USDA NOP certified organic production . . . . . 1252

| Specify Certifying Agency |
|---------------------------|
|                           |

3503  USDA NOP organic production exempt from certification (exempt is production normally less than \$5,000 in sales).

3504  Acres transitioning into USDA NOP organic production.

3506  Production according to USDA NOP standards but NOT certified or exempt.

3. What was the value of USDA NOP certified or exempt organically produced commodities sold from this operation in 2017? . . . . . 3505

Mark "X" if None

| Gross Value of Sales (Dollars)                    |
|---|
| \$ <input style="width: 150px;" type="text"/> .00 |

**SECTION 24 PRACTICES**

1. At any time during 2017, did this operation –

- a. Receive irrigation water supplied by a U.S. Bureau of Reclamation project or facility? Include reclamation water delivered by a local district. . . . . 1722 1  Yes 3  No
- b. Practice rotational or management-intensive grazing? . . . . . 1725 1  Yes 3  No
- c. Practice alley cropping, silvopasture, or forest farming, or have riparian forest buffers or windbreaks? . . . . . 1731 1  Yes 3  No
- d. Harvest any biomass (crop residue, grasses, woody biomass, etc.) for use in the production of renewable energy? Exclude grains, oilseeds, and firewood . . . . . 1750 1  Yes 3  No
- e. Have an on-farm packing facility for distributing vegetables, potatoes, fruit, nuts, berries, or other crops? . . . . . 1752 1  Yes 3  No
- f. Raise or sell veal calves? . . . . . 1728 1  Yes 3  No
- g. Have a barn that was built prior to 1960? . . . . . 1730 1  Yes 3  No

2. During 2017, did this operation produce and sell any processed or value-added products from its own agricultural production?

- INCLUDE
- jam, wine, cheese, meat, floral arrangements, cider, etc.
- EXCLUDE
- products purchased and resold
- live animals

1726 1  **Yes** - Continue      3  **No** - Go to item 3

a. How much was received in 2017 for the sales of the processed or value-added product(s)? . . . . . 2727

| Gross Value of Sales (Dollars)                    |
|---|
| \$ <input style="width: 150px;" type="text"/> .00 |

b. Please specify the processed or value added product(s). . . . . 2726

3. At any time during 2017, did this operation have internet access, either on the operation or at an operator's residence?

1260 1  **Yes** – Report the type of service that was used to access the internet. Mark all that apply:

- 1261  Dial-up      1263  Cable modem      1265  Mobile internet service for a cell phone or other device (tablet, iPad, etc.)      1775  Don't know
- 1262  DSL      1264  Fiber-optic      1266  Satellite      1268  Other, specify below ↴

3  **No** – Go to SECTION 25

1269

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**SECTION 25 FOOD MARKETING PRACTICES**

1. During 2017, did this operation produce and sell any crops, livestock, poultry, or agricultural products that were food for humans to eat or drink?

**INCLUDE**  
 • edible agricultural products for human consumption

**EXCLUDE**  
 • non-edible products such as hay, cut flowers, Christmas trees, nursery products, etc.  
 • commodities produced under production contracts  
 • products purchased and resold

2750 1  **Yes** - Complete this section      3  **No** - Go to SECTION 26

2. How much was received in 2017 for the food produced and sold directly to:

a. **Consumers:** Farmers markets, on-farm stores or farm stands, roadside stands or stores, u-pick, CSA (Community Supported Agriculture), online marketplaces, etc.? . . . . . 4160

Mark "X" if None

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

(i) Specify the food(s) that was produced and sold directly to consumers in 2017.

4161

b. **Retail Markets, Institutions, or Food Hubs for Local or Regionally Branded Products:** Supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives, K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks, etc.? . . . . . 2752

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

(i) Specify the food(s) that was produced and sold directly to retail markets, institutions, or food hubs in 2017.

2751

**SECTION 26 FERTILIZERS, CHEMICALS, AND SOIL CONDITIONERS APPLIED**

1. Were any fertilizers, manure, herbicides, insecticides, fungicides, nematicides, other pesticides, growth regulators, or other chemicals used on this operation during 2017?

**INCLUDE**  
 • rock phosphate, lime, and gypsum as fertilizer

**EXCLUDE**  
 • pretreated seeds

1568 1  **Yes** - Complete this section      3  **No** - Go to SECTION 27

2. Acres to which commercial fertilizer and soil conditioners were applied –

Mark "X" if None

a. Cropland in 2017 – Exclude cropland used only for pasture. . . . . 0932

| Number of Acres |  |
|-----------------|--|
|                 |  |

b. Pastureland and rangeland acres in 2017 – Include cropland used only for pasture or grazing . . . . . 0933

|  |  |
|--|--|
|  |  |
|--|--|

3. Acres of cropland and pastureland on which animal manure was applied . . . . . 1569

|  |  |
|--|--|
|  |  |
|--|--|

4. Acres of cropland and/or pastureland treated with organic fertilizer according to USDA's National Organic Program (NOP) standards. . . . . 1570

|  |  |
|--|--|
|  |  |
|--|--|

5. Acres on which chemicals were applied to control the items listed below. The same acres can be reported in more than one item below. However, report acres only once for each item, regardless of the number of applications.

Number of Acres

a. Insects . . . . . 0936

|  |  |
|--|--|
|  |  |
|--|--|

b. Weeds, grass, or brush - Include both pre-emergence and post emergence. . . . . 0939

|  |  |
|--|--|
|  |  |
|--|--|

c. Nematodes. . . . . 0937

|  |  |
|--|--|
|  |  |
|--|--|

d. Diseases in crops and orchards such as blight, smut, rust, etc. . . . . 0938

|  |  |
|--|--|
|  |  |
|--|--|

6. Acres of crops treated to control growth, thin fruit, ripen, or defoliate. . . . . 0940

|  |  |
|--|--|
|  |  |
|--|--|

17100207



**SECTION 27 RENEWABLE ENERGY**

1. During 2017, what types of renewable energy producing systems were on this operation, regardless of ownership? Mark all that apply.

|   |   |   |
|---|---|---|
| 3603 <input type="checkbox"/> Solar panels      | 3614 <input type="checkbox"/> Geothermal/<br>Geoexchange system | 3610 <input type="checkbox"/> Ethanol production system             |
| 3604 <input type="checkbox"/> Wind turbines     | 3615 <input type="checkbox"/> Small hydro system                | 3606 <input type="checkbox"/> Other, specify → <input type="text"/> |
| 3605 <input type="checkbox"/> Methane digesters | 3609 <input type="checkbox"/> Biodiesel production system       | 3619 <input type="checkbox"/> None                                  |

2. On the land owned by this operation, were any wind rights leased to others? . . . . . 3607 1  Yes 3  No

**SECTION 28 MACHINERY AND EQUIPMENT**

1. For the items listed below, report the number on this operation on **December 31, 2017**. Include machinery, equipment, and implements used for the farm or ranch business in 2016 or 2017 and usually kept on the operation.

|  | Mark "X" if None         | Number on this operation December 31, 2017 | Mark "X" if None         | Of these, the number manufactured in the last 5 years (2013-2017) |
|--|--------------------------|--|--------------------------|---|
| a. Trucks, including pickups . . . . . 0944  | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| b. Tractors less than 40 horsepower (PTO) – Exclude garden tractors . . . . . 0946 | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| c. Tractors 40 - 99 horsepower (PTO). . . . . 0948                                 | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| d. Tractors 100 horsepower (PTO) or more. . . . . 0962                             | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| e. Grain and bean combines, self-propelled. . . . . 0950                           | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| f. Cotton pickers and strippers, self-propelled. . . . . 0956                      | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| g. Forage harvesters, self-propelled. . . . . 0953                                 | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |
| h. Hay balers. . . . . 0960  | <input type="checkbox"/> | <input type="text"/>                       | <input type="checkbox"/> | <input type="text"/>  |

**SECTION 29 FARM LABOR**

|   | Mark "X" if None         | Number of Workers    |
|---|--------------------------|----------------------|
| 1. What was the number of HIRE <sup>d</sup> farm or ranch workers, including paid family members and office workers, who –  |                          |                      |
| a. Worked less than 150 days on this operation in 2017? Exclude contract labor . . . . . 0941   | <input type="checkbox"/> | <input type="text"/> |
| b. Worked 150 days or more on this operation in 2017? Exclude contract labor . . . . . 0942   | <input type="checkbox"/> | <input type="text"/> |
| 2. What was the number of UNPAID farm or ranch workers, including family members and office workers, who worked on this farm or ranch? . . . . . 3401   | <input type="checkbox"/> | <input type="text"/> |
| 3. What was the number of foreign and domestic MIGRANT workers on this operation in 2017? A migrant worker is a farm worker whose employment required travel that prevented the migrant worker from returning to his/her permanent place of residence the same day. Include hired and contract workers . . . . . 3402 | <input type="checkbox"/> | <input type="text"/> |





**SECTION 30 PRODUCTION EXPENSES**

Report total production expenses paid by this operation in 2017.

**INCLUDE**

- expenses paid by you and your landlords
- expenses connected with performing customwork for others

**EXCLUDE**

- expenses not related to the farm business
- any expenses paid by the contractor

**EXPENSES PAID BY THIS OPERATION AND ITS LANDLORD(S)**

|     |   | Mark "X" if None              | Dollars |
|-----|---|-------------------------------|---------|
| 1.  | Fertilizer, lime, and soil conditioners purchased. Include rock phosphate, gypsum, manure purchased, potting soil, growing media, and other organic materials. Include the cost of any custom application . . . . .   | 1501 <input type="checkbox"/> | \$ .00  |
| 2.  | Chemicals purchased such as insecticides, herbicides, fungicides, other pesticides, etc. Include the cost of custom application . . . . .   | 1502 <input type="checkbox"/> | \$ .00  |
| 3.  | Seeds, plants, vines, trees, etc. purchased. Include technology or other fees, seed treatments, and seed cleaning cost. Exclude items purchased for resale without additional growth . . . . .  | 1503 <input type="checkbox"/> | \$ .00  |
| a.  | Of the total in item 3, how much was for cover crop seed? . . . . .   | 2753 <input type="checkbox"/> | \$ .00  |
| 4.  | Breeding livestock purchased or leased, regardless of age. Include dairy cattle . . . . .   | 1504 <input type="checkbox"/> | \$ .00  |
| 5.  | All other livestock and poultry purchased or leased. Include stocker and feeder cattle, calves, sheep, lambs, feeder pigs, chicks, pullets, poult, horses, fish, goats, bee colonies, etc. Include livestock leasing expense . . . . .  | 1505 <input type="checkbox"/> | \$ .00  |
| 6.  | Feed purchased for livestock and poultry. Include grain, hay, silage, mixed feeds, concentrates, supplements, premixes, etc. . . . .  | 1506 <input type="checkbox"/> | \$ .00  |
| 7.  | Gasoline, fuels, and oils purchased for the farm business. Include diesel, natural gas, LP gas, motor oil, grease, etc. . . . .   | 1507 <input type="checkbox"/> | \$ .00  |
| 8.  | Utilities purchased for the farm business. Include electricity, farm share of telephone, water purchased, etc. . . . .  | 1508 <input type="checkbox"/> | \$ .00  |
| 9.  | Repairs, supplies, and maintenance cost for the farm business. . . . .  | 1509 <input type="checkbox"/> | \$ .00  |
| 10. | Labor –   |                               |         |
| a.  | Hired farm and ranch labor. Include employer's cost for social security, worker's compensation, health and life insurance premiums, pension plans, etc. . . . .   | 1510 <input type="checkbox"/> | \$ .00  |
| b.  | Contract labor. Include expenses for labor, such as harvesting of fruit, vegetables, berries, etc. performed on a contract basis by a contractor, crew leader, etc. . . . .   | 1511 <input type="checkbox"/> | \$ .00  |
| 11. | Customwork and custom hauling, such as custom planting, harvesting, etc. and custom hauling of grain, livestock, milk, manure, etc. . . . .   | 1512 <input type="checkbox"/> | \$ .00  |
| 12. | Rent –  |                               |         |
| a.  | Cash rent paid in 2017 for land and buildings. Include grazing fees . . . . .   | 1513 <input type="checkbox"/> | \$ .00  |
| b.  | Rent and lease expenses for machinery, equipment, and farm share of vehicles. Exclude custom hire . . . . .   | 1514 <input type="checkbox"/> | \$ .00  |
| 13. | Interest paid on debts –  |                               |         |
| a.  | Secured by real estate. . . . .   | 1515 <input type="checkbox"/> | \$ .00  |
| b.  | Not secured by real estate. . . . .   | 1516 <input type="checkbox"/> | \$ .00  |
| 14. | Property taxes paid in 2017. Include farm real estate, machinery, livestock, etc. for the farm business. Exclude taxes paid by this operation's landlords. . . . .  | 1517 <input type="checkbox"/> | \$ .00  |
| 15. | Medical supplies, veterinary, and custom services for livestock. Include artificial insemination (AI), branding, breeding fees, caaponizing, castrating, custom feed processing, hormone injections, performance testing, pregnancy testing, seining, sheep shearing, etc. Exclude manure disposal. . . . . | 1935 <input type="checkbox"/> | \$ .00  |
| 16. | Other production expenses. Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes . . . . .   | 1518 <input type="checkbox"/> | \$ .00  |
| 17. | Total production expenses (add items 1-16) . . . . .  | 1936 <input type="checkbox"/> | \$ .00  |

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| SECTION 30 CONTINUED –  |      | Mark "X" if None         | Dollars |
|---|------|--------------------------|---------|
| 18. How much did your landlord(s) pay for the production expenses for this operation in 2017?   | 1519 | <input type="checkbox"/> | \$ .00  |
| 19. What was the value of your landlord's share of the total sales produced by this operation? Exclude cash rent.                           | 1349 | <input type="checkbox"/> | \$ .00  |
| 20. What was the total depreciation expense claimed by this operation in 2017 for all capital assets? Estimate 2017 from 2016 if necessary. | 1520 | <input type="checkbox"/> | \$ .00  |

| SECTION 31 MARKET VALUE OF LAND, BUILDINGS, MACHINERY, AND EQUIPMENT   |      | Mark "X" if None         | Estimated Market Value (Dollars) |
|--|------|--------------------------|----------------------------------|
| 1. Report your estimate of the <b>current market value</b> of land and buildings reported in SECTION 1.  |      |                          |                                  |
| a. All land and buildings owned  | 0996 | <input type="checkbox"/> | \$ .00                           |
| b. All land and buildings rented or leased from others.  | 0997 | <input type="checkbox"/> | \$ .00                           |
| c. All land and buildings rented or leased to others.  | 0998 | <input type="checkbox"/> | \$ .00                           |
| 2. What is your estimate of the <b>current value of all machinery, equipment, and implements</b> used for farm-related activities on this operation, regardless of ownership, on <b>December 31, 2017</b> ?  |      |                          |                                  |
|  | 0943 | <input type="checkbox"/> | \$ .00                           |
| <i>INCLUDE - the following if kept on this operation and used for this farm or ranch business in 2017.</i>   |      |                          |                                  |
| <ul style="list-style-type: none"> <li>• cars      • trucks      • tractors      • tools      • dairy equipment</li> <li>• combines      • plows      • disks      • harrows      • irrigation equipment</li> <li>• pumps      • motors      • tanks      • feeders      • grinding and mixing equipment, etc.</li> <li>• dryers      • computers</li> </ul> |      |                          |                                  |

| SECTION 32 INCOME FROM FARM-RELATED SOURCES   |      | Mark "X" if None         | Gross Dollars |
|---|------|--------------------------|---------------|
| Report the gross dollar amount received before taxes and expenses in 2017 for –   |      |                          |               |
| 1. Customwork and other agricultural services provided for farmers and others, such as plowing, planting, spraying, harvesting, preparation of products for market, etc. Exclude if customwork was an entirely separate business from your agricultural operation                         | 0992 | <input type="checkbox"/> | \$ .00        |
| 2. Payments received from cash rent or share payments from renting out farmland or payments from lease of allotments. Include payments for livestock pastured on a per-head basis, per-month basis, AUM basis, etc.   | 0993 | <input type="checkbox"/> | \$ .00        |
| 3. Sales of forest products. Include timber, firewood, etc. Exclude sales of Christmas trees, short rotation woody crops, and maple products  | 0994 | <input type="checkbox"/> | \$ .00        |
| 4. Agri-tourism and recreational services, such as farm tours, hay rides, hunting, fishing, etc.  | 1401 | <input type="checkbox"/> | \$ .00        |
| 5. Patronage dividends and refunds from cooperatives  | 1402 | <input type="checkbox"/> | \$ .00        |
| 6. Crop and livestock insurance payments received. Exclude payments received from casualty insurance, vehicle liability, blanket policies, and operator dwelling insurance  | 1404 | <input type="checkbox"/> | \$ .00        |
| 7. Other income which is closely related to the agricultural operation. Include renting and leasing farm machinery and trucks, renting and leasing of livestock, bee colony rental, animal boarding, state fuel tax refunds, farm-generated energy, etc. Specify <input type="checkbox"/> | 1433 | <input type="checkbox"/> | \$ .00        |

17100231



**SECTION 33 AGRICULTURAL ACTIVITY WITHIN THE BORDERS OF AMERICAN INDIAN RESERVATIONS, PUEBLOS, AND SERVICE AREAS**

1. Did this operation use any land for livestock or cropland within the borders of an American Indian Reservation, Pueblo, or Service Area at any time during 2017? Include owned, deeded, tribal, or allotted land.

1050 1  **Yes** - Complete this section      3  **No** - Go to SECTION 34

2. Enter the name and state of the American Indian Reservation, Pueblo, or Service Area where the agricultural activity occurred.

|   |       |
|---|-------|
| Reservation, Pueblo, or Service Area Name | State |
| 1051                                      | 1052  |

3. How many total acres did this operation use for livestock or cropland within this Reservation, Pueblo, or Service Area in 2017? Exclude land used on a per-head or animal unit month (AUM) basis . . . . . 1053

|                 |
|-----------------|
| Number of Acres |
| 1053            |
| 1054            |

a. How many of these acres were harvested cropland? . . . . . 1054

4. In 2017, did this operation have any livestock within the borders of an American Indian Reservation, Pueblo, or Service Area? Include livestock on land used on a per-head or animal unit month (AUM) basis.

1056 1  **Yes** - Continue      3  **No** - Go to SECTION 34

a. On **December 31, 2017**, what percent of this operation's livestock was on this Reservation, Pueblo, or Service Area?

1057 1  None      3  26 - 50 percent      5  76 - 99 percent  
 2  1 - 25 percent      4  51 - 75 percent      6  100 percent (all livestock)

**SECTION 34 CONCLUSION**

1. Is it possible that the agricultural activity information reported for this operation could also be reported by another operation?

1080 1  **Yes** - Provide the other name and address below      3  **No** - Go to item 2

|                         |                |
|-------------------------|----------------|
| Possible Duplicate Name | Address        |
| 1081                    | 1082           |
| City                    | State      Zip |
| 1083                    | 1084      1085 |

2. Do you (the individual named on the label) make any day-to-day decisions for **another** farm or ranch? It is important that the Census of Agriculture accurately accounts for all of your farm or ranch operations.

1086 1  **Yes** - Enter the information of the additional farm or ranch below      3  **No** - Go to item 3

|                          |                            |
|--------------------------|----------------------------|
| Additional Farm or Ranch | Area Code and Phone Number |
| 1088                     | 1089                       |

a. Did you receive a 2017 Census of Agriculture report form for this additional farm or ranch?

1087 1  **Yes**      3  **No**

b. Did you include all data from this additional farm or ranch on THIS REPORT? Do not make changes to the data in this report, regardless of your answer.

1091 1  **Yes**      3  **No**

3. Return your form in the envelope provided. **Thank you** for your participation.



# PUERTO RICO 2018 CENSUS OF AGRICULTURE

Form Number: 18-A101(PR)  
(06/04/2018) Draft 4



18-A101(PR)



National Agricultural  
Statistics Service

Return your completed  
report to:

Census of Agriculture  
1201 East 10th Street  
Jeffersonville, IN 47132

**OFFICE USE ONLY**

|      |      |      |
|------|------|------|
| 0011 | 0012 | 0013 |
|      |      |      |
| 0014 | 0015 | 0016 |
|      |      |      |

Make corrections to name, address, and ZIP code if necessary.

- Complete your report form by mail or via **the Internet at [www.agcounts.usda.gov](http://www.agcounts.usda.gov)**
  - To fill out the form, use a black or blue ballpoint pen.
  - Duplicate form? If you received extra census report forms for the SAME farming operation, return all report forms in the same envelope with this completed report.
  - Special Situations?
    - Form does not apply to you
    - Partial year operations
    - No longer farming
    - Never farmed
    - Involved in more than one operation
- } Refer to the detailed instructions  
in the enclosed Instruction Sheet.

**THANK YOU FOR YOUR COOPERATION.**  
Questions? Call us toll free at 1-866-716-5655.

NOTICE: The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response to this survey is required by law.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

18102012



**SECTION 1 CUERDAS IN 2018**

Report land owned, rented, or used by you, your spouse, or by the partnership, corporation, or organization named on the front of this form. Include ALL LAND REGARDLESS OF LOCATION OR USE - cropland, pastureland, rangeland, woodland, idle land, farmsteads, etc.

NOTE: When reporting part of a cuerda, do it in whole numbers under Hundredths never in fractions or decimals.  
Example: Hundredths 05, 10, 25, 75, 95.

|  |                          |      |               |            |
|--|--------------------------|------|---------------|------------|
|  | None                     |      | Whole Cuerdas | Hundredths |
| 1. All land owned .....  | <input type="checkbox"/> | 0043 |               |            |
| 2. All land rented or leased <b>from others</b>  |                          |      |               |            |
| <u>INCLUDE</u>   |                          |      |               |            |
| • land worked by you on shares   |                          |      |               |            |
| • land used rent free in exchange for services, payment of taxes, etc.   |                          |      |               |            |
| • land rented or leased by you for cash  |                          |      |               |            |
| • Land Authority land leased on a per-cuerdas basis .....  |                          |      |               |            |
|  | <input type="checkbox"/> | 0044 |               |            |
| 3. All land rented or leased <b>to others</b>  |                          |      |               |            |
| <u>INCLUDE</u>   |                          |      |               |            |
| • land worked on shares by others  |                          |      |               |            |
| • land subleased   |                          |      |               |            |
| • land rented or leased to others for cash   |                          |      |               |            |
| • land rented free in exchange for services, payment of taxes, etc.  |                          |      |               |            |
| <u>EXCLUDE</u>   |                          |      |               |            |
| • cuerdas rented or leased to others part of the year .....  |                          |      |               |            |
|  | <input type="checkbox"/> | 0045 |               |            |
| 4. <b>TOTAL CUERDAS IN THIS OPERATION FOR THIS CENSUS REPORT</b> - Add Items 1 and 2, then subtract Item 3. If the entry is zero, please refer to the enclosed Instruction Sheet, Section 1. |                          |      |               |            |
| These cuerdas are referred to as <b>THIS OPERATION</b>   |                          |      | →             |            |
| for the remainder of this report .....   |                          |      | 0046          |            |

5. If you rented land TO OTHERS (Item 3), enter the following information for each renter. List additional renters on a separate sheet of paper.

| Name of Renter | Mailing Address (Include ZIP Code) | Whole Cuerdas | Hundredths |
|----------------|------------------------------------|---------------|------------|
| 3010           | 3011                               | 0056          |            |
| 3012           | 3013                               | 0057          |            |
| 3014           | 3015                               | 0058          |            |

6. Location of agricultural activity for this operation:

a. In what barrio and municipio was the largest value of your agricultural products raised or produced?

| Barrio | Municipio | Whole Cuerdas | Hundredths |
|--------|-----------|---------------|------------|
| 3021   | 3025      | 0065          |            |

b. If you also had agricultural activity in any OTHER municipio, enter the barrio and municipio name(s).

| Barrio | Municipio | Whole Cuerdas | Hundredths |
|--------|-----------|---------------|------------|
| 3022   | 3026      | 0066          |            |
| 3023   | 3027      | 0067          |            |
| 3024   | 3028      | 0068          |            |



**SECTION 2 LAND USE**

Report how the cuerdas reported in this operation were used in 2018. The purpose of this section is to distribute all land on this operation among Items 1 through 4 below according to the way it was used last year.

NOTE: For Items 1 to 4 below, if land was used for more than one purpose during 2018, report it only in the FIRST land use listed below that applies.

1. CROPLAND

|   | None                     | Whole Cuerdas | Hundredths |
|---|--------------------------|---------------|------------|
| a. Cropland harvested - Include all land from which crops were harvested or hay was cut, all land in orchards, citrus groves, nursery and greenhouse crops. . . . . 0271    | <input type="checkbox"/> |               |            |
| b. Cropland used only for pasture or grazing - Include rotation pasture and grazing land that could have been used for crops without additional improvements . . . . . 0272 | <input type="checkbox"/> |               |            |
| c. Cropland used for cover crops, legumes, or soil-improvement but NOT harvested and NOT pastured or grazed . . . . . 0273  | <input type="checkbox"/> |               |            |
| d. Cropland in which all crops failed - Exclude land in orchards on which the crops failed. Such land is to be reported in Item 1a. . . . . 0274                            | <input type="checkbox"/> |               |            |
| e. Cropland idle . . . . . 0275   | <input type="checkbox"/> |               |            |
| 2. Pastureland and rangeland - Include any pastureland other than cropland and woodland . . . . . 0276  | <input type="checkbox"/> |               |            |
| 3. Woodland, forest, and underbrush that cannot be used for cultivation or pasture. . . . . 0277  | <input type="checkbox"/> |               |            |
| 4. All other land - Include land in house lots, buildings, ponds, roads, wasteland, etc. . . . . 0278   | <input type="checkbox"/> |               |            |
| 5. TOTAL CUERDAS - Add the cuerdas reported in Items 1 through 4. <b>Total should be the same cuerdas as those reported in Section 1, Item 4</b> . . . . . 0279             | <input type="checkbox"/> |               |            |

|   | None                     | Whole Cuerdas | Hundredths |
|---|--------------------------|---------------|------------|
| a. Land located on an Agricultural Reserve . . . . . 2280 | <input type="checkbox"/> |               |            |

**SECTION 3 IRRIGATION**

1. Were any of the cuerdas on this operation irrigated at any time in 2018? Exclude hydroponic crops.

0003 1  **Yes** - Complete this section      3  **No** - Go to Section 4

2. **Principal type** of irrigation used - Mark (X) only one

0282 1  Gravity      2  Drip      3  Sprinkle      4  Other

3. Quantity of water used for irrigation in 2018 (Report in gallons **OR** cubic meters)

0900  Gallons      0909  Cubic Meters

4. Cuerdas irrigated from a PUBLIC system . . . . . 0280

5. Cuerdas irrigated from a PRIVATE system . . . . . 0281

a. **PRINCIPAL SOURCE** of water from PRIVATE SYSTEM - Mark (X) only one

0283 1  Well      2  River or stream      3  Lake or private pond  
 4  Canal      5  Oxidation Pond      6  Other, specify:

| Cuerdas Irrigated |            |
|-------------------|------------|
| Whole Cuerdas     | Hundredths |
|                   |            |
|                   |            |

18102038



| SECTION 4   |                          | FIELD CROPS           |            |                                    |            |                          |
|---|--------------------------|-----------------------|------------|------------------------------------|------------|--------------------------|
| 1. Were any field crops, such as beans, corn, etc., harvested and sold from this operation in 2018?<br>0004 1 <input type="checkbox"/> <b>Yes</b> - Complete this section.      3 <input type="checkbox"/> <b>No</b> - Go to Section 5.   |                          |                       |            |                                    |            |                          |
| 2. What were the land area used for these crops in 2018? Report cuerdas only once, even if you grew more than one crop on the same land. . . . . 0105   |                          | All Cuerdas Harvested |            | Cuerdas Harvested Under Irrigation |            |                          |
|   |                          | Whole Cuerdas         | Hundredths | Whole Cuerdas                      | Hundredths |                          |
|   |                          |                       |            |                                    |            |                          |
| 3. Report the area harvested, quantity harvested, and the value of sales for each of the field crops below. If you used the same land for more than one crop, report the area harvested for each crop. The sum of the cuerdas below may exceed the cuerdas reported in Item 2, above. |                          |                       |            |                                    |            |                          |
| Crop  | None                     | Cuerdas Harvested     |            | Quantity Harvested                 | Unit       | Value of Sales (Dollars) |
|   |                          | Whole Cuerdas         | Hundredths |                                    |            |                          |
| Corn (for seed)   | <input type="checkbox"/> | 0196                  |            | 0197                               | Lbs        | 3197<br>\$ .00           |
| Cotton (for seed)   | <input type="checkbox"/> | 4091                  |            | 4092                               | Lbs        | 4093<br>\$ .00           |
| Dry beans   | <input type="checkbox"/> | 0192                  |            | 0193                               | Lbs        | 3193<br>\$ .00           |
| Green beans   | <input type="checkbox"/> | 0194                  |            | 0195                               | Lbs        | 3195<br>\$ .00           |
| Pigeon peas   | <input type="checkbox"/> | 0190                  |            | 0191                               | Lbs        | 3191<br>\$ .00           |
| Rice  | <input type="checkbox"/> | 0186                  |            | 0187                               | Lbs        | 3187<br>\$ .00           |
| Rice seeds  | <input type="checkbox"/> | 1186                  |            | 1187                               | Lbs        | 1188<br>\$ .00           |
| Soybeans  | <input type="checkbox"/> | 0188                  |            | 0189                               | Lbs        | 3189<br>\$ .00           |
| Sugarcane for sugar   | <input type="checkbox"/> | 0722                  |            | 0723                               | Tons       | 3724<br>\$ .00           |
| Sunflower seeds   | <input type="checkbox"/> | 0734                  |            | 0735                               | Lbs        | 0736<br>\$ .00           |
| Wheat (for grain or seed)   | <input type="checkbox"/> | 0073                  |            | 0074                               | Lbs        | 0075<br>\$ .00           |
| Other - specify:  |                          |                       |            |                                    |            |                          |
| 0511  | <input type="checkbox"/> | 0198                  |            | 0199                               | Lbs        | 3199<br>\$ .00           |
| 4136  | <input type="checkbox"/> | 4137                  |            | 4138                               | Lbs        | 4139<br>\$ .00           |



**SECTION 5 BANANAS, COFFEE, PINEAPPLES, AND PLANTAINS**

1. Were any bananas, coffee, pineapples, or plantains harvested for sale from this operation in 2018? Report citrus trees used for shade in Section 10.

0005 1  **Yes** - Complete this section. 3  **No** - Go to SECTION 6.

2. What were the land area used for these crops in 2018? Report cuerdas only once, even if you grew more than one crop on the same land. . . . . 0081

| All Cuerdas Harvested |            | Cuerdas Harvested Under Irrigation |            |
|-----------------------|------------|------------------------------------|------------|
| Whole Cuerdas         | Hundredths | Whole Cuerdas                      | Hundredths |
|                       |            |                                    |            |

0082

3. Report quantities harvested for sale using the specified units listed.

| Crop                  | None                     | Number of Trees or Plants of |             | Area Planted  |            | Quantity Harvested | Unit   | Value of Sales (Dollars) |
|-----------------------|--------------------------|------------------------------|-------------|---------------|------------|--------------------|--------|--------------------------|
|                       |                          | Nonbearing Age               | Bearing Age | Whole Cuerdas | Hundredths |                    |        |                          |
| Coffee grown in shade | <input type="checkbox"/> | 0085                         | 0086        | 0087          |            | 0088               | QQ     | 3088                     |
|                       |                          |                              |             |               |            |                    |        | \$ .00                   |
| Coffee grown in open  | <input type="checkbox"/> | 0089                         | 0090        | 0091          |            | 0092               | QQ     | 3092                     |
|                       |                          |                              |             |               |            |                    |        | \$ .00                   |
| Pineapples            | <input type="checkbox"/> | 0093                         | 0094        | 0095          |            | 0096               | Tons   | 3096                     |
|                       |                          |                              |             |               |            |                    |        | \$ .00                   |
| Plantains             | <input type="checkbox"/> | 0097                         | 0098        | 0099          |            | 0100               | Thsnds | 3100                     |
|                       |                          |                              |             |               |            |                    |        | \$ .00                   |
| Bananas               | <input type="checkbox"/> | 0101                         | 0102        | 0103          |            | 0104               | Thsnds | 3104                     |
|                       |                          |                              |             |               |            |                    |        | \$ .00                   |





**SECTION 6 HAY AND FORAGE CROPS**

1. Were any hay or forage crops harvested from this operation in 2018? Include grasses harvested to feed your own livestock.

0006 1  **Yes** - Complete this section. 3  **No** - Go to Section 7.

2. All land from which dry hay, haylage, grass silage, or greenchop was cut or forage was harvested in 2018 . . . . . 0904

| All Cuerdas Harvested |            | Cuerdas Harvested Under Irrigation |            |
|-----------------------|------------|------------------------------------|------------|
| Whole Cuerdas         | Hundredths | Whole Cuerdas                      | Hundredths |
|                       |            |                                    |            |

3. Report information for dry hay harvested from each of the grasses listed below, including the area harvested, pounds harvested, and the irrigated area harvested. If both dry hay and silage were cut from the same cuerdas, report the cuerdas and pounds of dry hay harvested for the appropriate grass variety and also report the cuerdas and pounds of silage in line 12, "Haylage or greenchop." If two or more cuttings were made from the same cuerdas, report cuerdas for that item only once, but report the total quantity harvested from all cuttings.

| Crop  | None                     | Cuerdas Harvested |            | Pounds Harvested |     | Pounds used or to be used on this operation for feed, seed, etc |     |
|---|--------------------------|-------------------|------------|------------------|-----|---|-----|
|   |                          | Whole Cuerdas     | Hundredths |                  | Lbs |   | Lbs |
| 4. Paragrass dry hay  | <input type="checkbox"/> | 0249              |            | 0906             |     | 1907  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 5. Guinea grass dry hay   | <input type="checkbox"/> | 0250              |            | 0908             |     | 1909  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 6. Merker grass dry hay   | <input type="checkbox"/> | 0251              |            | 0910             |     | 1911  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 7. Pangola grass dry hay  | <input type="checkbox"/> | 0252              |            | 0912             |     | 1913  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 8. Star grass dry hay   | <input type="checkbox"/> | 0253              |            | 0914             |     | 1915  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 9. Pajón grass dry hay  | <input type="checkbox"/> | 0916              |            | 0917             |     | 1918  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 10. Maralfalfa dry hay  | <input type="checkbox"/> | 1901              |            | 1902             |     | 1903  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 11. Other dry hay   | <input type="checkbox"/> | 0254              |            | 0919             |     | 1920  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 12. Haylage or greenchop - Include any of the varieties listed above which were harvested green | <input type="checkbox"/> | 0255              |            | 0918             |     | 1919  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |
| 13. All other silage - Include silage from corn and sorghum                                     | <input type="checkbox"/> | 0267              |            | 0920             |     | 1930  |     |
|   |                          |                   |            |                  | Lbs |   | Lbs |

14. Report gross value of hay and forage sold from this operation in 2018. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts. If all hay and forage crops produced on this place were used to feed livestock on this place, please check the "None" box . . . . . 0264

None  Value of Sales (Dollars)

\$  .00



**SECTION 7 NURSERY, GREENHOUSE, FLORICULTURE, SOD, AND TREE SEEDLINGS**

1. Were any nursery, floriculture, or greenhouse crops, including ornamental plants, flowers, aquatic plants, sod, food crops under protection, vegetable seeds, or flower seeds, grown for sale on this operation in 2018?

0007 1  **Yes** - Complete this section. 3  **No** - Go to Section 8.

2. What was the total and irrigated area used for growing nursery, greenhouse, and floriculture crops? . . . . .

| Total Area                                  |                  |         | Irrigated Area                              |                  |         |
|---|------------------|---------|---|------------------|---------|
| Square Feet Under Glass or Other Protection | Area in the Open |         | Square Feet Under Glass or Other Protection | Area in the Open |         |
|   | Whole Cuerdas    | Hndrths |   | Whole Cuerdas    | Hndrths |
| 1921  | 1922             |         | 0921  | 0922             |         |
|   |                  |         |   |                  |         |

3. Report the area harvested, quantity harvested, and the value of sales for each of the field crops below. If you used the same land for more than one crop, report the area harvested for each crop. The sum of the cuerdas below may exceed the cuerdas reported in Item 2, above.

| Crop  | None                     | Square Feet Under Glass or Other Protection | Open Field    |         | Value of Sales (Dollars) |        |
|---|--------------------------|---|---------------|---------|--------------------------|--------|
|   |                          |   | Whole Cuerdas | Hndrths |                          |        |
| Lawn grass (sod)  | <input type="checkbox"/> |   | 0217          |         | 0218                     | \$ .00 |
| Foliage plants  | <input type="checkbox"/> | 0222  | 0223          |         | 0224                     | \$ .00 |
| Orchid plants   | <input type="checkbox"/> | 0231  | 0232          |         | 0233                     | \$ .00 |
| Poinsettias   | <input type="checkbox"/> | 0815  | 0816          |         | 0817                     | \$ .00 |
| Potted flowering plants - Exclude orchids and poinsettias | <input type="checkbox"/> | 0225  | 0226          |         | 0227                     | \$ .00 |
| Bulbs and roots - Exclude bulb flowering plants           | <input type="checkbox"/> | 0234  | 0235          |         | 0236                     | \$ .00 |
| Cut flowers - Exclude orchids                             | <input type="checkbox"/> | 0237  | 0238          |         | 0239                     | \$ .00 |
| Orchids (cut flowers)                                     | <input type="checkbox"/> | 0240  | 0241          |         | 0242                     | \$ .00 |
| Bedding plants - Include vegetable plants                 | <input type="checkbox"/> | 0219  | 0220          |         | 0221                     | \$ .00 |
| Fruit bearing tree seedlings (coffee, citrus, etc.)       | <input type="checkbox"/> | 0923  | 0924          |         | 0925                     | \$ .00 |
| Ornamental tree seedlings                                 | <input type="checkbox"/> | 0844  | 0845          |         | 0846                     | \$ .00 |
| Palm trees  | <input type="checkbox"/> | 0812  | 0813          |         | 0814                     | \$ .00 |
| Other nursery crops - Exclude hydroponics. Specify -      |                          |   |               |         |                          |        |
| 0512  | <input type="checkbox"/> | 0818  | 0819          |         | 0820                     | \$ .00 |
| 0847  | <input type="checkbox"/> | 0848  | 0849          |         | 0850                     | \$ .00 |
| 0851  | <input type="checkbox"/> | 0852  | 0853          |         | 0854                     | \$ .00 |



**SECTION 8 VEGETABLES AND MELONS**

1. Were any vegetables and/or melons harvested and sold from this operation in 2018? Include your landlord's share and crops grown under contract. Exclude hydroponics.

0008 1  **Yes** - Complete this section. 3  **No** - Go to Section 9.

2. What were the total land area used for vegetables and melons in 2018? Report cuerdas only once, even if you grew more than one crop on the same land. . . . . 0926

| All Cuerdas Harvested |         | Cuerdas Harvested Under Irrigation |         |
|-----------------------|---------|------------------------------------|---------|
| Whole Cuerdas         | Hndrths | Whole Cuerdas                      | Hndrths |
|                       |         |                                    |         |

3. Report the area harvested, quantity harvested, and the value of sales for each of the field crops below. If you used the same land for more than one crop, report the area harvested for each crop. The sum of the cuerdas below may exceed the cuerdas reported in Item 2, above.

| Crop  | None                     | Cuerdas Harvested |         | Pounds Harvested |  |     | Value of Sales (Dollars) |        |  |
|---|--------------------------|-------------------|---------|------------------|--|-----|--------------------------|--------|--|
|   |                          | Whole Cuerdas     | Hndrths |                  |  |     |                          |        |  |
| Tomatoes  | <input type="checkbox"/> | 0153              |         | 0154             |  | Lbs | 3154                     | \$ .00 |  |
| Cucumbers   | <input type="checkbox"/> | 0155              |         | 0156             |  | Lbs | 3156                     | \$ .00 |  |
| String beans  | <input type="checkbox"/> | 0157              |         | 0158             |  | Lbs | 3158                     | \$ .00 |  |
| Lettuce   | <input type="checkbox"/> | 0159              |         | 0160             |  | Lbs | 3160                     | \$ .00 |  |
| Onions  | <input type="checkbox"/> | 0161              |         | 0162             |  | Lbs | 3162                     | \$ .00 |  |
| Coriander and spiny coriander                           | <input type="checkbox"/> | 3400              |         | 3403             |  | Lbs | 3405                     | \$ .00 |  |
| Herbs   | <input type="checkbox"/> | 0163              |         | 0164             |  | Lbs | 3164                     | \$ .00 |  |
| Aromatic plants - Exclude coriander and spiny coriander | <input type="checkbox"/> | 0228              |         | 0229             |  | Lbs | 3229                     | \$ .00 |  |
| Peppers, hot  | <input type="checkbox"/> | 0165              |         | 0166             |  | Lbs | 3166                     | \$ .00 |  |
| Cabbage   | <input type="checkbox"/> | 0167              |         | 0168             |  | Lbs | 3168                     | \$ .00 |  |
| Eggplant  | <input type="checkbox"/> | 0169              |         | 0170             |  | Lbs | 3170                     | \$ .00 |  |
| Pumpkins  | <input type="checkbox"/> | 0171              |         | 0172             |  | Lbs | 3172                     | \$ .00 |  |
| Peppers, sweet  | <input type="checkbox"/> | 0173              |         | 0174             |  | Lbs | 3174                     | \$ .00 |  |
| Sweet, corn   | <input type="checkbox"/> | 0181              |         | 0182             |  | Lbs | 3182                     | \$ .00 |  |
| Watermelons   | <input type="checkbox"/> | 0175              |         | 0176             |  | Lbs | 3176                     | \$ .00 |  |
| Honeydew melons   | <input type="checkbox"/> | 0177              |         | 0178             |  | Lbs | 3178                     | \$ .00 |  |
| Cantaloupes   | <input type="checkbox"/> | 0179              |         | 0180             |  | Lbs | 3180                     | \$ .00 |  |
| Squash  | <input type="checkbox"/> | 0265              |         | 0266             |  | Lbs | 3266                     | \$ .00 |  |
| Other - specify:  |                          |                   |         |                  |  |     |                          |        |  |
| 0513  | <input type="checkbox"/> | 0183              |         | 0184             |  | Lbs | 3184                     | \$ .00 |  |
| 3407  | <input type="checkbox"/> | 3408              |         | 3409             |  | Lbs | 3410                     | \$ .00 |  |
| 3412  | <input type="checkbox"/> | 3413              |         | 3414             |  | Lbs | 3415                     | \$ .00 |  |



**SECTION 9 HYDROPONIC CROPS**

1. Were any hydroponic crops such as tomatoes, cucumbers, lettuce, or herbs harvested for sale on this operation in 2018?

0009 1  **Yes** - Complete this section. 3  **No** - Go to Section 10.

2. What was the total area, in square feet, used for the cultivation of hydroponic crops in 2018? .....0799

| Square Feet |
|-------------|
|             |

3. Report the number of square feet used and the quantity harvested for sale for each of the crops listed below.

| Crop  | None                     | Area in Square Feet | Pounds Harvested for Sale |
|---|--------------------------|---------------------|---------------------------|
| Tomatoes  | <input type="checkbox"/> | 0800                | 0801                      |
| Cucumbers   | <input type="checkbox"/> | 0802                | 0803                      |
| Lettuce   | <input type="checkbox"/> | 0804                | 0805                      |
| Coriander and spiny coriander                           | <input type="checkbox"/> | 3425                | 3426                      |
| Herbs   | <input type="checkbox"/> | 0806                | 0807                      |
| Aromatic plants - Exclude coriander and spiny coriander | <input type="checkbox"/> | 0808                | 0809                      |
| Peppers   | <input type="checkbox"/> | 0838                | 0839                      |
| 0514  | <input type="checkbox"/> | 0810                | 0811                      |
| Other - Specify →                                       | <input type="checkbox"/> |                     |                           |
| 3430  | <input type="checkbox"/> | 3431                | 3432                      |
| Other - Specify →                                       | <input type="checkbox"/> |                     |                           |
| 3435  | <input type="checkbox"/> | 3436                | 3437                      |
| Other - Specify →                                       | <input type="checkbox"/> |                     |                           |

4. What was the total value of sales of hydroponic crops produced and sold from this operation in 2018? ..... 0875

|                          |            |
|--------------------------|------------|
| None                     | Dollars    |
| <input type="checkbox"/> | \$ .....00 |



| <b>SECTION 10 FRUIT</b>   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
|---|--------------------------|------------------------------|-------------|--|---------------|---------|--|--------------------|------|--------------------------|------|----|--|-------------|--|---------------|---------|--|--|-------------------|--|---------------|---------|--|--|
| 1. Was there a combined total of ten or more fruit trees, including palm trees, on this operation in 2018?<br>0010 <input type="checkbox"/> <b>Yes</b> - Complete this section.      3 <input type="checkbox"/> <b>No</b> - Go to Section 11.   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><th colspan="2">All Cuerdas</th></tr> <tr><th>Whole Cuerdas</th><th>Hndrths</th></tr> <tr><td style="width: 50px; height: 20px;"></td><td style="width: 50px; height: 20px;"></td></tr> </table> <table border="1" style="display: inline-table;"> <tr><th colspan="2">Cuerdas Irrigated</th></tr> <tr><th>Whole Cuerdas</th><th>Hndrths</th></tr> <tr><td style="width: 50px; height: 20px;"></td><td style="width: 50px; height: 20px;"></td></tr> </table> |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  | All Cuerdas |  | Whole Cuerdas | Hndrths |  |  | Cuerdas Irrigated |  | Whole Cuerdas | Hndrths |  |  |
| All Cuerdas   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| Whole Cuerdas   | Hndrths                  |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
|   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| Cuerdas Irrigated   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| Whole Cuerdas   | Hndrths                  |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
|   |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| 2. What were the land area planted in bearing and nonbearing fruit trees in 2018? . . . . . 0107 <span style="float: right;">0928</span>  |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| 3. Report quantities below using the specified units listed.  |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| Crop  | None                     | Number of Trees or Plants of |             |  | Area Planted  |         |  | Quantity Harvested | Unit | Value of Sales (Dollars) |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
|   |                          | Nonbearing age               | Bearing age |  | Whole Cuerdas | Hndrths |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| Coconuts  | <input type="checkbox"/> | 0108                         | 0109        |  | 0110          |         |  | 0111               |      | Hndrds                   | 3111 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Grapefruits   | <input type="checkbox"/> | 0112                         | 0113        |  | 0114          |         |  | 0115               |      | Hndrds                   | 3115 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Oranges   | <input type="checkbox"/> | 0116                         | 0117        |  | 0118          |         |  | 0119               |      | Hndrds                   | 3119 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Chironjas   | <input type="checkbox"/> | 0929                         | 0930        |  | 0931          |         |  | 0932               |      | Hndrds                   | 3932 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Cidras  | <input type="checkbox"/> | 0132                         | 0133        |  | 0134          |         |  | 0135               |      | Hndrds                   | 3135 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Avocados  | <input type="checkbox"/> | 0120                         | 0121        |  | 0122          |         |  | 0123               |      | Hndrds                   | 3123 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Breadfruit  | <input type="checkbox"/> | 3440                         | 3441        |  | 3442          |         |  | 3443               |      | Hndrds                   | 3444 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Mangos  | <input type="checkbox"/> | 0124                         | 0125        |  | 0126          |         |  | 0127               |      | Hndrds                   | 3127 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Soursop   | <input type="checkbox"/> | 0128                         | 0129        |  | 0130          |         |  | 0131               |      | Lbs                      | 3131 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Papayas   | <input type="checkbox"/> | 0136                         | 0137        |  | 0138          |         |  | 0139               |      | Lbs                      | 3139 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Passion Fruit   | <input type="checkbox"/> | 0140                         | 0141        |  | 0142          |         |  | 0143               |      | Lbs                      | 3143 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Quenepas  | <input type="checkbox"/> | 0933                         | 0934        |  | 0935          |         |  | 0936               |      | Lbs                      | 3936 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Lemons and limes  | <input type="checkbox"/> | 0144                         | 0145        |  | 0146          |         |  | 0147               |      | Hndrds                   | 3147 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Starfruit   | <input type="checkbox"/> | 0244                         | 0245        |  | 0246          |         |  | 0247               |      | Hndrds                   | 3247 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| Other - Specify:  |                          |                              |             |  |               |         |  |                    |      |                          |      |    |  |             |  |               |         |  |  |                   |  |               |         |  |  |
| 0515  | <input type="checkbox"/> | 0148                         | 0149        |  | 0150          |         |  | 0151               |      | Lbs                      | 3151 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| 3460  | <input type="checkbox"/> | 3461                         | 3462        |  | 3463          |         |  | 3464               |      | Lbs                      | 3465 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| 3470  | <input type="checkbox"/> | 3471                         | 3472        |  | 3473          |         |  | 3474               |      | Lbs                      | 3475 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |
| 3480  | <input type="checkbox"/> | 3481                         | 3482        |  | 3483          |         |  | 3484               |      | Lbs                      | 3485 | \$ |  | .00         |  |               |         |  |  |                   |  |               |         |  |  |

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**SECTION 11 ROOT CROPS**

1. Were any root harvested and sold from this operation in 2018?

0021 1  **Yes** - Complete this section. 3  **No** - Go to Section 12.

2. What was the land area used for root crops in 2018? Report cuerdas only once, even if you grew more than one crop on the same land . . . . . 0937

| All Root Crop Cuerdas Harvested |         |
|---------------------------------|---------|
| Whole Cuerdas                   | Hndrths |
|                                 |         |

| Root Crop Cuerdas Harvested Under Irrigation |         |
|--|---------|
| Whole Cuerdas                                | Hndrths |
|  |         |

3. Report the area harvested, quantity harvested, and the value of sales for each of the root crops below. If you used the same land for more than one crop, report the area harvested for each crop. The sum of the cuerdas below may exceed the cuerdas reported in Item 2, above.

| Crop             | None                     | Cuerdas Harvested |         | Quantity Harvested (Hundredweights) |     | Value of Sales (Dollars) |
|------------------|--------------------------|-------------------|---------|-------------------------------------|-----|--------------------------|
|                  |                          | Whole Cuerdas     | Hndrths |                                     |     |                          |
| Dasheens         | <input type="checkbox"/> | 0202              |         | 0203                                | cwt | 3203<br>\$ .00           |
| Cassava          | <input type="checkbox"/> | 0204              |         | 0205                                | cwt | 3205<br>\$ .00           |
| Root celery      | <input type="checkbox"/> | 0206              |         | 0207                                | cwt | 3207<br>\$ .00           |
| Sweet Potatoes   | <input type="checkbox"/> | 0208              |         | 0209                                | cwt | 3209<br>\$ .00           |
| Ginger root      | <input type="checkbox"/> | 0939              |         | 0940                                | cwt | 3940<br>\$ .00           |
| Yams             | <input type="checkbox"/> | 0210              |         | 0211                                | cwt | 3211<br>\$ .00           |
| Taniers          | <input type="checkbox"/> | 0212              |         | 0213                                | cwt | 3213<br>\$ .00           |
| Other - specify: |                          |                   |         |                                     |     |                          |
| 0516             | <input type="checkbox"/> | 0214              |         | 0215                                | cwt | 3215<br>\$ .00           |
| 0555             | <input type="checkbox"/> | 0556              |         | 0557                                | cwt | 3557<br>\$ .00           |
| 0558             | <input type="checkbox"/> | 0559              |         | 0560                                | cwt | 3560<br>\$ .00           |

18102111



**SECTION 12 CATTLE AND CALVES**

1. Did you or anyone else have any cattle or calves on this operation in 2018?

0022 1  **Yes** - Complete this section. 3  **No** - Go to Section 13.

DECEMBER 31, 2018 INVENTORY

|  |      | None                     | Number on<br>December 31, 2018 |
|--|------|--------------------------|--------------------------------|
| 2. Dairy cattle  |      |                          |                                |
| a. Cows - Include heifers that had calved. . . . .   | 0301 | <input type="checkbox"/> |                                |
| b. Heifers and calves . . . . .  | 0302 | <input type="checkbox"/> |                                |
| 3. Beef cattle   |      |                          |                                |
| a. Cows . . . . .  | 0303 | <input type="checkbox"/> |                                |
| b. Heifers and calves . . . . .  | 0304 | <input type="checkbox"/> |                                |
| 4. Other cattle - Include dairy cull animals, bulls, steers,<br>bull calves and steer calves . . . . . | 0305 | <input type="checkbox"/> |                                |
| 5. All cattle and calves (Sum of Items 2, 3, and 4 above) . . . . .                                    | 0300 | <input type="checkbox"/> |                                |

CATTLE AND CALVES SOLD FROM THIS OPERATION IN 2018

INCLUDE

- beef and dairy cattle for breeding stock
- fed cattle
- beef and dairy cull animals
- stockers and feeders
- veal calves, etc.

|  |      | None                     | Number Sold in 2018 | Value of Sales<br>(Dollars) |
|--|------|--------------------------|---------------------|-----------------------------|
| 6. Calves weighing less than 500 pounds. . . . . | 0306 | <input type="checkbox"/> |                     | \$ .00                      |
| 7. Cattle weighing 500 pounds or more . . . . .  | 0308 | <input type="checkbox"/> |                     | \$ .00                      |
| 8. Quarts of milk sold in 2018. . . . .          | 0310 | <input type="checkbox"/> |                     | \$ .00                      |



**SECTION 13 POULTRY**

1. Did you or anyone else have any poultry such as chickens, turkeys, ducks, fighting cocks, etc. on this operation in 2018?

0023 1  **Yes** - Complete this section. 3  **No** - Go to Section 14.

2. Chickens -

a. Layers -

i. Table egg layers - None  
Include layers of eggs for home use

ii. Hatching egg layers -  
Include all layers of eggs to be hatched

b. Pullets for laying flock replacement

c. Chickens raised for meat production. Include chicks hatched on this place

d. Fighting cocks

e. English hens

f. Yard chickens

3. Guineas

4. Turkeys

5. Ducks

6. Geese

7. Pigeons

8. All other poultry - Include peacocks, emus, etc. Specify:

0517

9. All poultry hatched on this operation's hatcheries in 2018. Include chicks, poults, ducklings, etc., and those custom hatched for others. Specify the kind of poultry below:

0518

2518

|      |                      | Number on this Operation December 31, 2018 | Total Number Sold or Moved from this Operation in 2018 | Value of Sales (Dollars) |                             |
|------|----------------------|--|--|--------------------------|-----------------------------|
| 0327 | <input type="text"/> | 0328                                       | <input type="text"/>                                   | 3328                     | \$ <input type="text"/> .00 |
| 0311 | <input type="text"/> | 0312                                       | <input type="text"/>                                   | 3312                     | \$ <input type="text"/> .00 |
| 0325 | <input type="text"/> | 0326                                       | <input type="text"/>                                   | 3326                     | \$ <input type="text"/> .00 |
| 0329 | <input type="text"/> | 0330                                       | <input type="text"/>                                   | 3330                     | \$ <input type="text"/> .00 |
| 0331 | <input type="text"/> | 0332                                       | <input type="text"/>                                   | 3332                     | \$ <input type="text"/> .00 |
| 0313 | <input type="text"/> | 0314                                       | <input type="text"/>                                   | 3314                     | \$ <input type="text"/> .00 |
| 0315 | <input type="text"/> | 0316                                       | <input type="text"/>                                   | 3316                     | \$ <input type="text"/> .00 |
| 0942 | <input type="text"/> | 0943                                       | <input type="text"/>                                   | 3943                     | \$ <input type="text"/> .00 |
| 0317 | <input type="text"/> | 0318                                       | <input type="text"/>                                   | 3318                     | \$ <input type="text"/> .00 |
| 0319 | <input type="text"/> | 0320                                       | <input type="text"/>                                   | 3320                     | \$ <input type="text"/> .00 |
| 0321 | <input type="text"/> | 0322                                       | <input type="text"/>                                   | 3322                     | \$ <input type="text"/> .00 |
| 0323 | <input type="text"/> | 0324                                       | <input type="text"/>                                   | 3324                     | \$ <input type="text"/> .00 |

| Number Hatched in 2018 |                      |
|------------------------|----------------------|
| 0337                   | <input type="text"/> |
| 2337                   | <input type="text"/> |

10. Chicken egg production -

a. Eggs for consumption  None 0338

b. Eggs for hatching  None 0339

| Total Number Sold or Moved from this Operation in 2018 | Value of Sales (Dollars)    |
|--|-----------------------------|
| 3338   | \$ <input type="text"/> .00 |
| 3339   | \$ <input type="text"/> .00 |

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**SECTION 14 HOGS AND PIGS**

1. Did you or anyone else have any hogs or pigs on this operation in 2018? Include hogs and pigs grown for others on a contract basis.

0024 1  **Yes** - Complete this section. 3  **No** - Go to Section 15.

|  | Number on this Operation<br>December 31, 2018 | Total Number Sold<br>or Moved from this<br>Operation in 2018 | Value of Sales<br>(Dollars) |
|--|---|--|-----------------------------|
| 2. Hogs and pigs for breeding –  | 0944  | 0945   | 3945                        |
| a. Sows and their replacements . . . . . <input type="checkbox"/>                            |   |  | \$ .00                      |
| b. Boars of all ages . . . . . <input type="checkbox"/>                                      | 0946  | 0947   | 3947                        |
|  |   |  | \$ .00                      |
| 3. Hogs and pigs for sale –  | 0948  | 0949   | 3949                        |
| a. Less than three months old . . . . . <input type="checkbox"/>                             |   |  | \$ .00                      |
| b. Three months and older . . . . . <input type="checkbox"/>                                 | 0950  | 0951   | 3951                        |
|  |   |  | \$ .00                      |
| 4. Total hogs and pigs on this operation December 31, 2018. . . . . <input type="checkbox"/> | 0285  |  |                             |

**SECTION 15 AQUACULTURE**

1. Did you or anyone else have any aquaculture on this operation in 2018?

0025 1  **Yes** - Complete this section. 3  **No** - Go to Section 16.

|  | Number | Cuerdas | Hndrths |
|--|--------|---------|---------|
| 2. How many in-ground ponds did you use and what was the total area of these ponds? . . . . . <input type="checkbox"/> | 0345   | 0346    |         |
| 3. How many above-ground tanks did you use? . . . . . <input type="checkbox"/>   | 0355   |         |         |
| 4. Enter the total of aquaculture products sold or moved from this operation and the value of sales for 2018.          |        |         |         |

| Aquaculture Type                      | None                     | Total Pounds Sold or Moved | Total Number Sold or Moved | Value of Sales (Dollars) |
|---------------------------------------|--------------------------|----------------------------|----------------------------|--------------------------|
| Tilapia                               | <input type="checkbox"/> | 0347                       |                            | 0348                     |
|                                       |                          |                            |                            | \$ .00                   |
| Shrimp                                | <input type="checkbox"/> | 0349                       |                            | 0350                     |
|                                       |                          |                            |                            | \$ .00                   |
| Crayfish                              | <input type="checkbox"/> | 0351                       |                            | 0352                     |
|                                       |                          |                            |                            | \$ .00                   |
| Other food fish - Specify:            | <input type="checkbox"/> | 0353                       | 0952                       | 0354                     |
| 0519                                  |                          |                            |                            | \$ .00                   |
| Ornamental fish                       | <input type="checkbox"/> |                            | 0953                       | 0954                     |
|                                       |                          |                            |                            | \$ .00                   |
| Other aquaculture products - Specify: | <input type="checkbox"/> |                            |                            | 0955                     |
| 0520                                  |                          |                            |                            | \$ .00                   |



**SECTION 16 OTHER ANIMALS AND LIVESTOCK PRODUCTS**

1. Did you or anyone else have any bees, horses, goats, rabbits, sheep, or any other livestock and/or sales of animal products from this operation in 2018?

0026 1  **Yes** - Complete this section. 3  **No** - Go to Section 17.

|                                      |                          | Number on this Operation<br>December 31, 2018 | Total Number Sold<br>or Moved from this<br>Operation in 2018 | Value of Sales<br>(Dollars) |
|--------------------------------------|--------------------------|---|--|-----------------------------|
| 2. Horses –                          | None                     | 0357  | 0358   | 3358                        |
| a. Paso Finos . . . . .              | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0371  | 0372   | 3372                        |
| b. Other Purebred horses . . . . .   | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0381  | 0382   | 3382                        |
| c. Common horses . . . . .           | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0383  | 0384   | 3384                        |
| 3. Burros and burritos . . . . .     | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0363  | 0364   | 3364                        |
| 4. Sheep . . . . .                   | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0366  | 0367   | 3367                        |
| 5. Goats . . . . .                   | <input type="checkbox"/> |   |  | \$ .00                      |
|                                      |                          | 0369  |  |                             |
| 6. Colonies of bees . . . . .        | <input type="checkbox"/> |   | 0373   | 3373                        |
|                                      |                          |   |  | \$ .00                      |
| 7. Honey (gallons) . . . . .         | <input type="checkbox"/> | 0375  | 0376   | 3376                        |
|                                      |                          |   |  | \$ .00                      |
| 8. Rabbits . . . . .                 | <input type="checkbox"/> |   |  | \$ .00                      |
| 9. Other animals - Specify:          |                          | 0378  | 0379   | 3379                        |
| 0521 <input type="text"/>            | <input type="checkbox"/> |   |  | \$ .00                      |
| 10. Other animal products - Specify: |                          |   |  | 3380                        |
| 0522 <input type="text"/>            | <input type="checkbox"/> |   |  | \$ .00                      |



**SECTION 17 ORGANIC AGRICULTURE**

1. In 2018, did this operation produce organic products according to USDA's National Organic Program (NOP) standards?  
 0030 1  Yes 3  No

2. Is this operation, or part of this operation, certified by a State or non-government organization as organic?  
 0031 1  Yes - Complete this section. 3  No - Go to Section 18.

|    |  | Whole Cuerdas | Hndrths |
|----|--|---------------|---------|
| 3. | How many cuerdas were used for organic production? . . . . . | 1430          |         |
| a. | Cuerdas from which organic crops were harvested? . . . . .   | 1440          |         |
| b. | Cuerdas of organic pastureland? . . . . .                    | 1450          |         |

|    |  | Value of Sales (Dollars)             |
|----|--|--------------------------------------|
| 4. | What was the total value of sales for crops produced and sold as organic by this operation in 2018? Include hay, fruits, vegetables, greenhouse products, and grains. . . . . 0964 | None <input type="checkbox"/> \$ .00 |
| 5. | What was the total value of sales for livestock and livestock products produced and sold as organic by this operation in 2018? . . . . . 0965                                      | None <input type="checkbox"/> \$ .00 |

**SECTION 18 FARM LABOR**

1. How many hired farm or ranch workers, including paid family members and office workers -

|    |  | Number of Hired Workers       |
|----|--|-------------------------------|
| a. | Worked less than five months on this operation in 2018? Exclude contract labor. . . . . 0460 | None <input type="checkbox"/> |
| b. | Worked five months or more on this operation in 2018? Exclude contract labor. . . . . 0461   | <input type="checkbox"/>      |

2. How many agregados or sharecropper families were living on this operation December 31, 2018? . . . . . 0462

|  |                          | Number |
|--|--------------------------|--------|
|  | <input type="checkbox"/> |        |



**SECTION 19 GOVERNMENT AGRICULTURAL PROGRAMS**

1. Did this operation participate in any Federal or Commonwealth agricultural program in 2018? Include participation in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), Conservation Reserve Enhancement Program (CREP), as well as any Federal or Commonwealth crop insurance program.

0029 1  **Yes** - Complete this section. 3  **No** - Go to Section 20.

2. Cuerdas and/or amount received from -

a. Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Reserve Program (FWP), Conservation Reserve Enhancement Program (CREP) on September 30, 2018 . . . . . 0901

| None                     | Whole Cuerdas | Hndrths | Dollars |
|--------------------------|---------------|---------|---------|
| <input type="checkbox"/> |               |         | \$ .00  |

b. Cuerdas in this operation covered under a crop insurance policy in 2018 . . . . . 0903

| None                     | Whole Cuerdas | Hndrths |
|--------------------------|---------------|---------|
| <input type="checkbox"/> |               |         |

c. Direct payments, counter cyclical, and Average Crop Revenue Election (ACRE) payments as defined by the 2014 Farm Bill . . . . . 0967

| None                     | Dollars |
|--------------------------|---------|
| <input type="checkbox"/> | \$ .00  |

d. Other agricultural program payments - INCLUDE:  
 • disaster, market loss  
 • CSP (Conservation Security Program)  
 • livestock programs  
 • national dairy market loss such as DAP (Dairy Assistance Program)  
 • DSA (Disaster Set-Aside Program)  
 • ECP (Emergency Conservation Program)  
 • EFRP (Emergency Forest Restoration Program)  
 • ELAP (Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program)  
 • EM (Emergency Loans)  
 • LIP (Livestock Indemnity Program)  
 • TAP (Tree Assistance Program)  
 • NAP (Non-Insured Assistance Program)  
 • EQIP (Environmental Quality Incentives Program)  
 • any other Federal program . . . . . 0968

| None                     | Dollars |
|--------------------------|---------|
| <input type="checkbox"/> | \$ .00  |

e. Payments received from agricultural insurance offered by state or local government . . . . . 0393

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|

f. Payments received from all other state and local government agricultural programs (Agricultural Salary Subsidies, subsidies for infrastructure and machinery, etc.) . . . . . 0388

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|

**SECTION 20 INCOME FROM FARM-RELATED SOURCES**

Report amount received before taxes and expenses in 2018.

1. Custom farmwork done for others (plowing, planting, spraying, harvesting, preparation of products for marketing, etc.) . . . . . 0385

| None                     | Dollars |
|--------------------------|---------|
| <input type="checkbox"/> | \$ .00  |

2. Agri-tourism and recreational services, such as renting land for picnicking, camping tours, or any other recreational activities in this operation . . . . . 0386

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|

3. Renting out farm land - Include payments for livestock pastured on a per-head basis, monthly payments, or through any other arrangement . . . . . 0387

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|

4. Sales of farm by-products or waste materials, such as natural fertilizers (manure), coffee pulp, etc. . . . . 0389

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|

5. Other income that is closely related to the agricultural operation - Include renting and leasing farm machinery, trucks, animals, etc. Specify:

0523  . . . . . 0969

|                          |        |
|--------------------------|--------|
| <input type="checkbox"/> | \$ .00 |
|--------------------------|--------|



| <b>SECTION 21 PRODUCTION EXPENSES</b>   |      |                          |         |
|---|------|--------------------------|---------|
| Report total production expenses paid for this operation in 2018.   |      |                          |         |
|   |      | None                     | Dollars |
| 1. Livestock and poultry purchased - Include cattle, calves, hogs, pigs, sheep, lambs, goats, horses, baby chicks, started pullets, etc. . . . .  | 0425 | <input type="checkbox"/> | \$ .00  |
| 2. Feed purchased for livestock and poultry - Include grain, hay, silage, mixed feeds, concentrates, etc. . . . .   | 0426 | <input type="checkbox"/> | \$ .00  |
| 3. Medicines and drugs purchased for livestock and poultry. . . . .   | 0427 | <input type="checkbox"/> | \$ .00  |
| 4. Veterinarian services - Include cost of medicines and drugs administered by veterinarians . . . . .  | 0428 | <input type="checkbox"/> | \$ .00  |
| 5. Professional services - Include accountant fees, agronomists, etc. . . . .   | 0970 | <input type="checkbox"/> | \$ .00  |
| 6. Seed cost - Include bulbs, plants, and trees purchased. . . . .  | 0429 | <input type="checkbox"/> | \$ .00  |
| 7. Fertilizer purchased, all forms - Include cost of custom applications. . . . .   | 0430 | <input type="checkbox"/> | \$ .00  |
| 8. Gasoline and other fuel and oil products purchased for the farm business - Include diesel oil, LP gas, butane, propane, piped gas, kerosene, fuel oil, motor oil, grease, etc. . . . .                                 | 0431 | <input type="checkbox"/> | \$ .00  |
| 9. Wages and salaries paid to employees or hired farm workers - Include money paid for farm labor, including payments to family members, social security taxes, insurance premiums, etc. Exclude contract labor . . . . . | 0432 | <input type="checkbox"/> | \$ .00  |
| 10. Contract labor - Include expenditures for farm labor performed on a contract basis by a contractor, corporation, or cooperative. . . . .  | 0433 | <input type="checkbox"/> | \$ .00  |
| 11. Machine hire and custom work - Include plowing, planting, harvesting, spraying and dusting of chemical products, etc. . . . .   | 0434 | <input type="checkbox"/> | \$ .00  |
| 12. Agricultural chemicals purchased - Include cost of custom applications. . . . .   | 0435 | <input type="checkbox"/> | \$ .00  |
| 13. Repair and maintenance expenses for machinery and equipment. . . . .  | 0826 | <input type="checkbox"/> | \$ .00  |
| 14. Repair and maintenance expenses for buildings. . . . .  | 0827 | <input type="checkbox"/> | \$ .00  |
| 15. Water expenses - Include water used for irrigation . . . . .  | 0861 | <input type="checkbox"/> | \$ .00  |
| 16. Electricity expenses - Include only electricity used for the agricultural operation . . . . .   | 0862 | <input type="checkbox"/> | \$ .00  |
| 17. Interest expenses - Include all interest costs related to the agricultural operation. Exclude interest on loans for automobiles, homes, etc. not used for farm operations . . . . .                                   | 0863 | <input type="checkbox"/> | \$ .00  |
| 18. What was the total depreciation expense claimed by this operation in 2018 for all capital assets? Estimate 2018 from 2017 if necessary. . . . .   | 1520 | <input type="checkbox"/> | \$ .00  |
| 19. All other expenses - Include rent, taxes, insurance, and any other farm related expense. Exclude depreciation, household expenses, and expenses not related to the farm business . . . . .                            | 0436 | <input type="checkbox"/> | \$ .00  |



**SECTION 22 FERTILIZERS AND CHEMICALS APPLIED**

1. Were any fertilizers, lime, insecticides, or other chemicals used on this operation in 2018? Include lime, rock phosphate, and gypsum as commercial fertilizers.

0032 1  **Yes** - Complete this section. 3  **No** - Go to Section 23.

|    |  | Area on Which Used       |         |
|----|--|--------------------------|---------|
|    |  | Whole Cuerdas            | Hndrths |
| 2. | Cropland treated with commercial fertilizer, including lime - Exclude cuerdas fertilized with natural fertilizer and cropland used for pastures . . . . . 0408 | <input type="checkbox"/> |         |
| 3. | Pastureland treated with commercial fertilizer. . . . . 0410   | <input type="checkbox"/> |         |
| 4. | Cropland and/or pastureland treated with organic fertilizer. . . . . 0411  | <input type="checkbox"/> |         |
| 5. | Cropland and/or pastureland treated with sprays, dusts, fumigants, etc. (fungicide, herbicide, insecticide, nematocide) to control:                            |                          |         |
| a. | Insects on crops. . . . . 0412   | <input type="checkbox"/> |         |
| b. | Diseases in crops and orchards such as blight, smut, rust, etc. . . . . 0414   | <input type="checkbox"/> |         |
| c. | Weeds, grass, or brush in crops and pastures. . . . . 0416   | <input type="checkbox"/> |         |
| d. | Nematodes on crops. . . . . 0418   | <input type="checkbox"/> |         |

**SECTION 23 MARKET VALUE OF LAND, BUILDINGS, AND MACHINERY**

Report your estimate of the current market value of land, buildings, and machinery owned and/or used on this place.

|    |  | Estimated Market Value (Dollars) |        |
|----|--|----------------------------------|--------|
|    |  |                                  |        |
| 1. | All land and buildings owned . . . . . 0456  | <input type="checkbox"/>         | \$ .00 |
| 2. | All land and buildings rented or leased from others. . . . . 0457                            | <input type="checkbox"/>         | \$ .00 |
| 3. | All land and buildings rented or leased to others. . . . . 0458                              | <input type="checkbox"/>         | \$ .00 |
| 4. | All machinery used on this place on December 31, 2018, regardless of ownership. . . . . 0455 | <input type="checkbox"/>         | \$ .00 |



**SECTION 24 MACHINERY, EQUIPMENT, AND BUILDINGS**

For the items listed below, report the number on this operation on December 31, 2018. Include machinery, equipment, implements and buildings used for the farm business in 2018 and usually kept on the operation.

|                                    |  | None                          | Number |
|------------------------------------|--|-------------------------------|--------|
| <b>1. MACHINERY and EQUIPMENT</b>  |  |                               |        |
| a.                                 | Automobiles, jeeps, pickups, and other motor trucks . . . . .  | 0440 <input type="checkbox"/> |        |
| b.                                 | Wheel tractors . . . . .                                       | 0441 <input type="checkbox"/> |        |
| c.                                 | Crawler tractors . . . . .                                     | 0442 <input type="checkbox"/> |        |
| d.                                 | Coffee depulpers . . . . .                                     | 0444 <input type="checkbox"/> |        |
| e.                                 | Mechanical coffee dryers . . . . .                             | 0445 <input type="checkbox"/> |        |
| f.                                 | Solar or air coffee dryers . . . . .                           | 0446 <input type="checkbox"/> |        |
| g.                                 | Mechanical coffee washers . . . . .                            | 0447 <input type="checkbox"/> |        |
| h.                                 | Milking machines . . . . .                                     | 0448 <input type="checkbox"/> |        |
| i.                                 | Milk coolers . . . . .   | 0449 <input type="checkbox"/> |        |
| j.                                 | Emergency electric generators . . . . .                        | 0450 <input type="checkbox"/> |        |
| k.                                 | Other - specify: → <input type="text" value="1453"/> . . . . . | 1455 <input type="checkbox"/> |        |
| <b>2. BUILDINGS and STRUCTURES</b> |  |                               |        |
| a.                                 | Buildings used to house livestock . . . . .                    | 0451 <input type="checkbox"/> |        |
| b.                                 | Storage buildings for crops . . . . .                          | 0452 <input type="checkbox"/> |        |
| c.                                 | Buildings for machinery . . . . .                              | 0453 <input type="checkbox"/> |        |
| d.                                 | Greenhouses . . . . .  | 0829 <input type="checkbox"/> |        |
| e.                                 | Houses for agregados and other workers . . . . .               | 0454 <input type="checkbox"/> |        |
| f.                                 | Other - specify: → <input type="text" value="1454"/> . . . . . | 1456 <input type="checkbox"/> |        |

**SECTION 25 PRACTICES**

1. At any time during 2018, did this operation -

a. Use a computer for the farm business? . . . . . 1019 1  Yes 3  No

b. Have Internet access?

1020 1  **Yes** - Access to the Internet was through (check all that apply)

|                                       |   |  |  |
|---------------------------------------|---|--|--|
| 1121 <input type="checkbox"/> Dial-up | 1123 <input type="checkbox"/> Cable modem | 1125 <input type="checkbox"/> Mobile broadband plan for a computer or a cell phone | 1127 <input type="checkbox"/> Broadband over power lines                               |
| 1122 <input type="checkbox"/> DSL     | 1124 <input type="checkbox"/> Fiber-optic | 1126 <input type="checkbox"/> Satellite  | 1128 <input type="checkbox"/> Other, specify below → <input type="text" value="0524"/> |

3  **No** - Continue

c. Use more than 5,000 gallons of water in any one day for any purpose? . . . . . 1021 1  Yes 3  No

d. Use any equipment to manage waste? . . . . . 1022 1  Yes 3  No

e. Use an oxidation pond? . . . . . 1023 1  Yes 3  No

f. Use agroecological or permacultural practices? . . . . . 3270 1  Yes 3  No



**SECTION 26 FOOD MARKETING PRACTICES**

1. During 2018, did this operation produce and sell any crops, livestock, poultry, or agricultural products that were food for humans to eat or drink?

INCLUDE

- Edible agricultural products for human consumption

EXCLUDE

- Non-edible products such as hay, cut flowers, Christmas trees, nursery products, etc.
- Commodities produced under production contracts
- Products purchased and resold

2750 1  **Yes** - Continue.                      3  **No** - Go to Section 27.

2. How much was received in 2018 for the food produced and sold directly to:

a. **Consumers:** Farmers markets, on-farm stores or farm stands, roadside stands or stores, CSA (community supported agriculture), online market places, etc.? ..... 4160  None

| Gross Value of Sales (Dollars) |         |
|--------------------------------|---------|
| \$                             | .....00 |

i. Specify the food that was produced and sold to consumers in 2018:

4161

b. **Retail Markets, Institutions, or Intermediate Markets for Local or Regionally Branded Products:** Supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives, K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks, businesses or organizations in the middle of the supply chain such as distributors, food hubs, brokers, auction houses, wholesale and terminal markets, food processors, etc.? ..... 2752

| Gross Value of Sales (Dollars) |         |
|--------------------------------|---------|
| \$                             | .....00 |

i. Specify the food that was produced and sold to retail markets, institutions, or intermediate markets in 2018:

2751

**SECTION 27 TYPE OF ORGANIZATION**

1. Mark the one item which best describes this operation in 2018.

- 0390 1  Family or individual operation - Exclude partnerships and corporations
- 2  Partnership operation - Include family partnerships
- 3  Incorporated
- 4  Other - specify:

0525

**SECTION 28 RENEWABLE ENERGY**

1. During 2018, were there any renewable energy producing systems, regardless of ownership, on this operation?

3601 1  **Yes** - Continue.                      3  **No** - Go to Item 2.

Report types of systems on this operation. Mark all that apply.

- 3603  Solar panels                      3614  Geoexchange system                      3616  Methane digesters
- 3604  Wind turbines                      3615  Small hydro system                      3618  Other, specify below

0526

2. On the land owned on this operation, were there any wind rights leased to others?

3607 1  **Yes**                      3  **No**





**SECTION 29 PERSONAL CHARACTERISTICS**

For this census report, the operator is that person who manages or is the owner of the farm, or has the power to make the decisions on managing the farm, including salaried managers.

1. How many people, including yourself, made management decisions on this farm in 2018? . . . . . 0972

|                           |
|---------------------------|
| Total Number of Operators |
|                           |
| Number                    |
|                           |

a. Of this number, how many are women operators? . . . . . 0973

2. Answer the following questions for up to three of the operators on this farm on December 31, 2018.

|   | Principal Operator or Senior Partner   | Operator 2   | Operator 3   |
|---|--|--|--|
|   | 0527   | 0528   | 0529   |
| a. Name . . . . .   |  |  |  |
|   | 0825   | 0987   | 0988   |
| b. Sex of operator . . . . .  | 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  | 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  | 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female  |
|   | 0974   | 0989   | 0990   |
| c. In what type of business did you receive at least 50 percent of your annual income in 2018? . . . . .  | 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Other  | 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Other  | 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Other  |
|   | 0975   | 0991   | 0992   |
| d. Is this operator retired? . . . . .  | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |
|   | 0397   | 0993   | 0994   |
| e. What is the highest level of education attained by the operator? . . . . .   | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> Elementary (Grades 1-6)<br>3 <input type="checkbox"/> Secondary (Grades 7-12)<br>4 <input type="checkbox"/> High School Diploma or GED<br>5 <input type="checkbox"/> Technical or Vocational School<br>6 <input type="checkbox"/> Some College Years<br>7 <input type="checkbox"/> College (Bachelor's Degree)<br>8 <input type="checkbox"/> Graduate Degree (Master's or PhD) | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> Elementary (Grades 1-6)<br>3 <input type="checkbox"/> Secondary (Grades 7-12)<br>4 <input type="checkbox"/> High School Diploma or GED<br>5 <input type="checkbox"/> Technical or Vocational School<br>6 <input type="checkbox"/> Some College Years<br>7 <input type="checkbox"/> College (Bachelor's Degree)<br>8 <input type="checkbox"/> Graduate Degree (Master's or PhD) | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> Elementary (Grades 1-6)<br>3 <input type="checkbox"/> Secondary (Grades 7-12)<br>4 <input type="checkbox"/> High School Diploma or GED<br>5 <input type="checkbox"/> Technical or Vocational School<br>6 <input type="checkbox"/> Some College Years<br>7 <input type="checkbox"/> College (Bachelor's Degree)<br>8 <input type="checkbox"/> Graduate Degree (Master's or PhD) |
|   | 0398   | 0995   | 0996   |
| f. How many days did the operator work off this operation in 2018? Include days in which the operator worked at least four hours per day in an off-farm job. Include work on someone else's farm for pay. . . . . | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more   | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more   | 1 <input type="checkbox"/> None<br>2 <input type="checkbox"/> 1 - 49 days<br>3 <input type="checkbox"/> 50 - 99 days<br>4 <input type="checkbox"/> 100 - 199 days<br>5 <input type="checkbox"/> 200 days or more   |
|   | 0395   | 0997   | 0998   |
| g. Did the operator live on this operation at any time in 2018? . . . . .   | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   | 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No   |



|  | Principal Operator or Senior Partner  | Operator 2  | Operator 3  |
|--|---|---|---|
| h. In what year did the operator begin to operate any part of this operation?  | 0394  | 0999  | 1000  |
| i. What was the operator's age on December 31, 2018?   | 0396  | 1001  | 1002  |
| j. Is the operator of Spanish, Hispanic, or Latino origin or background, such as Mexican, Cuban, or Puerto Rican?  | 0976<br>Puerto Rican, or of Spanish or Hispanic origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | 1003<br>Puerto Rican, or of Spanish or Hispanic origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | 1004<br>Puerto Rican, or of Spanish or Hispanic origin<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| k. What is the operator's race?  | <b>Mark (X) one or more</b>   | <b>Mark (X) one or more</b>   | <b>Mark (X) one or more</b>   |
|  | 0977 <input type="checkbox"/> White   | 1005 <input type="checkbox"/> White   | 1006 <input type="checkbox"/> White   |
|  | 0978 <input type="checkbox"/> Black or African American   | 1007 <input type="checkbox"/> Black or African American   | 1008 <input type="checkbox"/> Black or African American   |
|  | 0979 <input type="checkbox"/> Asian   | 1009 <input type="checkbox"/> Asian   | 1010 <input type="checkbox"/> Asian   |
|  | 0980 <input type="checkbox"/> Native Hawaiian or other Pacific Islander   | 1011 <input type="checkbox"/> Native Hawaiian or other Pacific Islander   | 1012 <input type="checkbox"/> Native Hawaiian or other Pacific Islander   |
| l. Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?   | 0981 <input type="checkbox"/> American Indian or Alaska Native  | 1013 <input type="checkbox"/> American Indian or Alaska Native  | 1014 <input type="checkbox"/> American Indian or Alaska Native  |
|  | <b>Mark (X) one answer only</b>   | <b>Mark (X) one answer only</b>   | <b>Mark (X) one answer only</b>   |
|  | 2633  | 1634  | 1635  |
|  | 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now | 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now | 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now |
| m. How many people lived with the operator in 2018?  | 0982  | 1015  | 1016  |
| n. Is this operator a hired manager for this operation?  | 0983  | 1017  | 1018  |
| <b>HOUSEHOLD INCOME</b>  |   |   | <b>Number</b>   |
| 3. How many families shared in the net income of this farm in 2018?  | 0984  |   |   |
| 4. What was the total household income of the principal operator in 2018? Include net income from farming, wage or salary income from all sources, social security, and investment income. | 0985  |   |   |
| 1 <input type="checkbox"/> Less than \$20,000  | 3 <input type="checkbox"/> \$40,000 to \$59,999   | 5 <input type="checkbox"/> \$80,000 to \$99,999   |   |
| 2 <input type="checkbox"/> \$20,000 to \$39,999  | 4 <input type="checkbox"/> \$60,000 to \$79,999   | 6 <input type="checkbox"/> \$100,000 or more  |   |
|  |   |   | <b>Percent (%)</b>  |
| 5. In 2018, what percent of the principal operator's total household income came from this operation?  | 0986  |   |   |



**SECTION 30 VERIFICATION**

1. Is it possible the information on this form would be duplicated on a form with another name or address?

0831 1  **Yes** - Please provide the other name and address below. 3  **No** - Go to Item 2.

Name

0530

Address

0531

City

0532

P.R.

Zip

0533

2. Do **YOU** (the individual named on the label) make any day-to-day decisions for **another** farm? It is important that the Census of Agriculture accurately accounts for all of your farm operations.

0832 1  **Yes** - Continue. 3  **No** - Go to Item 3.

a. Did **YOU** receive a 2018 Census of Agriculture report form for this additional farm?

0833 1  **Yes** - Go to Item 2b. 3  **No** - Enter the information of the additional farm below.

Name

0534

Area Code and Phone Number

0835  -  -

b. Did **YOU** include all data for the additional farm on **THIS REPORT**? Do not make changes to the data in this report, regardless of your answer.

0836 1  **Yes** 3  **No**

3. Please print the information below for the person completing this form.

Name

0470

Area Code and Phone Number

0471  -  -

Date (MM-DD-YYYY)

0472  -  -

## THANK YOU FOR YOUR COOPERATION

Questions? Call us toll-free at 1-866-716-5655


A wide variety of agricultural statistics is available from the National Agricultural Statistics Service (NASS). Check out the NASS reports, data products, and services on the Internet at:  
[www.nass.usda.gov](http://www.nass.usda.gov)

18102244




According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**2018  
CENSUS OF AGRICULTURE**



**GUAM**



U.S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE

**Part A - QUESTIONNAIRE IDENTIFICATION (NASS USE ONLY)**

**FARM SERIAL NUMBER**

**Part B - OPERATOR'S NAME AND ADDRESS OR PHYSICAL LOCATION**

9810 Operation name

9811 Person name

9812 Address 1

9813 Address 2

9814 City  9815 State  9816 Zip Code

|   |   |   |   |   |
|---|---|---|---|---|
| 0035                                      | 0036                                      | 0037                                      | 0038                                      | 0039                                      |
| <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |

NOTICE: Response to this inquiry is required by law (Title 7, U.S. Code). The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is required.

**SECTION 1 LAND IN AGRICULTURE**

|  |      | None                     | Whole acres                               | Tenths |
|--|------|--------------------------|---|--------|
| 1. How many acres do you own? .....  | 0040 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | /10    |
| 2. How many acres do you RENT FROM OTHERS? Include acres with or without a government land permit or acres that are furnished to you in connection with your living quarters by the government ..... | 0042 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | /10    |
| 3. How many acres do you rent TO OTHERS? (DO NOT include land used by U.S. military services.) .....   | 0044 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | /10    |
| 4. TOTAL ACRES IN "THIS PLACE" – ADD acres owned (question 1) and acres rented FROM OTHERS (question 2), then SUBTRACT acres rented TO OTHERS (question 3) and enter the result in this space .....  | 0045 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> | /10    |

5. How many unpaid and paid farm hands (including the operator and family members) worked on this place in 2018? .....

0051

| Total farm hands                          |   |   |
|---|---|---|
| <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |

|  | 150 days or more? | 25 to 149 days? | Less than 25 days? |
|--|-------------------|-----------------|--------------------|
| a. Of the unpaid farm hands (including the operator and unpaid family workers), how many worked – .....      | 0052              | 0053            | 0054               |
| b. Of the paid farm hands (hired workers and paid members of the operator's family), how many worked – ..... | 0055              | 0056            | 0057               |

6. What type of operating organization does this place have? .....

0058

}

1  Individual

2  Partnership

3  Corporation (DO NOT include cooperatives)

4  Other (Cooperative, estate, trust, etc.)

**CONTINUE ON PAGE 2**

**PENALTY FOR FAILURE TO REPORT**

21188016

## SECTION 2 ROOT CROPS

Did you harvest any ROOT CROPS FOR SALE in 2018?

0002 1  Yes - Complete this section      2  No - Go to Section 3

- |                                       |      |                          |  |
|---------------------------------------|------|--------------------------|--|
|                                       | None | <input type="checkbox"/> |  |
| 1. Cassava (tapioca) .....            | 0070 | <input type="checkbox"/> |  |
| 2. Gado .....                         | 0076 | <input type="checkbox"/> |  |
| 3. Ginger .....                       | 0078 | <input type="checkbox"/> |  |
| 4. Sweet potatoes .....               | 0086 | <input type="checkbox"/> |  |
| 5. Taro .....                         | 0090 | <input type="checkbox"/> |  |
| 6. Yams .....                         | 0092 | <input type="checkbox"/> |  |
| 7. Other root crops – Specify C ..... | 0094 | <input type="checkbox"/> |  |

0096

| How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|--|--------|------|---|
| Whole acres                            | Tenths |      |   |
|  | /10    | 0071 |   |
|  | /10    | 0077 |   |
|  | /10    | 0079 |   |
|  | /10    | 0087 |   |
|  | /10    | 0091 |   |
|  | /10    | 0093 |   |
|  | /10    | 0095 |   |

## SECTION 3 VEGETABLES AND MELONS

Did you harvest any VEGETABLES or MELONS FOR SALE in 2018?

0003 1  Yes - Complete this section      2  No - Go to Section 4

- |  |      |                          |      |
|--|------|--------------------------|------|
|  | None | <input type="checkbox"/> |      |
| 1 Alfalfa and/or bean sprouts .....                            |      | <input type="checkbox"/> | 0101 |
| 2. Beans, winged .....   | 0114 | <input type="checkbox"/> | 0115 |
| 3. Beans, yard-long .....                                      | 0102 | <input type="checkbox"/> | 0103 |
| 4. Beans, all other varieties .....                            | 0104 | <input type="checkbox"/> | 0105 |
| 5. Bittermelons .....  | 0106 | <input type="checkbox"/> | 0107 |
| 6. Cabbage, Chinese .....                                      | 0108 | <input type="checkbox"/> | 0109 |
| 7. Cabbage, head .....   | 0110 | <input type="checkbox"/> | 0111 |
| 8. Cantaloupes .....   | 0112 | <input type="checkbox"/> | 0113 |
| 9. Corn .....  | 0118 | <input type="checkbox"/> | 0119 |
| 10. Cucumbers .....  | 0120 | <input type="checkbox"/> | 0121 |
| 11. Eggplant .....   | 0122 | <input type="checkbox"/> | 0123 |
| 12. Muskmelons .....   | 0128 | <input type="checkbox"/> | 0129 |
| 13. Okra .....   | 0130 | <input type="checkbox"/> | 0131 |
| 14. Onions, green .....  | 0132 | <input type="checkbox"/> | 0133 |
| 15. Pepino melons .....  | 0144 | <input type="checkbox"/> | 0145 |
| 16. Peppers, hot .....   | 0134 | <input type="checkbox"/> | 0135 |
| 17. Peppers, sweet .....                                       | 0136 | <input type="checkbox"/> | 0137 |
| 18. Pumpkins and squash .....                                  | 0138 | <input type="checkbox"/> | 0139 |
| 19. Radishes .....   | 0140 | <input type="checkbox"/> | 0141 |
| 20. Tomatoes (Include both standard and cherry tomatoes) ..... | 0146 | <input type="checkbox"/> | 0147 |
| 21. Watermelons .....  | 0148 | <input type="checkbox"/> | 0149 |
| 22. Other vegetables and melons – Specify C .....              | 0150 | <input type="checkbox"/> | 0151 |

0143

| How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|--|--------|------|---|
| Whole acres                            | Tenths |      |   |
|  | /10    | 0101 |   |
|  | /10    | 0115 |   |
|  | /10    | 0103 |   |
|  | /10    | 0105 |   |
|  | /10    | 0107 |   |
|  | /10    | 0109 |   |
|  | /10    | 0111 |   |
|  | /10    | 0113 |   |
|  | /10    | 0119 |   |
|  | /10    | 0121 |   |
|  | /10    | 0123 |   |
|  | /10    | 0129 |   |
|  | /10    | 0131 |   |
|  | /10    | 0133 |   |
|  | /10    | 0145 |   |
|  | /10    | 0135 |   |
|  | /10    | 0137 |   |
|  | /10    | 0139 |   |
|  | /10    | 0141 |   |
|  | /10    | 0147 |   |
|  | /10    | 0149 |   |
|  | /10    | 0151 |   |

# SECTION 4 FRUITS, NUTS, AND NURSERY CROPS

Were any FRUITS, NUTS, or NURSERY CROPS grown or harvested FOR SALE in 2018?

0004 1  Yes - Complete this section      2  No - Go to Section 5

| Whole acres | Tenths |
|-------------|--------|
|             | /10    |

How much land is in bearing and nonbearing fruit and nut trees (plants)? ..... 0159

|  | None                          | How many trees or plants are not of bearing age? | How many trees or plants are of bearing age? | How many pounds were harvested in 2018? |
|--|-------------------------------|--|--|---|
| 1. Avocados .....                                      | 0160 <input type="checkbox"/> | 0161   | 0162   |   |
| 2. Bananas .....                                       | 0163 <input type="checkbox"/> | 0164   | 0165   |   |
| 3. Betelnuts .....                                     | 0166 <input type="checkbox"/> | 0167   | 0168   |   |
| 4. Breadfruits .....                                   | 0169 <input type="checkbox"/> | 0170   | 0171   |   |
| 5. Coconuts .....                                      | 0172 <input type="checkbox"/> | 0173   | 0174   |   |
| 6. Coffee .....  | 0152 <input type="checkbox"/> | 0153   | 0154   |   |
| 7. Dragon Fruit .....                                  | 0196 <input type="checkbox"/> | 0197   | 0198   |   |
| 8. Grapefruit .....                                    | 0175 <input type="checkbox"/> | 0176   | 0177   |   |
| 9. Guavas .....  | 0178 <input type="checkbox"/> | 0179   | 0180   |   |
| 10. Lemons and limes .....                             | 0181 <input type="checkbox"/> | 0182   | 0183   |   |
| 11. Mangoes .....                                      | 0184 <input type="checkbox"/> | 0185   | 0186   |   |
| 12. Oranges .....                                      | 0187 <input type="checkbox"/> | 0188   | 0189   |   |
| 13. Papayas .....                                      | 0190 <input type="checkbox"/> | 0191   | 0192   |   |
| 14. Pineapples .....                                   | 0193 <input type="checkbox"/> | 0194   | 0195   |   |
| 15. Soursops .....                                     | 0199 <input type="checkbox"/> | 0200   | 0201   |   |
| 16. Starfruits .....                                   | 0202 <input type="checkbox"/> | 0203   | 0204   |   |
| 17. Sweetsops .....                                    | 0205 <input type="checkbox"/> | 0206   | 0207   |   |
| 18. Tangerines .....                                   | 0208 <input type="checkbox"/> | 0209   | 0210   |   |
| 19. Other fruits, nuts, and tree crops - Specify C ... | 0211 <input type="checkbox"/> | 0212   | 0213   |   |

0214

|  | None                     | Square feet under cover | Acres in the open |        | Value of sales in 2018 |     |
|--|--------------------------|-------------------------|-------------------|--------|------------------------|-----|
|  |                          | 0218                    | Whole acres       | Tenths | \$                     |     |
| 20. Nursery crops (including ornamental plants) .. | <input type="checkbox"/> |                         | 0219              | /10    |                        | .00 |

## SECTION 5 LAND USE

Land is to be reported in **ONLY ONE CATEGORY**. If two or more uses were made of the same land, report in the **FIRST** category that applies.

- |   | None                          | Whole acres | Tenths |
|---|-------------------------------|-------------|--------|
| 1. <b>Cropland harvested</b> – Report the number of acres on which crops were grown and harvested .....                                   | 0231 <input type="checkbox"/> |             | /10    |
| 2. <b>Other cropland</b> – Include cropland pasture, crop failure, idle and fallow cropland, and cropland used for soil improvement. .... | 0232 <input type="checkbox"/> |             | /10    |
| 3. <b>Pasture or grazing land</b> – Include woodland pasture. (DO NOT include cropland pasture.) .....                                    | 0233 <input type="checkbox"/> |             | /10    |
| 4. <b>Woodland</b> (DO NOT include woodland pasture.) .....   | 0234 <input type="checkbox"/> |             | /10    |
| 5. <b>All other land</b> – Include house lots, barn lots, lanes, roads, ditches, ponds, wasteland, etc. ....                              | 0235 <input type="checkbox"/> |             | /10    |
| 6. <b>TOTAL LAND</b> – Add entries in questions 1 through 5. This total should equal the entry in section 1, question 4 .....             | 0236 <input type="checkbox"/> |             | /10    |

## SECTION 6 IRRIGATION

Was Any LAND in this place **IRRIGATED** at any time during 2018? Irrigated land is all land watered by any artificial or controlled means: sprinklers, furrows or ditches, spreader dikes, etc. Include supplemental, partial, and pre-plant irrigation.

- 0006 1  **Yes** - Complete this section      2  **No** - Go to Section 7

- |  | None                          | Whole acres | Tenths |
|--|-------------------------------|-------------|--------|
| 1. <b>How many acres were irrigated from a PRIVATE SYSTEM</b> (wells, rivers, brooks, etc.)? ..... | 0240 <input type="checkbox"/> |             | /10    |
| 2. <b>How many acres were irrigated from a PUBLIC SYSTEM?</b> .....                                | 0241 <input type="checkbox"/> |             | /10    |
3. **If water from a public system was used, which rate was charged for the water?**  
 0245 1  Agricultural rate      2  Residential rate
4. **Major source of water used for irrigation:**  
 0247 1  Well or cistern      3  Lake or private pond      5  Public utility  
 2  River or stream      4  Canal or irrigation district      6  Other – *Specify* 0248

## SECTION 7 LIVESTOCK

Do you or anyone else have any LIVESTOCK (excluding poultry and fish) on this place or were any sold from this place in 2018?

0007 1  Yes - Complete this section 2  No - Go to Section 8

|   |      | None                     | How many are on this place today? | How many were sold in 2018? |
|---|------|--------------------------|-----------------------------------|-----------------------------|
| 1. Carabaos of all ages .....                                       | 0250 | <input type="checkbox"/> |                                   | 0251                        |
| 2. Cattle and calves of all ages (Total of "a" and "b" below) ..... | 0252 | <input type="checkbox"/> |                                   | 0253                        |
| Of this total, how many –   |      |                          |                                   |                             |
|   |      |                          | Are on this place today?          | Were sold in 2018?          |
| a. Milk cows .....  | 0262 |                          |                                   | 0263                        |
| b. All other cattle and calves .....                                | 0264 |                          |                                   | 0265                        |
| 3. Hogs and pigs of all ages .....                                  | 0266 | <input type="checkbox"/> |                                   | 0267                        |
| 4. Goats and kids of all ages .....                                 | 0274 | <input type="checkbox"/> |                                   | 0275                        |
| 5. Horses, mules, and colts of all ages .....                       | 0276 | <input type="checkbox"/> |                                   | 0277                        |
| 6. Other livestock – Specify <input type="text"/>                   | 0282 | <input type="checkbox"/> |                                   | 0278                        |
| 7. Quantity and value of milk sold in 2018 .....                    | 0280 |                          | Quarts sold                       | 0281                        |
|   |      |                          |                                   | Gross value of sales        |
|   |      |                          |                                   | \$ <input type="text"/> .00 |

## SECTION 8 POULTRY

Do you or anyone else have any POULTRY on this place or were any sold from this place in 2018?

0008 1  Yes - Complete this section 2  No - Go to Section 9

|  |      | None                     | How many are on this place today? | How many were sold in 2018? |
|--|------|--------------------------|-----------------------------------|-----------------------------|
| 1. Chicken hens 4 months old and over (Total of "a" and "b" below) ... | 0292 | <input type="checkbox"/> |                                   | 0293                        |
| Of this total, how many –  |      |                          |                                   |                             |
|  |      |                          | Are on this place today?          | Were sold in 2018?          |
| a. Commercial layers .....   | 0294 |                          |                                   | 0295                        |
| b. Other chicken hens .....  | 0296 |                          |                                   | 0297                        |
| 2. Chickens less than 4 months old .....                               | 0300 | <input type="checkbox"/> |                                   | 0301                        |
| 3. Roosters and pullets .....  | 0302 | <input type="checkbox"/> |                                   | 0303                        |
| 4. Fighting roosters .....   | 0304 | <input type="checkbox"/> |                                   | 0305                        |
| 5. Ducks .....   | 0306 | <input type="checkbox"/> |                                   | 0307                        |
| 6. Pigeons .....   | 0308 | <input type="checkbox"/> |                                   | 0309                        |
| 7. Other (geese, turkeys, etc.) – Specify <input type="text"/>         | 0298 | <input type="checkbox"/> |                                   | 0310                        |
| 8. Quantity and value of chicken eggs sold in 2018 .....               | 0312 |                          | Dozens sold                       | 0313                        |
|  |      |                          |                                   | Gross value of sales        |
|  |      |                          |                                   | \$ <input type="text"/> .00 |



**SECTION 9 AQUACULTURE**

Did you or anyone else raise any FISH or AQUACULTURE PRODUCTS (shrimp, etc.) for sale?

0009 1  Yes - Complete this section      2  No - Go to Section 10

- |   | Number |
|---|--------|
| 1. How many in-ground ponds did you use? .....  | 0320   |
| 2. How many above-ground tanks did you use? .....   | 0321   |
| 3. Enter the total of aquaculture products sold or moved form this operation during 2018. |        |

| Aquaculture Type   | None                     | Total Pounds Sold or Moved | Total Number Sold or Moved |
|--|--------------------------|----------------------------|----------------------------|
| Catfish  | <input type="checkbox"/> | 0314                       | 0315                       |
| Milkfish   | <input type="checkbox"/> | 0316                       | 0317                       |
| Shrimp   | <input type="checkbox"/> | 0318                       | 0319                       |
| Tilapia  | <input type="checkbox"/> | 0325                       | 0326                       |
| Other aquaculture products, <i>Specify</i> <span style="float: right;">0327</span> | <input type="checkbox"/> | 0328                       | 0329                       |

**SECTION 10 VALUE OF SALES**

What was the MARKET VALUE of the following AGRICULTURAL PRODUCTS SOLD from this place in 2018, before taxes and expenses?

|   | None                          | Dollars only |     |
|---|-------------------------------|--------------|-----|
| 1. Root crops .....   | 0330 <input type="checkbox"/> | \$           | .00 |
| 2. Vegetables and melons .....  | 0331 <input type="checkbox"/> | \$           | .00 |
| 3. Fruits and nuts .....  | 0332 <input type="checkbox"/> | \$           | .00 |
| 4. Nursery crops, including ornamentals .....   | 0333 <input type="checkbox"/> | \$           | .00 |
| 5. Cattle and calves - Include carabaos .....   | 0334 <input type="checkbox"/> | \$           | .00 |
| 6. Hogs and pigs .....  | 0335 <input type="checkbox"/> | \$           | .00 |
| 7. Poultry - chickens, roosters, pullets, ducks, pigeons, etc. ....                       | 0336 <input type="checkbox"/> | \$           | .00 |
| 8. Eggs, except chicken eggs, and other poultry products .....                            | 0337 <input type="checkbox"/> | \$           | .00 |
| 9. Fish and other aquaculture products .....  | 0323 <input type="checkbox"/> | \$           | .00 |
| 10. Other livestock and livestock products - goats, horses, mules, goats' milk, etc. .... | 0338 <input type="checkbox"/> | \$           | .00 |
| 0339 <input type="text"/> <i>Specify</i>  |                               |              |     |

**SECTION 11 PRODUCTION EXPENSES**

How much were your EXPENDITURES for each of the following in 2018?

|  | None                          | Dollars only |     |
|--|-------------------------------|--------------|-----|
| 1. Machine hire and customwork .....   | 0341 <input type="checkbox"/> | \$           | .00 |
| 2. Wages and salaries paid to employees or hired farm workers<br>(DO NOT include housework or contract construction work.) Include cash payments only ..           | 0342 <input type="checkbox"/> | \$           | .00 |
| 3. Feed purchased for livestock, poultry, and fish - Include cost of grain, feed, concentrates, and roughages; also amount paid for grinding and mixing feed ..... | 0343 <input type="checkbox"/> | \$           | .00 |
| 4. Insecticides, fungicides, and herbicides .....  | 0344 <input type="checkbox"/> | \$           | .00 |
| 5. Fertilizers and manure purchased .....  | 0345 <input type="checkbox"/> | \$           | .00 |
| 6. Livestock, poultry, and fish purchased .....  | 0346 <input type="checkbox"/> | \$           | .00 |
| 7. Seed cost - Include seedlings purchased .....   | 0347 <input type="checkbox"/> | \$           | .00 |

## SECTION 12 EQUIPMENT

Which of the following EQUIPMENT are used on this place? Include all specified equipment on this place today, regardless of ownership, provided it is in operating condition.

|                                | None                          | Number |
|--------------------------------|-------------------------------|--------|
| 1. Tractors of all kinds ..... | 0350 <input type="checkbox"/> |        |
| 2. Motortrucks .....           | 0351 <input type="checkbox"/> |        |
| 3. Automobiles .....           | 0352 <input type="checkbox"/> |        |
| 4. Tillers of all kinds .....  | 0353 <input type="checkbox"/> |        |

## SECTION 13 PRACTICES

1. At any time during 2018, did this operation –

a. Use a computer for the farm business? ..... 0375 1  Yes 2  No

b. Have Internet access?

0376 1  Yes – Access to the Internet was through (check all that apply)

0377 1  Dial-up 3  Cable modem 5  Mobile broadband plan for a computer or a cell phone 7  Broadband over power lines

2  DSL 4  Fiber-optic 6  Satellite 8  Other, specify C

0378

2  No

## SECTION 14 OPERATOR CHARACTERISTICS

The following questions are about the CHARACTERISTICS of the FARM OPERATOR.

1. Do you (operator) live on this place (the acres entered in section 1, question 4)?

0360 1  Yes 2  No

2. In what YEAR did you (operator) begin to operate any part of this place? ..... 0361

3. How old were you (operator) on your last birthday? ..... 0362

4. At which occupation did you (operator) spend the majority (50 percent or more) of your work time in 2018? .. 0363

1  Farming or ranching

2  Other

5. OFF-FARM WORK – How many days did you (operator) work at least 4 hours per day off this place in 2018? Include work at a nonfarm job, business, or on someone else's farm. (Exclude exchange farm work.) ..... 0364

1  None 4  100 - 149 days

2  1 - 49 days 5  150 - 199 days

3  50 - 99 days 6  200 days or more

6. RACE/NATIONAL ORIGIN of operator ..... 0365

1  Chamorro 5  White

2  Chinese 6  Other – Specify C

3  Filipino 0366

4  Japanese

7. SEX of operator

0367 1  Male 2  Female

**SECTION 15**

**ENUMERATOR'S RECORD (To be completed by the census enumerator)**

1. Who furnished the information in this report? . . . . . 0370


|   |  |  |
|---|--|--|
| } | 1 <input type="checkbox"/> Operator                      | 4 <input type="checkbox"/> Hired laborer                                 |
|   | 2 <input type="checkbox"/> Landlord                      | 5 <input type="checkbox"/> Other – <i>Specify</i> <sub>C</sub>           |
|   | 3 <input type="checkbox"/> Spouse or other family member | <sup>0371</sup> <input style="width: 100px; height: 15px;" type="text"/> |

2. **REMARKS** – Make any remarks needed in regard to the place, the owner or operator, the crops cultivated, or the livestock on this place.


|                                 |                             |                      |
|---------------------------------|-----------------------------|----------------------|
| <b>3. RESIDENCE OF OPERATOR</b> | a. ED 0980                  | b. Village 0981      |
| <b>4. LOCATION OF LAND</b>      | a. ED 0982                  | b. ED number 0983    |
| <b>5. CERTIFIED BY</b>          | Enumerator's signature 0984 | Date 0985<br>/ /2019 |
| <b>6. CHECKED BY</b>            | Enumerator's signature 0986 | Date 0987<br>/ /2019 |

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**2018**  
**CENSUS OF AGRICULTURE**



**UNITED STATES**  
**VIRGIN ISLANDS**



U.S. DEPARTMENT OF AGRICULTURE

NATIONAL AGRICULTURAL STATISTICS SERVICE

|  |      |      |      |      |           |            |               |
|--|------|------|------|------|-----------|------------|---------------|
| <b>Part A - QUESTIONNAIRE IDENTIFICATION (NASS USE ONLY)</b>     |      |      |      |      |           |            |               |
| <b>FARM SERIAL NUMBER</b>  |      |      |      |      |           |            |               |
| <b>Part B - OPERATOR'S NAME AND ADDRESS OR PHYSICAL LOCATION</b> |      |      |      |      |           |            |               |
| 9810 Operation name  |      |      |      |      |           |            |               |
|  |      |      |      |      |           |            |               |
| 9811 Person name   |      |      |      |      |           |            |               |
|  |      |      |      |      |           |            |               |
| 9812 Address 1   |      |      |      |      |           |            |               |
|  |      |      |      |      |           |            |               |
| 9813 Address 2   |      |      |      |      |           |            |               |
|  |      |      |      |      |           |            |               |
| 0035   | 0036 | 0037 | 0038 | 0039 | 9814 City | 9815 State | 9816 Zip Code |
|  |      |      |      |      |           |            |               |

NOTICE: Response to this inquiry is required by law (Title 7, U.S. Code). The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is required.

**SECTION 1 LAND IN AGRICULTURE**

|   |      |  |                 |                    |
|---|------|--|-----------------|--------------------|
|   |      | None   | Whole acres     | Tenths             |
| 1. How many acres do you own? (If you own more than one tract of land, include all land in the Virgin Islands) .....  | 0040 | <input type="checkbox"/>   |                 | /10                |
| 2. How many acres do you RENT FROM OTHERS? (Include acres worked on shares.) .....  | 0042 | <input type="checkbox"/>   |                 | /10                |
| 3. How many acres do you rent TO OTHERS? .....  | 0044 | <input type="checkbox"/>   |                 | /10                |
| 4. TOTAL ACRES IN "THIS PLACE" – ADD acres owned (question 1) and acres rented FROM OTHERS (question 2), then SUBTRACT acres rented TO OTHERS (question 3) and enter the result in this space ..... | 0045 | <input type="checkbox"/>   |                 | /10                |
| 5. How many unpaid and paid farm hands (including the operator and family members) worked on this place in 2018? .....  | 0051 | Total farm hands   |                 |                    |
|   |      | 150 days or more?  | 25 to 149 days? | Less than 25 days? |
| a. Of the unpaid farm hands (including the operator and unpaid family workers), how many worked – .....   | 0052 | 0053   | 0054            |                    |
| b. Of the paid farm hands (hired workers and paid members of the operator's family), how many worked – .....  | 0055 | 0056   | 0057            |                    |
| 6. What type of operating organization does this place have? .....  | 0058 | <input type="checkbox"/> 1 Individual<br><input type="checkbox"/> 2 Partnership<br><input type="checkbox"/> 3 Corporation (DO NOT include cooperatives)<br><input type="checkbox"/> 4 Other (Cooperative, estate, trust, etc.) |                 |                    |

**CONTINUE ON PAGE 2**

**PENALTY FOR FAILURE TO REPORT**

21198015

## SECTION 2 FIELD AND FORAGE CROPS

Did you harvest any FIELD or FORAGE CROPS FOR SALE in 2018?

0002 1  Yes - Complete this section 2  No - Go to Section 3

|                                    | None                          | How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|------------------------------------|-------------------------------|--|--------|------|---|
|                                    |                               | Whole acres                            | Tenths |      |   |
| 1. Cassava (tapioca) .....         | 0070 <input type="checkbox"/> |  | /10    | 0071 |   |
| 2. Dry corn .....                  | 0074 <input type="checkbox"/> |  | /10    | 0075 |   |
| 3. Hay (cut or grazed) .....       | 0080 <input type="checkbox"/> |  | /10    | 0081 |   |
| 4. Sugarcane (cut or grazed) ..... | 0084 <input type="checkbox"/> |  | /10    | 0085 |   |
| 5. Sweetpotatoes .....             | 0086 <input type="checkbox"/> |  | /10    | 0087 |   |
| 6. Taniers .....                   | 0088 <input type="checkbox"/> |  | /10    | 0089 |   |
| 7. Yams .....                      | 0092 <input type="checkbox"/> |  | /10    | 0093 |   |
| 8. Other field crops – Specify C   |                               |  |        |      |   |
| 0091 <input type="text"/>          | 0094 <input type="checkbox"/> |  | /10    | 0095 |   |
| 0076 <input type="text"/>          | 0077 <input type="checkbox"/> |  | /10    | 0078 |   |
| 0079 <input type="text"/>          | 0082 <input type="checkbox"/> |  | /10    | 0083 |   |

## SECTION 3 VEGETABLES

Did you harvest any VEGETABLES FOR SALE in 2018?

0003 1  Yes - Complete this section 2  No - Go to Section 4

|  | None                          | How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|--|-------------------------------|--|--------|------|---|
|  |                               | Whole acres                            | Tenths |      |   |
| 1. Cabbage .....   | 0110 <input type="checkbox"/> |  | /10    | 0111 |   |
| 2. Carrots .....   | 0114 <input type="checkbox"/> |  | /10    | 0115 |   |
| 3. Celery .....  | 0116 <input type="checkbox"/> |  | /10    | 0117 |   |
| 4. Cucumbers .....   | 0120 <input type="checkbox"/> |  | /10    | 0121 |   |
| 5. Eggplant .....  | 0122 <input type="checkbox"/> |  | /10    | 0123 |   |
| 6. Green beans .....   | 0124 <input type="checkbox"/> |  | /10    | 0125 |   |
| 7. Lettuce .....   | 0126 <input type="checkbox"/> |  | /10    | 0127 |   |
| 8. Okra .....  | 0130 <input type="checkbox"/> |  | /10    | 0131 |   |
| 9. Onions, chives, and scallions .....                         | 0132 <input type="checkbox"/> |  | /10    | 0133 |   |
| 10. Peppers .....  | 0136 <input type="checkbox"/> |  | /10    | 0137 |   |
| 11. Spinach .....  | 0142 <input type="checkbox"/> |  | /10    | 0143 |   |
| 12. Squash .....   | 0144 <input type="checkbox"/> |  | /10    | 0145 |   |
| 13. Tomatoes (Include both standard and cherry tomatoes) ..... | 0146 <input type="checkbox"/> |  | /10    | 0147 |   |
| 14. Sorrel (H.sabdariffa) .....                                | 0118 <input type="checkbox"/> |  | /10    | 0119 |   |
| 15. Herbs .....  | 0128 <input type="checkbox"/> |  | /10    | 0129 |   |
| 16. Other vegetables – Specify C                               |                               |  |        |      |   |
| 0149 <input type="text"/>                                      | 0150 <input type="checkbox"/> |  | /10    | 0151 |   |
| 0138 <input type="text"/>                                      | 0139 <input type="checkbox"/> |  | /10    | 0140 |   |
| 0152 <input type="text"/>                                      | 0153 <input type="checkbox"/> |  | /10    | 0154 |   |

## SECTION 4 FRUITS, NUTS, TREES AND NURSERY CROPS

Were any FRUITS, NUTS, or NURSERY CROPS grown or harvested FOR SALE in 2018?

0004 1  Yes - Complete this section 2  No - Go to Section 5

How much land is in bearing and nonbearing fruit and nut trees (plants)? ..... 0159

| Whole acres | Tenths |
|-------------|--------|
|             |        |

|                           | None                          | How many trees or plants are not of bearing age? | How many trees or plants are of bearing age? | How many pounds were harvested in 2018? |
|---------------------------|-------------------------------|--|--|---|
| 1. Avocados .....         | 0160 <input type="checkbox"/> | 0161   | 0162   |   |
| 2. Bananas .....          | 0163 <input type="checkbox"/> | 0164   | 0165   |   |
| 3. Breadfruits .....      | 0169 <input type="checkbox"/> | 0170   | 0171   |   |
| 4. Coconuts .....         | 0172 <input type="checkbox"/> | 0173   | 0174   |   |
| 5. Grapefruit .....       | 0175 <input type="checkbox"/> | 0176   | 0177   |   |
| 6. Lemons and limes ..... | 0181 <input type="checkbox"/> | 0182   | 0183   |   |
| 7. Mangoes .....          | 0184 <input type="checkbox"/> | 0185   | 0186   |   |
| 8. Oranges .....          | 0187 <input type="checkbox"/> | 0188   | 0189   |   |
| 9. Papayas .....          | 0190 <input type="checkbox"/> | 0191   | 0192   |   |
| 10. Pineapples .....      | 0193 <input type="checkbox"/> | 0194   | 0195   |   |
| 11. Plantains .....       | 0196 <input type="checkbox"/> | 0197   | 0198   |   |
| 12. Watermelons .....     | 0156 <input type="checkbox"/> | 0157   | 0158   |   |

13. Other fruits, nuts, and tree crops - Specify C

|      |                               |      |      |  |
|------|-------------------------------|------|------|--|
| 0210 | <input type="checkbox"/>      |      |      |  |
| 0214 | 0211 <input type="checkbox"/> | 0212 | 0213 |  |
|      | 0215 <input type="checkbox"/> | 0216 | 0217 |  |

| None  | Square feet under cover | Acres in the open |        | Value of sales in 2018 |     |
|---|-------------------------|-------------------|--------|------------------------|-----|
|   | 0218                    | Whole acres       | Tenths | \$                     |     |
| 14. Nursery crops (including ornamental plants) .. <input type="checkbox"/> |                         |                   | /10    |                        | .00 |

## SECTION 5 LAND USE

Land is to be reported in ONLY ONE CATEGORY. If two or more uses were made of the same land, report in the FIRST category that applies.

|  | None                          | Acres | Tenths |
|--|-------------------------------|-------|--------|
| 1. Cropland harvested - Report the number of acres on which crops were grown and harvested .....                                   | 0231 <input type="checkbox"/> |       | /10    |
| 2. Other cropland - Include cropland pasture, crop failure, idle and fallow cropland, and cropland used for soil improvement ..... | 0232 <input type="checkbox"/> |       | /10    |
| 3. Pasture or grazing land - Include woodland pasture. (DO NOT include cropland pasture.) .....                                    | 0233 <input type="checkbox"/> |       | /10    |
| 4. Woodland (DO NOT include woodland pasture.) .....   | 0234 <input type="checkbox"/> |       | /10    |
| 5. All other land - Include house lots, barn lots, lanes, roads, ditches, ponds, wasteland, etc. ....                              | 0235 <input type="checkbox"/> |       | /10    |
| 6. TOTAL LAND - Add entries in questions 1 through 5. This total should equal the entry in section 1, question 4. ....             | 0236 <input type="checkbox"/> |       | /10    |

## SECTION 6 IRRIGATION

Was Any LAND in this place IRRIGATED at any time during 2018? Irrigated land is all land watered by any artificial or controlled means: sprinklers, furrows or ditches, spreader dikes, etc. Include supplemental, partial, and pre-plant irrigation.

0006 1  Yes - Complete this section      2  No - Go to Section 7

1. How many acres were irrigated from a PRIVATE SYSTEM (wells, rivers, brooks, etc.)? .....

| None                          | Acres | Tenths |
|-------------------------------|-------|--------|
| 0240 <input type="checkbox"/> |       | /10    |

2. How many acres were irrigated from a PUBLIC SYSTEM? .....

|                               |  |     |
|-------------------------------|--|-----|
| 0241 <input type="checkbox"/> |  | /10 |
|-------------------------------|--|-----|

3. Major source of water used for irrigation:

0247 1  Well or cistern

3  Lake or private pond

5  Public utility

2  River or stream

4  Canal or irrigation district

6  Other - Specify

0248

## SECTION 7 LIVESTOCK

Do you or anyone else have any LIVESTOCK (excluding poultry and fish) on this place or were any sold from this place in 2018?

0007 1  Yes - Complete this section      2  No - Go to Section 8

1. Cattle and calves of all ages (Total of "a", "b", "c", and "d" below) ..

| None                          | How many are on this place today? | How many were sold in 2018? |
|-------------------------------|-----------------------------------|-----------------------------|
| 0252 <input type="checkbox"/> | 0253                              |                             |

Of this total, how many -

a. Cows, including heifers that have calved .....

| Are on this place today? | Were sold in 2018? |
|--------------------------|--------------------|
| 0254                     | 0255               |

b. Heifers and heifer calves 1 year old and older .....

|      |      |
|------|------|
| 0256 | 0257 |
|------|------|

c. Bulls, bull calves, steers, and steer calves .....

|      |      |
|------|------|
| 0258 | 0259 |
|------|------|

d. Calves less than 1 year old ...

|      |      |
|------|------|
| 0260 | 0261 |
|------|------|

2. Total hogs and pigs of all ages (Total of "a" and "b" below) .....

|                               |      |
|-------------------------------|------|
| 0266 <input type="checkbox"/> | 0267 |
|-------------------------------|------|

Of this total, how many -

a. Pigs less than 8 months old ...

| Are on this place today? | Were sold in 2018? |
|--------------------------|--------------------|
| 0268                     | 0269               |

b. Hogs and pigs 8 months old or older .....

|      |      |
|------|------|
| 0270 | 0271 |
|------|------|

3. Sheep and lambs of all ages .....

|                               |      |
|-------------------------------|------|
| 0272 <input type="checkbox"/> | 0273 |
|-------------------------------|------|

4. Goats and kids of all ages .....

|                               |      |
|-------------------------------|------|
| 0274 <input type="checkbox"/> | 0275 |
|-------------------------------|------|

5. Other livestock (mules, asses, burros, etc.) - Specify

|      |                               |      |
|------|-------------------------------|------|
| 0277 | 0278 <input type="checkbox"/> | 0279 |
| 0283 | 0284 <input type="checkbox"/> | 0285 |
| 0287 | 0288 <input type="checkbox"/> | 0289 |

6. Quantity and value of milk sold in 2018 .....

| Quarts sold | Gross value of sales |
|-------------|----------------------|
| 0280        | 0281 \$ .00          |

**SECTION 8 POULTRY**

Do you or anyone else have any POULTRY on this place or were any sold from this place in 2018?

0008 1  Yes - Complete this section 2  No - Go to Section 9

|   |                               |                                   |                             |
|---|-------------------------------|-----------------------------------|-----------------------------|
|   | None                          | How many are on this place today? | How many were sold in 2018? |
| 1. Chickens (hens, pullets, roosters, broilers, etc.) | 0290 <input type="checkbox"/> | 0291                              |                             |
| a. How many 5 months old or older                     | 0298                          | Are on this place today?          |                             |
| 2. Turkeys, ducks, geese, and other poultry           | 0310 <input type="checkbox"/> | 0311                              |                             |
| 3. Quantity and value of chicken eggs sold in 2018    | 0312                          | Dozens sold                       | Gross value of sales        |
|   |                               | 0313                              | \$ .00                      |

**SECTION 9 AQUACULTURE**

Did you or anyone else raise any FISH or AQUACULTURE PRODUCTS (shrimp, etc.) for sale on this place in 2018?

0009 1  Yes - Complete this section 2  No - Go to Section 10

|  |      |                      |
|--|------|----------------------|
|  |      | Number               |
| 1. How many in-ground ponds did you use?   | 0320 |                      |
| 2. How many above-ground tanks did you use?  | 0321 |                      |
| 3. How much FISH or other AQUACULTURE PRODUCT was raised and sold from this place in 2018? | 0322 | Pounds sold          |
|  |      | Gross value of sales |
|  |      | \$ .00               |

**SECTION 10 VALUE OF SALES**

What was the MARKET VALUE of the following AGRICULTURAL PRODUCTS SOLD from this place in 2018, before taxes and expenses?

|  |                               |              |
|--|-------------------------------|--------------|
|  | None                          | Dollars only |
| 1. Field and forage crops  | 0330 <input type="checkbox"/> | \$ .00       |
| 2. Vegetables  | 0331 <input type="checkbox"/> | \$ .00       |
| 3. Fruits and nuts   | 0332 <input type="checkbox"/> | \$ .00       |
| 4. Nursery crops, including ornamental plants  | 0333 <input type="checkbox"/> | \$ .00       |
| 5. Cattle and calves   | 0334 <input type="checkbox"/> | \$ .00       |
| 6. Hogs and pigs   | 0335 <input type="checkbox"/> | \$ .00       |
| 7. Poultry and poultry products, except chicken eggs - include chickens, roosters, pullets, ducks, pigeons, etc. | 0336 <input type="checkbox"/> | \$ .00       |
| 8. Other livestock and livestock products - goats, horses, mules, goats' milk, etc. - Specify C                  |                               |              |
| 0337   | <input type="checkbox"/>      | \$ .00       |
| 0339   | <input type="checkbox"/>      | \$ .00       |
| 0348   | <input type="checkbox"/>      | \$ .00       |
|  | 0349 <input type="checkbox"/> | \$ .00       |



## SECTION 11 PRODUCTION EXPENSES

How much were your EXPENDITURES for each of the following in 2018?

|  |      | None                     | Dollars only |                          |
|--|------|--------------------------|--------------|--------------------------|
| 1. Machine hire and customwork .....   | 0341 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 2. Wages and salaries paid to employees or hired farm workers<br>(DO NOT include housework or contract construction work.) Include cash payments only .....        | 0342 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 3. Feed purchased for livestock, poultry, and fish - Include cost of grain, feed, concentrates, and roughages; also amount paid for grinding and mixing feed ..... | 0343 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 4. Insecticides, fungicides, and herbicides .....  | 0344 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 5. Fertilizers and manure purchased .....  | 0345 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 6. Livestock, poultry, and fish purchased .....  | 0346 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |
| 7. Seed cost - Include seedlings purchased .....   | 0347 | <input type="checkbox"/> | \$           | <input type="text"/> .00 |

## SECTION 12 EQUIPMENT

Which of the following EQUIPMENT are used on this place? Include all specified equipment on this place today, regardless of ownership, provided it is in operating condition.

|                                |      | None                     | Number               |
|--------------------------------|------|--------------------------|----------------------|
| 1. Tractors of all kinds ..... | 0350 | <input type="checkbox"/> | <input type="text"/> |
| 2. Motortrucks .....           | 0351 | <input type="checkbox"/> | <input type="text"/> |
| 3. Automobiles .....           | 0352 | <input type="checkbox"/> | <input type="text"/> |

## SECTION 13 PRACTICES

1. At any time during 2018, did this operation –

a. Use a computer for the farm business (laptop, desktop, or tablet)? ..... 0355 1  Yes 2  No

b. Have Internet access?

0356 1  Yes – Access to the Internet was through (check all that apply)

0357 1  Dial-up 3  Cable modem 5  Mobile broadband plan for a computer or a cell phone 7  Broadband over power lines

2  DSL 4  Fiber-optic 6  Satellite 8  Other, specify C

2  No

0358

## SECTION 14 GOVERNMENT AGRICULTURAL PROGRAMS

1. Did this operation participate in any Federal or Local agricultural program in 2018? Include participation in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), Conservation Reserve Enhancement Program (CREP), as well as any Federal or Local crop insurance program.

0375 1  Yes 2  No

2. Acres and/or amount received from -

a. Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Reserve Program (FWP), Conservation Reserve Enhancement Program (CREP) on September 30, 2018 .....

|                          | Acres in the open |            | Dollars only |
|--------------------------|-------------------|------------|--------------|
|                          | Whole acres       | Hundredths |              |
| None                     | 0376              |            | 0377         |
| <input type="checkbox"/> |                   | /100       | \$ .00       |
| None                     | 0378              |            |              |
| <input type="checkbox"/> |                   | /100       |              |

b. Acres in this operation covered under a crop insurance policy in 2018 .....

c. Direct payments, counter cyclical, and Average Crop Revenue Election (ACRE) payments as defined by the 2014 Farm Bill. ....

|      | None                     | Dollars only |
|------|--------------------------|--------------|
| 0379 | <input type="checkbox"/> | \$ .00       |

d. Other agricultural program payments -

INCLUDE:

- disaster, market loss
- CSP (Conservation Security Program)
- livestock programs
- national dairy market loss such as DAP (Dairy Assistance Program)
- DSA (Disaster Set-Aside Program)
- ECP (Emergency Conservation Program)
- EFRP (Emergency Forest Restoration Program)
- ELAP (Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program)
- EM (Emergency Loans)
- LIP (Livestock Indemnity Program)
- TAP (Tree Assistance Program)
- NAP (Non-Insured Assistance Program)
- EQIP (Environmental Quality Incentives Program)
- any other Federal program .....

|      | None                     | Dollars only |
|------|--------------------------|--------------|
| 0380 | <input type="checkbox"/> | \$ .00       |

e. Payments received from agricultural insurance offered by state or local government. ....

|      |                          |        |
|------|--------------------------|--------|
| 0381 | <input type="checkbox"/> | \$ .00 |
|------|--------------------------|--------|

f. Payments received from all other state and local government agricultural programs (Agricultural Salary Subsidies, subsidies for infrastructure and machinery, etc.) .....

|      |                          |        |
|------|--------------------------|--------|
| 0382 | <input type="checkbox"/> | \$ .00 |
|------|--------------------------|--------|

## SECTION 15 OPERATOR CHARACTERISTICS

The following questions are about the CHARACTERISTICS of the FARM OPERATOR.

1. Do you (operator) live on this place (the acres entered in section 1, question 4)?

0360 1  Yes 2  No

2. In what YEAR did you (operator) begin to operate any part of this place? .....

| Year |
|------|
|      |

3. How old were you (operator) on your last birthday? .....

| Age |
|-----|
|     |

4. At which occupation did you (operator) spend the majority (50% or more) of your time in 2018? .....

- 0363 { 1  Farming or ranching  
2  Other

5. OFF-FARM WORK – How many days did you (operator) work at least 4 hours per day off this place in 2018? Include work at a nonfarm job, business, or on someone else's farm. (Exclude exchange farm work.) .....

- 0364 { 1  None 4  100 - 149 days  
2  1 - 49 days 5  150 - 199 days  
3  50 - 99 days 6  200 days or more

# SECTION 16 ENUMERATOR'S RECORD

ENUMERATOR'S RECORD (To be completed by the census enumerator)


1. Who furnished the information in this report?..... 0370

|   |  |  |
|---|--|--|
| } | 1 <input type="checkbox"/> Operator                                      | 4 <input type="checkbox"/> Hired laborer                 |
|   | 2 <input type="checkbox"/> Landlord                                      | 5 <input type="checkbox"/> Other – Specify <i>C</i>      |
|   | 3 <input type="checkbox"/> Spouse or other family member <sup>0371</sup> | <input style="width: 100px; height: 15px;" type="text"/> |


2. **REMARKS** – Make any remarks needed in regard to the place, the owner or operator, the crops cultivated, or the livestock on this place.

|                            |   |   |
|----------------------------|---|---|
| <b>3. LOCATION OF LAND</b> | a. Island 0982  | b. Quarter or city 0983                                 |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 100%; height: 20px;" type="text"/> |
| <b>4. CERTIFIED BY</b>     | Enumerator's signature 0984                             | Date 0985   |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | / / 2019  |
| <b>5. CHECKED BY</b>       | Enumerator's signature 0986                             | Date 0987   |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | / / 2019  |

**NOTICE** - Response to this inquiry is required by law (Title 7, U.S. Code). The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law every employee and agent has taken an oath and it is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about your operation. Response is required.



**2018  
CENSUS OF  
AGRICULTURE  
AMERICAN SAMOA**



U.S. DEPARTMENT OF AGRICULTURE      NATIONAL AGRICULTURAL STATISTICS SERVICE

**Part A - QUESTIONNAIRE IDENTIFICATION (NASS USE ONLY)**

**FARM SERIAL NUMBER**

|     |       |          |
|-----|-------|----------|
| ARA | BLOCK | MAP SPOT |
|     |       |          |

|        |      |          |      |
|--------|------|----------|------|
| Island | Code | District | Code |
|        |      |          |      |
| County | Code | Village  | Code |
|        |      |          |      |

**Part B - OPERATOR'S NAME AND ADDRESS OR PHYSICAL LOCATION**

|      |      |      |      |      |
|------|------|------|------|------|
| 0035 | 0036 | 0037 | 0038 | 0039 |
|      |      |      |      |      |

9810 Operation name

9811 Person name

9812 Address 1

9813 Address 2

|           |            |               |
|-----------|------------|---------------|
| 9814 City | 9815 State | 9816 Zip Code |
|           |            |               |

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and compiling and reviewing the collection information.

**READ TO RESPONDENT** – We estimate that it will take from 20 to 40 minutes to complete this report, with 30 minutes being the average time. Do you have any land on which you keep livestock or grow crops for sale or family use? (If NO, go to Section 10 on the back page; if YES, continue with Section 1.)

**INSTRUCTIONS**

**1. Communal lands**

- a. Any land used in owner-like possession for the benefit of the extended family should be reported as land owned under section 1, question 1. If the land is used for the sole benefit of the operator rather than the extended family, report the land under section 1, question 2 on a separate questionnaire.
- b. Any land used to which title or right of ownership is not held, should be reported as land rented FROM OTHERS under section 1, question 2. Do this even though no rent is paid to the owner of this land.
- c. Any land to which the title is held or ownership claimed, which is used by a nonmember of the extended family, should be reported as land rented TO OTHERS under section 1, question 3. Do this even though no rent is paid by the nonmember. In such cases, a separate agriculture questionnaire should be completed for the lands reported under section 1, question 3 in the name of the person in charge.

**2. Private land**

**Privately owned lands, not held or operated under the communal system** - If crops were raised or livestock or poultry were kept, complete this agriculture questionnaire in the name of the person in charge. The person in charge is the one responsible for making the decisions. The person in charge will usually be the head of the family which plants or gathers the crops.

**3. All other land**

**Experimental farms, schools, churches, and other institutions** - If crops were raised or livestock or poultry were kept, complete this agriculture questionnaire in the name of the institution. Also, give the name of the manager or superintendent in part B, above.

**SECTION 1 LAND IN AGRICULTURE** (Report all land in tenths of acres)

|  | Communal land | Privately owned land | All other land | Total |
|--|---------------|----------------------|----------------|-------|
| 1. How many acres do you own or use in owner-like possession? <input type="checkbox"/> None  | 0040          | 0041                 | 0042           | 0043  |
|  |               |                      |                |       |
| 2. How many acres do you rent from others? (Include land used rent-free). <input type="checkbox"/>   | 0044          | 0045                 | 0046           | 0047  |
|  |               |                      |                |       |
| 3. How many acres do you rent to others? (Include land for which no rent is received) <input type="checkbox"/>   | 0048          | 0049                 | 0051           | 0052  |
|  |               |                      |                |       |
| 4. Total acres in this place - ADD acres owned (question 1) and acres rented from others (question 2), then subtract acres rented to others (question 3), and enter the result in this space. <input type="checkbox"/> | 0053          | 0054                 | 0055           | 0056  |
|  |               |                      |                |       |

**CONTINUE ON PAGE 2**

**PENALTY FOR FAILURE TO REPORT**

21168018

**SECTION 1**

**LAND IN AGRICULTURE** (Report all land in tenths of acres) – *Continued*

5. If you rented land from others, (question 2) enter the following information for each landlord . . . . .

|   | Name of owner | Village | Acres | Tenths |
|---|---------------|---------|-------|--------|
| 1 | 0057          | 0058    | 0059  | /10    |
| 2 | 0072          | 0073    | 0074  | /10    |
| 3 | 0075          | 0076    | 0077  | /10    |

6. How many separate PARCELS or PIECES of land or plantations are represented in the "Total acres in this place?" . . . . . 0060

| Number of parcels |
|-------------------|
|                   |

7. Is this farm producing mainly for family consumption or for sale? (Mark (X) one)  
 0061 1  Home consumption - Go to question 10      2  Sale - ASK questions 8 and 9

8. Which of the following best describes your operation?  
 0062 1  Crop holding    2  Livestock and/or poultry holding    3  Mixed holding - both crops and livestock    4  Other

9. In what YEAR did you begin to operate this farm? . . . . . 0063

| Year |
|------|
|      |

10. In 2018, how many paid farm hands (non-family members) worked on this place - . . . . .

| 150 days or more? | 25 to 149 days? | Less than 25 days? |
|-------------------|-----------------|--------------------|
| 0064              | 0065            | 0066               |
|                   |                 |                    |

11. What percent of the farm operation is financed by each of the following sources?

- a. Household . . . . . 0067
- b. Private (Individual) . . . . . 0068
- c. Commercial . . . . . 0069
- d. Government . . . . . 0070
- e. Other - Specify  . . . . . 0071

| None | Percent |
|------|---------|
|      | %       |
|      | %       |
|      | %       |
|      | %       |
|      | %       |

## SECTION 2 FIELD CROPS, MELONS, AND VEGETABLES

Did you harvest any FIELD CROPS, MELONS, or VEGETABLES in 2018, such as cabbage, cassava, taro yams, etc.?

0002 1  **Yes** - Complete this section      2  **No** - Go to Section 3

|  |      | How many acres were harvested in 2018? |        | What quantity was harvested in 2018? |     | What quantity was sold in 2018? |           | What was the value of sales in 2018?<br>(Dollars) |     | What was the quantity harvested for family use or consumption? |     |
|--|------|--|--------|--------------------------------------|-----|---------------------------------|-----------|---|-----|--|-----|
|  |      | Acres                                  | Tenths | Lbs                                  | Lbs | Lbs                             | (Dollars) | Lbs   | Lbs |  |     |
| 1. Cabbage   | 0080 | <input type="checkbox"/>               | /10    | 0081                                 | Lbs | 0082                            | Lbs       | 0083  | \$  | 0084   | Lbs |
| 2. Cassava   | 0085 | <input type="checkbox"/>               | /10    | 0086                                 | Lbs | 0087                            | Lbs       | 0088  | \$  | 0089   | Lbs |
| 3. Corn  | 0090 | <input type="checkbox"/>               | /10    | 0091                                 | Lbs | 0092                            | Lbs       | 0093  | \$  | 0094   | Lbs |
| 4. Cucumbers   | 0095 | <input type="checkbox"/>               | /10    | 0096                                 | Lbs | 0097                            | Lbs       | 0098  | \$  | 0099   | Lbs |
| 5. Eggplant  | 0100 | <input type="checkbox"/>               | /10    | 0101                                 | Lbs | 0102                            | Lbs       | 0103  | \$  | 0104   | Lbs |
| 6. Giant taro  | 0105 | <input type="checkbox"/>               | /10    | 0106                                 | Lbs | 0107                            | Lbs       | 0108  | \$  | 0109   | Lbs |
| 7. Green beans                                       | 0110 | <input type="checkbox"/>               | /10    | 0111                                 | Lbs | 0112                            | Lbs       | 0113  | \$  | 0114   | Lbs |
| 8. Green onions                                      | 0115 | <input type="checkbox"/>               | /10    | 0116                                 | Lbs | 0117                            | Lbs       | 0118  | \$  | 0119   | Lbs |
| 9. Melons (watermelons, honeydews, muskmelons, etc.) | 0120 | <input type="checkbox"/>               | /10    | 0121                                 | Lbs | 0122                            | Lbs       | 0123  | \$  | 0124   | Lbs |
| 10. Sugarcane  | 0125 | <input type="checkbox"/>               | /10    | 0126                                 | Lbs | 0127                            | Lbs       | 0128  | \$  | 0129   | Lbs |
| 11. Taro   | 0130 | <input type="checkbox"/>               | /10    | 0131                                 | Lbs | 0132                            | Lbs       | 0133  | \$  | 0134   | Lbs |
| 12. Tomatoes   | 0135 | <input type="checkbox"/>               | /10    | 0136                                 | Lbs | 0137                            | Lbs       | 0138  | \$  | 0139   | Lbs |
| 13. Yams   | 0140 | <input type="checkbox"/>               | /10    | 0141                                 | Lbs | 0142                            | Lbs       | 0143  | \$  | 0144   | Lbs |
| 14. Sweet potatoes                                   | 0500 | <input type="checkbox"/>               | /10    | 0501                                 | Lbs | 0502                            | Lbs       | 0503  | \$  | 0504   | Lbs |
| 15. Carrots  | 0505 | <input type="checkbox"/>               | /10    | 0506                                 | Lbs | 0507                            | Lbs       | 0508  | \$  | 0509   | Lbs |
| 16. Lettuce  | 0510 | <input type="checkbox"/>               | /10    | 0511                                 | Lbs | 0512                            | Lbs       | 0513  | \$  | 0514   | Lbs |
| 17. Asparagus  | 0515 | <input type="checkbox"/>               | /10    | 0516                                 | Lbs | 0517                            | Lbs       | 0518  | \$  | 0519   | Lbs |
| 18. Radish   | 0520 | <input type="checkbox"/>               | /10    | 0521                                 | Lbs | 0522                            | Lbs       | 0523  | \$  | 0524   | Lbs |
| 19. Sweet peppers                                    | 0525 | <input type="checkbox"/>               | /10    | 0526                                 | Lbs | 0527                            | Lbs       | 0528  | \$  | 0529   | Lbs |
| 20. Pumpkins   | 0530 | <input type="checkbox"/>               | /10    | 0531                                 | Lbs | 0532                            | Lbs       | 0533  | \$  | 0534   | Lbs |
| 21. Sprouts  | 0535 | <input type="checkbox"/>               | /10    | 0536                                 | Lbs | 0537                            | Lbs       | 0538  | \$  | 0539   | Lbs |
| 22. Laupele (edible hibiscus)                        | 0540 | <input type="checkbox"/>               | /10    | 0541                                 | Lbs | 0542                            | Lbs       | 0543  | \$  | 0544   | Lbs |
| 23. Sweet basil                                      | 0545 | <input type="checkbox"/>               | /10    | 0546                                 | Lbs | 0547                            | Lbs       | 0548  | \$  | 0549   | Lbs |
| 24. Cilantro   | 0550 | <input type="checkbox"/>               | /10    | 0551                                 | Lbs | 0552                            | Lbs       | 0553  | \$  | 0554   | Lbs |
| 25. Chives   | 0555 | <input type="checkbox"/>               | /10    | 0556                                 | Lbs | 0557                            | Lbs       | 0558  | \$  | 0559   | Lbs |
| 26. Kava   | 0560 | <input type="checkbox"/>               | /10    | 0561                                 | Lbs | 0562                            | Lbs       | 0563  | \$  | 0564   | Lbs |
| 27. Other field crops and vegetables - Specify       |      |  |        |                                      |     |                                 |           |   |     |  |     |
| 0565   |      | <input type="checkbox"/>               | /10    | 0567                                 | Lbs | 0568                            | Lbs       | 0569  | \$  | 0570   | Lbs |
| 0571   |      | <input type="checkbox"/>               | /10    | 0573                                 | Lbs | 0574                            | Lbs       | 0575  | \$  | 0576   | Lbs |
| 0577   |      | <input type="checkbox"/>               | /10    | 0579                                 | Lbs | 0580                            | Lbs       | 0581  | \$  | 0582   | Lbs |

## SECTION 3 FRUITS AND NUTS

Did you have any FRUIT or NUT trees or plants on this place, such as bananas, coconuts, mangoes, pineapples, etc.? (Quantity harvested in 2018 and number of trees and plants on December 31, 2018.)

0003 1  **Yes** - Complete this section      2  **No** - Go to Section 4

| Total trees or plants on this place   | Total trees or plants on this place | Total quantity harvested in 2018 | Quantity sold in 2018 | Value of sales in 2018 (Dollars) |                        | Quantity harvested for family use or consumption |  |    |
|---|-------------------------------------|----------------------------------|-----------------------|----------------------------------|------------------------|--|--|----|
| None  |                                     |                                  |                       |                                  |                        |  |  |    |
| 1. Avocados . . . . . 0150 <input type="checkbox"/>   | 0151                                | 0152                             | 0153                  | \$                               | .00                    | 0154   |  |    |
| 2. Bananas (Fai Palagi) . . 0155 <input type="checkbox"/>   | 0156                                | 0157                             | 0158                  | \$                               | .00                    | 0159   |  |    |
| 3. Bananas (Other varieties) 0160 <input type="checkbox"/>  | 0161                                | 0162                             | 0163                  | \$                               | .00                    | 0164   |  |    |
| 4. Breadfruits . . . . . 0165 <input type="checkbox"/>  | 0166                                | 0167                             | 0168                  | \$                               | .00                    | 0169   |  |    |
| 5. Cacao . . . . . 0170 <input type="checkbox"/>  | 0171                                | 0172                             | 0173                  | \$                               | .00                    | 0174   |  |    |
| 6. Coconuts . . . . . 0175 <input type="checkbox"/>   | 0176                                | 0177                             | 0178                  | \$                               | .00                    | 0179   |  |    |
| 7. Grapefruits . . . . . 0180 <input type="checkbox"/>  | 0181                                | 0182                             | 0183                  | \$                               | .00                    | 0184   |  |    |
| 8. Lemons . . . . . 0185 <input type="checkbox"/>   | 0186                                | 0187                             | 0188                  | \$                               | .00                    | 0189   |  |    |
| 9. Limes . . . . . 0190 <input type="checkbox"/>  | 0191                                | 0192                             | 0193                  | \$                               | .00                    | 0194   |  |    |
| 10. Mangoes . . . . . 0195 <input type="checkbox"/>   | 0196                                | 0197                             | 0198                  | \$                               | .00                    | 0199   |  |    |
| 11. Oranges . . . . . 0200 <input type="checkbox"/>   | 0201                                | 0202                             | 0203                  | \$                               | .00                    | 0204   |  |    |
| 12. Papayas . . . . . 0205 <input type="checkbox"/>   | 0206                                | 0207                             | 0208                  | \$                               | .00                    | 0209   |  |    |
| 13. Pineapples . . . . . 0210 <input type="checkbox"/>  | 0211                                | 0212                             | 0213                  | \$                               | .00                    | 0214   |  |    |
| 14. Sour sop . . . . . 0600 <input type="checkbox"/>  | 0601                                | 0602                             | 0603                  | \$                               | .00                    | 0604   |  |    |
| 15. Other fruits, nuts, and tree crops (pandanus, kopek, citrons, coffee, etc.) - Specify <u>  C  </u>  |                                     |                                  |                       |                                  |                        |  |  |    |
| 0605 <input type="checkbox"/>   | 0215                                | 0216                             | 0217                  | \$                               | .00                    | 0219   |  |    |
| 0606 <input type="checkbox"/>   | 0607                                | 0608                             | 0609                  | \$                               | .00                    | 0611   |  |    |
| 0612 <input type="checkbox"/>   | 0613                                | 0614                             | 0615                  | \$                               | .00                    | 0617   |  |    |
| 16. How many square feet under cover and/or acres in the open did you have planted in ORNAMENTAL PLANTS or in any other NURSERY CROPS? . . . . . 0220 | Square feet under cover             |                                  | Acres                 | Tenths                           | Value of sales in 2018 |  | Value of plants for family use in 2018 |    |
|   | 0221                                |                                  | /10                   | 0222                             | \$                     | .00  | 0223                                   | \$ |

## SECTION 4 LAND USE

Land is to be reported in **ONLY ONE CATEGORY**. If two or more uses were made of the same land, report in the **FIRST** category that applies.

|   | None                          | Acres | Tenths |
|---|-------------------------------|-------|--------|
| 1. <b>Cropland harvested</b> – Report the number of acres on which crops were grown and harvested . . . . .                                   | 0230 <input type="checkbox"/> |       | /10    |
| 2. <b>Other cropland</b> – Include cropland pasture, crop failure, idle and fallow cropland, and cropland used for soil improvement . . . . . | 0231 <input type="checkbox"/> |       | /10    |
| 3. <b>Pasture or grazing land</b> – Include woodland pasture. (DO NOT include cropland pasture.) . . . . .                                    | 0232 <input type="checkbox"/> |       | /10    |
| 4. <b>Woodland</b> (DO NOT include woodland pasture.) . . . . .   | 0233 <input type="checkbox"/> |       | /10    |
| 5. <b>All other land</b> – Include house lots, barn lots, lanes, roads, ditches, ponds, wasteland, etc. . . . .                               | 0234 <input type="checkbox"/> |       | /10    |
| 6. <b>TOTAL LAND</b> – Add entries in questions 1 through 5. This total should equal the entry in section 1, question 4. . . . .              | 0235 <input type="checkbox"/> |       | /10    |

## SECTION 5 LIVESTOCK AND POULTRY

How many of the following livestock and/or poultry were on this place December 31, and how many were sold or slaughtered for family use in 2018?

|   | None                          | How many were on this place Dec. 31?   | How many were sold in 2018?  | What was the value of sales in 2018? | How many were slaughtered for family use                       |
|---|-------------------------------|--|------------------------------|--------------------------------------|--|
| 1. Total cattle and calves of all ages (Total of "a" and "b" below) . . . . . | 0240 <input type="checkbox"/> | 0241                                   | 0242                         | \$ .00                               | 0243   |
| a. Milk Cows . . . . .  | 0244 <input type="checkbox"/> | 0245                                   | 0246                         | \$ .00                               | 0247   |
| b. All other cattle and calves . . . . .                                      | 0248 <input type="checkbox"/> | 0249                                   | 0250                         | \$ .00                               | 0251   |
| 2. Hogs and pigs of all ages . . . . .  | 0252 <input type="checkbox"/> | 0253                                   | 0254                         | \$ .00                               | 0255   |
| 3. Horses, mules, and colts of all ages. . . . .                              | 0256 <input type="checkbox"/> | 0257                                   | 0258                         | \$ .00                               | 0259   |
| 4. Chickens . . . . .   | 0260 <input type="checkbox"/> | 0261                                   | 0262                         | \$ .00                               | 0263   |
| 5. Other poultry (ducks, pigeons, guineas, geese, etc.) - Specify <u>    </u> |                               |  |                              |                                      |  |
| 0620 <input type="text"/>   | 0264 <input type="checkbox"/> | 0265                                   | 0266                         | \$ .00                               | 0267   |
| 0621 <input type="text"/>   | 0622 <input type="checkbox"/> | 0623                                   | 0624                         | \$ .00                               | 0625   |
| 6. Other livestock - Specify <u>    </u>                                      |                               |  |                              |                                      |  |
| 0626 <input type="text"/>   | 0268 <input type="checkbox"/> | 0269                                   | 0270                         | \$ .00                               | 0271   |
| 0627 <input type="text"/>   | 0628 <input type="checkbox"/> | 0629                                   | 0630                         | \$ .00                               | 0631   |
|   |                               | <b>Total quantity produced in 2018</b> | <b>Quantity sold in 2018</b> | <b>Value of sales in 2018</b>        | <b>Quantity produced for family use or consumption in 2018</b> |
| 7. How many dozen chicken eggs were produced during 2018? . . . . .           | 0272 <input type="checkbox"/> | 0273                                   | 0274                         | \$ .00                               | 0275   |
| 8. How many quarts of milk were produced during 2018? . . . . .               | 0276 <input type="checkbox"/> | 0277                                   | 0278                         | \$ .00                               | 0279   |



## SECTION 6 AQUACULTURE

Did you or any family member raise any **FISH or AQUACULTURE PRODUCTS** on this place during 2018?

0280 1  **Yes** - Complete this section      2  **No** - Go to Section 7

None 

| Number |
|--------|
|        |

1. How many in-ground **PONDS** did you use? ..... 0281

2. How many above-ground **TANKS** did you use? ..... 0282

3. Which of the following **FISH** or other **AQUACULTURE PRODUCTS** were raised in 2018?

|                                 |                               | Quantity Sold<br>(Pounds) |      | Value of sales<br>in 2018<br>(Dollars ONLY) |     | Quantity raised for<br>family use or<br>consumption |     |
|---------------------------------|-------------------------------|---------------------------|------|---|-----|---|-----|
| a. Tilapia                      | 0283 <input type="checkbox"/> | Lbs                       | 0284 | \$  | .00 | 0285  | Lbs |
| b. Shrimp                       | 0286 <input type="checkbox"/> | Lbs                       | 0287 | \$  | .00 | 0288  | Lbs |
| c. Crayfish                     | 0289 <input type="checkbox"/> | Lbs                       | 0290 | \$  | .00 | 0291  | Lbs |
| 4. Clams                        | 0292 <input type="checkbox"/> | Num                       | 0293 | \$  | .00 | 0294  | Num |
| 5. Other - Specify <u>  C  </u> |                               |                           |      |   |     |   |     |
| 0635                            | 0295 <input type="checkbox"/> | Lbs                       | 0296 | \$  | .00 | 0297  | Lbs |
| 0636                            | 0637 <input type="checkbox"/> | Lbs                       | 0638 | \$  | .00 | 0639  | Lbs |
| 0640                            | 0641 <input type="checkbox"/> | Lbs                       | 0642 | \$  | .00 | 0643  | Lbs |

## SECTION 7 FISH AND GIANT CLAMS

Did you or any family member **catch any fish or giant clams** for sale or family use, in 2018? (Do not include fish raised in captivity.)

0300 1  **Yes** - Complete this section      2  **No** - Go to Section 8

None 

| Number |
|--------|
|        |

1. Number of boats used for fishing ..... 0301

|                |                               | Total quantity<br>caught in 2018 |      | Quantity sold in 2018 |      | Value of sales<br>in 2018 |     | Quantity consumed or<br>for family use in 2018 |     |
|----------------|-------------------------------|----------------------------------|------|-----------------------|------|---------------------------|-----|--|-----|
| 2. Fish        | 0302 <input type="checkbox"/> | Lbs                              | 0303 | Lbs                   | 0304 | \$                        | .00 | 0305   | Lbs |
| 3. Giant Clams | 0306 <input type="checkbox"/> | Num                              | 0307 | Num                   | 0308 | \$                        | .00 | 0309   | Num |

## SECTION 8 EXPENSES

How much were your **EXPENDITURES** for each of the following in 2018?

|   |                               | Dollars only |     |
|---|-------------------------------|--------------|-----|
| 1. <b>Machine hire and customwork</b>   | 0310 <input type="checkbox"/> | \$           | .00 |
| 2. <b>Wages and salaries paid to employees or hired farm workers</b><br>(DO NOT include housework or contract construction work.) Include cash payments only . . .            | 0311 <input type="checkbox"/> | \$           | .00 |
| 3. <b>Feed purchased for livestock, poultry, and fish</b> - Include cost of grain, feed, concentrates, and roughages; also amount paid for grinding and mixing feed . . . . . | 0312 <input type="checkbox"/> | \$           | .00 |
| 4. <b>Insecticides, fungicides, and herbicides</b>  | 0313 <input type="checkbox"/> | \$           | .00 |
| 5. <b>Fertilizers and manure purchased</b>  | 0314 <input type="checkbox"/> | \$           | .00 |
| 6. <b>Livestock and poultry purchased</b>   | 0315 <input type="checkbox"/> | \$           | .00 |
| 7. <b>Seed cost</b> - Include seedlings purchased . . . . .   | 0316 <input type="checkbox"/> | \$           | .00 |

**SECTION 9 EQUIPMENT and FACILITIES**

1. How many of the following pieces of **EQUIPMENT** are on this place? (Include all specified equipment on this place today, regardless of ownership, provided it is in operating condition.)

|                                | None                          | Number |
|--------------------------------|-------------------------------|--------|
| a. Tractors of all kinds ..... | 0320 <input type="checkbox"/> |        |
| b. Motortrucks .....           | 0321 <input type="checkbox"/> |        |
| c. Automobiles .....           | 0322 <input type="checkbox"/> |        |
| d. Tillers of all kinds .....  | 0323 <input type="checkbox"/> |        |
| e. Chain Saws .....            | 0324 <input type="checkbox"/> |        |
| f. Weed Eaters .....           | 0325 <input type="checkbox"/> |        |
| g. Mist Blowers .....          | 0326 <input type="checkbox"/> |        |
| h. Knap Sack .....             | 0327 <input type="checkbox"/> |        |
| i. Wood chipper .....          | 0645 <input type="checkbox"/> |        |
| j. Other .....                 | 0646 <input type="checkbox"/> |        |

2. Do you have the following **FACILITIES** on this place?

|                              |                                     |                               |
|------------------------------|-------------------------------------|-------------------------------|
| a. Electricity .....         | 0328 1 <input type="checkbox"/> Yes | 2 <input type="checkbox"/> No |
| b. Piped running water ..... | 0329 1 <input type="checkbox"/> Yes | 2 <input type="checkbox"/> No |
| c. Other .....               | 0647 1 <input type="checkbox"/> Yes | 2 <input type="checkbox"/> No |

**SECTION 10 PRACTICES**

1. At any time during 2018, did this operation –

|  |  |   |
|--|--|---|
| a. Use a computer for the farm business (laptop, desktop, or tablet)? .....                                | 0648 1 <input type="checkbox"/> Yes    | 2 <input type="checkbox"/> No   |
| b. Have Internet access?   |  |   |
| <sup>0649</sup> 1 <input type="checkbox"/> Yes – Access to the Internet was through (check all that apply) |  |   |
| <sup>0650</sup> 1 <input type="checkbox"/> Dial-up   | 3 <input type="checkbox"/> Cable modem | 5 <input type="checkbox"/> Mobile broadband plan for a computer or a cell phone |
| 2 <input type="checkbox"/> DSL   | 4 <input type="checkbox"/> Fiber-optic | 6 <input type="checkbox"/> Satellite  |
| 7 <input type="checkbox"/> Broadband over power lines  |  |   |
| 8 <input type="checkbox"/> Other, specify <sub>C</sub>   |  |   |
| 2 <input type="checkbox"/> No  | 0651 <input type="text"/>              |   |

**SECTION 11 CHARACTERISTICS OF FARM OPERATOR**

| Name of family member (beginning with operator) | Relationship to Operator | Age  | Sex  | WFP  | Class of Work | Place of Birth | Citizen-ship | Resi-dence 10 years ago | Highest Level of Educ. | Days worked on Farm |
|---|--------------------------|------|------|------|---------------|----------------|--------------|-------------------------|------------------------|---------------------|
|   | <b>Operator</b>          | 0330 | 0331 | 0332 | 0333          | 0334           | 0335         | 0336                    | 0337                   | 0338                |
|   |                          | 0340 | 0341 | 0342 | 0343          | 0344           | 0345         | 0346                    | 0347                   | 0348                |
|   |                          | 0350 | 0351 | 0352 | 0353          | 0354           | 0355         | 0356                    | 0357                   | 0358                |
|   |                          | 0360 | 0361 | 0362 | 0363          | 0364           | 0365         | 0366                    | 0367                   | 0368                |
|   |                          | 0370 | 0371 | 0372 | 0373          | 0374           | 0375         | 0376                    | 0377                   | 0378                |
|   |                          | 0380 | 0381 | 0382 | 0383          | 0384           | 0385         | 0386                    | 0387                   | 0388                |
|   |                          | 0390 | 0391 | 0392 | 0393          | 0394           | 0395         | 0396                    | 0397                   | 0398                |
|   |                          | 0400 | 0401 | 0402 | 0403          | 0404           | 0405         | 0406                    | 0407                   | 0408                |
|   |                          | 0410 | 0411 | 0412 | 0413          | 0414           | 0415         | 0416                    | 0417                   | 0418                |
|   |                          | 0420 | 0421 | 0422 | 0423          | 0424           | 0425         | 0426                    | 0427                   | 0428                |
|   |                          | 0430 | 0431 | 0432 | 0433          | 0434           | 0435         | 0436                    | 0437                   | 0438                |
|   |                          | 0440 | 0441 | 0442 | 0443          | 0444           | 0445         | 0446                    | 0447                   | 0448                |
|   |                          | 0450 | 0451 | 0452 | 0453          | 0454           | 0455         | 0456                    | 0457                   | 0458                |
|   |                          | 0460 | 0461 | 0462 | 0463          | 0464           | 0465         | 0466                    | 0467                   | 0468                |
|   |                          | 0470 | 0471 | 0472 | 0473          | 0474           | 0475         | 0476                    | 0477                   | 0478                |
|   |                          | 0480 | 0481 | 0482 | 0483          | 0484           | 0485         | 0486                    | 0487                   | 0488                |
|   |                          | 0490 | 0491 | 0492 | 0493          | 0494           | 0495         | 0496                    | 0497                   | 0498                |

Enter the code for the following categories in the appropriate column above:

**1 - WFP (Work Force Participation) in the last week**

- 1 - Worked for pay only
- 2 - Worked for pay/subsistence
- 3 - Worked for subsistence only
- 4 - Worked for in-kind pay
- 5 - None - on leave or vacation
- 6 - None - available and seeking work
- 7 - None - seeking work but unavailable
- 8 - None - not seeking work

**2 - Class of Work**

- 1 - Government
- 2 - Private company or individual
- 3 - Self-employed

**3 - Birthplace**

- 01 - American Samoa
- 02 - Samoa
- 03 - Tonga
- 04 - Fiji
- 05 - Other Pacific
- 06 - United States
- 07 - Australia
- 08 - New Zealand
- 09 - Korea
- 10 - ROC
- 11 - Philippines
- 12 - Vietnamese
- 13 - Other Asian Country
- 14 - Other

**4 - Citizenship**

- 1 - US citizen
- 2 - US national
- 3 - Non-citizen/national permanent resident
- 4 - Non-citizen/national temporary resident

**5 - Residence - 2009**

- 01 - American Samoa
- 02 - Samoa
- 03 - Tonga
- 04 - Fiji
- 05 - Other Pacific
- 06 - United States
- 07 - Australia
- 08 - New Zealand
- 09 - Korea
- 10 - ROC
- 11 - Philippines
- 12 - Vietnamese
- 13 - Other Asian Country
- 14 - Other

**6 - Highest Education Level**

List the highest grade completed. 01 through 12 are used for elementary through high school. 13 through 16 represent university, and 17 and above indicate graduate work.

**7 - Days Worked on Farm**

- 1 - 150 days or more
- 2 - 25 - 149 days
- 3 - Less than 25 days

## SECTION 12 ENUMERATOR'S RECORD

### ENUMERATOR'S RECORD (To be completed by the census enumerator)

1. Who furnished the information in this report?..... 0660


|   |  |  |
|---|--|--|
| } | 1 <input type="checkbox"/> Operator                      | 4 <input type="checkbox"/> Hired laborer                                 |
|   | 2 <input type="checkbox"/> Landlord                      | 5 <input type="checkbox"/> Other – Specify <i>C</i>                      |
|   | 3 <input type="checkbox"/> Spouse or other family member | <sup>0661</sup> <input style="width: 100px; height: 15px;" type="text"/> |

2. **REMARKS** – Make any remarks needed in regard to the place, the owner or operator, the crops cultivated, or the livestock on this place.


|                            |   |   |
|----------------------------|---|---|
| <b>3. LOCATION OF LAND</b> | a. Island 0982  | b. County 0983  |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 100%; height: 20px;" type="text"/> |
| <b>4. CERTIFIED BY</b>     | Enumerator's signature 0984                             | Date 0985   |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | / / 2019  |
| <b>5. CHECKED BY</b>       | Enumerator's signature 0986                             | Date 0987   |
|                            | <input style="width: 100%; height: 20px;" type="text"/> | / / 2019  |

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**2018  
CENSUS OF AGRICULTURE**



**COMMONWEALTH  
OF NORTHERN  
MARIANA ISLANDS**



U.S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE

**Part A - QUESTIONNAIRE IDENTIFICATION (NASS USE ONLY)**

**FARM SERIAL NUMBER**

---

**Part B - OPERATOR'S NAME AND ADDRESS OR PHYSICAL LOCATION**

9810 Operation name

9811 Person name

9812 Address 1

9813 Address 2

9814 City  9815 State  9816 Zip Code

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 0035                                      | 0036                                      | 0037                                      | 0038                                      | 0039                                      |   |   |   |   |
| <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |

NOTICE: Response to this inquiry is required by law (Title 7, U.S. Code). The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is required.

**SECTION 1 LAND IN AGRICULTURE**

|  |      | None                     | Whole acres                               |  | Tenths |
|--|------|--------------------------|---|--|--------|
| 1. How many acres do you own? .....  | 0040 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> |  | /10    |
| 2. How many acres do you RENT FROM OTHERS? Include acres with or without a government land permit or acres that are furnished to you in connection with your living quarters by the government ..... | 0042 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> |  | /10    |
| 3. How many acres do you rent TO OTHERS? (DO NOT include land used by U.S. military services.) .....   | 0044 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> |  | /10    |
| 4. TOTAL ACRES IN "THIS PLACE" – ADD acres owned (question 1) and acres rented FROM OTHERS (question 2), then SUBTRACT acres rented TO OTHERS (question 3) and enter the result in this space .....  | 0045 | <input type="checkbox"/> | <input style="width: 100%;" type="text"/> |  | /10    |

5. How many unpaid and paid farm hands (including the operator and family members) worked on this place in 2018? .....

0051

| Total farm hands                          |  |
|---|--|
| <input style="width: 100%;" type="text"/> |  |

| 150 days or more?                         | 25 to 149 days?                           | Less than 25 days?                        |  |  |  |
|---|---|---|--|--|--|
| 0052                                      | 0053                                      | 0054                                      |  |  |  |
| <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |  |  |  |
| 0055                                      | 0056                                      | 0057                                      |  |  |  |
| <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |  |  |  |

a. Of the unpaid farm hands (including the operator and unpaid family workers), how many worked – .....

b. Of the paid farm hands (hired workers and paid members of the operator's family), how many worked – .....

6. What type of operating organization does this place have? .....

0058

}

- 1  Individual
- 2  Partnership
- 3  Corporation (DO NOT include cooperatives)
- 4  Other (Cooperative, estate, trust, etc.)

**CONTINUE ON PAGE 2**

**PENALTY FOR FAILURE TO REPORT**

21178017

## SECTION 2 ROOT CROPS

Did you harvest any ROOT CROPS FOR SALE in 2018?

0002 1  Yes - Complete this section 2  No - Go to Section 3

|  | None                          | How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|--|-------------------------------|--|--------|------|---|
|  |                               | Whole acres                            | Tenths |      |   |
| 1. Cassava (tapioca) .....                   | 0070 <input type="checkbox"/> |  | /10    | 0071 |   |
| 2. Gado .....                                | 0076 <input type="checkbox"/> |  | /10    | 0077 |   |
| 3. Ginger .....                              | 0078 <input type="checkbox"/> |  | /10    | 0079 |   |
| 4. Sweet potatoes .....                      | 0086 <input type="checkbox"/> |  | /10    | 0087 |   |
| 5. Taro .....                                | 0090 <input type="checkbox"/> |  | /10    | 0091 |   |
| 6. Yams .....                                | 0092 <input type="checkbox"/> |  | /10    | 0093 |   |
| 7. Other root crops - Specify <i>C</i> ..... | 0094 <input type="checkbox"/> |  | /10    | 0095 |   |
| 0096   | <input type="text"/>          |  |        |      |   |

## SECTION 3 VEGETABLES AND MELONS

Did you harvest any VEGETABLES or MELONS FOR SALE in 2018?

0003 1  Yes - Complete this section 2  No - Go to Section 4

|  | None                          | How many acres were harvested in 2018? |        |      | How many pounds were harvested in 2018? |
|--|-------------------------------|--|--------|------|---|
|  |                               | Whole acres                            | Tenths |      |   |
| 1. Alfalfa and/or bean sprouts .....                           | <input type="checkbox"/>      |  |        | 0101 |   |
| 2. Beans, yard-long .....                                      | 0102 <input type="checkbox"/> |  | /10    | 0103 |   |
| 3. Beans, all other varieties .....                            | 0104 <input type="checkbox"/> |  | /10    | 0105 |   |
| 4. Bittermelons .....  | 0106 <input type="checkbox"/> |  | /10    | 0107 |   |
| 5. Cabbage, Chinese .....                                      | 0108 <input type="checkbox"/> |  | /10    | 0109 |   |
| 6. Cabbage, head .....   | 0110 <input type="checkbox"/> |  | /10    | 0111 |   |
| 7. Cantaloups .....  | 0112 <input type="checkbox"/> |  | /10    | 0113 |   |
| 8. Corn .....  | 0118 <input type="checkbox"/> |  | /10    | 0119 |   |
| 9. Cucumbers .....   | 0120 <input type="checkbox"/> |  | /10    | 0121 |   |
| 10. Eggplant .....   | 0122 <input type="checkbox"/> |  | /10    | 0123 |   |
| 11. Muskmelons .....   | 0128 <input type="checkbox"/> |  | /10    | 0129 |   |
| 12. Okra .....   | 0130 <input type="checkbox"/> |  | /10    | 0131 |   |
| 13. Onions, green .....  | 0132 <input type="checkbox"/> |  | /10    | 0133 |   |
| 14. Peppers, hot .....   | 0134 <input type="checkbox"/> |  | /10    | 0135 |   |
| 15. Peppers, sweet .....                                       | 0136 <input type="checkbox"/> |  | /10    | 0137 |   |
| 16. Pumpkins and squash .....                                  | 0138 <input type="checkbox"/> |  | /10    | 0139 |   |
| 17. Radishes .....   | 0140 <input type="checkbox"/> |  | /10    | 0141 |   |
| 18. Tomatoes (Include both standard and cherry tomatoes) ..... | 0146 <input type="checkbox"/> |  | /10    | 0147 |   |
| 19. Watermelons .....  | 0148 <input type="checkbox"/> |  | /10    | 0149 |   |
| 20. Other vegetables and melons - Specify <i>C</i> .....       | 0150 <input type="checkbox"/> |  | /10    | 0151 |   |
| 0152   | <input type="text"/>          |  |        |      |   |

## SECTION 4 FRUITS, NUTS, AND NURSERY CROPS

Were any FRUITS, NUTS, or NURSERY CROPS grown or harvested FOR SALE in 2018?

0004 1  Yes - Complete this section      2  No - Go to Section 5

How much land is in bearing and nonbearing fruit and nut trees (plants)?..... 0159

| Whole acres | Tenths |
|-------------|--------|
|             | /10    |

|   | None                          | How many trees or plants are not of bearing age? | How many trees or plants are of bearing age? | How many pounds were harvested in 2018? |
|---|-------------------------------|--|--|---|
| 1. Avocados.....  | 0160 <input type="checkbox"/> |  | 0161   | 0162                                    |
| 2. Bananas.....   | 0163 <input type="checkbox"/> |  | 0164   | 0165                                    |
| 3. Betelnuts.....   | 0166 <input type="checkbox"/> |  | 0167   | 0168                                    |
| 4. Breadfruits.....   | 0169 <input type="checkbox"/> |  | 0170   | 0171                                    |
| 5. Coconuts.....  | 0172 <input type="checkbox"/> |  | 0173   | 0174                                    |
| 6. Grapefruit.....  | 0175 <input type="checkbox"/> |  | 0176   | 0177                                    |
| 7. Guavas.....  | 0178 <input type="checkbox"/> |  | 0179   | 0180                                    |
| 8. Lemons and limes.....  | 0181 <input type="checkbox"/> |  | 0182   | 0183                                    |
| 9. Mangoes.....   | 0184 <input type="checkbox"/> |  | 0185   | 0186                                    |
| 10. Oranges.....  | 0187 <input type="checkbox"/> |  | 0188   | 0189                                    |
| 11. Papayas.....  | 0190 <input type="checkbox"/> |  | 0191   | 0192                                    |
| 12. Pineapples.....   | 0193 <input type="checkbox"/> |  | 0194   | 0195                                    |
| 13. Soursops.....   | 0199 <input type="checkbox"/> |  | 0200   | 0201                                    |
| 14. Starfruits.....   | 0202 <input type="checkbox"/> |  | 0203   | 0204                                    |
| 15. Sweetsops.....  | 0205 <input type="checkbox"/> |  | 0206   | 0207                                    |
| 16. Tangerines.....   | 0208 <input type="checkbox"/> |  | 0209   | 0210                                    |
| 17. Other fruits, nuts, and tree crops - Specify C... 0211 <input type="checkbox"/> |                               |  | 0212   | 0213                                    |

0214

|   | None | Square feet under cover | Acres in the open |        | Value of sales in 2018 |     |
|---|------|-------------------------|-------------------|--------|------------------------|-----|
|   |      |                         | Whole acres       | Tenths |                        |     |
| 0218  |      |                         | 0219              |        | 0220                   |     |
| 18. Nursery crops (including ornamental plants) .. <input type="checkbox"/> |      |                         |                   | /10    | \$                     | .00 |

## SECTION 5 LAND USE

Land is to be reported in **ONLY ONE CATEGORY**. If two or more uses were made of the same land, report in the **FIRST** category that applies.

|    |  | None                          | Whole acres | Tenths |
|----|--|-------------------------------|-------------|--------|
| 1. | <b>Cropland harvested</b> – Report the number of acres on which crops were grown and harvested .....                                   | 0231 <input type="checkbox"/> |             | /10    |
| 2. | <b>Other cropland</b> – Include cropland pasture, crop failure, idle and fallow cropland, and cropland used for soil improvement ..... | 0232 <input type="checkbox"/> |             | /10    |
| 3. | <b>Pasture or grazing land</b> – Include woodland pasture. (DO NOT include cropland pasture.) .....                                    | 0233 <input type="checkbox"/> |             | /10    |
| 4. | <b>Woodland</b> (DO NOT include woodland pasture.) .....   | 0234 <input type="checkbox"/> |             | /10    |
| 5. | <b>All other land</b> – Include house lots, barn lots, lanes, roads, ditches, ponds, wasteland, etc. ....                              | 0235 <input type="checkbox"/> |             | /10    |
| 6. | <b>TOTAL LAND</b> – Add entries in questions 1 through 5. This total should equal the entry in section 1, question 4. ....             | 0236 <input type="checkbox"/> |             | /10    |

## SECTION 6 IRRIGATION

Was Any LAND in this place **IRRIGATED** at any time during 2018? Irrigated land is all land watered by any artificial or controlled means: sprinklers, furrows or ditches, spreader dikes, etc. Include supplemental, partial, and pre-plant irrigation.

0006 1  **Yes** - Complete this section      2  **No** - Go to Section 7

|      |   | None                          | Whole acres | Tenths |
|------|---|-------------------------------|-------------|--------|
| 1.   | How many acres were irrigated from a <b>PRIVATE SYSTEM</b> (wells, rivers, brooks, etc.)? .....   | 0240 <input type="checkbox"/> |             | /10    |
| 2.   | How many acres were irrigated from a <b>PUBLIC SYSTEM</b> ? .....   | 0241 <input type="checkbox"/> |             | /10    |
| 3.   | If water from a public system was used, which rate was charged for the water?   |                               |             |        |
| 0245 | 1 <input type="checkbox"/> Agricultural rate      2 <input type="checkbox"/> Residential rate   |                               |             |        |
| 4.   | Major source of water used for irrigation:  |                               |             |        |
| 0247 | 1 <input type="checkbox"/> Well or cistern      3 <input type="checkbox"/> Lake or private pond      5 <input type="checkbox"/> Public utility          |                               |             |        |
|      | 2 <input type="checkbox"/> River or stream      4 <input type="checkbox"/> Canal or irrigation district      6 <input type="checkbox"/> Other – Specify | 0248                          |             |        |



## SECTION 7 LIVESTOCK

Do you or anyone else have any LIVESTOCK (excluding poultry and fish) on this place or were any sold from this place in 2018?

0007 1  Yes - Complete this section 2  No - Go to Section 8

|                           |  | None                     |                          | How many are on this place today? | How many were sold in 2018? |
|---------------------------|--|--------------------------|--------------------------|-----------------------------------|-----------------------------|
| 1.                        | Cattle and calves of all ages (Total of "a" and "b" below) ..... | 0252                     | <input type="checkbox"/> |                                   | 0253                        |
| Of this total, how many - |  |                          |                          |                                   |                             |
|                           |  | Are on this place today? |                          | Were sold in 2018?                |                             |
| a.                        | Milk cows .....  | 0262                     |                          | 0263                              |                             |
| b.                        | All other cattle and calves .....                                | 0264                     |                          | 0265                              |                             |
| 2.                        | Hogs and pigs of all ages .....                                  | 0266                     | <input type="checkbox"/> |                                   | 0267                        |
| 3.                        | Goats and kids of all ages .....                                 | 0274                     | <input type="checkbox"/> |                                   | 0275                        |
| 4.                        | Horses, mules, and colts of all ages .....                       | 0276                     | <input type="checkbox"/> |                                   | 0277                        |
| 5.                        | Other livestock - Specify <sup>0273</sup> <input type="text"/>   | 0278                     | <input type="checkbox"/> |                                   | 0279                        |
|                           |  |                          |                          | Quarts sold                       | Gross value of sales        |
| 6.                        | Quantity and value of milk sold in 2018 .....                    | 0280                     |                          | 0281                              | \$ <input type="text"/> .00 |

## SECTION 8 POULTRY

Do you or anyone else have any POULTRY on this place or were any sold from this place in 2018?

0008 1  Yes - Complete this section 2  No - Go to Section 9

|                           |   | None                     |                          | How many are on this place today? | How many were sold in 2018? |
|---------------------------|---|--------------------------|--------------------------|-----------------------------------|-----------------------------|
| 1.                        | Chicken hens 4 months old and over (Total of "a" and "b" below) ..          | 0292                     | <input type="checkbox"/> |                                   | 0293                        |
| Of this total, how many - |   |                          |                          |                                   |                             |
|                           |   | Are on this place today? |                          | Were sold in 2018?                |                             |
| a.                        | Commercial layers .....   | 0294                     |                          | 0295                              |                             |
| b.                        | Other chicken hens .....  | 0296                     |                          | 0297                              |                             |
| 2.                        | Chickens less than 4 months old .....                                       | 0300                     | <input type="checkbox"/> |                                   | 0301                        |
| 3.                        | Roosters and pullets .....  | 0302                     | <input type="checkbox"/> |                                   | 0303                        |
| 4.                        | Fighting roosters .....   | 0304                     | <input type="checkbox"/> |                                   | 0305                        |
| 5.                        | Ducks .....   | 0306                     | <input type="checkbox"/> |                                   | 0307                        |
| 6.                        | Pigeons .....   | 0308                     | <input type="checkbox"/> |                                   | 0309                        |
| 7.                        | Other (geese, turkeys, etc.) - Specify <sup>0314</sup> <input type="text"/> | 0310                     | <input type="checkbox"/> |                                   | 0311                        |
|                           |   |                          |                          | Dozens sold                       | Gross value of sales        |
| 8.                        | Quantity and value of chicken eggs sold in 2018 .....                       | 0312                     |                          | 0313                              | \$ <input type="text"/> .00 |

## SECTION 9 AQUACULTURE

Did you or anyone else raise any FISH or AQUACULTURE PRODUCTS (shrimp, etc.) for sale?

0009 1  Yes - Complete this section      2  No - Go to Section 10

|    |   | Number               |      |
|----|---|----------------------|------|
| 1. | How many in-ground ponds did you use? .....   | 0320                 |      |
| 2. | How many above-ground tanks did you use? .....  | 0321                 |      |
|    |   | Pounds sold          |      |
| 3. | How much FISH or other AQUACULTURE PRODUCT was raised and sold from this place in 2018? ..... | 0322                 | 0323 |
|    |   | Gross value of sales |      |
|    |   | \$                   | .00  |

## SECTION 10 VALUE OF SALES

What was the MARKET VALUE of the following AGRICULTURAL PRODUCTS SOLD from this place in 2018, before taxes and expenses?

|                                   |   | None |                          | Dollars only |     |
|-----------------------------------|---|------|--------------------------|--------------|-----|
| 1.                                | Root crops .....  | 0330 | <input type="checkbox"/> | \$           | .00 |
| 2.                                | Vegetables and melons .....   | 0331 | <input type="checkbox"/> | \$           | .00 |
| 3.                                | Fruits and nuts .....   | 0332 | <input type="checkbox"/> | \$           | .00 |
| 4.                                | Nursery crops, including ornamentals .....  | 0333 | <input type="checkbox"/> | \$           | .00 |
| 5.                                | Cattle and calves .....   | 0334 | <input type="checkbox"/> | \$           | .00 |
| 6.                                | Hogs and pigs .....   | 0335 | <input type="checkbox"/> | \$           | .00 |
| 7.                                | Poultry - chickens, roosters, pullets, ducks, pigeons, etc. ....                      | 0336 | <input type="checkbox"/> | \$           | .00 |
| 8.                                | Eggs, except chicken eggs, and other poultry products .....                           | 0337 | <input type="checkbox"/> | \$           | .00 |
| 9.                                | Other livestock and livestock products - goats, horses, mules, goats' milk, etc. .... | 0338 | <input type="checkbox"/> | \$           | .00 |
| 0339 Specify <input type="text"/> |   |      |                          |              |     |

## SECTION 11 PRODUCTION EXPENSES

How much were your EXPENDITURES for each of the following in 2018?

|     |   | None |                          | Dollars only |     |
|-----|---|------|--------------------------|--------------|-----|
| 1.  | Machine hire and customwork .....   | 0341 | <input type="checkbox"/> | \$           | .00 |
| 2.  | Wages and salaries paid to employees or hired farm workers<br>(DO NOT include housework or contract construction work.) Include cash payments only ..           | 0342 | <input type="checkbox"/> | \$           | .00 |
| 3.  | Feed purchased for livestock, poultry, and fish - Include cost of grain, feed, concentrates, and roughages; also amount paid for grinding and mixing feed ..... | 0343 | <input type="checkbox"/> | \$           | .00 |
| 4.  | Insecticides, fungicides, and herbicides .....  | 0344 | <input type="checkbox"/> | \$           | .00 |
| 5.  | Fertilizers and manure purchased .....  | 0345 | <input type="checkbox"/> | \$           | .00 |
| 6.  | Livestock, poultry, and fish purchased .....  | 0346 | <input type="checkbox"/> | \$           | .00 |
| 7.  | Seed cost - Include seedlings purchased .....   | 0347 | <input type="checkbox"/> | \$           | .00 |
| 8.  | Gasoline, fuels, and oils purchased for the farm business.<br>Include diesel, natural gas, LP gas, motor oil, grease, etc. ....                                 | 0348 | <input type="checkbox"/> | \$           | .00 |
| 9.  | Water expenses - Include water used for irrigation .....  | 0349 | <input type="checkbox"/> | \$           | .00 |
| 10. | Transportation cost (excluding fuel expenses) .....   | 0340 | <input type="checkbox"/> | \$           | .00 |

## SECTION 12 EQUIPMENT

Which of the following EQUIPMENT are used on this place? Include all specified equipment on this place today, regardless of ownership, provided it is in operating condition.

|                                | None                          | Number |
|--------------------------------|-------------------------------|--------|
| 1. Tractors of all kinds ..... | 0350 <input type="checkbox"/> |        |
| 2. Motortrucks .....           | 0351 <input type="checkbox"/> |        |
| 3. Automobiles .....           | 0352 <input type="checkbox"/> |        |
| 4. Tillers of all kinds .....  | 0353 <input type="checkbox"/> |        |

## SECTION 13 PRACTICES

1. At any time during 2018, did this operation –

a. Have fallow land? ..... 0354 1  Yes 2  No

b. Rotate crop? ..... 0355 1  Yes 2  No

c. Build paddocks for pasture rotation? ..... 0356 1  Yes 2  No

d. Plant any grasses such as guinea grass, napier or other species for land improvement? ..... 0357 1  Yes 2  No

e. Employ Freely Associated States citizens? ..... 0358 1  Yes 2  No

f. Use a computer for the farm business? ..... 0359 1  Yes 2  No

g. Have Internet access?

0371 1  Yes – Access to the Internet was through (check all that apply)

0372 1  Dial-up 3  Cable modem 5  Mobile broadband plan for a computer or a cell phone 7  Broadband over power lines

2  DSL 4  Fiber-optic 6  Satellite 8  Other, specify

2  No 0373

## SECTION 14 OPERATOR CHARACTERISTICS

The following questions are about the CHARACTERISTICS of the FARM OPERATOR.

1. Do you (operator) live on this place (the acres entered in section 1, question 4)?

0360 1  Yes 2  No

| Year |
|------|
|      |

2. In what YEAR did you (operator) begin to operate any part of this place? .....

0361

| Age |
|-----|
|     |

3. How old were you (operator) on your last last birthday? .....

0362

4. At which occupation did you (operator) spend the majority (50 percent or more) of you work time in 2018? ..

- 0363 { 1  Farming or ranching  
2  Other

5. OFF-FARM WORK – How many days did you (operator) work at least 4 hours per day off this place in 2018? Include work at a nonfarm job, business, or on someone else's farm. (Exclude exchange farm work.) .....

- 0364 { 1  None 4  100 - 149 days  
2  1 - 49 days 5  150 - 199 days  
3  50 - 99 days 6  200 days or more

6. RACE/NATIONAL ORIGIN of operator .....

- 0365 { 1  Chamorro 5  White  
2  Chinese 6  Other – Specify C  
3  Filipino 0374   
4  Japanese

7. Citizenship of operator .....

- 0366 { 1  U.S. Citizen born in the CNMI 3  Naturalized U.S. Citizen  
2  U.S. Citizen born in other state or territory 4  Not a U.S. Citizen

8. SEX of operator .....

- 0367 1  Male 2  Female

## SECTION 15 ENUMERATOR'S RECORD (To be completed by the census enumerator)

1. Who furnished the information in this report? .....

- 0370 { 1  Operator 4  Hired laborer  
2  Landlord 5  Other – Specify C  
3  Spouse or other family member 0375

2. REMARKS – Make any remarks needed in regard to the place, the owner or operator, the crops cultivated, or the livestock on this place.

0979

|                          |                             |                      |
|--------------------------|-----------------------------|----------------------|
| 3. RESIDENCE OF OPERATOR | a. ED 0980                  | b. Village 0981      |
|                          | <input type="text"/>        | <input type="text"/> |
| 4. LOCATION OF LAND      | a. ED 0982                  | b. ED number 0983    |
|                          | <input type="text"/>        | <input type="text"/> |
| 5. CERTIFIED BY          | Enumerator's signature 0984 | Date 0985            |
|                          | <input type="text"/>        | / /2019              |
| 6. CHECKED BY            | Enumerator's signature 0986 | Date 0987            |
|                          | <input type="text"/>        | / /2019              |

## 2018 IRRIGATION AND WATER MANAGEMENT SURVEY

Form Number: 18-A621  
(09/05/2018)



National Agricultural  
Statistics Service

Return your  
completed report to:

Census of Agriculture  
1201 East 10th Street  
Jeffersonville, IN 47132

18-A621

**OFFICE USE ONLY**

0010

*Make corrections to name, address, and ZIP Code if necessary.*

- **February 15, 2019** – Everyone, including nursery, greenhouse, and other horticultural crop producers, must return this form by this date.
- **www.agcounts.usda.gov** – Use this website to report via the Internet.
- Use **blue or black ballpoint pen** to complete this form.
- **Questions** – Call us toll-free at 1-888-424-7828. Thank you for your cooperation.

### SECTION 1 ACREAGE IN 2018

- Report land owned, rented, or used by you, your spouse, or the partnership, corporation, or organization printed above.
- Round to whole acres.
- Include ALL LAND, regardless of location or use – cropland, pastureland, rangeland, woodland, idle land, **greenhouses or other area under protection**, farmsteads, Conservation Reserve Program (CRP) land, etc.

|  |      |                                  |  | Number of Acres |
|--|------|----------------------------------|--|-----------------|
| 1. All land owned .....  | 0025 | None<br><input type="checkbox"/> |  | [ ]             |
| 2. All land rented or leased <b>from others</b> , including land worked by you on shares, used rent free, in exchange for services, payment of taxes, etc. Include Federal, state and railroad land leased on a per-acre basis. Exclude leased land (e.g., private, Federal, state, railroad) used on a per-head or animal unit month (AUM) basis under a grazing permit. .... | 0026 | <input type="checkbox"/> +       |  | [ ]             |
| 3. All land rented or leased <b>to others</b> , including land worked on shares by others and land subleased .....   | 0027 | <input type="checkbox"/> -       |  | [ ]             |
| 4. <b>TOTAL ACRES</b> in this operation (Items 1 + 2 - 3 = <b>BOX A</b> ). ....  | 0028 | =                                |  | [ ]             |

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: [www.nass.usda.gov/confidentiality](http://www.nass.usda.gov/confidentiality). Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0234. The time required to complete this information collection is estimated to average 45 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

21308010



**SECTION 2 LAND IN 2018**

- Of the acres reported in **BOX A** on the previous page, report how all the land was used in column 1 below.
- If the same land had more than one use in 2018, report that land only one time in items 1 through 3.
- **Include area under protection.** Under protection includes crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection and hoop houses. Crops covered only temporarily, such as for frost protection, to be further grown in the open should not be included for area under protection.
- In column 2, include as irrigated any land to which partial, supplemental, or preplant irrigation water was applied.
- Irrigation is the application of water by any artificial or controlled means such as sprinklers, furrows and ditches, spreader dikes, flooding, hand watering, or subirrigation pipes. Include the area where lagoon waste water from livestock operations was distributed by a sprinkler or flood system.

**1. Cropland – Exclude cropland used only for pasture.**

|  | None                     | Column 1<br>Number of Acres | None                     | Column 2<br>Acres Reported in<br>Column 1 that are Irrigated |
|--|--------------------------|-----------------------------|--------------------------|--|
| a. Cropland harvested in the open – Include harvested field crops and hay; and land in vegetables, orchards, citrus groves, vineyards, berries, nuts, Christmas trees, short-rotation woody crops, nursery and other horticultural crops ..... | <input type="checkbox"/> | 0029                        | <input type="checkbox"/> | 0030   |
| b. Nursery, greenhouse, and other horticulture under protection – Include all area under protection. Round to the nearest whole acre .....   | <input type="checkbox"/> | 0077                        | <input type="checkbox"/> | 0078   |
| c. Cropland not harvested or grazed – Include cropland on which all crops failed, cropland idle, cropland used for cover crops or CRP, and cropland in summer fallow .....   | <input type="checkbox"/> | 0033                        | <input type="checkbox"/> | 0034   |

**2. Pasture**

|  |                          |      |                          |      |
|--|--------------------------|------|--------------------------|------|
| a. Permanent pasture and rangeland .....   | <input type="checkbox"/> | 0135 | <input type="checkbox"/> | 0136 |
| b. Woodland pastured .....   | <input type="checkbox"/> | 0137 |                          |      |
| c. Other pasture and grazing land (including rotational pasture) that could have been used for crops without additional improvements. .... | <input type="checkbox"/> | 0107 | <input type="checkbox"/> | 0108 |

**3. All other land – Include land not reported above.** Include woodland not pastured, farmsteads, home, buildings, livestock facilities, ponds, roads, wasteland, etc. ....

|                          |      |
|--------------------------|------|
| <input type="checkbox"/> | 0039 |
|--------------------------|------|

Total Acres on this Operation

Total Acres Irrigated

**4. TOTAL ACRES – Add acres in each column and enter the totals.** ....

| BOX B |  | BOX C |  |
|-------|--|-------|--|
| 0041  |  | 0042  |  |

(BOX B above should be the same as BOX A on page 1.)

**5. Was any area irrigated on this operation in 2018?**

- Include all irrigated land in the open and all area under protection.
- Irrigation is the application of water by any artificial or controlled means such as sprinklers, furrows and ditches, spreader dikes, flooding, hand watering, or subirrigation pipes. Include the area where lagoon waste water from livestock operations was distributed by a sprinkler or flood system.

0003 1  **Yes** - Continue                      3  **No** - Go to Section 16 on page 20

**6. What State had the majority of irrigated acres on this operation in 2018?** .....

| State |
|-------|
| 0951  |

21308028



**SECTION 3 GROUND WATER FROM WELLS**

1. Did this operation irrigate with ground water from wells on this operation in 2018?

0760 1  **Yes - Continue** 3  **No - Go to Section 4**

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2. If the wells are not on the operation, such as a municipal or rural water system, report this as off-farm water in Section 5.

2. Report acres in the open irrigated with ground water and amount of water applied in 2018. Include all irrigated crops, including nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown in the open and irrigated pastureland . . . . .

| Acres in the Open Irrigated by Ground Water |  | Quantity of Ground Water Applied |  | Enter Code for Unit of Measure<br>1 = Total Acre-Feet<br>2 = Total Gallons<br>3 = Inches/Acre |  |
|---|--|----------------------------------|--|---|--|
| 0444  |  | 0446                             |  | 0447  |  |

3. Report the area under protection irrigated with ground water in 2018. Under protection includes nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection and hoop houses . . . . .  None

| Square Feet Under Protection Irrigated with Ground Water |  |
|--|--|
| 0455   |  |

4. How many wells on this operation were used for irrigation in 2018? . . . . .

| Number of Wells |  |
|-----------------|--|
| 0460            |  |

a. Of the (item 4) wells, how many used backflow prevention devices (check valves) and how many acres and/or square feet under protection were irrigated with these wells in 2018? . . . . .  None

| Number of Wells |  | Acres in the Open |  | Square Feet Under Protection |  |
|-----------------|--|-------------------|--|------------------------------|--|
| 0770            |  | 0771              |  | 0679                         |  |

b. Of the (item 4) wells, how many had flow meters or other flow measurement devices and how many acres and/or square feet under protection were irrigated with these wells in 2018? . . . . .

|      |  |      |  |      |  |
|------|--|------|--|------|--|
| 0683 |  | 0772 |  | 0680 |  |
|------|--|------|--|------|--|

c. Of the (item 4) wells, how many were free flowing wells that did not require a pump? . . . . .

|      |  |
|------|--|
| 0486 |  |
|------|--|

5. Report for the first three primary wells pumped in 2018.

|                   | Depth of Well<br>(Feet) | Depth to Bowls or Impellers<br>(Feet) | Depth to Water at Start of Irrigation Season<br>(Feet) | Pump Capacity – Discharge From Well<br>(GPM) | Operating Pressure at Well Head<br>(PSI) | Horsepower of Engines or Motors, Including Electric<br>(HP) |
|-------------------|-------------------------|---------------------------------------|--|--|--|---|
| Well #1 . . . . . | 0461                    | 0463                                  | 0462   | 0464   | 0676                                     | 0761  |
| Well #2 . . . . . | 0465                    | 0467                                  | 0466   | 0468   | 0677                                     | 0763  |
| Well #3 . . . . . | 0469                    | 0471                                  | 0470   | 0472   | 0678                                     | 0765  |

a. Report averages for all other wells pumped in 2018. . . . .

|      | Average Depth of Well(s)<br>(Feet) | Average Depth to Bowls or Impellers<br>(Feet) | Average Depth to Water at Start of Irrigation Season<br>(Feet) | Average Pump Capacity – Discharge From Well<br>(GPM) | Average Operating Pressure at Well Head<br>(PSI) | Average Horsepower of Engines or Motors, Including Electric<br>(HP) |
|------|------------------------------------|---|--|--|--|---|
| 0481 |                                    | 0483  | 0482   | 0484   | 0681   | 0767  |

6. For the wells used on this operation, what is the best description for the depth to water over the last five years? Mark (X) one.

0487 1  Depth to water did not change 2  Depth to water increased 3  Depth to water decreased



**SECTION 4 ON-FARM SURFACE WATER**

1. Did this operation irrigate with on-farm surface water, including recycled water and on-farm reclaimed water, in 2018?

*Recycled water is reused surface or groundwater that was previously used to irrigate a crop (e.g. water from a tailwater reuse pit used for irrigation).*

*On-farm reclaimed water is on-farm livestock wastewater that has been treated for non-potable reuse purposes. (For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season.)*

0438 1  **Yes** - Continue 3  **No** - Go to Section 5

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2.

2. Report acres in the open irrigated with on-farm surface water and amount of water applied in 2018. Include irrigated nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown in the open and irrigated pastureland . . . . .

| Acres in the Open Irrigated by On-Farm Surface Water |  | Quantity of On-Farm Surface Water Applied |  | Enter Code for Unit of Measure<br>1 = Total Acre-Feet<br>2 = Total Gallons<br>3 = Inches/Acre |  |
|--|--|---|--|---|--|
| 0449   |  | 0451                                      |  | 0452  |  |

3. Report the area under protection irrigated with on-farm surface water in 2018. Under protection includes nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection and hoop houses . . . . .

None

| Square Feet Under Protection Irrigated with On-Farm Surface Water |  |
|---|--|
| 0458  |  |

4. Did this operation use **on-farm recycled water** to irrigate any crops, including horticultural crops, grown during 2018?

0600 1  **Yes** - Continue 3  **No** - Go to Item 5 below

a. How many acres in the open and square feet under protection were irrigated with **on-farm recycled water** during 2018? . . . . .

| Acres in the Open |  | Square Feet Under Protection |  |
|-------------------|--|------------------------------|--|
| 0601              |  | 0936                         |  |

5. Did this operation use **reclaimed water from on-farm livestock facilities** to irrigate any crops, including horticultural crops, grown during 2018? *(For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season. If this minimum amount is not met, mark (X) "No" below.)*

0543 1  **Yes** - Continue 3  **No** - Go to Section 5

a. How many acres in the open and/or square feet under protection were irrigated with one or more applications of **reclaimed water from on-farm livestock facilities** during 2018? . . . . .

| Acres in the Open |  | Square Feet Under Protection |  |
|-------------------|--|------------------------------|--|
| 0587              |  | 0588                         |  |

b. How much **reclaimed water from on-farm livestock facilities** was used for irrigation during 2018? . . . . .

| Acre-Feet |  | OR | Gallons |  |
|-----------|--|----|---------|--|
| 0599      |  |    | 0561    |  |





**SECTION 5 OFF-FARM WATER**

1. Did this operation irrigate with off-farm water in 2018?

**INCLUDE**

- acres in the open and area under protection irrigated with off-farm water from all suppliers
- all off-farm surface water, municipal (such as town or city) water, and rural water suppliers
- area irrigated with reclaimed water from off-farm sources such as treated municipal sewer water (blue water), industrial, off-farm livestock operations, or other off-farm sources

0457 1  **Yes** - Continue 3  **No** - Go to Section 6

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2.

2. Report acres in the open irrigated with off-farm water and amount of water applied in 2018. Include irrigated horticultural crops grown in the open and irrigated pastureland .....

| Acres in the Open Irrigated by Off-Farm Water |  | Quantity of Off-Farm Water Applied |  | Enter Code for Unit of Measure<br>1 = Total Acre-Feet<br>2 = Total Gallons<br>3 = Inches/Acre |  |
|---|--|------------------------------------|--|---|--|
| 0454  |  | 0968                               |  | 0969  |  |

3. Report the area under protection irrigated with off-farm water in 2018. Under protection includes nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection and hoop houses .....

| Square Feet Under Protection Irrigated with Off-Farm Water |      |
|--|------|
| None <input type="checkbox"/>                              | 0428 |

4. Did you pay for the off-farm water received on this operation?

0675 1  **Yes** - Report the total dollars paid for the off-farm water .....

| Dollars |            |
|---------|------------|
| 0456    | \$ .....00 |

3  **No** - Continue

5. How much of this operation's off-farm water was supplied, delivered, or transferred through a project financed, constructed, or managed by -

- a. U.S. Bureau of Reclamation? Include reclamation water delivered through a local district, .....
- |      |                                 |                                 |                                |
|------|---------------------------------|---------------------------------|--------------------------------|
| 0664 | 1 <input type="checkbox"/> None | 2 <input type="checkbox"/> Some | 3 <input type="checkbox"/> All |
|------|---------------------------------|---------------------------------|--------------------------------|
- b. Other Federal agencies such as the U.S. Army Corp of Engineers, Bureau of Indian Affairs, and USDA small watershed project? .....
- |      |                                 |                                 |                                |
|------|---------------------------------|---------------------------------|--------------------------------|
| 0665 | 1 <input type="checkbox"/> None | 2 <input type="checkbox"/> Some | 3 <input type="checkbox"/> All |
|------|---------------------------------|---------------------------------|--------------------------------|
- c. All other suppliers? Include <sup>1012</sup> town and city water. Specify:  .....
- |      |                                 |                                 |                                |
|------|---------------------------------|---------------------------------|--------------------------------|
| 0666 | 1 <input type="checkbox"/> None | 2 <input type="checkbox"/> Some | 3 <input type="checkbox"/> All |
|------|---------------------------------|---------------------------------|--------------------------------|

6. Did this operation use **reclaimed water from off-farm sources** such as municipal reclaimed water, industrial, off-farm livestock operations, or other off-farm sources to irrigate any crops in 2018? Off-farm reclaimed water is wastewater that has been treated for non-potable reuse purposes. (For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season. If this minimum amount is not met, mark (X) "No" below.)

0602 1  **Yes** - Continue 3  **No** - Go to Section 6

a. How many acres in the open and/or square feet under protection were irrigated with one or more applications of **reclaimed water from off-farm sources** during 2018? .....

| Acres in the Open |  | Square Feet Under Protection |  |
|-------------------|--|------------------------------|--|
| 0597              |  | 0598                         |  |

b. How much **reclaimed water from off-farm sources** was used for irrigation during 2018? .....

| Acre-Feet |  | Gallons |  |
|-----------|--|---------|--|
| 0644      |  | 0645    |  |

**OR**

c. What sources of reclaimed water were used on this operation in 2018? Mark (X) all that apply.

- 1001  Municipal 1002  Industrial
- 1003  Off-farm livestock operation 1004  Other - Specify:  <sup>1005</sup>



**SECTION 6 PUMPS, OTHER THAN WELL PUMPS, USED FOR IRRIGATION**

1. Were any surface water source pumps used on this operation for irrigation during 2018?

- 0488 1  **Yes** - Continue                      3  **No** - Go to Section 7

|   | None                     | Number of Pumps Used | Vertical Lift (Average Feet) | Discharge Capacity (Average GPM) | Discharge Operating Pressure (Average PSI) |
|---|--------------------------|----------------------|------------------------------|----------------------------------|--|
|   |                          | 0490                 | 0774                         | 0491                             | 0687                                       |
| 2. Tailwater pits (pits that hold water previously used for irrigation) . . . . .                                       | <input type="checkbox"/> |                      |                              |                                  |  |
|   |                          | 0492                 | 0775                         | 0493                             | 0688                                       |
| 3. Ponds, lakes, reservoirs, rivers, canals, etc. . . . .   | <input type="checkbox"/> |                      |                              |                                  |  |
| 4. Relifting or boosting water within system (pumps providing additional lift, pressure, or lateral movement) . . . . . | <input type="checkbox"/> | 0494                 | 0776                         | 0777                             | 0778                                       |
|   |                          |                      |                              |                                  |  |

**SECTION 7 ENERGY EXPENSE FOR ALL WELL AND OTHER IRRIGATION PUMPS**

Report the energy expense by power source. Report the fuel used and power expense for pumping irrigation water for the well pumps reported in Section 3 and for other pumps reported in Section 6 above. Report energy expense for acres in the open and area under protection. If irrigated acres in the open were less than one acre, round to one acre. Include the cost of any additional charges such as the fuel adjustment charge or any other type of charge which was based on the amount of power or fuel purchased. Include landlord's share.

| POWER SOURCE   | None                     | Number of Wells and Other Pumps Used<br><i>(Reported in Sections 3 &amp; 6)</i> | Cost of Energy Used to Power Pumps<br><br>(Dollars) | Area Irrigated with Water Pumped from Wells |                              | Area Irrigated with Pumped Surface Water (Both on- and off-farm) |                              |
|--|--------------------------|---|---|---|------------------------------|--|------------------------------|
|  |                          |   |   | Acres in the Open (Whole Acres)             | Square Feet Under Protection | Acres in the Open (Whole Acres)                                  | Square Feet Under Protection |
|  |                          | 0495  | 0496  | 0497  | 0124                         | 0781   | 0537                         |
| 1. Electricity . . . . .   | <input type="checkbox"/> |   | \$ .00  |   |                              |  |                              |
|  |                          | 0498  | 0499  | 0500  | 0125                         | 0782   | 0538                         |
| 2. Natural gas . . . . .   | <input type="checkbox"/> |   | \$ .00  |   |                              |  |                              |
|  |                          | 0501  | 0502  | 0503  | 0126                         | 0783   | 0539                         |
| 3. LP gas, propane, or butane . . . . .                          | <input type="checkbox"/> |   | \$ .00  |   |                              |  |                              |
|  |                          | 0504  | 0505  | 0506  | 0127                         | 0784   | 0540                         |
| 4. Diesel and biodiesel fuel . . . . .                           | <input type="checkbox"/> |   | \$ .00  |   |                              |  |                              |
|  |                          | 0507  | 0508  | 0509  | 0128                         | 0890   | 0541                         |
| 5. Gasoline, ethanol, and blends . . . . .                       | <input type="checkbox"/> |   | \$ .00  |   |                              |  |                              |
|  |                          | 0779  |   | 0780  | 0129                         | 0786   | 0542                         |
| 6. Solar and other pumps without direct energy expense . . . . . | <input type="checkbox"/> |   |   |   |                              |  |                              |



**SECTION 8 METHOD OF WATER DISTRIBUTION IN FIELDS IN THE OPEN**

1. Did this operation irrigate any fields in the open?  
 • Include acres of horticultural crops grown in the open or under natural shade.  
 • Exclude crops grown under protection: glass, rigid plastic, plastic film, including "tunnel" protection. (Methods for crops grown under protection will be reported in Section 12.)

0489 1  **Yes** - Continue 3  **No** - Go to Section 12

Report acres irrigated by each type of FIELD distribution or delivery system listed below. If the same land was irrigated by more than one method of distribution, report acres irrigated by each method used. Report information for the field distribution system, NOT for the delivery system used to convey water from the source to the field, if different.

| Acres in the Open Irrigated by Gravity System (Field Water Conveyance System) |                          |                  |   |   |                               |  |
|---|--------------------------|------------------|---|---|-------------------------------|--|
| Total   | Unlined Open Ditch       | Lined Open Ditch | Poly Pipe (or other single-year use, lay-flat tubing) | Above Ground Pipe (except poly pipe) <sup>1</sup> | Underground Pipe <sup>2</sup> |  |
| 0855  | 0859                     | 0857             | 0056  | 0057  | 0858                          |  |
| 2. Gravity irrigation   | None                     |                  |   |   |                               |  |
| a. Down rows or furrows . . . . .   | <input type="checkbox"/> |                  |   |   |                               |  |
| b. Controlled flooding (between borders or within basins). . . . .            | <input type="checkbox"/> |                  |   |   |                               |  |
| c. Uncontrolled flooding (rangeland, pastureland, etc.)                       | <input type="checkbox"/> |                  |   |   |                               |  |
| d. Other gravity systems . . . . .  | <input type="checkbox"/> |                  |   |   |                               |  |

<sup>1</sup> Include gated pipe and riser or hydrant systems connected to above ground pipe.  
<sup>2</sup> Include riser or hydrant systems connected to underground pipe.

| Acres In the Open Irrigated by Sprinkler System   |                                  |                             |                                |                                |
|---|----------------------------------|-----------------------------|--------------------------------|--------------------------------|
|   | Very Low Pressure (Under 15 PSI) | Low Pressure (15 to 29 PSI) | Medium Pressure (30 to 59 PSI) | High Pressure (60 PSI or more) |
| 0569  | 0576                             | 0575                        | 0570                           |                                |
| 3. Sprinkler irrigation – Inlet pressure  | None                             |                             |                                |                                |
| a. Center pivot systems (circle) . . . . .  | <input type="checkbox"/>         |                             |                                |                                |
| b. Linear move tower systems (and other linear continuous move drive systems) . . . . . | <input type="checkbox"/>         |                             |                                |                                |
| c. Solid set or permanent systems (except low-flow micro systems) . . . . .             | <input type="checkbox"/>         |                             |                                |                                |

|   |                          | Acres Irrigated (all pressures) |  |
|---|--------------------------|---------------------------------|--|
|   | None                     |                                 |  |
| d. Mechanical move systems  |                          |                                 |  |
| (i) Side roll, wheel move, or other mechanical move systems and other discrete move systems . . . . .                                   | <input type="checkbox"/> | 0240                            |  |
| (ii) Big gun or traveler systems . . . . .  | <input type="checkbox"/> | 0241                            |  |
| e. Hand-move systems, including hand watered nursery and other horticultural crops grown in the open . . . . .                          | <input type="checkbox"/> | 0242                            |  |
| f. Other sprinkler systems . . . . .  | <input type="checkbox"/> | 0243                            |  |
| 4. Drip, trickle, or low-flow micro irrigation  |                          |                                 |  |
| a. Surface drip (on or above ground) . . . . .  | <input type="checkbox"/> | 0248                            |  |
| b. Sub-surface drip (root zone) . . . . .   | <input type="checkbox"/> | 0246                            |  |
| c. Low-flow micro sprinklers or sprays (these systems apply water at low pressure and are not self-propelled or easily moved) . . . . . | <input type="checkbox"/> | 0247                            |  |
| d. Other drip, trickle, or low-flow micro systems . . . . .   | <input type="checkbox"/> | 0249                            |  |



**SECTION 9 ACRES HARVESTED IN THE OPEN AND PASTURELAND**

1. Did this operation irrigate any crops in the open or pastureland?

0388

1  **Yes** - Continue

3  **No** - Go to Section 12

For each item listed, report the irrigated acres harvested in the first column. If pastureland is irrigated, report total acres of irrigated pastureland in the first column. For selected crops, report the average yield from the irrigated harvested acres in the second column. Then report the average irrigation water applied per acre in either acre-feet or inches for the acres reported in column one. Report the crop as irrigated if water was applied to supplement rainfall, even if the amount of water applied was not sufficient to obtain maximum yields. **Report nursery and other horticultural crops grown in the open in item 17.**

| Irrigated Crops and Pastureland   | Irrigated Land<br>Include preplant and supplemental or semi-irrigation |  |           |  |           |        |      |
|---|--|--|-----------|--|-----------|--------|------|
|   | Irrigated Acres Harvested  | Average Yield per Irrigated Acre Harvested |           | Average Estimated Quantity of Water Applied per Acre |           |        |      |
|   |  |  |           |  | Acre-Feet | Tenths | OR   |
| 2. Corn for grain or seed – Exclude popcorn and sweet corn. . . . . <input type="checkbox"/>                    | 0050   | 0051                                       |           | 0052   |           | OR     | 0053 |
|   |  |  | Bu.       |  |           |        |      |
| 3. Corn for silage or greenchop – Exclude popcorn and sweet corn. . . . . <input type="checkbox"/>              | 0060   | 0061                                       | Tenths    | 0062   |           | OR     | 0063 |
|   |  |  | Tons      |  |           |        |      |
| 4. Sorghum for grain or seed. . . . . <input type="checkbox"/>  | 0070   | 0071                                       |           | 0072   |           | OR     | 0073 |
|   |  |  | Bu.       |  |           |        |      |
| 5. Wheat for grain or seed. . . . . <input type="checkbox"/>  | 0080   | 0081                                       |           | 0082   |           | OR     | 0083 |
|   |  |  | Bu.       |  |           |        |      |
| 6. Soybeans for beans. . . . . <input type="checkbox"/>   | 0106   | 0101                                       |           | 0102   |           | OR     | 0103 |
|   |  |  | Bu.       |  |           |        |      |
| 7. Beans, dry edible. . . . . <input type="checkbox"/>  | 0110   | 0111                                       |           | 0112   |           | OR     | 0113 |
|   |  |  | Cwt.      |  |           |        |      |
| 8. Rice – Include post harvest water applied to improve residue decomposition. . . . . <input type="checkbox"/> | 0120   | 0121                                       |           | 0122   |           | OR     | 0123 |
|   |  |  | Cwt.      |  |           |        |      |
| 9. Other small grains (barley, oats, rye, etc.) . . . . . <input type="checkbox"/>                              | 0130   |  |           | 0132   |           | OR     | 0133 |
|   |  |  |           |  |           |        |      |
| 10. Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage). . . . . <input type="checkbox"/>             | 0140   | 0141                                       | Tenths    | 0142   |           | OR     | 0143 |
|   |  |  | Tons, dry |  |           |        |      |



| SECTION 9  |                          | Continued –  |        |  |      |  |        |      |
|--|--------------------------|--|--------|--|------|--|--------|------|
| Irrigated Crops and Pastureland  |                          | Irrigated Land<br>Include preplant and supplemental or semi-irrigation |        |  |      |  |        |      |
|  |                          | Irrigated Acres Harvested  |        | Average Yield per Irrigated Acre Harvested |      | Average Estimated Quantity of Water Applied per Acre |        |      |
|  |                          |  |        |  |      | Acre-Feet  | Tenths | OR   |
| 11. All other hay and haylage including small grain, other tame, and wild hay (dry hay, greenchop, and silage) . . . . .   | None                     | 0150   | 0151   | Tenths                                     | 0152 |  | OR     | 0153 |
|  | <input type="checkbox"/> |  |        | Tons, dry                                  |      |  |        |      |
| 12. Peanuts . . . . .  |                          | 0550   | 0551   |  | 0552 |  | OR     | 0553 |
|  | <input type="checkbox"/> |  |        | Lbs.                                       |      |  |        |      |
| 13. Cotton . . . . .   |                          | 0160   | 0161   |  | 0162 |  | OR     | 0163 |
|  | <input type="checkbox"/> |  |        | Lbs. lint                                  |      |  |        |      |
| 14. All land from which vegetables, potatoes, and melons were harvested . . . . .  |                          | 0186   | Tenths |  | 0187 |  | OR     | 0188 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| a. Sweet corn . . . . .  |                          | 0850   | Tenths | 0851                                       | 0852 |  | OR     | 0853 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| b. Tomatoes in the open . . . . .  |                          | 0860   | Tenths | 0861                                       | 0862 |  | OR     | 0863 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| c. Lettuce and romaine . . . . .   |                          | 0870   | Tenths | 0871                                       | 0872 |  | OR     | 0873 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| d. Potatoes – Exclude sweet potatoes . . . . .   |                          | 0190   | Tenths | 0191                                       | 0192 |  | OR     | 0193 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| 15. All berries . . . . .  |                          | 0560   | Tenths |  | 0562 |  | OR     | 0563 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| 16. Land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees . . . . .   |                          | 0210   | Tenths |  | 0212 |  | OR     | 0213 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| 17. Nursery and other horticultural crops grown in the open (Note: Nursery, greenhouse, and other horticultural crops grown under protection will be reported in a later section.) . . . . . |                          | 0690   | Tenths |  | 0691 |  | OR     | 0692 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| 18. All other crops grown in the open and not listed - Specify:<br>0620 <input style="width: 150px; height: 20px;" type="text"/> . . . . .   |                          | 0621   |        |  | 0622 |  | OR     | 0623 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |
| 19. Irrigated pastureland, all types . . . . .   |                          | 0230   |        |  | 0232 |  | OR     | 0233 |
|  | <input type="checkbox"/> |  |        |  |      |  |        |      |



**SECTION 10 FIELD WATER DISTRIBUTION AND WATER SOURCE FOR CROPS IN THE OPEN**

1. Did this operation irrigate any crops in the open or pastureland?

1489 1  **Yes** - Continue

3  **No** - Go to Section 12

**WATER DISTRIBUTION CODES - USE IN THE TABLE BELOW**

| CODE | PRESSURE SYSTEM  | CODE | GRAVITY SYSTEM  |
|------|--|------|---|
| 01 = | Hand-move system   | 15 = | Down rows or furrows from unlined open ditches  |
| 02 = | Solid set or permanent system                                  | 16 = | Down rows or furrows from lined open ditches  |
| 03 = | Side roll or wheel line system                                 | 17 = | Down rows or furrows from poly pipe, lay-flat tubing, or above ground or underground pipe         |
| 04 = | Big gun or traveling gun system                                | 18 = | Controlled flooding within field borders from unlined open ditches                                |
| 05 = | Linear move system (under 15 PSI)                              | 19 = | Controlled flooding within field borders from lined open ditches                                  |
| 06 = | Linear move system (15 to 29 PSI)                              | 20 = | Controlled flooding within field borders from poly pipe, lay-flat tubing, or above ground pipe    |
| 07 = | Linear move system (30 to 59 PSI)                              | 21 = | Controlled flooding within field borders from underground pipe                                    |
| 08 = | Linear move system (60 PSI or more)                            | 22 = | Uncontrolled flooding (rangeland, pastureland, etc.) including open discharge from a well or pump |
| 09 = | Center pivot system (under 15 PSI)                             | 23 = | Other gravity system - Specify:   |
| 10 = | Center pivot system (15 to 29 PSI)                             |      |   |
| 11 = | Center pivot system (30 to 59 PSI)                             |      |   |
| 12 = | Center pivot system (60 PSI or more)                           |      |   |
| 13 = | Low-flow irrigation (drip, trickle, or micro sprinkler system) |      |   |
| 14 = | Other pressure system - Specify:                               |      |   |
| 1006 | <input type="text"/>   | 1007 | <input type="text"/>  |

Report for irrigated acres in the open. For each irrigated crop in the open, report separately the primary field distribution method, acres irrigated by water source, and acres on which chemigation was used in the irrigation system. Refer to the table above for the water distribution codes.

| Irrigated Crops and Pastureland  | Enter Code from Above for Primary Method of Field Water Distribution | Water Source<br>(Column totals may exceed irrigated crop acres reported in Section 9 when more than one water source was used.) |  |   | Acres on which chemigation was applied through the irrigation system |                               |      |
|--|--|---|--|---|--|-------------------------------|------|
|  |  | Ground Water from Wells (Acres)   | On-Farm Surface Water <sup>1</sup> (Acres) | Off-Farm Water (All Suppliers) <sup>2</sup> (Acres) | Commercial Fertilizer (Acres)  | Pesticide Application (Acres) |      |
| 2. Corn for grain or seed - Exclude popcorn and sweet corn . <input type="checkbox"/>        | None   | 0250  | 0255                                       | 0254  | 0256   | 0252                          | 0253 |
|  |  | 0260  | 0265                                       | 0264  | 0266   | 0262                          | 0263 |
| 3. Corn for silage or greenchop - Exclude popcorn and sweet corn . <input type="checkbox"/>  |  | 0270  | 0275                                       | 0274  | 0276   | 0272                          | 0273 |
| 4. Sorghum for grain or seed . . . . . <input type="checkbox"/>                              |  | 0280  | 0285                                       | 0284  | 0286   | 0282                          | 0283 |
| 5. Wheat for grain or seed . . . . . <input type="checkbox"/>                                |  | 0300  | 0305                                       | 0304  | 0306   | 0302                          | 0303 |
| 6. Soybeans for beans . . . . . <input type="checkbox"/>                                     |  | 0310  | 0315                                       | 0314  | 0316   | 0312                          | 0313 |
| 7. Beans, dry edible . . . . . <input type="checkbox"/>                                      |  | 0320  | 0325                                       | 0324  | 0326   | 0322                          | 0323 |
| 8. Rice . . . . . <input type="checkbox"/>   |  | 0330  | 0335                                       | 0334  | 0336   | 0332                          | 0333 |
| 9. Other small grains (barley, oats, rye, etc.) . . . . . <input type="checkbox"/>           |  | 0340  | 0345                                       | 0344  | 0346   | 0342                          | 0343 |
| 10. Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage) . <input type="checkbox"/> |  |   |  |   |  |                               |      |

<sup>1</sup> On-farm water source includes recycled water and reclaimed water from on-farm livestock operations.  
<sup>2</sup> Off-farm water supplies may include water purchased from the U.S. Bureau of Reclamation; a state, county, or local district; mutual, private, cooperative, or neighborhood ditches; or commercial or municipal water systems.



| SECTION 10 Continued –  |  |   |      |  |      |   |      |  |      |                               |      |        |
|---|--|---|------|--|------|---|------|--|------|-------------------------------|------|--------|
| Irrigated Crops and Pastureland   | Enter Code from Previous Page for Primary Method of Field Water Distribution | Water Source<br>(Column totals may exceed irrigated crop acres reported in Section 9 when more than one water source was used.) |      |  |      |   |      | Acres on which chemigation was applied through the irrigation system |      |                               |      |        |
|   |  | Ground Water from Wells (Acres)   |      | On-Farm Surface Water <sup>1</sup> (Acres) |      | Off-Farm Water (All Suppliers) <sup>2</sup> (Acres) |      | Commercial Fertilizer (Acres)  |      | Pesticide Application (Acres) |      |        |
| 11. All other hay and haylage including small grain, other ame, and wild hay (dry hay, greenchop, and silage) . . . . .   | None <input type="checkbox"/>  | 0350  | 0355 | 0354                                       | 0356 | 0352  | 0353 |  |      |                               |      |        |
|   |  | 0580  | 0585 | 0584                                       | 0586 | 0582  | 0583 |  |      |                               |      |        |
| 12. Peanuts . . . . .   | <input type="checkbox"/>   | 0360  | 0365 | 0364                                       | 0366 | 0362  | 0363 |  |      |                               |      |        |
| 13. Cotton . . . . .  | <input type="checkbox"/>   | 0474  | 0479 | Tenths                                     | 0478 | Tenths  | 0480 | Tenths   | 0476 | Tenths                        | 0477 | Tenths |
| 14. All acres in the open from which vegetables, potatoes, and melons were harvested . . . . .  | <input type="checkbox"/>   | 0900  | 0905 | Tenths                                     | 0904 | Tenths  | 0906 | Tenths   | 0902 | Tenths                        | 0903 | Tenths |
| a. Sweet corn . . . . .   | <input type="checkbox"/>   | 0910  | 0915 | Tenths                                     | 0914 | Tenths  | 0916 | Tenths   | 0912 | Tenths                        | 0913 | Tenths |
| b. Tomatoes in the open . . . . .   | <input type="checkbox"/>   | 0920  | 0925 | Tenths                                     | 0924 | Tenths  | 0926 | Tenths   | 0922 | Tenths                        | 0923 | Tenths |
| c. Lettuce and romaine . . . . .  | <input type="checkbox"/>   | 0390  | 0395 | Tenths                                     | 0394 | Tenths  | 0396 | Tenths   | 0392 | Tenths                        | 0393 | Tenths |
| d. Potatoes – Exclude sweet potatoes . . . . .  | <input type="checkbox"/>   | 0590  | 0595 | Tenths                                     | 0594 | Tenths  | 0596 | Tenths   | 0592 | Tenths                        | 0593 | Tenths |
| 15. All berries . . . . .   | <input type="checkbox"/>   | 0410  | 0415 | Tenths                                     | 0414 | Tenths  | 0416 | Tenths   | 0412 | Tenths                        | 0413 | Tenths |
| 16. Land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees . . . . .  | <input type="checkbox"/>   | 1110  | 1115 | Tenths                                     | 1114 | Tenths  | 1116 | Tenths   | 1112 | Tenths                        | 1113 | Tenths |
| 17. Nursery and other horticultural crops grown in the open ( <i>Note: Nursery, greenhouse, and other horticultural crops grown under protection will be reported in a later section.</i> ) . . . . . | <input type="checkbox"/>   | 1120  | 1125 | 1124                                       | 1126 | 1122  | 1123 |  |      |                               |      |        |
| 18. All other crops grown in the open and not listed – Specify:   |  | 1119  |      |  |      |   |      |  |      |                               |      |        |
| <input type="text"/>  | <input type="checkbox"/>   | 0430  | 0435 | 0434                                       | 0436 | 0432  | 0433 |  |      |                               |      |        |
| 19. Irrigated pastureland, all types . . . . .  | <input type="checkbox"/>   |   |      |  |      |   |      |  |      |                               |      |        |

<sup>1</sup> On-farm water source includes recycled water and reclaimed water from on-farm livestock operations.  
<sup>2</sup> Off-farm water supplies may include water purchased from the U.S. Bureau of Reclamation; a state, county, or local district; mutual, private, cooperative, or neighborhood ditches; or commercial or municipal water systems.



**SECTION 11 IRRIGATION FOR NURSERY AND OTHER HORTICULTURAL CROPS GROWN IN THE OPEN**

1. Were any irrigated nursery, floriculture, sod, mushrooms, vegetable seeds, propagative materials, Christmas trees, or other horticultural crops grown in the open (including natural shade) on this operation in 2018?

0751 1  **Yes - Continue** 3  **No - Go to Section 12**

2. Report total acres and irrigated acres for nursery and other horticultural crops grown in the open (including natural shade) . . . . .

| Acres in the Open |        |  |                 |        |      |
|-------------------|--------|--|-----------------|--------|------|
| Total Acres       | Tenths |  | Irrigated Acres | Tenths |      |
|                   | 0737   |  |                 |        | 0738 |

3. For nursery and other horticultural crops in the open, enter the total acres and irrigated acres by crop category on this operation in 2018.

**NURSERY AND OTHER HORTICULTURAL CROPS IN THE OPEN**

a. Floriculture and bedding crops  
Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets . . . . .

| Total Acres | Tenths |  | Irrigated Acres | Tenths |      |
|-------------|--------|--|-----------------|--------|------|
|             | 0739   |  |                 |        | 0740 |

b. Nursery crops  
Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants. . . . .

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 0741 |  |  | 0742 |  |  |
|------|--|--|------|--|--|

c. Sod . . . . .

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 0743 |  |  | 0744 |  |  |
|------|--|--|------|--|--|

d. Propagative materials  
Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields . . . . .

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 0745 |  |  | 0746 |  |  |
|------|--|--|------|--|--|

e. Christmas trees and short rotation woody crops . . . . .

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 0747 |  |  | 0748 |  |  |
|------|--|--|------|--|--|

f. Other horticultural crops - Specify:  
1010  . . . . .

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 0749 |  |  | 0750 |  |  |
|------|--|--|------|--|--|





**SECTION 11 CONTINUED –**

4. For nursery and other horticultural crops in the open, report area irrigated or watered in 2018 by method used. If more than one method was used on the same area, report for all methods that apply. Report quantity of water used for growing and finishing in the unit or units of measure most often used on this operation.

|  |                          | 1   | 2                               |  | 3  |   |   |                                    |
|--|--------------------------|---|---------------------------------|--|----|---|---|------------------------------------|
|  |                          | Total Acres Irrigated or Watered<br><small>Tenths</small> | a.<br>Quantity of Water Applied | b.<br>Enter Code for Unit of Measure<br><small>1 = Acre-Feet<br/>2 = Gallons<br/>3 = Inches/Acre</small> | OR | a.<br>Average Flow Rate<br><small>(Gallons per Minute)<br/><br/><small>Tenths</small></small> | b.<br>Number of Hours per Week Used in 2018 | c.<br>Number of Weeks Used in 2018 |
| IRRIGATION METHODS                                       | None                     | 0796  | 0797                            | 0798   | OR | 0799  | 0800  | 0801                               |
| a. Hand watered . . . . .                                | <input type="checkbox"/> |   |                                 |  | OR |   |   |                                    |
| b. Gravity irrigation . . . . .                          | <input type="checkbox"/> | 0802  | 0803                            | 0804   | OR | 0805  | 0806  | 0807                               |
| c. Sprinkler . . . . .                                   | <input type="checkbox"/> |   |                                 |  | OR |   |   |                                    |
| d. Drip, trickle, or low-flow micro irrigation . . . . . | <input type="checkbox"/> | 0808  | 0809                            | 0810   | OR | 0811  | 0812  | 0813                               |
| e. Subirrigation (including hydroponic) . . . . .        | <input type="checkbox"/> | 0814  | 0815                            | 0816   | OR | 0817  | 0818  | 0819                               |
|  |                          | 0820  | 0821                            | 0822   | OR | 0823  | 0824  | 0825                               |
|  |                          |   |                                 |  | OR |   |   |                                    |

5. For each method used to irrigate or water nursery and other horticultural crops in the open, report water sources by percent of source applied. If more than one source was used, report all that apply. For example, if the only source for handwatered crops was ground water, then report 100 percent in column 1, row a. If this operation used gravity irrigation and half of the water came from ground water and half came from on-farm surface water, then report 50 percent in column 1, row b and 50 percent in column 2, row b.

|  |  | Water Source   |  |   |       |
|--|--|--|--|---|-------|
|  |  | 1<br>Ground Water from Wells<br><small>(Percent)</small> | 2<br>On-Farm Surface Water<br><small>(Percent)</small> | 3<br>Off-Farm Water (All Suppliers)<br><small>(Percent)</small> | Total |
| IRRIGATION METHODS                                       |  | 0832   | 0833   | 0834  |       |
| a. Hand watered . . . . .                                |  |  |  |   | 100%  |
| b. Gravity irrigation . . . . .                          |  | 0835   | 0836   | 0837  | 100%  |
| c. Sprinkler . . . . .                                   |  | 0838   | 0839   | 0840  | 100%  |
| d. Drip, trickle, or low-flow micro irrigation . . . . . |  | 0841   | 0842   | 0843  | 100%  |
| e. Subirrigation (including hydroponic) . . . . .        |  | 0844   | 0845   | 0846  | 100%  |

For each irrigation method used, columns 1 + 2 + 3 must equal 100 percent.



**SECTION 12 IRRIGATION FOR NURSERY, GREENHOUSE, AND OTHER HORTICULTURAL CROPS GROWN UNDER PROTECTION**

1. Were any irrigated nursery or greenhouse crops, floriculture, sod, mushrooms, vegetable seeds, propagative materials, or other horticultural crops grown under protection on this operation in 2018? Include crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection and hoop houses. Exclude crops temporarily covered for early germination, frost protection, etc. Report crops grown under natural shade in Section 11.

0627 1  **Yes** - Continue                      3  **No** - Go to Section 13

|   |                               | Square Feet Under Protection |                |
|---|-------------------------------|------------------------------|----------------|
|   |                               | Total Area                   | Irrigated Area |
| 2. Report total area and irrigated area for nursery, greenhouse, and other horticultural crops grown under protection . . . . . | None <input type="checkbox"/> | 0628                         | 0629           |

3. For nursery or greenhouse crops, floriculture, sod, mushrooms, vegetable seeds, propagative materials, or other horticultural crops grown under protection, enter the total area and irrigated area by horticultural crop category on this operation in 2018.

**NURSERY, GREENHOUSE, AND OTHER HORTICULTURAL CROPS UNDER PROTECTION**

|   |                               | Total Area (Square Feet) | Irrigated Area (Square Feet) |
|---|-------------------------------|--------------------------|------------------------------|
| a. Floriculture and bedding crops   | None <input type="checkbox"/> |                          |                              |
| Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets . . . . .                           |                               | 0630                     | 0631                         |
| b. Nursery crops  | <input type="checkbox"/>      |                          |                              |
| Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants. . . . . |                               | 0632                     | 0633                         |
| c. Propagative materials  | <input type="checkbox"/>      |                          |                              |
| Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields . . . . .   |                               | 0636                     | 0637                         |
| d. Food crops grown under protection  | <input type="checkbox"/>      |                          |                              |
| Tomatoes, other vegetables and fresh cut herbs, fruits and berries . . . . .  |                               | 0638                     | 0639                         |
| e. Mushroom crops . . . . .   | <input type="checkbox"/>      | 0640                     | 0641                         |
| f. Other horticultural crops - Specify:   |                               |                          |                              |
| 1011 <input type="text"/>   | <input type="checkbox"/>      | 0642                     | 0643                         |



**SECTION 12 CONTINUED –**

4. For nursery, greenhouse, and other horticultural crops under protection, report area irrigated or watered in 2018 by method used. If more than one method was used on the same area, report for all methods that apply. Report quantity of water in the unit or units of measure most often used on this operation. If total quantity of water (column 2a) and the unit of measure (column 2b) are known, then skip column 3.

| IRRIGATION METHODS                                       | None                     | 1   | 2                            |  | OR | 3   |  |                                 |
|--|--------------------------|---|------------------------------|--|----|---|--|---------------------------------|
|  |                          | Total Area Irrigated or Watered (Square Feet) | a. Quantity of Water Applied | b. Enter Code for Unit of Measure<br>1=Acre-Feet<br>2=Gallons<br>3=Gallons/Sq Ft<br>4=Inches/Sq Ft |    | a. Average Flow Rate (Gallons per Minute) Tenthhs | b. Number of Hours per Week Used in 2018 | c. Number of Weeks Used in 2018 |
|  |                          | 0701  | 0702                         | 0703   |    | 0704  | 0705                                     | 0706                            |
| a. Hand watered . . . . .                                | <input type="checkbox"/> | 0707  | 0708                         | 0709   | OR | 0710  | 0711                                     | 0712                            |
| b. Gravity irrigation . . . . .                          | <input type="checkbox"/> | 0713  | 0714                         | 0715   | OR | 0716  | 0717                                     | 0718                            |
| c. Sprinkler . . . . .                                   | <input type="checkbox"/> | 0719  | 0720                         | 0721   | OR | 0722  | 0723                                     | 0724                            |
| d. Drip, trickle, or low-flow micro irrigation . . . . . | <input type="checkbox"/> | 0725  | 0726                         | 0727   | OR | 0728  | 0729                                     | 0730                            |
| e. Subirrigation (including hydroponic) . . . . .        | <input type="checkbox"/> |   |                              |  | OR |   |  |                                 |

5. For each method used to irrigate or water nursery, greenhouse, or other horticultural crops under protection, report water sources by percent of source applied. If more than one source was used, report all that apply. For example, if the only source for handwatered crops was ground water, then report 100 percent in column 1, row a. If this operation used gravity irrigation and half of the water came from ground water and half came from on-farm surface water, then report 50 percent in column 1, row b and 50 percent in column 2, row b.

| IRRIGATION METHODS                                       | Water Source                           |                                      |   |       |
|--|--|--------------------------------------|---|-------|
|  | 1<br>Ground Water from Wells (Percent) | 2<br>On-Farm Surface Water (Percent) | 3<br>Off-Farm Water (All Suppliers) (Percent) | Total |
|  | 0646                                   | 0647                                 | 0648  |       |
| a. Hand watered . . . . .                                |  |                                      |   | 100%  |
|  | 0649                                   | 0650                                 | 0651  |       |
| b. Gravity irrigation . . . . .                          |  |                                      |   | 100%  |
|  | 0652                                   | 0653                                 | 0654  |       |
| c. Sprinkler . . . . .                                   |  |                                      |   | 100%  |
|  | 0655                                   | 0656                                 | 0657  |       |
| d. Drip, trickle, or low-flow micro irrigation . . . . . |  |                                      |   | 100%  |
|  | 0658                                   | 0659                                 | 0660  |       |
| e. Subirrigation (including hydroponic) . . . . .        |  |                                      |   | 100%  |

For each irrigation method used, columns 1 + 2 + 3 must equal 100 percent.



| <b>SECTION 13 EXPENDITURES FOR IRRIGATION</b>   |                                |   |  |  |  |
|---|--------------------------------|---|--|--|--|
| EXPENDITURE AND FUNDING ASSISTANCE CODES – USE IN THE TABLE BELOW   |                                |   |  |  |  |
| CODE  | PRIMARY PURPOSE OF EXPENDITURE | CODE  | PRIMARY SOURCE OF FUNDING ASSISTANCE                         |  |  |
| 1 = New expansion<br>2 = Water conservation<br>3 = Energy conservation<br>4 = Scheduled replacement or maintenance  |                                | 1 = No funding assistance or loans<br>2 = FSA Environmental Quality Incentives Program (EQIP)<br>3 = Other USDA financial assistance or loans<br>4 = Non-USDA and all other financial assistance or loans |  |  |  |
| <p>Report the 2018 expenditure cost, acres affected (rounded to the nearest acre), primary purpose of expenditure, and primary source of funding assistance by expenditure category using the Expenditure and Funding Assistance Codes from the table above. Include the portion of the expenditures made by or shared with others (landlords or government agencies), including programs such as Environmental Quality Incentive Program (EQIP).</p> |                                |   |  |  |  |
| EXPENDITURE TYPE  | None                           | Total Cost of Expenditure<br>(Include amount financed)  | Irrigated Acres<br>Affected by<br>Expenditure<br><br>(Acres) | Enter<br>Code from<br>Above for<br>Primary<br>Purpose<br>of<br>Expenditure | Enter<br>Code from<br>Above for<br>Primary<br>Source of<br>Funding<br>Assistance |
| 1. Purchase of new or replacement irrigation equipment and machinery – Include sprinklers, pipes, siphons, nozzles, pumps, engines, motors, filtration equipment, etc. Exclude computers, computer control panels, and software . . . . .   | <input type="checkbox"/>       | 0511<br>\$ .00  | 0514   | 0512   | 0513   |
| 2. New well construction or deepening of existing wells – Include drilling costs, cost of casing, and any costs to prepare well for installation of pump. Exclude cost of pumps or motors . . . . .   | <input type="checkbox"/>       | 0515<br>\$ .00  | 0518   | 0516   | 0517   |
| 3. Construction or improvement of permanent storage and distribution systems – Include dams, ponds, reservoirs, permanent ditches, canals, flumes, etc. . . . .   | <input type="checkbox"/>       | 0519<br>\$ .00  | 0522   | 0520   | 0521   |
| 4. Computers, control panels, computer controlled valves, software, and software-controlled hardware for irrigation water management. . . . .   | <input type="checkbox"/>       | 0544<br>\$ .00  | 0547   | 0545   | 0546   |
| 5. Clearing or leveling non-irrigated land for new irrigation acres (the primary purpose is expansion of irrigation acres). . . . .   | <input type="checkbox"/>       | 0548<br>\$ .00  | 0526   |  | 0549   |
| 6. Land leveling of previously irrigated land (the primary purpose cannot be new expansion). . . . .  | <input type="checkbox"/>       | 0556<br>\$ .00  | 0559   | 0557   | 0558   |

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**SECTION 14 IRRIGATION AND WATER MANAGEMENT PRACTICES**

1. How did you decide when to irrigate in 2018? Mark (X) all that apply –

- 1020  Condition of crop (observation or experience)
- 1021  Feel of the soil
- 1022  Use of soil moisture-sensing devices (moisture blocks, tensiometers, capacitance, other electronic sensors)
- 1023  Use of plant moisture-sensing devices such as pressure (chamber) bombs or infrared (IR) thermometer
- 1024  Use of irrigation scheduling service, including commercial and government
- 1025  Reports on daily crop-water evapo-transpiration (ET) use (Internet, newspapers, radio, TV, fax, or email)
- 1026  When water was delivered or available by irrigation water supplier (no choice by water user)
- 1027  Personal calendar schedule
- 1028  Computer simulation models (not from a commercial service)
- 1029  When neighbors began to irrigate

2. Did you have to discontinue irrigation during 2018 long enough to affect crop yields?

- 0669 1  **Yes** - Continue                      3  **No** - Go to item 3

a. On how many acres did you discontinue irrigation long enough to affect crop yields for any reason during 2018? None

|       | Number of Acres |
|-------|-----------------|
| ..... | 1039            |

b. What were the reasons for discontinuing irrigation? Mark (X) all that apply –

- 1030  Shortage of surface water (water from reservoirs, lakes, streams, water supply organizations, etc.)
- 1031  Shortage of ground water (lowering water level of wells or depletion of ground water)
- 1032  Irrigation equipment failure
- 1033  Energy price increases or energy shortage
- 1034  Water salinity too high
- 1035  Loss of water rights not due to voluntary transfers
- 1036  Cost of purchased water
- 1037  Other – Specify: 1038

3. Did this operation use gravity irrigation systems to irrigate any acres in the open on this operation (Section 8, item 2) in 2018?

- 0403 1  **Yes** - Continue                      3  **No** - Go to item 5

4. On how many acres in the open did you use the following practices?

- |  |                               | Number of Acres |
|--|-------------------------------|-----------------|
| a. Capture irrigation runoff in tailwater pits, restrict runoff by diking end of the field, limit irrigation set times or number of irrigations, or irrigate only alternative rows. .... | None <input type="checkbox"/> | 0404            |
| b. Use a surge-flow or cablegation system, apply mulch, or use other types of row covers .....   | <input type="checkbox"/>      | 0405            |
| c. Use precision-leveling or zero-grading. ....  | <input type="checkbox"/>      | 0406            |
| d. Shorten the furrow length; use water-soluble polyacrylamide (PAM); or use special furrowing practices such as wide-spaced bed furrowing, compacted furrows, or furrow diking. ....    | <input type="checkbox"/>      | 0409            |



**SECTION 14 CONTINUED –**

5. What sources of information does this operation rely on for guidance in reducing irrigation costs or to conserve water used for irrigation? Mark (X) all that apply –
- 1040  Extension agents or university specialists
  - 1041  Private irrigation specialists or crop consultants hired by owner or operator
  - 1042  Irrigation equipment dealers
  - 1043  Local irrigation district employees or others hired by the water supplier
  - 1044  Government specialists from the Natural Resources Conservation Service, local conservation district, Bureau of Reclamation, or other Federal or state agencies
  - 1045  Media reports or information in the press
  - 1046  Neighboring farmers
  - 1047  Electronic information services (Internet, DTN, Internet links to private or public data sources, etc.)
  - 1048  None
6. Did any of the following prevent you from implementing improvements that would have reduced energy and/or conserved water in your irrigation system during the past five years? Mark (X) all that apply –
- 1070  Investigating improvements is not a priority at this time
  - 1071  Risk of reduced yield or poorer quality crop from not meeting water needs
  - 1072  Physical field or crop conditions limit system improvements
  - 1073  Improvements will reduce costs, but not enough to recover implementation costs
  - 1074  Cannot finance improvements
  - 1075  Landlord(s) will not share cost of improvements
  - 1076  Uncertainty about future availability of water
  - 1077  Will not be farming this operation long enough to justify new improvements
  - 1078  Improvements will increase management time or cost

7. Has this operation made irrigation and/or drainage improvements above regular maintenance in the **past five years**?  
 0209 1  **Yes** - Continue                      3  **No** - Go to Section 15

8. Did you receive any technical or financial assistance for these irrigation and/or drainage improvements?  
 0211 1  **Yes** - Continue                      3  **No** - Go to Section 15

a. From which of the following sources did you receive technical or financial assistance for these improvements? Mark (X) all that apply –

**SOURCE OF ASSISTANCE**

- (i) USDA programs for water conservation and environmental improvements (CTA, EQIP, RCPP, WHIP, CIG) .....
- (ii) Other USDA programs for stewardship (CSP) or easements (CRP, WRP, GRP, FRPP) .....
- (iii) Non-USDA Federal programs (Bureau of Reclamation, EPA, or other programs) .....
- (iv) State programs (including CREP), local water management, or water supply districts .....
- (v) Private businesses such as equipment dealers, bankers, or lenders .....

| Technical Assistance |                          | Financial Assistance |                          |
|----------------------|--------------------------|----------------------|--------------------------|
| 0215                 | <input type="checkbox"/> | 0216                 | <input type="checkbox"/> |
| 0217                 | <input type="checkbox"/> | 0218                 | <input type="checkbox"/> |
| 0219                 | <input type="checkbox"/> | 0235                 | <input type="checkbox"/> |
| 0236                 | <input type="checkbox"/> | 0237                 | <input type="checkbox"/> |
| 0238                 | <input type="checkbox"/> | 0239                 | <input type="checkbox"/> |



**SECTION 15 LABOR USED FOR IRRIGATION ON THIS OPERATION IN 2018**

1. Did you have any paid labor for the irrigation portion of your operation in 2018?

0731 1  **Yes** - Continue

3  **No** - Go to Section 16

a. Report the number of hours that the hired workers performed irrigation work in 2018 and the average hourly wage. (Exclude contract labor.)

None

| Total Hours of Paid Irrigation Labor per Year |  | Average Hourly Wage |    |
|---|--|---------------------|----|
|   |  | Cents               |    |
| 0732  |  | 0733                | \$ |

None

b. Report contract irrigation labor expenses on this operation in 2018.

| Total Expense for Contract Irrigation Labor |        |
|---|--------|
| 0788  | \$ .00 |

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**SECTION 16 NO IRRIGATED LAND IN 2018**

1. Complete this section if you did not irrigate any land in 2018. If you did irrigate land in 2018, skip to Section 17.

2. Was any land irrigated on this operation in 2017?  
 0528 1  **Yes** - Continue 3  **No** - Go to Section 17

3. What were the reasons for not irrigating in 2018? Mark (X) all that apply –

1050  Sufficient soil moisture – no irrigation needed 1057  Sold or leased irrigated land or irrigated area under protection to others and did not irrigate during 2017

1052  Shortage of surface water (water from reservoirs, lakes, streams, water supply organizations, etc.) 1058  Restrictions on water use

1053  Shortage of ground water (lowering water level of wells or depletion of ground water) 1059  Converted to non-agricultural use

1054  Irrigation uneconomical due to high fuel and power costs and/or low commodity prices 1060  Converted to an agricultural enterprise not requiring irrigation

1055  Loss of water rights not due to voluntary transfers 1061  Available surface water too salty

1056  Sold or leased water rights or annual water allocation 1062  Other – Specify:  
 1063

4. Do you consider your discontinuance of irrigation to be permanent? . . . . . 0530 1  **Yes** 3  **No**

**SECTION 17 VALUE OF SALES IN 2018**

1. Which range includes the gross value of all agricultural products sold from this operation in 2018 including landlord's share? Mark (X) only one –

0980 1  \$0 - \$9,999 2  \$10,000 - \$24,999 3  \$25,000 - \$49,999 4  \$50,000 - \$99,999

5  \$100,000 - \$249,999 6  \$250,000 - \$499,999 7  \$500,000 - \$999,999 8  \$1,000,000 and over

2. What percent of total sales were from irrigated crop sales, including irrigated nursery or greenhouse crops, floriculture, sod, mushrooms, vegetable seeds, and propagative materials? . . . . . 0981

3. What percent of total sales were from non-irrigated crop sales and livestock sales? . . . . . 0982

|  |                |
|--|----------------|
|  | <b>Percent</b> |
|  | 100%           |

**SECTION 18 PERSON COMPLETING THIS FORM – Please print**

Name 1092  Area Code and Phone Number 9911  -  -  Date (MM DD YY) 9910

**Survey Results:** To receive the complete results of this survey on the release date, go to [www.agcensus.usda.gov](http://www.agcensus.usda.gov).

To have a brief summary emailed to you at a later date, please enter your email address: . . . . . 1095

Would you rather have a brief summary mailed to you at a later date? . . . . . 9990 1  **Yes** 3  **No**

**Thank you for your response**

| OFFICE USE                    |   |  |       |       |         |        |              |      |      |      |      |
|-------------------------------|---|--|-------|-------|---------|--------|--------------|------|------|------|------|
| Response                      | Respondent  | Mode   | Enum. | Eval. | R. Unit | Change | Optional Use |      |      |      |      |
| 1-Comp<br>2-R<br>3-Inac       | 9901<br>1-Op/Mgr<br>2-Sp<br>3-Acct/Bkpr<br>4-Partner<br>9-Oth | 9902<br>1-PASI (Mail)<br>2-PATI (Tel)<br>3-PAPI (Face-to-Face) | 9903  | 9998  | 9900    | 9921   | 9985         | 9907 | 9908 | 9906 | 9916 |
| S/E Name <input type="text"/> |   |  |       |       |         |        |              |      |      |      |      |





Please Return Promptly - Due January 14, 2019

OMB No. 0535-0237: Approval Expires 8/31/2021

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: [www.nass.usda.gov/confidentiality](http://www.nass.usda.gov/confidentiality). Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

## 2018 CENSUS OF AQUACULTURE

AQ-100  
(08/21/2018)



National Agricultural  
Statistics Service

Please return your  
completed report to:

Census of Aquaculture  
1201 East 10th Street  
Jeffersonville, IN 47132

Please make corrections to name, address and ZIP code if necessary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0237. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Everyone who receives a form must return one by mail or via the Internet at

[www.agcounts.usda.gov](http://www.agcounts.usda.gov)

**Your report is due by January 14, 2019.**

Questions? Call us toll free at 1-888-4AG-STAT (1-888-424-7828)

### SECTION 1: AQUACULTURE PRODUCTION SCREENING

1. In **2018**, did this operation or the individual(s) listed on the address label **produce** any fish, mollusks, crustaceans, or other aquaculture products? **Produce** means that inputs are supplied to add weight or change the form of aquatic animals.

INCLUDE: • Catfish, trout, food and/or sportfish, baitfish, crustaceans and mollusks, ornamental fish, miscellaneous aquaculture, and aquaculture distributed.

EXCLUDE: • Wild-caught products.  
• Aquaculture products brokered for immediate resale or distribution.

<sup>377</sup> 1  **Yes** - Go to Section 2, page 2

3  **No** - Go to Section 13, page 16

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**SECTION 2: SOURCES OF WATER**

1. In 2018, which of the following **SOURCES** of water did this operation use for its aquaculture production? Check all that apply.

- 151  **Groundwater / Well water** - Water from a well or wells located on this farm or another farm, or recycled from a well pond.
- 152  **On-farm surface water** - Surface supply not controlled by a water supply organization. Include streams, drainage ditches, farm lakes, runoff ponds, springs, or reservoirs on or adjacent to this farm.
- 153  **Off-farm water** - Water from a federal supplier, irrigation district, cooperative or neighborhood ditches, commercial company, or municipal (town) or community water system.
- 154  **Saltwater** - Include brackish water, tidal, sub-tidal, open public waterways, owned or leased.

**SECTION 3: METHODS OF PRODUCTION**

- |   |  |                  |        |    |     |                                     |
|---|--|------------------|--------|----|-----|-------------------------------------|
| 1. In 2018, how many <b>freshwater</b> acres or surface area square feet were used to produce fish, mollusks, crustaceans, or other aquaculture products? . . . . . 120 |  | Freshwater Acres |        | OR |     | Freshwater Surface Area Square Feet |
|   |  | Acres            | Tenths |    | 090 |                                     |
| a. Of those reported in 1, how many were rented or leased <b>FROM</b> others? (Include leased from the State.) 124  |  |                  |        |    | 091 |                                     |
| 2. In 2018, how many <b>saltwater</b> acres or surface area square feet were used to produce fish, mollusks, crustaceans or other aquaculture products? . . . . . 121   |  | Saltwater Acres  |        | OR |     | Saltwater Surface Area Square Feet  |
|   |  | Acres            | Tenths |    | 092 |                                     |
| a. Of those reported in 2, how many were rented or leased <b>FROM</b> others? (Include leased from the State.) 122  |  |                  |        |    | 093 |                                     |

3. Which production methods did this operation use in 2018?  
**Report each production area only once.** All production areas reported under Question 3a-3j should equal the total production area reported in Question 1 and 2.

- |   |  |       |        |    |  |             |
|---|--|-------|--------|----|--|-------------|
| a. <b>Ponds:</b><br>(i) How many ponds were used to produce aquaculture products? (Exclude flooded cropland). . . . . 125 |  |       |        |    |  | Number      |
| (ii) What was the total water surface area of these ponds? . . . . . 130  |  | Acres | Tenths | OR |  | Square Feet |
| b. <b>Cropland used for crawfish:</b> How many total cropland acres were used for crawfish production? . . . . . 129      |  |       |        |    |  | Acres       |
| c. <b>Flow through raceways:</b> How many raceways were used for raising aquaculture products? . . . . . 132              |  |       |        |    |  | Tenths      |
|   |  |       |        |    |  | Number      |

**Continued on page 3**



3. (Continued from previous page) Which production methods did this operation use in 2018?

d. **Recirculating systems** (Exclude aquaponics, report in Item 3f):

(i) How many recirculating tanks, where 90 percent or more of the system water is recycled, were used to produce aquaculture products? . . . . . 126

| Number |
|--------|
|        |

(ii) What was the total volume of these tanks? . . . . . 135

| Gallons |
|---------|
|         |

e. **Non-recirculating systems:**

(i) How many non-recirculating tanks, where 89 percent or less of the system water is recycled, were used to produce aquaculture products? . . . . . 123

| Number |
|--------|
|        |

(ii) What was the total volume of these tanks? . . . . . 140

| Gallons |
|---------|
|         |

f. **Aquaponics:**

(i) How many tanks were used to produce aquaculture products in an aquaponics system? . . . . . 128

| Number |
|--------|
|        |

(ii) What was the total volume of these tanks? . . . . . 134

| Gallons |
|---------|
|         |

g. **Cages or Pens:**

(i) How many cages or pens were used to produce aquaculture products? (Exclude traps). . . . . 127

| Number |
|--------|
|        |

(ii) What was the total volume of these cages or pens? . . . . . 133

| Cubic Feet |
|------------|
|            |

h. **Mollusks on bottom:** What was the total water area? . . . . . 136

| Acres | Tenths |
|-------|--------|
|       |        |

i. **Mollusks off bottom:** Which of the following were used? Check all that apply.

141  Floating Trays    143  Long lines    145  Rafts  
 142  Racks and bags    144  String culture    146  Other, specify: 8013

|  |
|--|
|  |
|--|

j. **Other method not listed above:** Report unit and volume.

Specify type  $\downarrow$

8014 

|  |
|--|
|  |
|--|

 . . . . . 137

| Unit |
|------|
|      |

| Volume |
|--------|
|        |



**SECTION 4: CATFISH**

1. Did this operation **produce** any catfish in 2018?

<sup>372</sup> 1  **Yes** - Continue

3  **No** - Go to Section 5, page 6

2. What are the total **WATER ACRES** used and to be used on this operation to produce catfish during the period of **January 1 – June 30, 2019**? (Exclude areas of new facilities under construction) . . . . . 259

| Acres |
|-------|
|       |
|       |
|       |
|       |
|       |
|       |

a. How many of the total acres are currently being or will be **RENOVATED**? . . . . . 260

b. How many of the total acres are **USED FOR BROODFISH** production? . . . . . 261

c. How many of the total acres are **USED FOR FOODSIZE** production? . . . . . 266

d. How many of the total acres are **USED EXCLUSIVELY FOR FINGERLINGS**? . . . . . 262

3. What is the water area of **NEW FACILITIES** under construction or to be constructed for use during the period of **January 1 – June 30, 2019**? . . . . . 263

|  |
|--|
|  |
|--|

4. Of the facilities previously used to produce catfish, how much water area was **TAKEN OUT OF PRODUCTION** during the period of **July 1 – December 31, 2018**? . . . . . 264

|  |
|--|
|  |
|--|

5. How many of the total acres are **USED OR TO BE USED FOR HYBRID CATFISH** during the period of **January 1 – June 30, 2019**? . . . . . 265

|  |
|--|
|  |
|--|

6. On **January 1, 2019**, what was this operation's estimated inventory of catfish in the following size categories? For items 6b through 6g, exclude Broodfish reported in item 6a.

| SIZE CATEGORY   | CATFISH INVENTORY |    |              |                |               |
|---|-------------------|----|--------------|----------------|---------------|
|   | Total Number      | OR | Total Pounds | Average Pounds |               |
|   |                   |    |              | Per Fish       | Per 1000 Fish |
| a. <b>Broodfish</b> - fish being used or to be used for breeding. . . . . | 721               | OR | 720          | 722            | Tenths        |
|   |                   |    |              |                |               |
| b. <b>Large Foodsize</b> - over 3 lbs. . . . .                            | 724               | OR | 723          | 725            |               |
|   |                   |    |              |                |               |
| c. <b>Medium Foodsize</b> - over 1½ lbs. to 3 lbs. . . . .                | 727               | OR | 726          | 728            |               |
|   |                   |    |              |                |               |
| d. <b>Small foodsize</b> - over ¾ lbs. to 1½ lbs. . . . .                 | 730               | OR | 729          | 731            |               |
|   |                   |    |              |                |               |
| e. <b>Large Stockers</b> - over 180 lbs. to 750 lbs./1000 fish . . . . .  | 733               | OR | 732          |                | 735           |
|   |                   |    |              |                |               |
| f. <b>Small Stockers</b> - over 60 lbs. to 180 lbs./1000 fish . . . . .   | 737               | OR | 736          |                | 739           |
|   |                   |    |              |                |               |
| g. <b>Fingerlings</b> - 2 to 6 inches OR 2 to 60 lbs./1000 fish. . . . .  | 741               | OR | 740          |                | 742           |
|   |                   |    |              |                |               |



**Note: Catfish produced and not sold but distributed for restoration, conservation, or recreation purposes should be reported in Section 12, page 15.**

7. During 2018, what were this operation's Total Catfish Sales? Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant.

| SOLD AS:   | Total Number Sold | Total Pounds Live Weight Sold | Total Sales (Dollars) |
|--|-------------------|-------------------------------|-----------------------|
| a. <b>Broodfish</b> (fish being used or to be used for breeding) . . . . .                     | 610               | 609                           | 611                   |
|  |                   |                               | \$ .00                |
|  | 613               | 612                           | 614                   |
| b. <b>Broodfish</b> (previously used for breeding). . . . .                                    |                   |                               | \$ .00                |
|  | 616               | 615                           | 617                   |
| c. <b>All Foodsize</b> (over ¾ lbs. per fish). . . . .   |                   |                               | \$ .00                |
|  | 619               | 618                           | 620                   |
| d. <b>Stockers</b> (over 6 inches) <b>or</b> (over 60 lbs. to 750 lbs. per 1000 fish). . . . . |                   |                               | \$ .00                |
|  | 622               | 621                           | 623                   |
| e. <b>Fingerlings</b> (2 to 6 inches) <b>or</b> (2 lbs. to 60 lbs. per 1000 fish). . . . .     |                   |                               | \$ .00                |
|  | 625               | 624                           | 626                   |
| f. <b>Fry</b> (under 2 inches) <b>or</b> (less than 2 lbs. per 1000 fish) . . . . .            |                   |                               | \$ .00                |
|  | 627               |                               | 628                   |
| g. <b>Catfish Eggs</b> (fertilized). . . . .   |                   |                               | \$ .00                |

8. In 2018, what percent of the total value of catfish sales reported in Items 7a - 7g above was sold directly to each of the following point of first sale outlets? Exclude fish bought for immediate resale or fish brokered by this operation.

| POINT OF FIRST SALE OUTLET  | Percent of Total Value of Sales:                |             |  |             |
|---|---|-------------|--|-------------|
|   | FOODSIZE<br>over ¾ pound<br>(Include Broodfish) |             | STOCKERS<br>¾ lb. or less<br>(usually 6 inches<br>or more in length) |             |
| a. <b>Processors</b> (also include fish processed on the operation) . . .                         | 640   | %           |  |             |
| b. <b>Live haulers/brokers</b> . . . . .  | 630   | %           | 631  | %           |
| c. <b>Retail outlets</b> (restaurants, grocery stores, etc.) . . . . .                            | 642   | %           |  |             |
| d. <b>Direct to consumers</b> (farmers market, on-farm fee fishing) . . .                         | 638   | %           |  |             |
| e. <b>Recreational stocking</b> (private lakes and ponds). . . . .                                | 632   | %           | 633  | %           |
| f. <b>Wholesale to other producers</b> (to stock commercial and fee fishing operations) . . . . . | 634   | %           | 635  | %           |
| g. <b>Government agencies</b> . . . . .   | 636   | %           | 637  | %           |
| h. <b>Exports</b> . . . . .   | 646   | %           | 647  | %           |
| i. <b>Other, specify:</b> <input type="text" value="8015"/> . . . . .                             | 644   | %           | 645  | %           |
| <b>Total</b>  |   | <b>100%</b> |  | <b>100%</b> |

|                      |                          |                      |                              |                      |                          |
|----------------------|--------------------------|----------------------|------------------------------|----------------------|--------------------------|
| 270                  | Office Use Only<br>Acres | 760                  | Office Use Only<br>Inventory | 650                  | Office Use Only<br>Sales |
| <input type="text"/> | <input type="text"/>     | <input type="text"/> | <input type="text"/>         | <input type="text"/> | <input type="text"/>     |



**SECTION 5: TROUT**

1. Did this operation **sell** any trout or trout eggs in 2018? (Trout produced and not sold but distributed for restoration, conservation or recreation purposes should be reported in Section 12, page 15).

375 1  **Yes** - Continue

3  **No** - Go to Section 6, page 8

2. What were the total trout sales of fish and eggs produced on this operation during 2018? Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant.

| FISH SIZE:   | Total Number Sold | Total Pounds Live Weight Sold | Total Sales** (Dollars) |
|--|-------------------|-------------------------------|-------------------------|
| a. <b>Broodfish</b> (fish being used or to be used for breeding) . . . . . | 067               | 068                           | 069 \$ .00              |
| b. <b>12 inches or longer</b> . . . . .                                    | 022               | 023                           | 024 \$ .00              |
| c. <b>6 inches to less than 12 inches long</b> . . . . .                   | 025               | 026                           | 027 \$ .00              |
| d. <b>1 inch to less than 6 inches long</b> . . . . .                      | 057               | 058                           | 059 \$ .00              |
| e. <b>Trout Eggs</b> (fertilized) . . . . .                                | 028               | 029                           | \$ .00                  |

\*\* Live weight price – exclude cleaning charges.

3. In 2018, what percent of the total trout value of sales reported in Items 2a - 2e was sold directly to each of the outlets listed below? Exclude fish bought for immediate resale or fish brokered by this operation.

| POINT OF FIRST SALE OUTLET  | PERCENT OF TOTAL VALUE OF SALES |   |                          |   |
|---|---------------------------------|---|--------------------------|---|
|   | 12 inches or longer             |   | 6 to less than 12 inches |   |
| a. <b>Processors</b> (also include fish processed on the operation) . . .                         | 039                             | % | 061                      | % |
| b. <b>Live haulers/brokers</b> . . . . .  | 030                             | % | 031                      | % |
| c. <b>Retail outlets</b> (restaurants, grocery stores, etc.) . . . . .                            | 040                             | % | 062                      | % |
| d. <b>Direct to consumers</b> (farmers market, on-farm fee fishing) . . .                         | 019                             | % | 063                      | % |
| e. <b>Recreational stocking</b> (private lakes and ponds) . . . . .                               | 032                             | % | 033                      | % |
| f. <b>Wholesale to other producers</b> (to stock commercial and fee fishing operations) . . . . . | 034                             | % | 035                      | % |
| g. <b>Government agencies</b> . . . . .   | 036                             | % | 037                      | % |
| h. <b>Exports</b> . . . . .   | 070                             | % | 071                      | % |
| i. <b>Other, specify:</b> <sup>8017</sup> <input type="text"/> . . .                              | 041                             | % | 042                      | % |
| <b>Total</b>  | <b>100%</b>                     |   | <b>100%</b>              |   |



4. What were the total **number** and **live weight pounds** of trout lost during 2018 for each of the following reasons?

- INCLUDE:
- Only losses intended for sale
  - All lengths and sizes

| CAUSE OF LOSS                              | INTENDED FOR SALE |        |
|--|-------------------|--------|
|  | Number            | Pounds |
| a. Disease .....                           | 045               | 046    |
| b. Theft or vandalism .....                | 047               | 048    |
| c. Chemical contamination .....            | 049               | 050    |
| d. Drought .....                           | 051               | 052    |
| e. Flood .....                             | 053               | 054    |
| f. Predators (animals, birds, etc.) .....  | 081               | 082    |
| g. Other, specify: <input type="text"/> .. | 055               | 056    |

|                      |
|----------------------|
| Office Use Only      |
| 707                  |
| <input type="text"/> |

**Trout distributed should be reported in Section 12, page 15.**



**SECTION 6: FOOD AND / OR SPORT FISH**

1. Other than catfish or trout, did this operation **sell** any food fish or sport fish, including carp used as biological control agents, in 2018? (Food and/or sport fish produced and **not sold but distributed for** restoration, conservation or recreation purposes should be reported in Section 12, page 15).

378 <sup>1</sup>  **Yes** - Continue

<sup>3</sup>  **No** - Go to Section 7, page 9

2. Include the number sold, total pounds and total sales for each size category. **Use a separate line for each species and size category sold.** Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant. For eggs report total number sold and total sales. Report roe caviar in Section 10.

PLEASE COMPLETE ALL COLUMNS

| 1   |           | 2  |  | 3                                 | 4                             | 5                    |
|---|-----------|--|--|-----------------------------------|-------------------------------|----------------------|
| Species and Code<br>From table at the bottom of this page |           | Size Category<br>1 - Foodsize or market size<br>2 - Stockers<br>3 - Fingerlings or Fry<br>4 - Broodfish<br>5 - Eggs complete columns 3 and 5 |  | Total Number of Fish or Eggs Sold | Total Pounds Live Weight Sold | Total Sales          |
| Species produced and sold                                 | Code      | Enter Code   |  | Number                            | Pounds                        | Dollars              |
| <b>Example: Tilapia</b>                                   | <b>26</b> | <b>1</b>   |  | <b>12,000</b>                     | <b>18,000</b>                 | <b>\$ 45,000 .00</b> |
| <b>Example: Sunfish</b>                                   | <b>24</b> | <b>3</b>   |  | <b>450,000</b>                    | <b>9,000</b>                  | <b>\$ 70,000 .00</b> |
|   | 300       | 301  |  | 302                               | 303                           | 304                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 305       | 306  |  | 307                               | 308                           | 309                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 310       | 311  |  | 312                               | 313                           | 314                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 315       | 316  |  | 317                               | 318                           | 319                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 320       | 321  |  | 322                               | 323                           | 324                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 325       | 326  |  | 327                               | 328                           | 329                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 330       | 331  |  | 332                               | 333                           | 334                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 335       | 336  |  | 337                               | 338                           | 339                  |
|   |           |  |  |                                   |                               | \$ .00               |
|   | 345       | 346  |  | 347                               | 348                           | 349                  |
|   |           |  |  |                                   |                               | \$ .00               |

If more space is needed, use a separate sheet of paper.

| Name                           | Code | Name                             | Code | Name  | Code | Name                                | Code |
|--------------------------------|------|----------------------------------|------|---|------|-------------------------------------|------|
| Barramundi . . . . .           | 1    | Carp, silver . . . . .           | 9    | Pangasius/Swai . . . . .  | 18   | Sturgeon . . . . .                  | 25   |
| Bass, hybrid striped . . . . . | 2    | Carp, other . . . . .            | 10   | Perch, yellow . . . . .   | 19   | Tilapia . . . . .                   | 26   |
| Bass, largemouth . . . . .     | 3    | Cobia . . . . .                  | 11   | Red drum . . . . .  | 20   | Walleye . . . . .                   | 27   |
| Bass, smallmouth . . . . .     | 4    | Cod, Atlantic . . . . .          | 12   | Salmon, Atlantic . . . . .  | 21   | Yellow croaker . . . . .            | 28   |
| Carp, bighead . . . . .        | 5    | Cod, black . . . . .             | 13   | Salmon, Pacific . . . . .   | 22   | Other food fish                     |      |
| Carp, black . . . . .          | 6    | Crappie (sac- au-lait) . . . . . | 14   | Seriola . . . . .   | 23   | Enter name in first column. . . . . | 29   |
| Carp, common . . . . .         | 7    | Flounder . . . . .               | 15   | Sunfish (Include bluegill, coppernose, bream, redear/shellcrackers, etc.) . . . . . | 24   | Other sport fish                    |      |
| Carp, grass . . . . .          | 8    | Northern pike . . . . .          | 17   |   |      | Enter name in first column. . . . . | 30   |





**SECTION 7: BAITFISH**

1. Did this operation **sell** any baitfish, including crawfish sold for bait, in 2018? Report crawfish for food in Section 8. (Baitfish produced and **not sold but distributed** for restoration, conservation or recreation purposes should be reported in Section 12, page 15).

379 1  **Yes** - Continue

3  **No** - Go to Section 8, page 10

| Acres | Tenths |
|-------|--------|
|       |        |

2. How many surface acres of water were used to produce baitfish in 2018? . . . 400

3. Report baitfish sales below. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. Exclude fish bought for immediate resale or fish brokered by this operation.

Report baitfish sold by the:

- Pound or Number of fish in TABLE 3a. If the total number of fish sold is not known, report the approximate number of fish per pound.
- Gallon in TABLE 3b. If pounds and number of fish are not known, approximate. Report crawfish sold for bait in sacks.

**TABLE 3a: Baitfish Sold by the Pound or Number of Fish**

| Species Raised and Sold                                 | Pounds Live Weight Sold |  | Number of Fish            |           |                          | Total Sales (Dollars) |        |
|---|-------------------------|--|---------------------------|-----------|--------------------------|-----------------------|--------|
|   |                         |  | Total Number of Fish Sold | OR        | Number of Fish per Pound |                       |        |
| <b>Example: Fathead minnows</b>                         | <b>20</b>               |  |                           | <b>OR</b> | <b>250</b>               | <b>\$ 225 .00</b>     |        |
| Fathead minnows   | 402                     |  | 401                       | OR        | 403                      | 404                   | \$ .00 |
| Goldfish - feeder and bait                              | 410                     |  | 409                       | OR        | 411                      | 412                   | \$ .00 |
| Golden shiners  | 418                     |  | 417                       | OR        | 419                      | 420                   | \$ .00 |
| Other shiners (Emerald, silver, etc.)                   | 426                     |  | 425                       | OR        | 427                      | 428                   | \$ .00 |
| Suckers   | 434                     |  | 433                       | OR        | 435                      | 436                   | \$ .00 |
| Crawfish - bait (report crawfish for food in Section 8) | 442                     |  | 441                       | OR        | 443                      | 444                   | \$ .00 |
| Other, <sup>8029</sup> specify:                         | 450                     |  | 449                       | OR        | 451                      | 452                   | \$ .00 |

**TABLE 3b: Baitfish Sold by the Gallon**  
PLEASE COMPLETE ALL COLUMNS

| Species Raised and Sold   | Total Number of Gallons Sold |  | Pounds Per Gallon Sold |          | Number of Fish per Gallon |     | Total Sales (Dollars) |     |
|---|------------------------------|--|------------------------|----------|---------------------------|-----|-----------------------|-----|
|   |                              |  |                        | Tenths   |                           |     |                       |     |
| <b>Example: Golden shiners</b>  | <b>150</b>                   |  | <b>8</b>               | <b>5</b> | <b>1,500</b>              |     | <b>\$ 6,000 .00</b>   |     |
| Fathead minnows   | 405                          |  | 406                    |          | 465                       | 466 | \$                    | .00 |
| Goldfish - feeder and bait  | 413                          |  | 414                    |          | 415                       | 416 | \$                    | .00 |
| Golden shiners  | 421                          |  | 422                    |          | 423                       | 424 | \$                    | .00 |
| Other shiners (Emerald, silver, etc.)                                   | 429                          |  | 430                    |          | 431                       | 432 | \$                    | .00 |
| Suckers   | 437                          |  | 438                    |          | 439                       | 440 | \$                    | .00 |
| Crawfish - bait in <b>sacks</b> (report crawfish for food in Section 8) | 445                          |  | 446                    |          | 447                       | 448 | \$                    | .00 |
| Other, <sup>8031</sup> specify:   | 453                          |  | 454                    |          | 455                       | 456 | \$                    | .00 |

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**SECTION 8: CRUSTACEANS AND MOLLUSKS**  
 (Includes clams, crawfish, oysters, shrimp, soft-shell crabs, etc.)

1. Did this operation **sell** any crustaceans or mollusks in 2018? (Crustaceans and mollusks produced and **not sold but distributed** for restoration, conservation or recreation purposes should be reported in Section 12, page 15).

380 1  **Yes** - Continue

3  **No** - Go to Section 9, page 12

2. Report each species and size category on a separate line. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant. Report crawfish for bait in Section 7.

**CONTINUE ACROSS EACH LINE FROM PAGE 10 TO PAGE 11. ANSWER ALL 9 COLUMNS FOR EACH LINE. →**

|                                  | 1   | 2                                    | 3  | 4                                | 5   |
|----------------------------------|---|--------------------------------------|--|----------------------------------|---|
|                                  | <b>Species and Code</b><br>From the table<br>at the bottom of this page |                                      | <b>Size Category</b><br>1 - Food or market size<br>2 - Broodstock<br>3 - Larvae<br>4 - Seed - Complete only<br>columns 4, 5, 9<br>5 - Other, specify:<br>8114 <input type="text"/> | <b>Number of Units Sold</b>      | <b>Unit Sold</b><br>1 - Number<br>2 - Pound - in shell<br>3 - Pound - out of shell<br>4 - Dozen<br>5 - Bushel<br>6 - Sack/bag<br>7 - Gallon<br>8 - Barrel<br>9 - Other, specify:<br>8115 <input type="text"/> |
| LINE                             |   | Species produced and sold            | Code   | Enter Code                       | Number  |
|                                  | <b>Example: Crawfish</b>  | <b>7</b>                             | <b>1</b>   | <b>100,000</b>                   | <b>2</b> →  |
|                                  | <b>Example: Pacific oyster seed</b>                                     | <b>13</b>                            | <b>4</b>   | <b>8,000,000</b>                 | <b>1</b> →  |
|                                  | <b>Example: Eastern oysters</b>   | <b>12</b>                            | <b>1</b>   | <b>150</b>                       | <b>4</b> →  |
| <b>01</b>                        |   | 881                                  | 882  | 883                              | 884 →   |
| <b>02</b>                        |   | 889                                  | 890  | 891                              | 892 →   |
| <b>03</b>                        |   | 897                                  | 898  | 899                              | 900 →   |
| <b>04</b>                        |   | 905                                  | 906  | 907                              | 908 →   |
| <b>05</b>                        |   | 913                                  | 914  | 915                              | 916 →   |
| <b>06</b>                        |   | 921                                  | 922  | 923                              | 924 →   |
| <b>07</b>                        |   | 929                                  | 930  | 931                              | 932 →   |
| <b>08</b>                        |   | 937                                  | 938  | 939                              | 940 →   |
| <b>09</b>                        |   | 945                                  | 946  | 947                              | 948 →   |
| <b>10</b>                        |   | 954                                  | 955  | 956                              | 957 →   |
| <b>11</b>                        |   | 962                                  | 963  | 964                              | 965 →   |
| <b>12</b>                        |   | 970                                  | 971  | 972                              | 973 →   |
| <b>Name</b>                      | <b>Code</b>   | <b>Name</b>                          | <b>Code</b>  | <b>Name</b>                      | <b>Code</b>   |
| Abalone .....                    | 1   | Crawfish for food - report           |  | Oysters, Eastern .....           | 12  |
| Clams, hard .....                | 2   | crawfish for bait in Section 7 ..... | 7  | Oysters, Pacific .....           | 13  |
| Clams, Manila .....              | 3   | Lobster .....                        | 8  | Oysters, other.                  |   |
| Clams, Geoduck .....             | 4   | Mussels .....                        | 9  | Enter name in first column. .... | 14  |
| Clams, other.                    |   | Prawns, fresh water .....            | 10   | Other crustaceans.               |   |
| Enter name in first column ..... | 5   | Shrimp, salt water .....             | 11   | Enter name in first column. .... | 15  |
| Crabs, soft-shell .....          | 6   |                                      |  | Other mollusks.                  |   |
|                                  |   |                                      |  | Enter name in first column. .... | 16  |



**SECTION 8, CRUSTACEANS AND MOLLUSKS, CONTINUES ON THIS PAGE.**

|      |        | 6   |   | 7  |                   | 8  |               | 9           |  |
|------|--------|---|---|----|-------------------|--|---------------|-------------|--|
|      |        | Weight of product sold<br>If unit code in column 5=2 or 3, skip columns 6 and 7 |   |    |                   | Average Number of crustaceans or mollusks per unit sold<br>If unit sold is number (column 5=1), skip this column |               | Total Sales |  |
|      |        | Number of pounds per unit sold  |   | OR | Total pounds Sold |  |               |             |  |
| LINE | Pounds | Tenths  |   |    | Pounds            | Number   | Dollars       |             |  |
|      |        |   |   | OR |                   | 20   | \$ 50,000 .00 |             |  |
|      |        |   |   | OR |                   |  | \$ 50,000 .00 |             |  |
|      |        | 5   | 5 | OR |                   | 120  | \$ 9,000 .00  |             |  |
| 01   | 886    |   |   | OR | 885               | 887  | 888           | \$ .00      |  |
| 02   | 894    |   |   | OR | 893               | 895  | 896           | \$ .00      |  |
| 03   | 902    |   |   | OR | 901               | 903  | 904           | \$ .00      |  |
| 04   | 910    |   |   | OR | 909               | 911  | 912           | \$ .00      |  |
| 05   | 918    |   |   | OR | 917               | 919  | 920           | \$ .00      |  |
| 06   | 926    |   |   | OR | 925               | 927  | 928           | \$ .00      |  |
| 07   | 934    |   |   | OR | 933               | 935  | 936           | \$ .00      |  |
| 08   | 942    |   |   | OR | 941               | 943  | 944           | \$ .00      |  |
| 09   | 951    |   |   | OR | 949               | 952  | 953           | \$ .00      |  |
| 10   | 959    |   |   | OR | 958               | 960  | 961           | \$ .00      |  |
| 11   | 966    |   |   | OR | 967               | 968  | 969           | \$ .00      |  |
| 12   | 974    |   |   | OR | 975               | 976  | 977           | \$ .00      |  |

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**SECTION 9: ORNAMENTAL FISH**

1. Did this operation **sell** any ornamental fish in 2018? (Ornamental fish produced and **not sold but distributed** for restoration, conservation or recreation purposes should be reported in Section 12, page 15).

381 1  **Yes** - Continue

3  **No** - Go to Section 10, page 13

2. Report each species on a separate line. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. Exclude fish bought for immediate resale or fish brokered by this operation.

| 1   |          | 2                                 |  | 3  |  | 4   |  | 5                    |     |
|---|----------|-----------------------------------|--|--|--|---|--|----------------------|-----|
| Species and Code<br>From table at the bottom of this page |          | Number of units produced and sold |  | Unit Sold<br>1 - Number of fish<br>2 - Pounds<br>3 - Boxes<br>4 - Bags<br>5 - Other, specify:<br>8116 <input type="text"/> |  | Average number of fish per unit<br>Skip this column if unit sold is number of fish (column 3=1) |  | Total Sales          |     |
| Species produced and sold                                 | Code     | Number                            |  | Enter code   |  | Number  |  | Dollars              |     |
| <b>Example: Koi</b>                                       | <b>2</b> | <b>12,000</b>                     |  | <b>1</b>   |  |   |  | \$ <b>24,000</b> .00 |     |
| <b>Example: Ornamental, Freshwater live bearers</b>       | <b>3</b> | <b>200</b>                        |  | <b>3</b>   |  | <b>250</b>  |  | \$ <b>6,000</b> .00  |     |
|   | 651      | 652                               |  | 653  |  | 654   |  | 655                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 656      | 657                               |  | 658  |  | 659   |  | 660                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 661      | 662                               |  | 663  |  | 664   |  | 665                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 666      | 667                               |  | 668  |  | 669   |  | 670                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 671      | 672                               |  | 673  |  | 674   |  | 675                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 676      | 677                               |  | 678  |  | 679   |  | 680                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 681      | 682                               |  | 683  |  | 684   |  | 685                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 686      | 687                               |  | 688  |  | 689   |  | 690                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 691      | 692                               |  | 693  |  | 694   |  | 695                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 696      | 697                               |  | 698  |  | 699   |  | 700                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |
|   | 701      | 702                               |  | 703  |  | 704   |  | 705                  |     |
|   |          |                                   |  |  |  |   |  | \$                   | .00 |

| Name                         | Code | Name                             | Code | Name                         | Code |
|------------------------------|------|----------------------------------|------|------------------------------|------|
| Goldfish.....                | 1    | Ornamental fish -                |      | Other ornamentals - include  |      |
| Koi.....                     | 2    | Freshwater egg layers.....       | 4    | seahorses, invertebrates,    |      |
| Ornamental fish -            |      | Ornamental fish - Saltwater..... | 5    | etc. - Enter name above..... | 6    |
| Freshwater live bearers..... | 3    |                                  |      |                              |      |



**SECTION 10: MISCELLANEOUS AQUACULTURE PRODUCTS**

1. Did this operation **sell** any other aquaculture products in 2018? (Aquaculture products produced and **not sold but distributed** for restoration, conservation, or recreation purposes should be reported in Section 12, page 15.)

382 1  **Yes** - Continue

3  **No** - Go to Section 11, page 14

2. Include only other aquaculture products. Include all size categories within each species. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant.

PLEASE COMPLETE ALL COLUMNS

| Species Produced and Sold               | Total Number Sold | Total Pounds Sold | Total Sales (Dollars) |        |
|---|-------------------|-------------------|-----------------------|--------|
| Algae: Microalgae. . . . .              |                   |                   | 470                   | \$ .00 |
| Sea Vegetables (seaweed, ogo) . . . . . |                   | 471               | 472                   | \$ .00 |
| Alligators: Whole . . . . .             | 743               | 744               | 745                   | \$ .00 |
| Meat . . . . .                          |                   | 747               | 748                   | \$ .00 |
| Hides (report in feet) . . . . .        | 749               |                   | 751                   | \$ .00 |
| Caviar. . . . .                         |                   | 753               | 754                   | \$ .00 |
| Eels . . . . .                          | 755               | 756               | 757                   | \$ .00 |
| Frogs . . . . .                         | 758               | 759               | 761                   | \$ .00 |
| Sea Urchins . . . . .                   | 762               | 763               | 764                   | \$ .00 |
| Snails . . . . .                        | 765               | 766               | 767                   | \$ .00 |
| Tadpoles . . . . .                      | 768               | 769               | 770                   | \$ .00 |
| Turtles: Whole . . . . .                | 771               | 774               | 772                   | \$ .00 |
| Eggs . . . . .                          | 773               |                   | 775                   | \$ .00 |
| Live rock: 8085 specify unit            | 776               | 777               | 778                   | \$ .00 |
| Other, specify: 8086                    | 779               | 780               | 781                   | \$ .00 |
| Other, specify: 8087                    | 782               | 783               | 784                   | \$ .00 |
| Other, specify: 8088                    | 085               | 786               | 787                   | \$ .00 |
| Other, specify: 8089                    | 791               | 792               | 793                   | \$ .00 |
| Other, specify: 8090                    | 794               | 795               | 796                   | \$ .00 |
| Other, specify: 8091                    | 797               | 798               | 799                   | \$ .00 |



**SECTION 11: SALES OUTLET BY SPECIES (Exclude catfish and trout)**

1. Did this operation **sell** any of their aquaculture products in 2018?

- EXCLUDE: • Catfish and trout.  
 • Aquaculture products brokered for immediate resale or distribution.

<sup>395</sup> 1  **Yes** - Continue

3  **No** - Go to Section 12, page 15

2. In 2018, what percent of this operation's total value of aquaculture sales was sold directly to the following outlets for each species category?

| Point of first sale outlet   | Food fish<br>Exclude Catfish<br>and Trout |   | Sport or<br>Game fish |   | Baitfish    |   | Ornamental<br>Fish |   | Crustaceans |   | Mollusks    |   | Other<br>Aquaculture |   |
|--|---|---|-----------------------|---|-------------|---|--------------------|---|-------------|---|-------------|---|----------------------|---|
| <b>Processors</b><br>(include aquaculture products<br>processed on the operation) . . . . .              | 801                                       |   | 831                   |   |             |   |                    |   | 861         |   | 851         |   | 871                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Live haulers/brokers</b> . . . . .  | 804                                       |   | 834                   |   | 814         |   | 824                |   | 864         |   | 854         |   | 874                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Retail outlets</b> (restaurants,<br>grocery stores, etc.) . . . . .                                   | 802                                       |   | 832                   |   | 812         |   | 822                |   | 862         |   | 852         |   | 872                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Direct to consumers</b><br>(farmers market, on-farm fee<br>fishing) . . . . .                         | 803                                       |   | 833                   |   | 813         |   | 823                |   | 863         |   | 853         |   | 873                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Recreational stocking</b><br>(private lakes and ponds) . . . . .                                      | 805                                       |   | 835                   |   | 815         |   | 825                |   | 865         |   | 855         |   | 875                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Wholesale to other<br/>producers</b> (to stock<br>commercial and fee<br>fishing operations) . . . . . | 806                                       |   | 836                   |   | 816         |   | 826                |   | 866         |   | 856         |   | 876                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Government agencies</b> . . . . .   | 807                                       |   | 837                   |   | 817         |   | 827                |   | 867         |   | 857         |   | 877                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Exports</b> . . . . .   | 809                                       |   | 839                   |   | 819         |   | 829                |   | 869         |   | 859         |   | 879                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Other,</b><br>specify: 8092   | 808                                       |   | 838                   |   | 818         |   | 828                |   | 868         |   | 858         |   | 878                  |   |
|  |   | % |                       | % |             | % |                    | % |             | % |             | % |                      | % |
| <b>Total</b> . . . . .   | <b>100%</b>                               |   | <b>100%</b>           |   | <b>100%</b> |   | <b>100%</b>        |   | <b>100%</b> |   | <b>100%</b> |   | <b>100%</b>          |   |



**SECTION 12: AQUACULTURE DISTRIBUTED (Not sold)**

1. Did this operation **distribute** aquaculture products for **restoration, conservation, enhancement, or recreational purposes** during 2018? Exclude aquaculture reported in previous sections.

383 1  **Yes** - Continue

3  **No** - Go to Section 13, page 16

2. What were the total amounts produced and distributed by this operation, by species category, in 2018? Include all size categories within each species. For fish, crustaceans or mollusks distributed, report both number and pounds. For eggs or seed, report only the number distributed. Write in species not listed.

| Species   | Number distributed |  | Pounds distributed |  | Number of eggs or seed stock distributed |  | Estimated Total Value of Product Distributed |     |     |
|---|--------------------|--|--------------------|--|--|--|--|-----|-----|
| Bass, striped . . . . .                         | 509                |  | 510                |  | 511                                      |  | \$   | .00 |     |
| Bass, largemouth . . . . .                      | 551                |  | 552                |  | 553                                      |  | \$   | .00 |     |
| Catfish . . . . .                               | 501                |  | 502                |  | 503                                      |  | \$   | .00 |     |
| Fathead minnows . . . . .                       | 554                |  | 555                |  | 556                                      |  | \$   | .00 |     |
| Northern pike . . . . .                         | 557                |  | 558                |  | 559                                      |  | \$   | .00 |     |
| Perch . . . . .                                 | 560                |  | 561                |  | 562                                      |  | \$   | .00 |     |
| Salmon . . . . .                                | 505                |  | 506                |  | 507                                      |  | \$   | .00 |     |
| Shad . . . . .                                  | 563                |  | 564                |  | 565                                      |  | \$   | .00 |     |
| Sunfish <sup>1</sup> . . . . .                  | 566                |  | 567                |  | 568                                      |  | \$   | .00 |     |
| Trout - 12 inches or longer . . .               | 201                |  | 202                |  |  |  | 203  | \$  | .00 |
| Trout - 6 to less than 12 inches long . . . . . | 204                |  | 205                |  |  |  | 206  | \$  | .00 |
| Trout - 1 to less than 6 inches long . . . . .  | 207                |  | 208                |  |  |  | 209  | \$  | .00 |
| Trout Eggs . . . . .                            |                    |  |                    |  | 210                                      |  | 212  | \$  | .00 |
| Walleye . . . . .                               | 517                |  | 518                |  | 519                                      |  | 593  | \$  | .00 |
| Clams . . . . .                                 | 525                |  | 526                |  | 527                                      |  | 595  | \$  | .00 |
| Mussels . . . . .                               | 529                |  | 530                |  | 531                                      |  | 601  | \$  | .00 |
| Oysters . . . . .                               | 533                |  | 534                |  | 535                                      |  | 602  | \$  | .00 |
| Alligators . . . . .                            | 572                |  | 573                |  | 574                                      |  | 603  | \$  | .00 |
| Crawfish . . . . .                              | 575                |  | 576                |  | 577                                      |  | 604  | \$  | .00 |
| Turtles . . . . .                               | 578                |  | 579                |  | 580                                      |  | 605  | \$  | .00 |
| Other, specify: <sup>8093</sup>                 | 537                |  | 538                |  | 539                                      |  | 606  | \$  | .00 |
| Other, specify: <sup>8094</sup>                 | 541                |  | 542                |  | 543                                      |  | 607  | \$  | .00 |
| Other, specify: <sup>8095</sup>                 | 544                |  | 545                |  | 546                                      |  | 608  | \$  | .00 |

<sup>1</sup> Sunfish includes bluegill, copperside, bream, redear/shellcrackers, etc.

Office Use Only <sup>200</sup>



**SECTION 13: OPERATION**

1. Did this operation grow and sell aquatic plants in 2018?

384 1  **Yes**

3 3  **No**

2. In the future, does this operation intend to produce aquaculture products?

386 1  **Yes**

3 3  **No**

3. It is important that we do not duplicate data. Is it possible the information on this form would be reported by another operation or under another name?

387 1  **Yes** - List name here:  8096  8097  -  -

3 3  **No** - Continue

4. Do you make any day-to-day decisions for another aquaculture operation?

388 1  **Yes** - List name here:  8098  8099  -  -

3 3  **No** - Continue

5. Has this operation (name on address label) been sold or turned over to someone else?

389 1  **Yes** - List name here:  8100  8101  -  -

3 3  **No** - Continue

**SECTION 14: CONCLUSION**

**COMMENTS:**

1091

Respondent Name:

1092

Area Code and Phone Number:

9911  -  -

Date: (MM-DD-YY)

9910

E-mail

1095

This completes the questionnaire. **Thank you for your cooperation.**  
The complete report will be available on the Internet at <http://www.nass.usda.gov> in fall of 2019.

**OFFICE USE ONLY**

| Response  | Respondent  | Mode  | R Unit | Enum. | Eval. | Change | Office Use for POID   |
|---|---|---|--------|-------|-------|--------|---|
| 1-Comp<br>2-R<br>3-Inac<br>4-Office Hold<br>5-R-Est<br>6-Inac-Est<br>7-Off Hold-Est<br>8-Known Zero | 9901<br>1-Op/Mgr<br>2-Sp<br>3-Acct/Bkpr<br>4-Partner<br>9-Oth | 9902<br>1-Mail<br>2-Tel<br>3-Face-to-Face<br>4-CATI<br>5-Web<br>6-e-mail<br>7-Fax<br>8-CAPI<br>19-Other | 9903   | 9921  | 9998  | 9900   | 9985  |
|   |   |   |        |       |       |        | 9989<br>- - - - -<br><b>Optional Use</b><br>9907 9908 9906 9916 |

S / E Name





## 2019 CENSUS OF HORTICULTURAL SPECIALTIES

**SURVEY CODE:**

Form Number: 19-A624  
(10/24/2019)

www.agcounts.usda.gov



U.S. Department of Agriculture  
National Agricultural Statistics Service  
National Processing Center  
1201 East 10th Street  
Jeffersonville, IN 47132  
Phone: 1-888-424-7828  
Fax: 1-812-218-2232  
E-mail: [nass@usda.gov](mailto:nass@usda.gov)

|      |      |      |      |
|------|------|------|------|
| 0010 | 0011 | 9916 | 0014 |
|      |      |      |      |

*Make corrections to name, address, and ZIP Code if necessary.*

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response to this survey is **required by law** under Title 7 USC 2204(g) Public Law 105-113.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0236. The time required to complete this information collection is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

- **February 5, 2020** – Everyone who receives a form must return one by this date.
- Use a **blue or black ballpoint pen** to complete this form.
- **www.agcounts.usda.gov** – Use this website to report via the Internet.
- **Duplicate form(s)** – If you received extra report forms for the SAME farming operation, return all report forms in the same envelope as the completed form.
- **Questions** – Call us toll-free at 1-888-424-7828. Thank you for your cooperation.

1. For 2019, select all crops listed below that this operation grew, finished, or sold.

**EXCLUDE:** – Plants purchased from others but not finished (grown on) before resale.

- |   |   |  |
|---|---|--|
| 0201 <input type="checkbox"/> Cut flowers                                     | 0209 <input type="checkbox"/> Nursery stock & ornamentals, shrubs, shade trees, live Christmas trees, fruit and nut trees, vines, palms, ornamental grasses, etc. | 0216 <input type="checkbox"/> Dried bulbs, corms, rhizomes, or tubers                        |
| 0202 <input type="checkbox"/> Potted flowering plants for indoor or patio use | 0211 <input type="checkbox"/> Sod, sprigs, and plugs  | 0217 <input type="checkbox"/> Propagative materials, bareroot and unfinished plants          |
| 0203 <input type="checkbox"/> Potted herbaceous perennials                    | 0212 <input type="checkbox"/> Short rotation woody crops (trees for pulpwood, sawlogs, etc. with growth cycles of 10 years or less)                               | 0218 <input type="checkbox"/> Transplants for commercial vegetable and strawberry production |
| 0204 <input type="checkbox"/> Annual bedding/garden plants                    | 0213 <input type="checkbox"/> Aquatic plants  | 0219 <input type="checkbox"/> Tobacco transplants  |
| 0205 <input type="checkbox"/> Foliage plants for indoor or patio use          | 0214 <input type="checkbox"/> Vegetable seeds   | 0220 <input type="checkbox"/> None of the above – Go to SECTION 27                           |
| 0206 <input type="checkbox"/> Cut cultivated greens                           | 0215 <input type="checkbox"/> Flower seeds  |  |
| 0207 <input type="checkbox"/> Food crops grown under protection               |   |  |
| 0208 <input type="checkbox"/> Cultivated Christmas trees                      |   |  |

2. In 2019, did this operation sell \$10,000 or more of these horticultural crops?

- 0200 1  **YES** - Go to SECTION 1      3  **No** - Go to SECTION 22

21249016



**SECTION 1 CUT FLOWERS**

1. In 2019, did this operation grow and sell any cut flowers?

**INCLUDE:** – Finished greenhouse and field grown cut flowers.

**EXCLUDE:** – Plants purchased from others but not finished (grown on) before resale.

– Potted flowering plants for indoor or patio use. Report in SECTION 2.

– Dried bulbs, corms, rhizomes, or tubers to be used for forcing or outdoor use. Report in SECTION 15.

– Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.). Report in SECTION 16.

0401

1  **Yes** - Complete this SECTION    3  **No** - Go to SECTION 2

2. For each type of cut flower grown and sold, report production and sales. For plants not printed in the table on the next page, enter the plant name and code from the list below. Report number sold in the units specified for each variety (stems, bunches, blooms, or spikes).

| Cut Flowers  | Code | Cut Flowers                                   | Code | Cut Flowers   | Code |
|--|------|---|------|---|------|
| Alstroemeria (stems) . . . . .                               | 0452 | Gerbera daisies (stems) . . . . .             | 0460 | Orchids, Dendrobium (blooms) . . . . .                    | 2145 |
| Anemone (bunches) . . . . .                                  | 2000 | Ginger and Heliconia (stems) . . . . .        | 2070 | Orchids, Phalaenopsis (blooms) . . . . .                  | 2150 |
| Anthurium (stems) . . . . .                                  | 2005 | Gladioli (spikes) . . . . .                   | 0046 | Orchids, other (blooms) . . . . .                         | 2155 |
| Aster (stems) . . . . .                                      | 2010 | Godetia (stems) . . . . .                     | 2075 | Peony (stems) . . . . .                                   | 2255 |
| Bird of Paradise/ <i>Strelitzia</i> (stems) . . . . .        | 2015 | Gypsophila (bunches) . . . . .                | 2080 | Protea (stems) . . . . .                                  | 2160 |
| Calla Lilies (stems) . . . . .                               | 2020 | Heather (bunches) . . . . .                   | 2085 | Rose, garden (bunches) . . . . .                          | 2260 |
| Campanula (blooms) . . . . .                                 | 2025 | Hydrangea (stems) . . . . .                   | 2180 | Rose, hybrid tea (stems) . . . . .                        | 2165 |
| Carnations, standard (stems) . . . . .                       | 0006 | Ilex (bunches) . . . . .                      | 2205 | Rose, spray type (stems) . . . . .                        | 2170 |
| Carnations, miniature (stems) . . . . .                      | 2030 | Iris (stems) . . . . .                        | 0464 | Rose, sweetheart (stems) . . . . .                        | 2175 |
| Celosia (bunches) . . . . .                                  | 2035 | Larkspur/ <i>Delphinium</i> (stems) . . . . . | 0456 | Snapdragons (spikes) . . . . .                            | 0484 |
| Chrysanthemums, pompon (bunches) . . . . .                   | 0036 | Leptospermum (stems) . . . . .                | 2095 | Solidago (bunches) . . . . .                              | 2265 |
| Chrysanthemums, other (bunches) . . . . .                    | 2040 | Liatris (bunches) . . . . .                   | 2100 | Statice (bunches) . . . . .                               | 2185 |
| Cosmos (bunches) . . . . .                                   | 2055 | Lily, Asiatic (stems) . . . . .               | 2105 | Stephanotis (blooms) . . . . .                            | 2190 |
| Daffodil/ <i>Narcissus</i> (stems) . . . . .                 | 2045 | Lily, Oriental (stems) . . . . .              | 2110 | Stock (stems) . . . . .                                   | 2195 |
| Dahlia (bunches) . . . . .                                   | 2060 | Lily, other (stems) . . . . .                 | 2115 | Sunflower (stems) . . . . .                               | 2200 |
| Dianthus, other than carnations (bunches) . . . . .          | 2065 | Limonium (bunches) . . . . .                  | 2120 | Trachelium (bunches) . . . . .                            | 2270 |
| Dried flowers, (report value of sales only) . . . . .        | 2400 | Lisianthus daisies (stems) . . . . .          | 0472 | Tulips (cut only) (stems) . . . . .                       | 0488 |
| Flowering cabbage or kale/ <i>Brassica</i> (stems) . . . . . | 2090 | Marguerite daisies (stems) . . . . .          | 2130 | Waxflower (bunches) . . . . .                             | 2275 |
| Freesia (stems) . . . . .                                    | 2050 | Matricaria (bunches) . . . . .                | 2250 | Zinnia (stems) . . . . .                                  | 2210 |
|  |      | Orchids, Cattleya (blooms) . . . . .          | 2135 | Other cut flowers, (report value of sales only) . . . . . | 2480 |
|  |      | Orchids, Cymbidium (blooms) . . . . .         | 2140 |   |      |

| Cut Flowers            | Code | Retail Sales in 2019  |                      | Wholesale Sales in 2019 |                      |
|------------------------|------|-----------------------|----------------------|-------------------------|----------------------|
|                        |      | Number Grown and Sold | Total Value of Sales | Number Grown and Sold   | Total Value of Sales |
|                        |      |                       | 2036                 | 2037                    | 2038                 |
| Celosia (bunches)      | 2035 |                       | \$ .00               |                         | \$ .00               |
|                        |      |                       | 2061                 | 2062                    | 2063                 |
| Dahlia (bunches)       | 2060 |                       | \$ .00               |                         | \$ .00               |
|                        |      |                       | 0716                 | 0047                    | 0048                 |
| Gladioli (spikes)      | 0046 |                       | \$ .00               |                         | \$ .00               |
|                        |      |                       | 2106                 | 2107                    | 2108                 |
| Lily, Asiatic (stems)  | 2105 |                       | \$ .00               |                         | \$ .00               |
|                        |      |                       | 2111                 | 2112                    | 2113                 |
| Lily, Oriental (stems) | 2110 |                       | \$ .00               |                         | \$ .00               |
|                        |      |                       | 2116                 | 2117                    | 2118                 |
| Lily, other (stems)    | 2115 |                       | \$ .00               |                         | \$ .00               |

CUT FLOWERS CONTINUED ON NEXT PAGE



| SECTION 1 CUT FLOWERS – Continued                         |      |                       |                      |                         |                      |
|---|------|-----------------------|----------------------|-------------------------|----------------------|
| Cut Flowers   | Code | Retail Sales in 2019  |                      | Wholesale Sales in 2019 |                      |
|   |      | Number Grown and Sold | Total Value of Sales | Number Grown and Sold   | Total Value of Sales |
| Lisianthus (stems)  | 0472 |                       | 0473<br>\$ .00       | 0474                    | 0475<br>\$ .00       |
| Peony (stems)   | 2255 |                       | 2256<br>\$ .00       | 2257                    | 2258<br>\$ .00       |
| Snapdragons (spikes)                                      | 0484 |                       | 0485<br>\$ .00       | 0486                    | 0487<br>\$ .00       |
| Sunflowers (stems)  | 2200 |                       | 2201<br>\$ .00       | 2202                    | 2203<br>\$ .00       |
| Zinnia (stems)  | 2210 |                       | 2211<br>\$ .00       | 2212                    | 2213<br>\$ .00       |
| Specify from list on page 2:                              |      |                       |                      |                         |                      |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
|   |      |                       | 1<br>\$ .00          | 2                       | 3<br>\$ .00          |
| (If more space is needed, use a separate sheet of paper.) |      |                       |                      |                         |                      |



**SECTION 2 POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE**

1. In 2019, did this operation finish and sell any potted flowering plants or potted flowering bulbs for indoor or patio use?

- EXCLUDE:** – Plants purchased from others but not finished (grown on) before resale.  
 – Hardy/garden chrysanthemums. Report in SECTION 3.  
 – Potted herbaceous perennial plants. Report in SECTION 3.  
 – Annual bedding/garden plants. Report in SECTION 4.  
 – Caladium. Report in SECTION 4.  
 – Foliage plants for indoor or patio use. Report in SECTION 5.  
 – Plants intended for landscape use purchased from others. Report in SECTION 9.  
 – Dried bulbs, corms, rhizomes, or tubers to be used for forcing or outdoor use. Report in SECTION 15.  
 – Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.) Report in SECTION 16.

0402 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 3

2. For each type of potted flowering plant finished and sold, report production and sales. For plants not printed in the table on the next page, enter the plant name and code from the list below.

| Potted Flowering Plants             | Code | Potted Flowering Plants         | Code | Potted Spring Flowering Bulbs       | Code |
|-------------------------------------|------|---------------------------------|------|-------------------------------------|------|
| African Violets                     | 0056 | Hydrangea                       | 3130 | Crocus                              | 3300 |
| Alstroemeria                        | 3010 | Kalanchoes                      | 3140 | Daffodils/ <i>Narcissus</i>         | 3310 |
| Anthurium                           | 3020 | Lilies, Easter                  | 0077 | Hyacinth                            | 3320 |
| Azaleas, finished florist           | 0070 | Lilies, other                   | 3160 | Tulips                              | 3330 |
| Begonias                            | 3040 | Orchids, Dendrobium             | 3170 | Other potted spring flowering bulbs | 3380 |
| Cape Primrose/ <i>Streptocarpus</i> | 3200 | Orchids, Phalaenopsis           | 3180 |                                     |      |
| Chrysanthemums, florist             | 0063 | Orchids, other                  | 3190 |                                     |      |
| Cineraria                           | 3060 | Poinsettias                     | 0091 |                                     |      |
| Combination planters                | 3400 | Primula                         | 3210 |                                     |      |
| Cyclamens                           | 3070 | Regal Pelargonium               | 3220 |                                     |      |
| Exacum                              | 3080 | Roses, florist potted           | 0561 |                                     |      |
| Gardenias                           | 3090 | Sunflowers (potted)             | 3230 |                                     |      |
| Gerbera daisies                     | 3100 | <i>Zygocactus/Schlumbergera</i> | 3240 |                                     |      |
| Gloxinias                           | 3110 | Other potted flowering plants   | 3480 |                                     |      |
| Hibiscus, potted                    | 3120 |                                 |      |                                     |      |

| Potted Flowering Plants | Code | Type of Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|-------------------------|------|-------------------|----------------------|----------------------|-------------------------|----------------------|
|                         |      |                   | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
| Combination Planters    | 3400 | Pots less than 5" |                      | 3401                 | 3402                    | 3403                 |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Pots 5" or more         | 3405 |                   | 3406                 | 3407                 | 3408                    |                      |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Begonias                | 3040 | Pots less than 5" |                      | 3041                 | 3042                    | 3043                 |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Pots 5" or more         | 3045 |                   | 3046                 | 3047                 | 3048                    |                      |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Gerbera daisies         | 3100 | Pots less than 5" |                      | 3101                 | 3102                    | 3103                 |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Pots 5" or more         | 3105 |                   | 3106                 | 3107                 | 3108                    |                      |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Orchids, Dendrobium     | 3170 | Pots less than 5" |                      | 3171                 | 3172                    | 3173                 |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |
| Pots 5" or more         | 3175 |                   | 3176                 | 3177                 | 3178                    |                      |
|                         |      |                   | \$                   | .00                  | \$                      | .00                  |

POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE CONTINUED ON NEXT PAGE



| SECTION 2 POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE – <i>Continued</i> |      |                   |                      |                      |                         |                      |
|--|------|-------------------|----------------------|----------------------|-------------------------|----------------------|
| Potted Flowering Plants  | Code | Type of Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|  |      |                   | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
| Orchids, Phalaenopsis  | 3180 | Pots less than 5" | 3181                 | \$ .00               | 3182                    | \$ .00               |
|  |      | Pots 5" or more   | 3185                 | \$ .00               | 3187                    | \$ .00               |
| Orchids, other   | 3190 | Pots less than 5" | 3191                 | \$ .00               | 3192                    | \$ .00               |
|  |      | Pots 5" or more   | 3195                 | \$ .00               | 3197                    | \$ .00               |
| Poinsettias  | 0091 | Pots less than 5" | 0734                 | \$ .00               | 0093                    | \$ .00               |
|  |      | Pots 5" or more   | 0092                 | \$ .00               | 0094                    | \$ .00               |
| <i>Specify from list on page 4:</i>  |      |                   |                      |                      |                         |                      |
|  |      | Pots less than 5" | 1                    | \$ .00               | 2                       | \$ .00               |
|  |      | Pots 5" or more   | 5                    | \$ .00               | 7                       | \$ .00               |
|  |      | Pots less than 5" | 1                    | \$ .00               | 2                       | \$ .00               |
|  |      | Pots 5" or more   | 5                    | \$ .00               | 7                       | \$ .00               |
|  |      | Pots less than 5" | 1                    | \$ .00               | 2                       | \$ .00               |
|  |      | Pots 5" or more   | 5                    | \$ .00               | 7                       | \$ .00               |
|  |      | Pots less than 5" | 1                    | \$ .00               | 2                       | \$ .00               |
|  |      | Pots 5" or more   | 5                    | \$ .00               | 7                       | \$ .00               |
|  |      | Pots less than 5" | 1                    | \$ .00               | 2                       | \$ .00               |
|  |      | Pots 5" or more   | 5                    | \$ .00               | 7                       | \$ .00               |

POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE CONTINUED ON NEXT PAGE



| SECTION 2 POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE – <i>Continued</i> |      |                   |                      |                      |                         |                      |
|--|------|-------------------|----------------------|----------------------|-------------------------|----------------------|
| <i>Specify from list on page 4:</i>  |      |                   |                      |                      |                         |                      |
| Potted Flowering Plants  | Code | Type of Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|  |      |                   | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots less than 5" | 1                    | 2                    | 3                       | 4                    |
|  |      | Pots less than 5" | \$                   | .00                  | \$                      | .00                  |
|  |      | Pots 5" or more   | 5                    | 6                    | 7                       | 8                    |
|  |      | Pots 5" or more   | \$                   | .00                  | \$                      | .00                  |

*(If more space is needed, use a separate sheet of paper.)*



**SECTION 3 POTTED HERBACEOUS PERENNIALS**

1. In 2019, did this operation finish and sell any potted herbaceous perennials?

**INCLUDE:** – Field grown and greenhouse herbaceous perennials.

**EXCLUDE:** – Bareroot herbaceous perennials. Report in SECTION 9.

– Climbing clematis. Report in SECTION 9.

– Ground covers. Report in SECTION 9.

– Dried bulbs, corms, rhizomes, or tubers to be used for forcing or outdoor use. Report in SECTION 15.

– Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.). Report in SECTION 16.

– Plants purchased from others but not finished (grown on) before resale.

– Ornamental Grasses. Report in SECTION 9.

0403 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 4

2. For each type of potted herbaceous perennial finished and sold, report production and sales. For plants not printed in the table on the next page, enter the plant name and code from the list below.

| Potted Herbaceous Perennials    | Code | Potted Herbaceous Perennials | Code | Potted Herbaceous Perennials        | Code |
|---------------------------------|------|------------------------------|------|-------------------------------------|------|
| Achillea                        | 4420 | Ferns, hardy/garden          | 4200 | Phlox                               | 4280 |
| Ajuga                           | 4220 | Foxglove/ <i>Digitalis</i>   | 4480 | Poppy/ <i>Papaver</i>               | 4660 |
| Asclepias                       | 4440 | Gaillardia                   | 4520 | Purple coneflower/ <i>Echinacea</i> | 4300 |
| Astilbe                         | 4000 | <i>Gaura</i>                 | 4800 | Physostegia                         | 4720 |
| Bleeding Heart/ <i>Dicentra</i> | 4020 | Hibiscus                     | 4560 | Platycodon                          | 4740 |
| Campanula                       | 4460 | Hostas                       | 0808 | Rudbeckia                           | 4320 |
| Chrysanthemums, hardy/garden    | 0800 | <i>Iberis</i>                | 4820 | Russian Sage/ <i>Perovskia</i>      | 4700 |
| Clematis, non-climbing          | 4060 | Iris                         | 1240 | Salvia, perennial                   | 4340 |
| Columbine                       | 4080 | Larkspur/ <i>Delphinium</i>  | 4160 | Scabiosa                            | 4760 |
| Coral Bells/ <i>Heuchera</i>    | 4100 | Lavender                     | 4580 | Sedum                               | 4360 |
| Coreopsis                       | 4120 | <i>Lithodora</i>             | 4840 | Shasta Daisy/ <i>Leucanthemum</i>   | 4600 |
| Daylilies                       | 4140 | Lobelia                      | 4620 | Verbascum                           | 4780 |
| <i>Delosperma</i>               | 4540 | Lupine                       | 4640 | Veronica                            | 4380 |
| Dianthus                        | 4180 | Penstemon                    | 4680 | Other herbaceous perennials         | 4400 |
| <i>Echinacea</i> , other        | 4500 | Peonies                      | 4260 |                                     |      |

| Potted Herbaceous Perennials  | Code | Type of Container   | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|-------------------------------|------|---------------------|----------------------|----------------------|-------------------------|----------------------|
|                               |      |                     | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
| Chrysanthemums (hardy/garden) | 0800 | Pots less than 5"   |                      | 0801                 | 0802                    | 0803                 |
|                               |      |                     | \$                   | .00                  | \$                      | .00                  |
|                               |      | Pots 5" or more     | 0804                 | 0805                 | 0806                    | 0807                 |
|                               |      |                     | \$                   | .00                  | \$                      | .00                  |
| Hostas                        | 0808 | Less than 1 gal.    |                      | 0809                 | 0810                    | 0811                 |
|                               |      |                     | \$                   | .00                  | \$                      | .00                  |
|                               |      | 1 gal. up to 2 gal. | 0812                 | 0813                 | 0814                    | 0815                 |
|                               | \$   | .00                 | \$                   | .00                  |                         |                      |
|                               |      | 2 gal. or larger    | 0816                 | 0817                 | 0818                    | 0819                 |
|                               | \$   | .00                 | \$                   | .00                  |                         |                      |

Specify from list above:

|  |                     |    |     |     |     |     |
|--|---------------------|----|-----|-----|-----|-----|
|  | Less than 1 gal.    |    | 1   | 2   | 3   |     |
|  |                     |    | \$  | .00 | \$  | .00 |
|  |                     | 5  | 6   | 7   | 8   |     |
|  | 1 gal. up to 2 gal. |    |     |     |     |     |
|  |                     | \$ | .00 | \$  | .00 |     |
|  | 2 gal. or larger    | 10 | 11  | 12  | 13  |     |
|  |                     | \$ | .00 | \$  | .00 |     |

POTTED HERBACEOUS PERENNIALS CONTINUED ON NEXT PAGE



| SECTION 3 POTTED HERBACEOUS PERENNIALS – <i>Continued</i> |      |                     |                      |                      |                         |                      |
|---|------|---------------------|----------------------|----------------------|-------------------------|----------------------|
| <i>Specify from list on page 7:</i>                       |      |                     |                      |                      |                         |                      |
| Potted Herbaceous Perennials                              | Code | Type of Container   | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|   |      |                     | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
|   |      | Less than 1 gal.    | 1                    | \$ .00               | 2                       | \$ .00               |
|   |      | 1 gal. up to 2 gal. | 5                    | \$ .00               | 7                       | \$ .00               |
|   |      | 2 gal. or larger    | 10                   | \$ .00               | 12                      | \$ .00               |
|   |      | Less than 1 gal.    | 1                    | \$ .00               | 2                       | \$ .00               |
|   |      | 1 gal. up to 2 gal. | 5                    | \$ .00               | 7                       | \$ .00               |
|   |      | 2 gal. or larger    | 10                   | \$ .00               | 12                      | \$ .00               |
|   |      | Less than 1 gal.    | 1                    | \$ .00               | 2                       | \$ .00               |
|   |      | 1 gal. up to 2 gal. | 5                    | \$ .00               | 7                       | \$ .00               |
|   |      | 2 gal. or larger    | 10                   | \$ .00               | 12                      | \$ .00               |
|   |      | Less than 1 gal.    | 1                    | \$ .00               | 2                       | \$ .00               |
|   |      | 1 gal. up to 2 gal. | 5                    | \$ .00               | 7                       | \$ .00               |
|   |      | 2 gal. or larger    | 10                   | \$ .00               | 12                      | \$ .00               |
|   |      | Less than 1 gal.    | 1                    | \$ .00               | 2                       | \$ .00               |
|   |      | 1 gal. up to 2 gal. | 5                    | \$ .00               | 7                       | \$ .00               |
|   |      | 2 gal. or larger    | 10                   | \$ .00               | 12                      | \$ .00               |

*(If more space is needed, use a separate sheet of paper.)*

21249081 



**SECTION 4 ANNUAL BEDDING/GARDEN PLANTS**

1. In 2019, did this operation finish and sell any annual bedding/garden plants?

**INCLUDE:** – Flowering and foliar bedding/garden plants.

**EXCLUDE:** – Finished bedding/garden plants purchased from others and resold.  
 – Foliage plants for indoor or patio use. Report in SECTION 5.  
 – Ground covers. Report in SECTION 9.  
 – Strawberry plants sold for home garden use. Report in SECTION 9.  
 – Vinca (*Vinca minor*) used for ground cover. Report in SECTION 9.  
 – Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.). Report in SECTION 16.  
 – Transplants used for commercial vegetable and strawberry production. Report in SECTION 17.  
 – Plants purchased from others but not finished (grown on) before resale.

0404 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 5

2. Report flat size used if NOT 10" x 20" to 11" x 22"

Report flat size to the nearest hundredth of an inch, for example, 11.00" x 23.37" . . . . . 0880

| Flat Size (inches) |  |
|--------------------|--|
|                    |  |

X 0881

| Flat Size (inches) |  |
|--------------------|--|
|                    |  |

3. For each type of annual bedding/garden plant finished and sold, report production and sales. For plants not printed in the table on the next page, enter the plant name and code from the list below.

**REPORT AS:** – FLATS when using a common insert (for example: 606, 1204, 1206, 1801, 1803, etc.)  
 – POTS if produced as separate units, including pots produced in shuttle trays, carrier flats, or flats of individual pots.  
 – POTS if produced as containers of annuals and mixed annuals such as color bowls, strawberry jars, or combination planters.

| Annual Bedding/Garden Plants                                 | Code | Annual Bedding/Garden Plants   | Code | Annual Bedding/Garden Plants                                 | Code        |
|--|------|--|------|--|-------------|
| Ageratum . . . . .   | 5000 | Gomphrena . . . . .  | 5380 | Vinca/ <i>Catharanthus roseus</i> . . . . .                  | 5500        |
| Alyssum, sweet/ <i>Lobularia</i> . . . . .                   | 5020 | <i>Impatiens</i> , interspecific hybrids . . . . .                   | 5900 | Zinnia . . . . .   | 5520        |
| Angelonia . . . . .  | 5040 | <i>Impatiens</i> , New Guinea . . . . .                              | 0637 | Combination planter/color bowl . . . . .                     | 5800        |
| <i>Bacopa</i> . . . . .                                      | 5760 | <i>Impatiens</i> , other (including <i>I. walleriana</i> ) . . . . . | 0632 | Other flowering and foliar annuals . . . . .                 | 5880        |
| Begonias . . . . .   | 0577 | Lantana . . . . .  | 5940 |  |             |
| Black-eyed Susan vine/ <i>Thunbergia</i> . . . . .           | 5740 | Lisianthus . . . . .   | 5560 |  |             |
| Caladium . . . . .   | 5060 | Lobelia . . . . .  | 5300 |  |             |
| Calendula . . . . .  | 5180 | Marigolds . . . . .  | 0852 | <b>Vegetable Type Bedding Plants</b>                         | <b>Code</b> |
| Calibrachoa . . . . .  | 5540 | Millet, ornamental . . . . .   | 5580 | Broccoli, cabbage, cauliflower and other crucifers . . . . . | 6000        |
| Canna . . . . .  | 5200 | Nasturtium . . . . .   | 5600 | Herbs, culinary . . . . .                                    | 6020        |
| Celosia . . . . .  | 5080 | Nicotiana . . . . .  | 5340 | Peppers, all (excluding ornamentals) . . . . .               | 6040        |
| Cleome . . . . .   | 5260 | Osteospermum . . . . .   | 5620 | Tomatoes, all . . . . .                                      | 6060        |
| Coleus . . . . .   | 5100 | Pansies/ <i>Violas</i> . . . . .                                     | 0868 | Other vegetable type bedding plants . . . . .                | 6380        |
| Cosmos . . . . .   | 5280 | Pentas . . . . .   | 5640 |  |             |
| Dahlia . . . . .   | 5140 | Peppers, ornamental . . . . .  | 5660 |  |             |
| Dianthus . . . . .   | 5320 | Petunias . . . . .   | 0642 |  |             |
| Dusty Miller . . . . .                                       | 5120 | Poppy, annual . . . . .  | 5680 |  |             |
| <i>Euphorbia</i> (report Poinsettias in Section 2) . . . . . | 5780 | Portulaca . . . . .  | 5400 |  |             |
| Flowering cabbage or kale/ <i>Brassica</i> . . . . .         | 5360 | Ranunculus . . . . .   | 5700 |  |             |
| Fuchsia . . . . .  | 5160 | Rudbeckia . . . . .  | 5720 |  |             |
| Gazania . . . . .  | 5220 | Salvia, annual . . . . .   | 5440 |  |             |
| Geraniums, from vegetative cuttings . . . . .                | 0910 | Scaevola . . . . .   | 5420 |  |             |
| Geraniums, from seeds and plug seedlings . . . . .           | 0844 | Snapdragon . . . . .   | 5460 |  |             |
| Gerbera daisy . . . . .                                      | 5240 | Sweet potato vine/ <i>Ipomea</i> . . . . .                           | 5920 |  |             |
|  |      | Verbena . . . . .  | 5480 |  |             |

ANNUAL BEDDING/GARDEN PLANTS CONTINUED ON NEXT PAGE



21249099

| SECTION 4 ANNUAL BEDDING/GARDEN PLANTS – <i>Continued</i> |      |                      |                      |                      |                         |                      |
|---|------|----------------------|----------------------|----------------------|-------------------------|----------------------|
| Annual Bedding/<br>Garden Plants                          | Code | Type of<br>Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|   |      |                      | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
| Begonias  | 0577 | Flats                |                      | 0578                 | 0579                    | 0580                 |
|   |      |                      |                      | \$                   |                         | \$                   |
|   |      | Pots less than 5"    | 0581                 | 0582                 | 0583                    | 0584                 |
|   |      |                      |                      | \$                   |                         | \$                   |
| Pots 5" or more   | 0585 | 0586                 | 0587                 | 0588                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Hanging baskets   | 0589 | 0590                 | 0591                 | 0592                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Geraniums,<br>from vegetative<br>cuttings                 | 0910 | Flats                |                      | 0911                 | 0912                    | 0913                 |
|   |      |                      |                      | \$                   |                         | \$                   |
|   |      | Pots less than 5"    | 0140                 | 0762                 | 0142                    | 0144                 |
|   |      |                      |                      | \$                   |                         | \$                   |
| Pots 5" or more   | 0141 | 0763                 | 0143                 | 0243                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Hanging baskets   | 0914 | 0915                 | 0916                 | 0917                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Geraniums,<br>from seeds and plug<br>seedlings            | 0844 | Flats                |                      | 0845                 | 0846                    | 0847                 |
|   |      |                      |                      | \$                   |                         | \$                   |
|   |      | Pots less than 5"    | 0147                 | 0764                 | 0149                    | 0151                 |
|   |      |                      |                      | \$                   |                         | \$                   |
| Pots 5" or more   | 0148 | 0765                 | 0150                 | 0244                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Hanging baskets   | 0848 | 0849                 | 0850                 | 0851                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Impatiens, New Guinea                                     | 0637 | Flats                |                      | 0741                 | 0638                    | 0639                 |
|   |      |                      |                      | \$                   |                         | \$                   |
|   |      | Pots less than 5"    | 0680                 | 0766                 | 0682                    | 0684                 |
|   |      |                      |                      | \$                   |                         | \$                   |
| Pots 5" or more   | 0681 | 0767                 | 0683                 | 0685                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| Hanging baskets   | 0659 | 0747                 | 0660                 | 0661                 |                         |                      |
|   |      | \$                   |                      | \$                   | .00                     |                      |
| ANNUAL BEDDING/GARDEN PLANTS CONTINUED ON NEXT PAGE       |      |                      |                      |                      |                         |                      |

21249107



**SECTION 4** ANNUAL BEDDING/GARDEN PLANTS – *Continued*

| Annual Bedding/<br>Garden Plants                              | Code | Type of<br>Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|---|------|----------------------|----------------------|----------------------|-------------------------|----------------------|
|   |      |                      | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
| <i>Impatiens</i> , other<br>(including <i>I. walleriana</i> ) | 0632 | Flats                |                      | 0742<br>\$ .00       | 0633<br>\$ .00          | 0634<br>\$ .00       |
|   |      | Pots less than 5"    | 0672                 | 0768<br>\$ .00       | 0674                    | 0676<br>\$ .00       |
|   |      | Pots 5" or more      | 0673                 | 0769<br>\$ .00       | 0675                    | 0677<br>\$ .00       |
|   |      | Hanging baskets      | 0655                 | 0748<br>\$ .00       | 0656                    | 0657<br>\$ .00       |
| Marigolds   | 0852 | Flats                |                      | 0853<br>\$ .00       | 0854<br>\$ .00          | 0855<br>\$ .00       |
|   |      | Pots less than 5"    | 0856                 | 0857<br>\$ .00       | 0858                    | 0859<br>\$ .00       |
|   |      | Pots 5" or more      | 0860                 | 0861<br>\$ .00       | 0862                    | 0863<br>\$ .00       |
|   |      | Hanging baskets      | 0864                 | 0865<br>\$ .00       | 0866                    | 0867<br>\$ .00       |
| Pansies/ <i>Violas</i>  | 0868 | Flats                |                      | 0869<br>\$ .00       | 0870<br>\$ .00          | 0871<br>\$ .00       |
|   |      | Pots less than 5"    | 0872                 | 0873<br>\$ .00       | 0874                    | 0875<br>\$ .00       |
|   |      | Pots 5" or more      | 0876                 | 0877<br>\$ .00       | 0878                    | 0879<br>\$ .00       |
|   |      | Hanging baskets      | 0884                 | 0885<br>\$ .00       | 0886                    | 0887<br>\$ .00       |
| Petunias  | 0642 | Flats                |                      | 0743<br>\$ .00       | 0643<br>\$ .00          | 0644<br>\$ .00       |
|   |      | Pots less than 5"    | 0688                 | 0770<br>\$ .00       | 0690                    | 0692<br>\$ .00       |
|   |      | Pots 5" or more      | 0689                 | 0771<br>\$ .00       | 0691                    | 0693<br>\$ .00       |
|   |      | Hanging baskets      | 0663                 | 0749<br>\$ .00       | 0664                    | 0665<br>\$ .00       |

ANNUAL BEDDING/GARDEN PLANTS CONTINUED ON NEXT PAGE

21249115



**SECTION 4 ANNUAL BEDDING/GARDEN PLANTS – Continued**

Specify from list on page 9:

| Annual Bedding/<br>Garden Plants | Code | Type of<br>Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|----------------------------------|------|----------------------|----------------------|----------------------|-------------------------|----------------------|
|                                  |      |                      | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
|                                  |      | Flats                | 1                    |                      | 2                       | 3                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
|                                  |      | Pots less than 5"    | 5                    | 6                    | 7                       | 8                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
| Pots 5" or more                  | 10   | 11                   | 12                   | 13                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
| Hanging baskets                  | 15   | 16                   | 17                   | 18                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
|                                  |      | Flats                | 1                    |                      | 2                       | 3                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
|                                  |      | Pots less than 5"    | 5                    | 6                    | 7                       | 8                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
| Pots 5" or more                  | 10   | 11                   | 12                   | 13                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
| Hanging baskets                  | 15   | 16                   | 17                   | 18                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
|                                  |      | Flats                | 1                    |                      | 2                       | 3                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
|                                  |      | Pots less than 5"    | 5                    | 6                    | 7                       | 8                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
| Pots 5" or more                  | 10   | 11                   | 12                   | 13                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
| Hanging baskets                  | 15   | 16                   | 17                   | 18                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
|                                  |      | Flats                | 1                    |                      | 2                       | 3                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
|                                  |      | Pots less than 5"    | 5                    | 6                    | 7                       | 8                    |
|                                  |      |                      |                      | \$ .00               |                         | \$ .00               |
| Pots 5" or more                  | 10   | 11                   | 12                   | 13                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |
| Hanging baskets                  | 15   | 16                   | 17                   | 18                   |                         |                      |
|                                  |      | \$ .00               |                      | \$ .00               |                         |                      |

(If more space is needed, use a separate sheet of paper.)



**SECTION 5 FOLIAGE PLANTS FOR INDOOR OR PATIO USE**

1. In 2019, did this operation finish and sell any potted foliage plants or foliage hanging baskets for indoor or patio use?

**INCLUDE:** – Indoor/patio shrubs, trees, and vines finished by you.  
 – Plants that have flowers which are secondary compared with foliage features.

**EXCLUDE:** – Hardy/garden ferns. Report in SECTION 3.  
 – Foliage plants intended for landscape use. Report in SECTION 9.  
 – Unfinished plants (plug seedlings, liners, tissue cultured plantlets etc.). Report in SECTION 16.  
 – Plants purchased from others but not finished (grown on) before resale.

0405 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 6

2. For each foliage plant finished and sold, report production and sales by type of container. Enter the plant name and code from the list below.

| Foliage Plants                                       | Code | Foliage Plants                | Code | Foliage Plants       | Code |
|--|------|-------------------------------|------|----------------------|------|
| Agave  | 7350 | Croton                        | 7080 | Nepthytis/Syngonium  | 7320 |
| Aglaonema  | 7000 | Dieffenbachia                 | 7100 | Palms                | 7240 |
| Alocasia/Colocasia                                   | 7370 | Dracaena                      | 7120 | Philodendron         | 7260 |
| Anthurium  | 7020 | Epipremnum                    | 7140 | Pothos               | 7400 |
| Bromeliad  | 7040 | Ferns (tropical ferns potted) | 7160 | Sanseveria           | 7420 |
| Cacti and succulents                                 | 7060 | Ficus                         | 7180 | Schefflera           | 7280 |
| Combination planters (dish gardens, terrariums, etc) | 7800 | Ivy/Hedera                    | 7200 | Spathiphyllum        | 7300 |
| Cordyline  | 7440 | Marantal/Calathea             | 7220 | Other foliage plants | 7700 |

Specify from list above:

| Foliage Plants | Code | Type of Container | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|----------------|------|-------------------|----------------------|----------------------|-------------------------|----------------------|
|                |      |                   | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
|                |      |                   | 1                    | 2                    | 3                       | 4                    |
|                |      | Pots less than 6" |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 5                    | 6                    | 7                       | 8                    |
|                |      | Pots 6" to 13"    |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 10                   | 11                   | 12                      | 13                   |
|                |      | Pots 14" or more  |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 15                   | 16                   | 17                      | 18                   |
|                |      | Hanging baskets   |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 1                    | 2                    | 3                       | 4                    |
|                |      | Pots less than 6" |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 5                    | 6                    | 7                       | 8                    |
|                |      | Pots 6" to 13"    |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 10                   | 11                   | 12                      | 13                   |
|                |      | Pots 14" or more  |                      | \$ .00               |                         | \$ .00               |
|                |      |                   | 15                   | 16                   | 17                      | 18                   |
|                |      | Hanging baskets   |                      | \$ .00               |                         | \$ .00               |

(If more space is needed, use a separate sheet of paper.)



**SECTION 6 CUT CULTIVATED GREENS**

1. In 2019, did this operation grow and sell any cut cultivated greens?

**INCLUDE:** – Cut cultivated greens grown and sold for export.

**EXCLUDE:** – Ferns in hanging baskets. Report in SECTION 5.

– Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.). Report in SECTION 16.

– Wild cut greens.

– Plants purchased from others but not finished (grown on) before resale.

0406 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 7

2. For each type of cut cultivated greens grown and sold, report production and sales. For plants not listed, enter the plant name and code from the list below. Report number produced and sold in the unit specified.

| Cut Cultivated Greens                    | Code | Cut Cultivated Greens                        | Code | Cut Cultivated Greens  | Code |
|--|------|--|------|--|------|
| <i>Aralia</i> (bunches) . . . . .        | 2750 | Curly Willow (bunches) . . . . .             | 2690 | <i>Monstera</i> (bunches) . . . . .                                    | 2762 |
| Asparagus, plumosus (bunches) . . . . .  | 2600 | Eucalyptus (bunches) . . . . .               | 2630 | Myrtle (bunches) . . . . .   | 2655 |
| Asparagus, tree fern (bunches) . . . . . | 2605 | Holly (pounds) . . . . .                     | 2640 | Olive (bunches) . . . . .  | 2766 |
| Asparagus, other (bunches) . . . . .     | 2610 | Ivy/ <i>Hedera</i> (vines) . . . . .         | 2635 | Pittosporum (bunches) . . . . .  | 2660 |
| Aspidistra (bunches) . . . . .           | 2680 | Leatherleaf ferns (bunches) . . . . .        | 0175 | Podocarpus (bunches) . . . . .   | 2665 |
| Berzelia (bunches) . . . . .             | 2685 | Leucadendron (bunches) . . . . .             | 2695 | Ruscus, other (bunches) . . . . .                                      | 2770 |
| Boxwood (pounds) . . . . .               | 2615 | Lily Grass (bunches) . . . . .               | 2700 | Ruscus, Italian and Israeli (bunches) . . . . .                        | 2710 |
| <i>Calathea</i> (stems) . . . . .        | 2754 | Lilyturf/ <i>Liriope</i> (bunches) . . . . . | 2650 | Ti/ <i>Cordylina</i> (stems) . . . . .                                 | 2625 |
| Coniferous evergreens (pounds) . . . . . | 2620 | Magnolia (bunches) . . . . .                 | 2758 | Other cut cultivated greens,<br>(Report value of sales only) . . . . . | 2980 |
|  |      | Melaleuca (bunches) . . . . .                | 2705 |  |      |

| Cut Cultivated Greens           | Code | Retail Sales in 2019  |                      | Wholesale Sales in 2019 |                      |
|---------------------------------|------|-----------------------|----------------------|-------------------------|----------------------|
|                                 |      | Number Grown and Sold | Total Value of Sales | Number Grown and Sold   | Total Value of Sales |
|                                 |      |                       | 0781                 | 0176                    | 0177                 |
| Leatherleaf ferns (bunches)     | 0175 |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 2661                 | 2662                    | 2663                 |
| Pittosporum                     | 2660 |                       | \$ .00               |                         | \$ .00               |
| <i>Specify from list above:</i> |      |                       |                      |                         |                      |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |
|                                 |      |                       | 1                    | 2                       | 3                    |
|                                 |      |                       | \$ .00               |                         | \$ .00               |

(If more space is needed, use a separate sheet of paper.)



**SECTION 7 FOOD CROPS GROWN UNDER PROTECTION**

1. In 2019, did this operation grow and sell any food crops under protection?

**INCLUDE:** – Herbs and hydroponic food crops.  
 – Permanent greenhouse structures (heated and unheated) such as glass, rigid plastic, and plastic film.

**EXCLUDE:** – Food crops grown in the open.  
 – Food crops grown under temporary structures.  
 – Mushrooms.  
 – Vegetable bedding plants for home use, including potted herbs. Report in SECTION 4.  
 – Strawberry plants sold for home garden use. Report in SECTION 9.  
 – Transplants for commercial food crop production. Report in SECTION 17.  
 – Plants purchased from others but not finished (grown on) before resale.

0407 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 8

|  | Area Under Protection<br>(Square feet) | Total Production<br>Hundredweight (cwt) | Percent Production from Hydroponic Systems<br>(Percent) | Total Value of Sales in 2019 |                 |
|--|--|---|---|------------------------------|-----------------|
|  |  |   |   | Retail Sales                 | Wholesale Sales |
| None   | 1260                                   | 1261                                    | 1262  | 1263                         | 1264            |
| a. Tomatoes. . . . . <input type="checkbox"/>                        |  |   |   | \$ .00                       | \$ .00          |
|  | 1210                                   | 1211                                    | 1212  | 1213                         | 1214            |
| b. Cucumbers. . . . . <input type="checkbox"/>                       |  |   |   | \$ .00                       | \$ .00          |
|  | 1220                                   | 1221                                    | 1222  | 1223                         | 1224            |
| c. Herbs, fresh. . . . . <input type="checkbox"/>                    |  |   |   | \$ .00                       | \$ .00          |
|  | 1230                                   | 1231                                    | 1232  | 1233                         | 1234            |
| d. Lettuce, all. . . . . <input type="checkbox"/>                    |  |   |   | \$ .00                       | \$ .00          |
|  | 1240                                   | 1241                                    | 1242  | 1243                         | 1244            |
| e. Peppers, all (excluding ornamentals). <input type="checkbox"/>    |  |   |   | \$ .00                       | \$ .00          |
|  | 1280                                   | 1281                                    | 1282  | 1283                         | 1284            |
| f. Strawberries. . . . . <input type="checkbox"/>                    |  |   |   | \$ .00                       | \$ .00          |
|  | 1290                                   | 1291                                    | 1292  | 1293                         | 1294            |
| g. Other food crops grown under protection. <input type="checkbox"/> |  |   |   | \$ .00                       | \$ .00          |

Specify:  1295



**SECTION 8 CULTIVATED CHRISTMAS TREES**

1. In 2019, did this operation cut and sell any Christmas trees or grow any Christmas trees to be cut in future years?

- EXCLUDE:** – Cut coniferous evergreens for greens. Report in SECTION 6.  
 – Live Christmas trees (such as balled and burlapped) sold or to be sold. Report in SECTION 9.  
 – Short rotation woody crops. Report in SECTION 11.  
 – Immature Christmas trees sold for further growing on. Report in SECTION 16.  
 – Christmas trees purchased from others but not finished (grown on) before resale.

0408 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 9

|                                   | Area in Production       |        | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      | Number of Trees on Operation January 1, 2020 |
|-----------------------------------|--------------------------|--------|----------------------|----------------------|-------------------------|----------------------|--|
|                                   | Acres                    | Tenths | Trees Sold           | Total Value of Sales | Trees Sold              | Total Value of Sales |  |
| None                              | 0250                     |        | 0251                 | 0252                 | 0253                    | 0254                 | 0255   |
| a. Balsam fir. . . . .            | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| b. Colorado blue spruce . . . . . | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| c. Douglas fir . . . . .          | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| d. Fraser fir. . . . .            | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| e. Grand fir. . . . .             | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| f. Leyland cypress . . . . .      | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| g. Noble fir . . . . .            | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| h. Nordmann fir. . . . .          | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| i. Scotch pine. . . . .           | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| j. White pine . . . . .           | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| k. White spruce. . . . .          | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
| l. Other – Specify:<br>0359       | <input type="checkbox"/> |        |                      | \$ .00               |                         | \$ .00               |  |
|                                   |                          |        |                      | \$ .00               |                         | \$ .00               |  |

**TOTAL**

2. Add the total number of trees on this operation January 1, 2020. . . . . 0363

3. What percent of the total number of trees on the operation on January 1, 2020, do you expect to sell in:

| 1 YEAR | 2 YEARS | 3 YEARS | 4 YEARS | 5 YEARS | 6 YEARS | 7 YEARS | 8 YEARS OR MORE | TOTAL |
|--------|---------|---------|---------|---------|---------|---------|-----------------|-------|
| 0365   | 0366    | 0367    | 0368    | 0369    | 0370    | 0371    | 0372            |       |
|        |         |         |         |         |         |         |                 | 100%  |





**SECTION 9 NURSERY STOCK PRODUCTION AND SALES**

1. In 2019, did this operation grow and sell any ornamentals, shrubs, shade trees, live Christmas trees, fruit and nut trees, vines, palms, ornamental grasses, or grow any to be sold in future years?

- EXCLUDE:** – Dried bulbs, corms, rhizomes, or tubers. Report in SECTION 15.  
 – Unfinished plants (plug seedlings, liners, tissue cultured plantlets, etc.) Report in SECTION 16.  
 – Strawberry transplants for commercial production. Report in SECTION 17.  
 – Plants purchased from others but not finished (grown on) before resale.

0409 1  **Yes** - Complete this SECTION      3  **No** - Go to SECTION 10

2. For each type of plant grown and sold, report production and sales. Enter the plant name and code from the list below on the next page.

| Broadleaf Evergreens       | Code | Deciduous Flowering Trees       | Code | Deciduous Shrubs       | Code | Ornamental Grasses       | Code        |
|----------------------------|------|---------------------------------|------|------------------------|------|--------------------------|-------------|
| Azalea                     | 8060 | Amelanchier                     | 8300 | Barberry, all          | 8400 | All ornamental grasses   | 8610        |
| Boxwood                    | 8065 | Callery pear                    | 8305 | Buddleias              | 8405 |                          |             |
| Cotoneaster                | 8070 | Crabapple                       | 8310 | Hibiscus               | 8410 |                          |             |
| Euonymus                   | 8015 | Crapemyrtle                     | 8315 | Hydrangeas             | 8415 |                          |             |
| Holly                      | 8020 | Dogwood                         | 8320 | Lilacs                 | 8420 |                          |             |
| Magnolia                   | 8025 | Flowering cherry                | 8325 | Roses (shrubs)         | 8425 |                          |             |
| Pieris                     | 8030 | Flowering plum                  | 8330 | Spireas                | 8430 |                          |             |
| Pittosporum                | 8035 | Golden rain                     | 8335 | Viburnum               | 8435 |                          |             |
| Privet                     | 8040 | Hawthorn                        | 8340 | Weigelas               | 8440 |                          |             |
| Rhododendron               | 8045 | Magnolia                        | 8345 | Other deciduous shrubs | 8495 |                          |             |
| Viburnum                   | 8050 | Redbud                          | 8350 |                        |      |                          |             |
| Other broadleaf evergreens | 8095 | Other deciduous flowering trees | 8395 |                        |      | <b>Landscaping Palms</b> | <b>Code</b> |
|                            |      |                                 |      |                        |      | All landscaping palms    | 8600        |

| Coniferous Evergreens       | Code | Deciduous Shade Trees       | Code | Fruit and Nut Plants               | Code | Other Woody Ornamentals and Vines     | Code        |
|-----------------------------|------|-----------------------------|------|------------------------------------|------|---------------------------------------|-------------|
| Arborvitae                  | 8100 | Ash                         | 8200 | Citrus and subtropical fruit trees | 8500 | Clematis, climbing                    | 8620        |
| Cedar                       | 8105 | Birch                       | 8205 | Deciduous fruit and nut trees      | 8505 | Vinca ground cover                    | 8625        |
| Cypress                     | 8110 | Honey locust                | 8210 | Grapevines                         | 8550 | Other vines                           | 8635        |
| Fir                         | 8115 | Linden                      | 8215 | Strawberry plants, home use        | 8555 | Other ground covers                   | 8630        |
| Hemlock                     | 8120 | Maple, Japanese             | 8220 | Other small fruit plants           | 8595 |                                       |             |
| Juniper                     | 8125 | Maple, Norway               | 8225 | Other fruit and nut trees          | 8545 |                                       |             |
| Live Christmas trees        | 8190 | Maple, red                  | 8230 |                                    |      | <b>Cacti and Succulents</b>           | <b>Code</b> |
| Pine                        | 8130 | Maple, sugar                | 8235 |                                    |      | All cacti and succulents              | 8645        |
| Spruce                      | 8135 | Maple, other                | 8240 |                                    |      |                                       |             |
| Yew                         | 8140 | Oak                         | 8245 |                                    |      | <b>Bareroot Herbaceous Perennials</b> | <b>Code</b> |
| Other coniferous evergreens | 8195 | Poplar                      | 8250 |                                    |      | All bareroot herbaceous perennials    | 8650        |
|                             |      | Sweet gum                   | 8255 |                                    |      |                                       |             |
|                             |      | Willow                      | 8260 |                                    |      |                                       |             |
|                             |      | Other deciduous shade trees | 8295 |                                    |      |                                       |             |

NURSERY STOCK PRODUCTION AND SALES CONTINUED ON NEXT PAGE

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| SECTION 9 NURSERY STOCK PRODUCTION AND SALES – <i>Continued</i> |      |                       |                      |                         |                      |  |
|---|------|-----------------------|----------------------|-------------------------|----------------------|--|
| Nursery Stock   | Code | Retail Sales in 2019  |                      | Wholesale Sales in 2019 |                      | Number of trees and nursery plants on hand January 1, 2020 |
|   |      | Number Grown and Sold | Total Value of Sales | Number Grown and Sold   | Total Value of Sales |  |
|   |      |                       | 8061                 | 8062                    | 8063                 | 8064   |
| Azalea  | 8060 |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 8066                 | 8067                    | 8068                 | 8069   |
| Boxwood   | 8065 |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 8611                 | 8612                    | 8613                 | 8614   |
| Ornamental grass  | 8610 |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 8426                 | 8427                    | 8428                 | 8429   |
| Roses (shrubs)  | 8425 |                       | \$ .00               |                         | \$ .00               |  |
| <i>Specify from list on page 17:</i>                            |      |                       |                      |                         |                      |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |
|   |      |                       | 1                    | 2                       | 3                    | 4  |
|   |      |                       | \$ .00               |                         | \$ .00               |  |

*(If more space is needed, use a separate sheet of paper.)*



**SECTION 9 NURSERY STOCK PRODUCTION AND SALES – Continued**

3. For 2019, report the percent of total sales (wholesale and retail) of all nursery stock reported in SECTION 9 that were sold in the following categories. (Row must sum to 100% for each crop.)

|    |   | None                     | Bareroot<br>(Percent) | Balled and<br>Burlapped<br>(Percent) | Containers<br>(all types)<br>(Percent) | Other<br>(Percent) | Total<br>(Percent) |
|----|---|--------------------------|-----------------------|--------------------------------------|--|--------------------|--------------------|
| a. | Broadleaf evergreens . . . . . 8900                 | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| b. | Cacti and succulents . . . . . 8945                 | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| c. | Coniferous evergreens . . . . . 8905                | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| d. | Deciduous flowering trees . . . . . 8910            | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| e. | Deciduous shade trees . . . . . 8915                | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| f. | Deciduous shrubs . . . . . 8920                     | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| g. | Fruit and nut plants . . . . . 8925                 | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| h. | Landscaping palms . . . . . 8935                    | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| i. | Ornamental grasses . . . . . 8930                   | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |
| j. | Other woody ornamentals<br>and vines . . . . . 8940 | <input type="checkbox"/> |                       |                                      |  |                    | 100%               |

**SECTION 10 SOD, SPRIGS, OR PLUGS**

1. In 2019, did this operation grow and sell sod, sprigs, or plugs?

**INCLUDE:** – Turfgrass.

**EXCLUDE:** – Ornamental grasses. Report in SECTION 9.

– Installation and delivery fees.

– Grasses purchased from others but not finished (grown on) before resale.

0411 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 11

|                                    | Area in Production |        | Area Harvested |        | Total Value of Sales in 2019 |                 |
|------------------------------------|--------------------|--------|----------------|--------|------------------------------|-----------------|
|                                    | Acres              | Tenths | Acres          | Tenths | Retail Sales                 | Wholesale Sales |
|                                    | 1300               |        | 1301           |        | 1302                         | 1303            |
| a. Sod, sprigs, or plugs . . . . . |                    |        |                |        | \$ .00                       | \$ .00          |



**SECTION 11 SHORT ROTATION WOODY CROPS**

1. In 2019, did this operation grow and sell short rotation woody crops?  
**INCLUDE:** – Trees for pulpwood, sawlogs, etc. with growth cycles of 10 years or less.  
**EXCLUDE:** – Trees for timber or landscaping.  
 – Trees purchased from others but not finished (grown on) before resale.  
 – Seedlings for CRP and reforestation.

0412 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 12

| None  | Area in Production        |        | Area Harvested |        | Quantity Harvested | Total Value of Sales in 2019 |                 |     |
|---|---------------------------|--------|----------------|--------|--------------------|------------------------------|-----------------|-----|
|   | Acres                     | Tenths | Acres          | Tenths | Green Tons         | Retail Sales                 | Wholesale Sales |     |
|   | 1310                      |        | 1311           |        | 1312               | 1313                         | 1314            |     |
| a. Hybrid poplars . . . . .                   | <input type="checkbox"/>  |        |                |        |                    | \$                           |                 | \$  |
|   |                           |        |                |        |                    | .00                          |                 | .00 |
| b. Other short rotation woody crops . . . . . | <input type="checkbox"/>  |        |                |        |                    | \$                           |                 | \$  |
|   |                           |        |                |        |                    | .00                          |                 | .00 |
| Specify: ↴                                    | 1320 <input type="text"/> |        |                |        |                    |                              |                 |     |

**SECTION 12 AQUATIC PLANTS**

1. In 2019, did this operation grow and sell any aquatic plants?  
**INCLUDE:** – Underwater plants, floating-leaved plants, and riparian plants.  
**EXCLUDE:** – Hydroponics.  
 – Aquatic plants purchased from others but not finished (grown on) before resale.

0413 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 13

| a. Aquatic plants. . . . . | Area Used for Production |             |        | Number of Aquatic Plants Sold | Total Value of Sales in 2019 |                 |
|----------------------------|--------------------------|-------------|--------|-------------------------------|------------------------------|-----------------|
|                            | Under Protection         | In the Open |        |                               | Retail Sales                 | Wholesale Sales |
|                            | Square Feet              | Acres       | Tenths |                               |                              |                 |
|                            | 1330                     | 1331        |        | 1332                          | 1333                         | 1334            |
|                            |                          |             |        |                               | \$                           | \$              |
|                            |                          |             |        |                               | .00                          | .00             |

**SECTION 13 VEGETABLE SEEDS**

1. In 2019, did this operation grow and sell any vegetable seeds?  
**EXCLUDE:** – Potatoes for seed.  
 – Sweet corn for seed.

0414 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 14

| a. Vegetable seeds. . . . . | Area Used for Production |             |        | Quantity Harvested and Sold<br>(Pounds of Clean Seed) | Total Value of Sales in 2019 |                 |
|-----------------------------|--------------------------|-------------|--------|---|------------------------------|-----------------|
|                             | Under Protection         | In the Open |        |   | Retail Sales                 | Wholesale Sales |
|                             | Square Feet              | Acres       | Tenths |   |                              |                 |
|                             | 1340                     | 1341        |        | 1342  | 1343                         | 1344            |
|                             |                          |             |        |   | \$                           | \$              |
|                             |                          |             |        |   | .00                          | .00             |



**SECTION 14 FLOWER SEEDS**

1. In 2019, did this operation grow and sell any flower seeds?

0415 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 15

|   | Area Used for Production |             |        | Quantity Harvested and Sold<br>(Pounds of Clean Seed) | Total Value of Sales in 2019 |                 |
|---|--------------------------|-------------|--------|---|------------------------------|-----------------|
|   | Under Protection         | In the Open |        |   | Retail Sales                 | Wholesale Sales |
|   | Square Feet              | Acres       | Tenths |   |                              |                 |
| None  | 1350                     | 1351        |        | 1352  | 1353                         | 1354            |
| a. Alyssum, sweet. . . . . <input type="checkbox"/>     |                          |             |        |   | \$ .00                       | \$ .00          |
|   | 1355                     | 1356        |        | 1357  | 1358                         | 1359            |
| b. Marigold. . . . . <input type="checkbox"/>           |                          |             |        |   | \$ .00                       | \$ .00          |
|   | 1360                     | 1361        |        | 1362  | 1363                         | 1364            |
| c. Sweet pea . . . . . <input type="checkbox"/>         |                          |             |        |   | \$ .00                       | \$ .00          |
|   | 1365                     | 1366        |        | 1367  | 1368                         | 1369            |
| d. Wildflowers. . . . . <input type="checkbox"/>        |                          |             |        |   | \$ .00                       | \$ .00          |
|   | 1370                     | 1371        |        | 1372  | 1373                         | 1374            |
| e. Other flower seeds. . . . . <input type="checkbox"/> |                          |             |        |   | \$ .00                       | \$ .00          |

Specify:   
1379

**SECTION 15 DRIED BULBS, CORMS, RHIZOMES, OR TUBERS**

1. In 2019, did this operation grow and sell any dried bulbs, corms, rhizomes, or tubers to be used for forcing or outdoor use?  
**EXCLUDE:** - Finished forced flowers.

0416 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 16

|   | Area Used for Production |             |        | Quantity Harvested and Sold<br>(Pounds) | Total Value of Sales in 2019 |                 |
|---|--------------------------|-------------|--------|---|------------------------------|-----------------|
|   | Under Protection         | In the Open |        |   | Retail Sales                 | Wholesale Sales |
|   | Square Feet              | Acres       | Tenths |   |                              |                 |
|   | 1380                     | 1381        |        | 1382                                    | 1383                         | 1384            |
| a. Dried bulbs, corms, rhizomes, or tubers. . . . . |                          |             |        |   | \$ .00                       | \$ .00          |



**SECTION 16 PROPAGATIVE HORTICULTURAL MATERIAL, BAREROOT AND UNFINISHED PLANTS**

1. In 2019, did this operation grow and sell any propagative horticulture material, bareroot or unfinished plants?  
**INCLUDE:** – Unfinished bareroot perennials, cuttings, liners, plug seedlings, prefinished plants, or tissue cultured plantlets.  
 – Plants sold to other growers for FURTHER GROWING ON.  
**EXCLUDE:** – FINISHED plants sold to others.  
 – Vegetable seeds. Report in SECTION 13.  
 – Flower seeds. Report in SECTION 14.  
 – Dried bulbs, corms, rhizomes, or tubers. Report in SECTION 15.

0417 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 17

2. Using the following table, please report all floriculture or nursery plants for further growing on (unfinished plants) or propagation materials, such as cuttings, liners, plug seedlings, prefinished plants, or tissue cultured plantlets, produced and sold in 2019.

| Cuttings                        | Code | Plug Seedlings                         | Code | Tissue Cultured Plantlets                 | Code | Prefinished Plants                           | Code |
|---------------------------------|------|--|------|---|------|--|------|
| Chrysanthemums . . . . .        | 9010 | Annual bedding/garden plants . . . . . | 9165 | Annual bedding/garden plants . . . . .    | 9265 | Azalea (florist) . . . . .                   | 9300 |
| Foliage plants . . . . .        | 9070 | Cut flowers . . . . .                  | 9150 | Cut flowers . . . . .                     | 9250 | Lilies, Easter . . . . .                     | 9305 |
| Geraniums . . . . .             | 9015 | Foliage plants . . . . .               | 9170 | Foliage plants . . . . .                  | 9270 | Foliage plants . . . . .                     | 9370 |
| Herbaceous perennials . . . . . | 9060 | Herbaceous perennials . . . . .        | 9160 | Herbaceous perennials . . . . .           | 9260 | Hibiscus (potted) . . . . .                  | 9310 |
| Impatiens, New Guinea . . . . . | 9020 | Nursery stock . . . . .                | 9180 | Nursery stock . . . . .                   | 9280 | Orchid . . . . .                             | 9315 |
| Kalanchoes . . . . .            | 9025 | Potted flowering plants . . . . .      | 9155 | Potted flowering plants . . . . .         | 9255 | Poinsettia . . . . .                         | 9320 |
| Nursery stock . . . . .         | 9080 | Other plug seedlings . . . . .         | 9195 | Other tissue cultured plantlets . . . . . | 9295 | Roses (potted) . . . . .                     | 9325 |
| Poinsettias . . . . .           | 9030 |  |      |   |      | Other prefinished flowering plants . . . . . | 9375 |
| Other cuttings . . . . .        | 9095 |  |      |   |      |  |      |

**Liners**

| Bedding and Flowering Plants           | Code | Foliage Plants                       | Code | Nursery Stock                                | Code |
|--|------|--------------------------------------|------|--|------|
| Chrysanthemums . . . . .               | 9410 | Aglaonema . . . . .                  | 9500 | Broadleaf evergreens . . . . .               | 9600 |
| Geraniums . . . . .                    | 9415 | Dieffenbachia . . . . .              | 9505 | Citrus and subtropical fruit trees . . . . . | 9630 |
| Herbaceous perennials . . . . .        | 9460 | Dracaena . . . . .                   | 9510 | Coniferous evergreens . . . . .              | 9605 |
| Impatiens, New Guinea . . . . .        | 9420 | Ferns, potted . . . . .              | 9520 | Deciduous flowering trees . . . . .          | 9610 |
| Kalanchoes . . . . .                   | 9425 | Philodendron . . . . .               | 9525 | Deciduous fruit and nut trees . . . . .      | 9635 |
| Poinsettias . . . . .                  | 9430 | Pothos/ <i>Epipremnum</i> . . . . .  | 9515 | Deciduous shade trees . . . . .              | 9615 |
| Other bedding plant liners . . . . .   | 9485 | Spathiphyllum . . . . .              | 9530 | Deciduous shrubs (Exclude roses) . . . . .   | 9625 |
| Other flowering plant liners . . . . . | 9490 | Other foliage plant liners . . . . . | 9595 | Roses, landscape . . . . .                   | 9620 |
|  |      |                                      |      | Other nursery plant liners . . . . .         | 9695 |

| Plant name | Code | Retail Sales in 2019 |                      | Wholesale Sales in 2019 |                      |
|------------|------|----------------------|----------------------|-------------------------|----------------------|
|            |      | Number Sold          | Total Value of Sales | Number Sold             | Total Value of Sales |
|            |      | 1                    |                      | 2                       | 3                    |
|            |      | \$                   | .00                  | \$                      | .00                  |
|            |      | 1                    |                      | 2                       | 3                    |
|            |      | \$                   | .00                  | \$                      | .00                  |
|            |      | 1                    |                      | 2                       | 3                    |
|            |      | \$                   | .00                  | \$                      | .00                  |
|            |      | 1                    |                      | 2                       | 3                    |
|            |      | \$                   | .00                  | \$                      | .00                  |
|            |      | 1                    |                      | 2                       | 3                    |
|            |      | \$                   | .00                  | \$                      | .00                  |

*(If more space is needed, use a separate sheet of paper.)*

PROPAGATIVE HORTICULTURAL MATERIAL, BAREROOT AND UNFINISHED PLANTS CONTINUED ON NEXT PAGE



**SECTION 16 PROPAGATIVE HORTICULTURAL MATERIAL, BAREROOT AND UNFINISHED PLANTS – Continued**

3. Report the total value of sales of propagative (unfinished) materials by category:

|  |    |  |     |                                     |    |  |     |
|--|----|--|-----|-------------------------------------|----|--|-----|
| a. Cut flowers . . . . . 0901                  | \$ |  | .00 | d. Herbaceous perennials . . . 0904 | \$ |  | .00 |
| b. Potted flowering plants . . 0902            | \$ |  | .00 | e. Foliage plants . . . . . 0905    | \$ |  | .00 |
| c. Annual bedding/garden plants . . . . . 0903 | \$ |  | .00 | f. Cut cultivated greens . . . 0906 | \$ |  | .00 |

**SECTION 17 TRANSPLANTS FOR COMMERCIAL VEGETABLE AND STRAWBERRY PRODUCTION**

1. In 2019, did this operation grow and sell any transplants for commercial vegetable and strawberry production (do not report transplants intended for home use)?

**EXCLUDE:** – Vegetable bedding plants grown for home use. Report in SECTION 4.  
 – Strawberry bedding plants grown for home use. Report in SECTION 9.  
 – Tobacco transplants. Report in SECTION 18.

0418 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 18

|   | Area in Production |             |       | Total Value of Sales in 2019 |                 |
|---|--------------------|-------------|-------|------------------------------|-----------------|
|   | Under Protection   | In the Open |       | Retail Sales                 | Wholesale Sales |
|   |                    | Square Feet | Acres |                              |                 |
| a. Broccoli, cabbage, cauliflower, and other crucifers . . . . . <input type="checkbox"/> | 8880               | 8881        |       | 8882                         | 8883            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |
| b. Greens (collard, turnip, kale, etc.) . . . . . <input type="checkbox"/>                | 8830               | 8831        |       | 8832                         | 8833            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |
| c. Peppers, all (Exclude ornamentals) . . . . . <input type="checkbox"/>                  | 8840               | 8841        |       | 8842                         | 8843            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |
| d. Strawberries (commercial production) . . . . . <input type="checkbox"/>                | 8800               | 8801        |       | 8802                         | 8803            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |
| e. Tomatoes . . . . . <input type="checkbox"/>  | 8860               | 8861        |       | 8862                         | 8863            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |
| f. Other transplants for commercial production . . . . . <input type="checkbox"/>         | 8890               | 8891        |       | 8892                         | 8893            |
|   |                    |             |       | \$                           | \$              |
|   |                    |             |       |                              | .00             |

Specify:   
 8899



| SECTION 18  |   | TOBACCO TRANSPLANTS                                     |                              |
|---|---|---|------------------------------|
| 1. In 2019, did this operation grow and sell any tobacco transplants? |   |   |                              |
| 0419  | 1 <input type="checkbox"/> <b>Yes</b> - Complete this SECTION | 3 <input type="checkbox"/> <b>No</b> - Go to SECTION 19 |                              |
|   |   | Under protection  | Total Value of Sales in 2019 |
|   |   | Square feet   | Retail Sales                 |
|   |   | Wholesale Sales   |                              |
|   |   | 1390  | 1391                         |
|   |   | 1392  |                              |
| a. Tobacco transplants for sale . . . . .                             |   | \$  | .00                          |
|   |   | \$  | .00                          |

| SECTION 19   |   | MARKETING CHANNELS |                            |
|--|---|--------------------|----------------------------|
| 1. For 2019, report the percent of the total value of sales (wholesale and retail) of horticultural crops sold from this operation to: |   |                    |                            |
|  |   | None               | Percent                    |
|  | a. Consumers (direct sales, including farm stands and farmers' markets) . . . . .   | 1400               | <input type="checkbox"/> % |
|  | b. Retail florists . . . . .  | 1401               | <input type="checkbox"/> % |
|  | c. Retail garden centers/nurseries, excluding mass marketers . . . . .  | 1402               | <input type="checkbox"/> % |
|  | d. Supermarkets/groceries . . . . .   | 1403               | <input type="checkbox"/> % |
|  | e. Other mass marketers (discount chain stores, hardware/home improvement stores, etc.) . . . . .                             | 1404               | <input type="checkbox"/> % |
|  | f. Interiorscapers (landscaping of an indoor space) . . . . .   | 1405               | <input type="checkbox"/> % |
|  | g. Landscape contractors . . . . .  | 1406               | <input type="checkbox"/> % |
|  | h. Wholesale florists . . . . .   | 1407               | <input type="checkbox"/> % |
|  | i. Landscape redistribution yards . . . . .   | 1408               | <input type="checkbox"/> % |
|  | j. Non-profit groups (fundraisers) . . . . .  | 1409               | <input type="checkbox"/> % |
|  | k. Other – Specify <span style="float: right;">1419</span> <input style="width: 150px; height: 15px;" type="text"/> . . . . . | 1410               | <input type="checkbox"/> % |
| <b>TOTAL (Sum a-k)</b>   |   |                    | <b>100%</b>                |

| SECTION 20 |   | ESTIMATED VALUE OF LAND, BUILDINGS, MACHINERY, AND EQUIPMENT |        |
|------------|---|--|--------|
|            |   | Dollars  |        |
| 1.         | Current market value of land and buildings owned and/or rented by this operation on December 31, 2019, and used for horticultural production. . . . .                       | 0999   | \$ .00 |
| 2.         | Current market value of machinery and equipment usually kept on this operation regardless of ownership on December 31, 2019, and used for horticultural production. . . . . | 0943   | \$ .00 |





**SECTION 21 HORTICULTURAL PRODUCTION EXPENSES**

1. For 2019, report total expenses paid for the horticultural production on this operation.

**INCLUDE:** – Expenses paid by your landlord.

**EXCLUDE:** – Expenses related to retail store on the operation, landscaping, consulting, production of other crops, etc.  
– Items purchased for resale.

|   | None                          | Dollars |
|---|-------------------------------|---------|
| a. Seeds, plants, vines, trees, etc. purchased . . . . .  | 1603 <input type="checkbox"/> | \$ .00  |
| b. Potting soils and growing media – Include inert support materials for hydroponic systems. Exclude ground soil obtained from this operation and hydroponic water. . . . .   | 1641 <input type="checkbox"/> | \$ .00  |
| c. Fertilizer, lime, and soil conditioner purchased – Include cost of custom application and organic materials. . . . .   | 1601 <input type="checkbox"/> | \$ .00  |
| d. Chemicals purchased, such as herbicides, insecticides, fungicides, fumigants, other pesticides, etc. . . . .   | 1602 <input type="checkbox"/> | \$ .00  |
| e. Containers (pots, flats, etc.)   |                               |         |
| (i) Plastic . . . . .   | 1661 <input type="checkbox"/> | \$ .00  |
| (ii) Styrofoam or other foam containers . . . . .   | 1662 <input type="checkbox"/> | \$ .00  |
| (iii) Naturally based containers (wood, peat, straw, rice hulls, corn, wheat, etc.) . . . . .   | 1663 <input type="checkbox"/> | \$ .00  |
| (iv) Clay pots . . . . .  | 1664 <input type="checkbox"/> | \$ .00  |
| (v) Glazed pottery. . . . .   | 1665 <input type="checkbox"/> | \$ .00  |
| (vi) Other. . . . .   | 1666 <input type="checkbox"/> | \$ .00  |
| f. Hired labor expenses – Include employer's cost for social security, workman's compensation, insurance premiums, pension plans, etc. for workers who —                      |                               |         |
| (i) Worked less than 150 days in 2019. Exclude retail . . . . .   | 1650 <input type="checkbox"/> | \$ .00  |
| (ii) Worked 150 days or more in 2019. Exclude retail . . . . .  | 1651 <input type="checkbox"/> | \$ .00  |
| g. Contract labor – Include expenses for contract labor, such as harvesting, performed on a contract basis by a contractor, crew leader, etc. . . . .                         | 1611 <input type="checkbox"/> | \$ .00  |
| h. Gasoline, fuels, and oils purchased for the horticultural operation – Include diesel, natural gas, LP gas, motor oil and grease, etc. . . . .                              | 1607 <input type="checkbox"/> | \$ .00  |
| i. Utilities purchased for the horticultural operation – Include electricity, operations' share of telephone, water purchased, etc. . . . .                                   | 1608 <input type="checkbox"/> | \$ .00  |
| j. Repairs, supplies, and maintenance costs for the horticultural operation . . . . .   | 1609 <input type="checkbox"/> | \$ .00  |
| k. Rent and lease expenses for land, buildings, machinery, etc. . . . .   | 1653 <input type="checkbox"/> | \$ .00  |
| l. Interest paid on all debt related to the horticultural operation . . . . .   | 1655 <input type="checkbox"/> | \$ .00  |
| m. Property taxes paid in 2019 – Include operation real estate, machinery, etc. for the horticultural operation. Include taxes paid by this operation's landlord(s) . . . . . | 1617 <input type="checkbox"/> | \$ .00  |
| n. Marketing expenses – Include expenses for trade shows, web sites, catalogs, media advertising, trade journals, newsletters, etc. . . . .                                   | 1660 <input type="checkbox"/> | \$ .00  |
| o. Packaging expenses – Include packaging for preparation of plants for sale. Exclude packaging used only in retail operations. . . . .                                       | 1658 <input type="checkbox"/> | \$ .00  |
| p. Other production expenses – Include custom work, storage and warehousing, insurance premiums, etc. Exclude health insurance premiums and payroll taxes. . . . .            | 1618 <input type="checkbox"/> | \$ .00  |
| <b>TOTAL</b> expenses paid by this operation and its landlord(s) <b>(sum a-p)</b> . . . . .   | 1699                          | \$ .00  |
| 2. Returns and allowances (discounts and value of returned merchandise). . . . .  | 1669 <input type="checkbox"/> | \$ .00  |

21249255



**SECTION 22 TOTAL AREA**

1. For 2019, report greenhouse, other covered space, and outdoor land area used for the production of horticultural crops grown on this operation.

**INCLUDE:** – Area for production of all horticultural crops.  
 – Aisles, walkways, and other production areas.

**EXCLUDE:** – Areas growing non-horticultural crops.  
 – Non-agricultural production areas, such as roads, parking areas, and retail sales areas.

| Greenhouse area (Include heated and unheated structures)  |      | None                     | Square Feet              |
|---|------|--------------------------|--------------------------|
| a. Glass . . . . .  | 0247 | <input type="checkbox"/> |                          |
| b. Rigid plastic (acrylics, polycarbonates, fiberglass, etc.) . . . . .   | 0184 | <input type="checkbox"/> |                          |
| c. Plastic film (single or multi-layer poly) . . . . .  | 0185 | <input type="checkbox"/> |                          |
| d. <b>TOTAL</b> land area covered by greenhouses . . . . .  | 0190 | <input type="checkbox"/> |                          |
| (i) How much of the total greenhouse area was new greenhouse space erected during 2019? . . . . . 0191 <input type="checkbox"/> |      |                          |                          |
| 2. Shade structure area (slat, saran, and other covers) . . . . .   |      | 0186                     | <input type="checkbox"/> |

|  | None | Acres                    |        | OR   | Square Feet |
|--|------|--------------------------|--------|------|-------------|
|  |      |                          | Tenths |      |             |
| 3. Natural shade area used to grow horticultural crops. . . . .  | 0188 | <input type="checkbox"/> |        | 0198 |             |
| 4. Area in the open used to grow horticultural crops. (Exclude area used for sod and Christmas tree production.) . . . . . | 0189 | <input type="checkbox"/> |        | 0199 |             |

**SECTION 23 AREA USED FOR HORTICULTURAL PRODUCTION**

1. For 2019, report the area used for the production of the following horticultural crops by plant type. If the same area was used to grow different crop types, report the area for each crop type. (Exclude crop turns within each crop category.)

|   | None                     | Greenhouse Area |      | Shade Structure Area |  | Natural Shade Area |        | Area in the Open |        |
|---|--------------------------|-----------------|------|----------------------|--|--------------------|--------|------------------|--------|
|   |                          | Square Feet     |      | Square Feet          |  | Acres              | Tenths | Acres            | Tenths |
| a. Cut flowers . . . . .                              | <input type="checkbox"/> | 0500            | 0501 | 0502                 |  | 0503               |        |                  |        |
| b. Potted flowering plants . . . . .                  | <input type="checkbox"/> | 0520            | 0521 | 0522                 |  | 0523               |        |                  |        |
| c. Potted herbaceous perennials . . . . .             | <input type="checkbox"/> | 0525            | 0526 | 0527                 |  | 0528               |        |                  |        |
| d. Annual bedding/garden plants . . . . .             | <input type="checkbox"/> | 0530            | 0531 | 0532                 |  | 0533               |        |                  |        |
| e. Foliage plants, pots . . . . .                     | <input type="checkbox"/> | 0535            | 0536 | 0537                 |  | 0538               |        |                  |        |
| f. Foliage plants, hanging baskets . . . . .          | <input type="checkbox"/> | 0540            | 0541 | 0542                 |  | 0543               |        |                  |        |
| g. Cut cultivated greens . . . . .                    | <input type="checkbox"/> | 0545            | 0546 | 0547                 |  | 0548               |        |                  |        |
| h. Nursery stock (Include propagation area) . . . . . | <input type="checkbox"/> | 0550            | 0551 | 0552                 |  | 0553               |        |                  |        |
| i. All other horticultural crops . . . . .            | <input type="checkbox"/> | 0555            | 0556 | 0557                 |  | 0558               |        |                  |        |



| <b>SECTION 24 GREENHOUSE, NURSERY, AND OTHER HORTICULTURAL LABOR</b>  |                                       |                     |  |  |  |
|---|---------------------------------------|---------------------|--|--|--|
| <p>1. For 2019, report greenhouse, nursery, and other horticultural labor used on this operation.<br/> <b>INCLUDE:</b> – Full-time and part-time workers, hired managers, and PAID family members.<br/> <b>EXCLUDE:</b> – Workers employed for the retail operation, those working as landscapers, contract labor, and unpaid family members.</p> |                                       |                     |  |  |  |
| Of the hired workers in 2019, how many:   | None                                  |                     |  |  |  |
| a. Worked less than 150 days? . . . . . 0941  | <input type="checkbox"/>              |                     |  |  |  |
| b. Worked 150 days or more? . . . . . 0942  | <input type="checkbox"/>              |                     |  |  |  |
| 2. On any one day in 2019, what was the largest number of workers on the payroll? . . . . . 0898  | <input type="checkbox"/>              |                     |  |  |  |
| <table border="1" style="float: right; border-collapse: collapse;"> <thead> <tr style="background-color: #e0f2f1;"> <th style="padding: 2px 5px;">Number of Employees</th> </tr> </thead> <tbody> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </tbody> </table> |                                       | Number of Employees |  |  |  |
| Number of Employees   |                                       |                     |  |  |  |
|   |                                       |                     |  |  |  |
|   |                                       |                     |  |  |  |
|   |                                       |                     |  |  |  |
| <b>SECTION 25 TYPE OF HORTICULTURAL OPERATION</b>   |                                       |                     |  |  |  |
| <p>1. In 2019, what was the operation's legal status for tax purposes? Select only one.</p>   |                                       |                     |  |  |  |
| 0600 1 <input type="checkbox"/> Family or Individual operation – Exclude partnerships and corporations.   |                                       |                     |  |  |  |
| 2 <input type="checkbox"/> Partnership – Include family partnerships.   |                                       |                     |  |  |  |
| 3 <input type="checkbox"/> Incorporated under state law.  |                                       |                     |  |  |  |
| 4 <input type="checkbox"/> Other, such as estate or trust, prison farm, grazing association, American Indian Reservation, etc.<br>Specify type ↴  |                                       |                     |  |  |  |
| 0601 <input style="width: 450px; height: 20px;" type="text"/>   |                                       |                     |  |  |  |
| <b>SECTION 26 TOTAL VALUE OF HORTICULTURAL SALES</b>  |                                       |                     |  |  |  |
| <p>1. In 2019, what was the total gross value of sales for the reported horticultural crops? Select only one.</p>   |                                       |                     |  |  |  |
| 0899 99 <input type="checkbox"/> \$0 to \$999   |                                       |                     |  |  |  |
| 1 <input type="checkbox"/> \$1,000 to \$9,999   |                                       |                     |  |  |  |
| 2 <input type="checkbox"/> \$10,000 to \$19,999   |                                       |                     |  |  |  |
| 3 <input type="checkbox"/> \$20,000 to \$24,999   |                                       |                     |  |  |  |
| 4 <input type="checkbox"/> \$25,000 to \$39,999   |                                       |                     |  |  |  |
| 5 <input type="checkbox"/> \$40,000 to \$49,999   |                                       |                     |  |  |  |
| 6 <input type="checkbox"/> \$50,000 to \$99,999   |                                       |                     |  |  |  |
| 7 <input type="checkbox"/> \$100,000 to \$249,999   |                                       |                     |  |  |  |
| 8 <input type="checkbox"/> \$250,000 to \$499,999   |                                       |                     |  |  |  |
| 9 <input type="checkbox"/> \$500,000 to \$999,999   |                                       |                     |  |  |  |
| 10 <input type="checkbox"/> \$1,000,000 to \$2,499,999  |                                       |                     |  |  |  |
| 11 <input type="checkbox"/> \$2,500,000 to \$4,999,999  |                                       |                     |  |  |  |
| 12 <input type="checkbox"/> \$5,000,000 to \$9,999,999  |                                       |                     |  |  |  |
| 13 <input type="checkbox"/> \$10,000,000 or more  |                                       |                     |  |  |  |
| <p>2. Does this operation expect to sell \$10,000 or more of any horticultural crops in the future?</p>   |                                       |                     |  |  |  |
| 0450 1 <input type="checkbox"/> Yes   | 2 <input type="checkbox"/> Don't know |                     |  |  |  |
|   | 3 <input type="checkbox"/> No         |                     |  |  |  |



**SECTION 27 CHANGE IN OPERATOR**

1. Has this operation been sold, rented, or turned over to someone else?  
 0950 1  **Yes** - Complete this SECTION 3  **No** - Go to SECTION 28

2. Please complete the following information for the operation that has taken over, then go to SECTION 29.  
 Operation Name

Operator Name

Address

City  State  Zip

**SECTION 28 ADDITIONAL OPERATIONS**

1. In this State, are you involved in any additional greenhouse, outdoor floriculture, nursery, or other horticultural operations?  
 0951 1  **Yes** - Please list name and address of operation(s) in this State ↴ 3  **No** - Continue

2. In any other State(s), are you involved in any additional greenhouse, outdoor floriculture, nursery, or other horticultural operations?  
 0952 1  **Yes** - Please list name and address of operation(s) in other State(s) ↴ 3  **No** - Go to SECTION 29

**SECTION 29 CONCLUSION**

1. **SURVEY RESULTS:** To receive the complete results of this survey on the release date, go to <http://www.nass.usda.gov/results>  
 To have a brief summary emailed to you at a later date, please enter your email address.

1095

Respondent Name  Area Code and Phone Number  -  -  Date (MM DD YY)

9912  9911  9910

**Thank you for your response.**

| OFFICE USE  |      |   |      |  |      |       |      |      |      |      |  |  |
|---|------|---|------|--|------|-------|------|------|------|------|--|--|
| Response  | 9901 | Respondent  | 9902 | Mode   | 9903 | Enum. | 9908 | 9900 | 9985 | 9989 |  |  |
| 1-Comp<br>2-R<br>3-Inac<br>4-Office Hold<br>5-R-Est<br>6-Inac-Est<br>7-Off Hold-Est |      | 1-Op/Mgr<br>2-Sp<br>3-Acct/Bkpr<br>4-Partner<br>9-Other |      | 1-PASI (Mail)<br>2-PATI (Tel)<br>3-PAPI (Face-to-Face)<br>6-Email<br>7-Fax<br>19-Other |      |       |      |      |      |      |  |  |
|   |      |   |      |  |      |       |      |      |      |      |  |  |
|   |      |   |      |  |      |       |      |      |      |      |  |  |
|   |      |   |      |  |      |       |      |      |      |      |  |  |
|   |      |   |      |  |      |       |      |      |      |      |  |  |
|   |      |   |      |  |      |       |      |      |      |      |  |  |

S / E Name



# 2019 ORGANIC SURVEY

**SURVEY CODE:**

Form Number: 19-A623  
(11/18/2019)

www.agcounts.usda.gov



U.S. Department of Agriculture  
National Agricultural Statistics Service  
National Processing Center  
1201 East 10th Street  
Jeffersonville, IN 47132  
Phone: 1-888-424-7828  
Fax: 1-812-218-2232  
E-mail: [nass@usda.gov](mailto:nass@usda.gov)

0014

*Please make corrections to name, address, and ZIP code, if necessary.*

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0249. The time required to complete this information collection is estimated to average 40 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

## SECTION 1 OPERATION INFORMATION

1. In 2019, did this operation produce or grow any organic agricultural products? (**Include** field crops, fruits, vegetables, floriculture, livestock, poultry, etc.)

110  
1  **Yes** - Continue to Item 2      3  **No** - Go to Section 14, Page 15

2. In 2019, were any of these agricultural products **Certified Organic** as determined by the **USDA's National Organic Program (NOP)** standards?

111  
1  **Yes** - Continue to Item 3      3  **No** - Go to Section 14, Page 15

3. What is the name of the certifying agency or organization?

119

4. In 2019, how many:

a. **Certified organic** acres did this operator **own**? . . . . . 150

b. **Certified organic** acres did this operator **rent or lease from others?** (**Exclude** land used on a per-head or animal unit month (AUM) basis.) . . . . . 152 +

c. **Certified organic** acres did this operator **rent or lease to others?** . . . . . 115 -

5. [Calculate Items 4a + 4b - 4c] Then the **total certified organic acres operated in 2019** were: . . . . . 154 =

6. Of the total (Item 5) certified organic acres operated in 2019, how many acres were:

a. Certified organic **cropland?** (**Include** field crops, fruits, vegetables, floriculture, etc.) . . . . . 121

b. Certified organic **pasture and rangeland?** . . . . . 122

| Acres |
|-------|
|       |
|       |
|       |
|       |
|       |
|       |
|       |



**SECTION 2 CERTIFIED ORGANIC VEGETABLES GROWN IN THE OPEN**

1. Did this operation harvest any certified organic vegetables grown in the open in 2019? Report crops grown under glass or other protection in Section 3.
- **Include** landlord's share and contractor's share.
  - **Exclude** home use, home gardens, or personal consumption.
  - Report tomatoes and vegetables/herbs grown under protection in Section 3.

3000 1  **Yes** - Complete this Section      3  **No** - Go to Section 3

2. **Acreage and Production** – Complete the table below for each vegetable harvested in 2019. For those vegetables not printed in the table, enter the crop name and crop code from the list below.
- If more than one vegetable crop was harvested from the same acres, report acres for each crop.
  - For two or more pickings of the same crop, report acres harvested for that item only once, but report total production from all pickings.

| Certified Organic Vegetables | Code | Certified Organic Acres Harvested in 2019 |        | Total Certified Organic Production Sold or to be Sold in 2019 |                                  |   |
|------------------------------|------|---|--------|---|----------------------------------|---|
|                              |      | Acres                                     | Tenths | Quantity  | Unit (Bins, Pounds, Boxes, Etc.) | Pounds Per Unit (If not reported in Pounds or Tons) |
| Tomatoes, grown in the open  | 3490 |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |
|                              |      |   | .      |   |                                  | \$ .00  |

If more space is needed, use a separate sheet of paper.

| Vegetables                 | Code | Vegetables       | Code | Vegetables                           | Code |
|----------------------------|------|------------------|------|--------------------------------------|------|
| Artichokes                 | 3010 | Garlic           | 3210 | Potatoes                             | 3410 |
| Beans, Snap                | 3030 | Herbs, fresh cut | 3230 | Spinach                              | 3430 |
| Broccoli                   | 3050 | Honeydew Melons  | 3250 | Squash, all, including zucchini      | 3550 |
| Cabbage, green             | 3070 | Lettuce, all     | 3270 | Sweet Corn                           | 3450 |
| Cabbage, red               | 3090 | Onions, green    | 3290 | Sweet Potatoes                       | 3470 |
| Cabbage, other             | 3110 | Onions, red      | 3310 | Watermelons                          | 3510 |
| Cantaloupes and Muskmelons | 3130 | Onions, white    | 3330 | Vegetable Seeds, report in Section 3 |      |
| Carrots                    | 3150 | Onions, yellow   | 3350 | Vegetables not listed, specify above | 3530 |
| Cauliflower                | 3170 | Peas, Green      | 3370 |                                      |      |
| Celery                     | 3190 | Peppers, Bell    | 3390 |                                      |      |

Report Utilization on next page. →



**SECTION 2 CERTIFIED ORGANIC VEGETABLES IN THE OPEN UTILIZATION**

3. How were these harvested certified organic vegetables in the open (Item 2, Page 2) utilized in 2019?
- Include production that was sold and estimate what will be sold.
  - Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

<sup>1000</sup>  
 1  Some or all to commercial processing – Complete the table below    2  100% fresh market – Go to Section 3

| Certified Organic Vegetables | Code | COMMERCIAL PROCESSING<br>(Include juiced, canned, dried, etc.<br>Exclude fresh packaged fruit.) |                                  |   | FRESH MARKET  |   |                                  |   |  |
|------------------------------|------|---|----------------------------------|---|---|---|----------------------------------|---|--|
|                              |      | Quantity of 2019 Certified Organic Production Sold as Processing                                | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit If not reported in Pounds or Tons | Gross Value of Sales of 2019 Certified Organic Production as Processing | Quantity of 2019 Certified Organic Production Sold as Fresh | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit If not reported in Pounds or Tons | Gross Value of Sales of 2019 Certified Organic Production as Fresh |
| Tomatoes, in the open        | 3499 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|                              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |

If more space is needed, use a separate sheet of paper.

| Vegetables                 | Code | Vegetables       | Code | Vegetables                           | Code |
|----------------------------|------|------------------|------|--------------------------------------|------|
| Artichokes                 | 3019 | Garlic           | 3219 | Potatoes                             | 3419 |
| Beans, Snap                | 3039 | Herbs, fresh cut | 3239 | Spinach                              | 3439 |
| Broccoli                   | 3059 | Honeydew Melons  | 3259 | Squash, all, including zucchini      | 3559 |
| Cabbage, green             | 3079 | Lettuce, all     | 3279 | Sweet Corn                           | 3459 |
| Cabbage, red               | 3099 | Onions, green    | 3299 | Sweet Potatoes                       | 3479 |
| Cabbage, other             | 3119 | Onions, red      | 3319 | Watermelons                          | 3519 |
| Cantaloupes and Muskmelons | 3139 | Onions, white    | 3339 | Vegetable Seeds, report in Section 3 |      |
| Carrots                    | 3159 | Onions, yellow   | 3359 | Vegetables not listed, specify above | 3539 |
| Cauliflower                | 3179 | Peas, Green      | 3379 |                                      |      |
| Celery                     | 3199 | Peppers, Bell    | 3399 |                                      |      |



**SECTION 3 CERTIFIED ORGANIC FLORICULTURE CROPS, NURSERY CROPS, MUSHROOMS, VEGETABLES/HERBS UNDER PROTECTION**

1. Did this operation grow any certified organic floriculture crops, nursery crops, mushrooms and/or vegetables/herbs grown under protection in 2019?
- **Include** landlord's share and contractor's share.
  - **Exclude** wild gathered crops.
  - **Exclude** home use, home gardens, or personal consumption.
  - Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.
  - If more than one crop was harvested from the same area, report area for each crop.
  - For two or more pickings of the same crop, report area harvested for that item only once, but report total production from all pickings.

400 1  **Yes** - Complete this Section 3  **No** - Go to Section 4

| Crops Grown  | Code | Square Feet Under Glass or Other Protection | Acres in the Open |        | Gross Value of Sales of Certified Organic Production |
|--|------|---|-------------------|--------|--|
|  |      |   | Acres             | Tenths |  |
| a. Floriculture and bedding crops                          | 401  |   |                   | .      | \$ .00   |
| b. Nursery crops and aquatic plants                        | 404  |   |                   | .      | \$ .00   |
| c. Propagative materials sold                              | 407  |   |                   | .      | \$ .00   |
| d. Mushrooms   | 410  |   |                   | .      | \$ .00   |
| e. Tomatoes grown under protection                         | 420  |   |                   |        | \$ .00   |
| f. Other vegetables and fresh herbs grown under protection | 424  |   |                   |        | \$ .00   |

| Floriculture and Bedding Crops  | Code | Nursery Crops and Aquatic Plants  | Code | Propagative Materials Sold  | Code |
|---|------|---|------|---|------|
| <b>Include</b> bedding and garden plants, annuals, herbaceous perennials, vegetable plants, cut flowers, cut florist greens, foliage plants, potted flowering plants, and other floriculture and bedding plants | 401  | <b>Include</b> nursery stock – ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees, and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials, aquatic plants | 404  | <b>Include</b> bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants sold for transplant to farm fields, vegetable seeds, and vegetable transplants to farm fields | 407  |

**SECTION 4 CERTIFIED ORGANIC CULTIVATED CHRISTMAS TREES AND MAPLE SYRUP**

1. Did this operation grow any certified organic cultivated Christmas trees or tap any maple trees for maple syrup in 2019?
- **Include** landlord's share and contractor's share.
  - **Exclude** wild gathered crops.
  - **Exclude** home use, home gardens, or personal consumption.
  - Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

500 1  **Yes** - Complete this Section 3  **No** - Go to Section 5

| Crop   | Code | Acres in Production | Number of Trees Cut       | Gross Value of Sales of Certified Organic Production |
|--|------|---------------------|---------------------------|--|
| a. Cultivated Christmas trees, cut and to be cut | 451  |                     |                           | \$ .00   |
| Crop   | Code | Number of Taps      | Gallons of Syrup Produced | Gross Value of Sales of Certified Organic Production |
| b. Maple syrup                                   | 491  |                     |                           | \$ .00   |





**SECTION 5 CERTIFIED ORGANIC GRAPES**

1. Did this operation harvest any **certified organic grapes** in 2019?  
 • **Include** landlord's share and contractor's share.  
 • **Exclude** home use, home gardens, or personal consumption.

5000 1  **Yes** - Complete this Section      3  **No** - Go to Section 6

**2. Total Certified Organic Grapes Harvested**

- a. How many acres of certified organic grapes were harvested on this operation in 2019?  
 • Please report acres to the tenth of an acre. . . . . 5020

**CERTIFIED ORGANIC GRAPES HARVESTED**

| Acres | Tenths |
|-------|--------|
|       |        |

- b. What were the total pounds of certified organic grape production on this operation in 2019? . . . . . 5021

| Pounds |
|--------|
|        |

- c. For each grape variety of **certified organic grapes** harvested in 2019, report the variety code, quantity of production **sold** or to be sold, and **gross value of sales** for the production by use.  
 • **Include** production that was sold **and estimate what will be sold**.  
 • Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

| Using Codes Below Table, Specify Certified Organic Grape Varieties by Use | Code | Quantity of Certified Organic Production Sold or to be Sold in 2019 | Gross Value of Sales of Certified Organic Production |
|---|------|---|--|
|---|------|---|--|

a. Grapes Harvested as Fresh (Table Use)

|  |  |  |    |    |     |
|--|--|--|----|----|-----|
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |

b. Grapes Harvested for Wine Production

|  |  |  |    |    |     |
|--|--|--|----|----|-----|
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |
|  |  |  | lb | \$ | .00 |

c. Grapes Harvested for Juice Production, all varieties

|      |  |    |    |     |
|------|--|----|----|-----|
| 5080 |  | lb | \$ | .00 |
|------|--|----|----|-----|

d. Grapes Harvested for Raisins, all varieties

|              |      |  |    |    |     |
|--------------|------|--|----|----|-----|
| Fresh weight | 5105 |  | lb |    |     |
|              |      |  |    | \$ | .00 |
| Dry weight   | 5107 |  | lb |    |     |

e. Grapes Harvested for Other Processing Uses, all varieties

|      |  |    |    |     |
|------|--|----|----|-----|
| 5120 |  | lb | \$ | .00 |
|------|--|----|----|-----|

If more space is needed, use a separate sheet of paper.

| Grape Varieties              | Code | Grape Varieties                | Code | Grape Varieties                              | Code |
|------------------------------|------|--------------------------------|------|--|------|
| Autumn King . . . . .        | 01   | Merlot . . . . .               | 13   | Scarlet Royal . . . . .                      | 25   |
| Cabernet Sauvignon . . . . . | 03   | Muscat of Alexandria . . . . . | 15   | White Riesling . . . . .                     | 27   |
| Chardonnay . . . . .         | 05   | Pinot Gris . . . . .           | 17   | Zinfandel . . . . .                          | 29   |
| Crimson . . . . .            | 07   | Pinot Noir . . . . .           | 19   | Varieties not listed, specify above. . . . . | 31   |
| Flame . . . . .              | 09   | Red Globe . . . . .            | 21   |  |      |
| French Colombard . . . . .   | 11   | Rubired . . . . .              | 23   |  |      |



**SECTION 6 CERTIFIED ORGANIC APPLES**

1. Did this operation harvest any **certified organic apples** in 2019?  
 • **Include** landlord's share and contractor's share.  
 • **Exclude** home use, home gardens, or personal consumption.

4000 1  **Yes** - Complete this Section 3  **No** - Go to Section 7

2. **Acreage and Production** – Complete the table below for each variety harvested in 2019. For those varieties not printed in the table, enter the crop name and crop code from the list below.

| Apple Variety | Code | Certified Organic Acres Harvested in 2019 |        | Total Certified Organic Production Sold or to be Sold in 2019 |                                  |   |                      |
|---------------|------|---|--------|---|----------------------------------|---|----------------------|
|               |      | Acres                                     | Tenths | Quantity  | Unit (Bins, Pounds, Boxes, Etc.) | Pounds Per Unit (If not reported in Pounds or Tons) | Gross Value of Sales |
| Fuji, all     | 4140 |   |        |   |                                  |   | \$ .00               |
| Gala, all     | 4160 |   |        |   |                                  |   | \$ .00               |
|               |      |   |        |   |                                  |   | \$ .00               |
|               |      |   |        |   |                                  |   | \$ .00               |
|               |      |   |        |   |                                  |   | \$ .00               |

If more space is needed, use a separate sheet of paper.

| Apple Varieties  | Code | Apple Varieties       | Code | Apple Varieties                          | Code |
|------------------|------|-----------------------|------|--|------|
| Braeburn, all    | 4020 | Golden Delicious, all | 4220 | Red Delicious, all                       | 4440 |
| Cameo, all       | 4040 | Granny Smith, all     | 4240 | Rome, all                                | 4460 |
| Cripps Pink, all | 4080 | Honeycrisp, all       | 4280 | Varieties not listed, specify above, all | 4480 |

3. How were these harvested certified organic apples utilized in 2019?  
 • **Include** production that was sold **and estimate what will be sold**.  
 • Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

4001 1  Some or all to commercial processing – Complete the table below 2  100% fresh market – Go to Section 7

| Apple Variety | Code | COMMERCIAL PROCESSING<br>(Include juiced, canned, dried, etc.<br>Exclude fresh packaged fruit.) |                                  |   |   | FRESH MARKET  |                                  |   |  |
|---------------|------|---|----------------------------------|---|---|---|----------------------------------|---|--|
|               |      | Quantity of 2019 Certified Organic Production Sold as Processing                                | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit (If not reported in Pounds or Tons) | Gross Value of Sales of 2019 Certified Organic Production as Processing | Quantity of 2019 Certified Organic Production Sold as Fresh | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit (If not reported in Pounds or Tons) | Gross Value of Sales of 2019 Certified Organic Production as Fresh |
| Fuji, all     | 4149 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
| Gala, all     | 4169 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|               |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|               |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|               |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |

If more space is needed, use a separate sheet of paper.

| Apple Varieties  | Code | Apple Varieties       | Code | Apple Varieties                          | Code |
|------------------|------|-----------------------|------|--|------|
| Braeburn, all    | 4029 | Golden Delicious, all | 4229 | Red Delicious, all                       | 4449 |
| Cameo, all       | 4049 | Granny Smith, all     | 4249 | Rome, all                                | 4469 |
| Cripps Pink, all | 4089 | Honeycrisp, all       | 4289 | Varieties not listed, specify above, all | 4489 |



**SECTION 7 CERTIFIED ORGANIC CITRUS FRUITS**

1. Did this operation harvest any **certified organic citrus fruits** in 2019?

- **Include** landlord's share and contractor's share.
- **Exclude** home use, home gardens, or personal consumption.

7000 1  **Yes** - Complete this Section      3  **No** - Go to Section 8

2. **Acreage and Production** – Complete the table below for each citrus fruit harvested in 2019. Enter the crop name and crop code from the list below.

| Citrus Fruit | Code | Certified Organic Acres Harvested in 2019 |        | Total Certified Organic Production Sold or to be Sold in 2019 |                                  |   |                      |
|--------------|------|---|--------|---|----------------------------------|---|----------------------|
|              |      | Acres                                     | Tenths | Quantity  | Unit (Bins, Pounds, Boxes, Etc.) | Pounds Per Unit (If not reported in Pounds or Tons) | Gross Value of Sales |
|              |      |   |        |   |                                  |   | \$ .00               |
|              |      |   |        |   |                                  |   | \$ .00               |
|              |      |   |        |   |                                  |   | \$ .00               |
|              |      |   |        |   |                                  |   | \$ .00               |
|              |      |   |        |   |                                  |   | \$ .00               |

If more space is needed, use a separate sheet of paper.

| Citrus Fruit         | Code | Citrus Fruit                   | Code | Citrus Fruit                               | Code |
|----------------------|------|--------------------------------|------|--|------|
| Grapefruit .....     | 7010 | Oranges, valencia. ....        | 7070 | Citrus fruits not listed, specify above. . | 7130 |
| Lemons .....         | 7030 | Oranges, all other. ....       | 7090 |  |      |
| Oranges, navel. .... | 7050 | Tangerines and Mandarins ..... | 7110 |  |      |

3. How were these harvested certified organic fruits utilized in 2019?

- **Include** production that was sold **and estimate what will be sold**.
- Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

7001 1  Some or all to commercial processing – Complete the table below      2  100% fresh market – Go to Section 8

| Citrus Fruit | Code | COMMERCIAL PROCESSING<br>(Include juiced, canned, dried, etc.<br>Exclude fresh packaged fruit.) |                                  |   |   | FRESH MARKET  |                                  |   |  |
|--------------|------|---|----------------------------------|---|---|---|----------------------------------|---|--|
|              |      | Quantity of 2019 Certified Organic Production Sold as Processing                                | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit (If not reported in Pounds or Tons) | Gross Value of Sales of 2019 Certified Organic Production as Processing | Quantity of 2019 Certified Organic Production Sold as Fresh | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit (If not reported in Pounds or Tons) | Gross Value of Sales of 2019 Certified Organic Production as Fresh |
|              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|              |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |

If more space is needed, use a separate sheet of paper.

| Citrus Fruit         | Code | Citrus Fruit                 | Code | Citrus Fruit                               | Code |
|----------------------|------|------------------------------|------|--|------|
| Grapefruit .....     | 7019 | Oranges, valencia. ....      | 7079 | Citrus fruits not listed, specify above. . | 7139 |
| Lemons .....         | 7039 | Oranges, all other. ....     | 7099 |  |      |
| Oranges, navel. .... | 7059 | Tangerines (Mandarins). .... | 7119 |  |      |



**SECTION 8 CERTIFIED ORGANIC BERRIES, TREE NUTS, AND FRUITS**

1. Did this operation harvest any **certified organic berries, tree nuts, or fruits** in 2019?  
 • **Include** landlord's share and contractor's share.  
 • **Exclude** home use, home gardens, or personal consumption.

6000 1  **Yes** - Complete this Section      3  **No** - Go to Section 9

2. **Acreage and Production** – Complete the table below for each crop harvested in 2019. For those crops not printed in the table, enter the crop name and crop code from the list below.  
 • Report certified organic grapes in Section 5, certified organic apples in Section 6, and certified organic citrus fruits in Section 7.  
 • For two or more pickings of the same crop, report acres harvested for that item only once, but report total production from all pickings.

| Certified Organic Berries, Tree Nuts, and Fruits | Code | Certified Organic Acres Harvested in 2019 |        | Total Certified Organic Production Sold or to be Sold in 2019 |                                  |   |                      |
|--|------|---|--------|---|----------------------------------|---|----------------------|
|  |      | Acres                                     | Tenths | Quantity  | Unit (Bins, Pounds, Boxes, Etc.) | Pounds Per Unit If not reported in Pounds or Tons | Gross Value of Sales |
| Blueberries, cultivated                          | 6030 |   |        |   |                                  |   | \$ .00               |
| Blueberries, wild                                | 6050 |   |        |   |                                  |   | \$ .00               |
| Raspberries                                      | 6090 |   |        |   |                                  |   | \$ .00               |
| Strawberries                                     | 6110 |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |
|  |      |   |        |   |                                  |   | \$ .00               |

If more space is needed, use a separate sheet of paper.

| Berries                                     | Code | Tree Nuts                                     | Code | Fruits                                     | Code |
|---|------|---|------|--|------|
| Blackberries and Dewberries . . . . .       | 6010 | Almonds (shelled basis) . . . . .             | 6200 | Apricots . . . . .                         | 6400 |
| Cranberries . . . . .                       | 6070 | Hazelnuts/Filberts (in-shell basis) . . . . . | 6220 | Avocados . . . . .                         | 6420 |
| Berries not listed, specify above . . . . . | 6130 | Macadamia (wet in-shell basis) . . . . .      | 6240 | Cherries, sweet . . . . .                  | 6440 |
|   |      | Pecans (in-shell basis) . . . . .             | 6260 | Cherries, tart . . . . .                   | 6460 |
|   |      | Pistachios (in-shell basis) . . . . .         | 6280 | Coffee . . . . .                           | 6480 |
|   |      | Walnuts, English (in-shell basis) . . . . .   | 6300 | Dates . . . . .                            | 6500 |
|   |      | Nuts not listed, specify above . . . . .      | 6320 | Figs . . . . .                             | 6520 |
|   |      |   |      | Nectarines . . . . .                       | 6540 |
|   |      |   |      | Olives . . . . .                           | 6560 |
|   |      |   |      | Peaches . . . . .                          | 6580 |
|   |      |   |      | Pears . . . . .                            | 6600 |
|   |      |   |      | Plums . . . . .                            | 6620 |
|   |      |   |      | Prunes . . . . .                           | 6640 |
|   |      |   |      | Fruits not listed, specify above . . . . . | 6660 |

Report Utilization on next page. →



**SECTION 8 CERTIFIED ORGANIC BERRIES, TREE NUTS, AND FRUITS UTILIZATION**

3. How were these harvested **certified organic berries, tree nuts, and fruits** utilized in 2019?
- **Include** production that was sold and **estimate what will be sold**.
  - Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

6001  1 Some or all to commercial processing – Complete the table below  2 100% fresh market – Go to Section 9

| Certified Organic Berries, Tree Nuts, and Fruits | Code | COMMERCIAL PROCESSING<br>(Include juiced, canned, dried, etc.<br>Exclude fresh packaged fruit.) |                                  |   |   | FRESH MARKET  |                                  |   |  |
|--|------|---|----------------------------------|---|---|---|----------------------------------|---|--|
|  |      | Quantity of 2019 Certified Organic Production Sold as Processing                                | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit If not reported in Pounds or Tons | Gross Value of Sales of 2019 Certified Organic Production as Processing | Quantity of 2019 Certified Organic Production Sold as Fresh | Unit (Bins, Pounds, Boxes, etc.) | Pounds per Unit If not reported in Pounds or Tons | Gross Value of Sales of 2019 Certified Organic Production as Fresh |
| Blueberries, cultivated                          | 6039 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
| Blueberries, wild                                | 6059 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
| Raspberries                                      | 6099 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
| Strawberries                                     | 6119 |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |
|  |      |   |                                  |   | \$ .00  |   |                                  |   | \$ .00   |

If more space is needed, use a separate sheet of paper.

| Berries                                    | Code | Tree Nuts                                     | Code | Fruits                                     | Code |
|--|------|---|------|--|------|
| Blackberries and Dewberries . . . . .      | 6019 | Almonds (shelled basis) . . . . .             | 6209 | Apricots . . . . .                         | 6409 |
| Cranberries . . . . .                      | 6079 | Hazelnuts/Filberts (in-shell basis) . . . . . | 6229 | Avocados . . . . .                         | 6429 |
| Berries not listed, specify above. . . . . | 6139 | Macadamia (wet in-shell basis) . . . . .      | 6249 | Cherries, sweet. . . . .                   | 6449 |
|  |      | Pecans (in-shell basis) . . . . .             | 6269 | Cherries, tart. . . . .                    | 6469 |
|  |      | Pistachios (in-shell basis) . . . . .         | 6289 | Coffee . . . . .                           | 6489 |
|  |      | Walnuts, English (in-shell basis) . . . . .   | 6309 | Dates . . . . .                            | 6509 |
|  |      | Nuts not listed, specify above . . . . .      | 6329 | Figs . . . . .                             | 6529 |
|  |      |   |      | Nectarines . . . . .                       | 6549 |
|  |      |   |      | Olives. . . . .                            | 6569 |
|  |      |   |      | Peaches . . . . .                          | 6589 |
|  |      |   |      | Pears . . . . .                            | 6609 |
|  |      |   |      | Plums . . . . .                            | 6629 |
|  |      |   |      | Prunes . . . . .                           | 6649 |
|  |      |   |      | Fruits not listed, specify above . . . . . | 6669 |



**SECTION 9 CERTIFIED ORGANIC FIELD CROPS AND HAY**

1. Did this operation harvest any **certified organic small grains, row crops, oilseeds, hay, or pulse crops** in 2019?  
 • **Include** landlord's share and contractor's share.

2000  
 1  **Yes** - Complete this Section      3  **No** - Go to Section 10

2. Complete the table below for each crop harvested in 2019. For those crops not printed in the table, enter the crop name and crop code from the list below.  
 • **Include** production that was sold **and estimate what will be sold**.  
 • Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.  
 • Report 'Total Certified Organic Production' and 'Quantity of Certified Organic Production Sold' in the measurement unit specified beside each crop in the list below.  
 • When both dry hay and haylage were cut from the same acres, report for each type.  
 • If two or more hay cuttings were made from the same acres, report acres harvested for that item only once but report total production from all cuttings.  
 • Include certified organic crops grown on this operation in 2019 that were fed to livestock.

| Field Crops         | Code | Certified Organic Acres Harvested |        | Total Certified Organic Production | Total Certified Organic Production Sold or to be Sold in 2019 |    |                      |
|---------------------|------|-----------------------------------|--------|------------------------------------|---|----|----------------------|
|                     |      | Acres                             | Tenths |                                    | Quantity  |    | Gross Value of Sales |
| Tobacco (all types) | 2620 |                                   |        |                                    | lb  | lb | \$ .00               |

| Field Crops              | Code | Certified Organic Acres Harvested | Total Certified Organic Production | Total Certified Organic Production Sold or to be Sold in 2019 |    |                      |
|--------------------------|------|-----------------------------------|------------------------------------|---|----|----------------------|
|                          |      |                                   |                                    | Quantity  |    | Gross Value of Sales |
| Corn (for grain or seed) | 2040 |                                   |                                    |   | bu | \$ .00               |
| Soybeans (for beans)     | 2320 |                                   |                                    |   | bu | \$ .00               |
|                          |      |                                   |                                    |   |    | \$ .00               |
|                          |      |                                   |                                    |   |    | \$ .00               |
|                          |      |                                   |                                    |   |    | \$ .00               |
|                          |      |                                   |                                    |   |    | \$ .00               |
|                          |      |                                   |                                    |   |    | \$ .00               |

If more space is needed, use a separate sheet of paper.

| Crops (units)   | Code | Crops (units)   | Code | Crops (units)  | Code |
|---|------|---|------|--|------|
| Barley for grain or seed (bu) . . . . .   | 2010 | Proso Millet (bu) . . . . .                                 | 2220 | Field Crops not listed,                                |      |
| Buckwheat (bu) . . . . .  | 2020 | Rice, long grain (cwt) . . . . .                            | 2230 | specify above (lbs) . . . . .                          | 2700 |
| Canola, edible (lbs) . . . . .  | 2030 | Rice, medium grain (cwt) . . . . .                          | 2240 | <b>Dry Edible Bean Types</b>                           |      |
| Corn, silage or greenchop (tons) . . . . .                                      | 2050 | Rice, short grain (cwt) . . . . .                           | 2250 | Black (cwt) . . . . .                                  | 2400 |
| Cotton, Upland (bales) . . . . .  | 2060 | Rice, wild (finished weight, cwt) . . . . .                 | 2260 | Blackeye (cwt) . . . . .                               | 2410 |
| Cotton, Pima (bales) . . . . .  | 2070 | Rye for grain or seed (bu) . . . . .                        | 2280 | Great Northern (cwt) . . . . .                         | 2420 |
| Flaxseed (bu) . . . . .   | 2080 | Safflower (lbs) . . . . .                                   | 2290 | Kidney, Dark Red (cwt) . . . . .                       | 2430 |
| Hay, Alfalfa & Alfalfa Mixtures<br>for dry hay (tons) . . . . .                 | 2090 | Sorghum for grain or seed,<br>including milo (bu) . . . . . | 2300 | Kidney, Light Red (cwt) . . . . .                      | 2440 |
| Hay, All other Dry, include<br>small grain hay (tons) . . . . .                 | 2100 | Sorghum for silage or<br>greenchop (tons) . . . . .         | 2310 | Lima, all (cwt) . . . . .                              | 2450 |
| Haylage or Greenchop from alfalfa<br>& alfalfa mixtures (tons, green) . . . . . | 2630 | Spelt and emmer (bu) . . . . .                              | 2610 | Navy (cwt) . . . . .                                   | 2470 |
| Haylage, greenchop, or silage<br>other than corn (tons, green) . . . . .        | 2110 | Sugarcane for sugar (net tons) . . . . .                    | 2330 | Pinto (cwt) . . . . .                                  | 2490 |
| Herbs, dried (lbs) . . . . .  | 2120 | Sunflower seed, oil (lbs) . . . . .                         | 2340 | Dry beans not listed,<br>specify above (cwt) . . . . . | 2510 |
| Hops (lbs) . . . . .  | 2130 | Sunflower seed, non-oil (lbs) . . . . .                     | 2350 | <b>Dry Peas and Lentils</b>                            |      |
| Mint, Peppermint (lbs of oil) . . . . .   | 2140 | Triticale (bu) . . . . .                                    | 2640 | Austrian Winter Peas (cwt) . . . . .                   | 2540 |
| Mint, Spearmint (lbs of oil) . . . . .  | 2150 | Wheat, Durum for grain or seed (bu) . . . . .               | 2370 | Lentils (cwt) . . . . .                                | 2550 |
| Oats, grain or seed (bu) . . . . .  | 2160 | Wheat, Other Spring for<br>grain or seed (bu) . . . . .     | 2380 | Dry peas not listed,<br>specify above (cwt) . . . . .  | 2650 |
| Peanuts, all (lbs) . . . . .  | 2170 | Wheat, Winter for grain or seed (bu) . . . . .              | 2360 | <b>Chickpeas, all (Garbanzo) (cwt) . . . . .</b>       | 2710 |
| Popcorn (lbs shelled) . . . . .   | 2210 |   |      |  |      |
| Potatoes - Report in Section 2  |      |   |      |  |      |



**SECTION 10 CERTIFIED ORGANIC LIVESTOCK, POULTRY, AND LIVESTOCK PRODUCTS**

1. Did this operation have or produce any **certified organic livestock, poultry, or livestock products** in 2019?  
 • **Include** landlord's share and contractor's share.  
 • **Include** items produced for home use.  
 • Report the production and value of sales of any commodity in this section even if the commodity was transformed to a value-added product.

8000 1  **Yes** - Complete this Section 3  **No** - Go to Section 11

| Livestock, Poultry, and Livestock Products  | Code | Peak 2019 Certified Organic Inventory | Dec. 31, 2019 Certified Organic Inventory | Quantity of Certified Organic Sold or Moved in 2019 | Gross Value of Sales of Certified Organic Production in 2019 |
|---|------|---------------------------------------|---|---|--|
| a. Milk Cows and Milking Heifers that have Calved (Dry and milking)               | 8020 |                                       |   |   | \$ .00   |
| b. Milk (pounds)  | 8030 |                                       |   |   | \$ .00   |
| c. Beef Cows and Beef Heifers that have Calved                                    | 8060 |                                       |   |   | \$ .00   |
| d. Other Cattle (Include heifers that have not calved, steers, calves, and bulls) | 8040 |                                       |   |   | \$ .00   |
| e. Hogs and Pigs  | 8050 |                                       |   |   | \$ .00   |
| f. Sheep and Lambs  | 8330 |                                       |   |   | \$ .00   |
| g. Goats and Kids   | 8300 |                                       |   |   | \$ .00   |
| h. Goat Milk (pounds)   | 8310 |                                       |   |   | \$ .00   |
| i. Other Livestock Specify: <input type="checkbox"/>                              | 8406 |                                       |   |   |  |
|   | 8400 |                                       |   |   | \$ .00   |
| j. Other Livestock Products, Specify: <input type="checkbox"/>                    | 8414 |                                       |   |   |  |
|   | 8410 |                                       |   |   | \$ .00   |
| k. Broilers   | 8200 |                                       |   |   | \$ .00   |
| l. Layers   | 8210 |                                       |   |   | \$ .00   |
| m. Eggs (dozens)  | 8220 |                                       |   |   | \$ .00   |
| n. Turkeys  | 8230 |                                       |   |   | \$ .00   |
| o. Other Poultry, including Pullets Specify: <input type="checkbox"/>             | 8246 |                                       |   |   |  |
|   | 8240 |                                       |   |   | \$ .00   |

2. Did this operation produce any certified organic livestock or poultry under a **production contract** arrangement in 2019?  
 • A **production contract** is a verbal or written agreement setting terms, conditions, and fees paid by the contractor to the operation for the production of livestock, poultry, and their products. The contractor owns the livestock or poultry and often provides inputs.

8600 1  **Yes** - What is the name of the contractor?   
 3  **No**



**SECTION 11 ORGANIC PRODUCTION PRACTICES, CROP INSURANCE, ECONOMIC LOSS**

1. In 2019, did this operation use any of the following practices for organic agricultural production:
  - a. Apply or release beneficial organisms (insects, nematodes, fungi) to manage pests? ..... 702 1  Yes 3  No
  - b. Maintain a beneficial insect or vertebrate habitat for the specific purpose of managing or reducing the spread of pests or disease? ..... 703 1  Yes 3  No
  - c. Plan planting locations to avoid cross infestation of pests in order to manage or reduce the spread of pests? ..... 704 1  Yes 3  No
  - d. Choose a crop variety because of specific resistance to certain pests for the specific purpose of managing or reducing the spread of pests on this operation? ..... 705 1  Yes 3  No
  - e. Plant crops at a specific time to avoid cross contamination from pollen from other crops or weeds? ..... 706 1  Yes 3  No
  - f. Produce or use organic mulch/compost? ..... 707 1  Yes 3  No
  - g. Apply animal manure? ..... 715 1  Yes 3  No
  - h. Plant green manures (cover crops plowed under to enrich the soil)? ..... 716 1  Yes 3  No
  - i. Plant cover crops not plowed into soil? ..... 717 1  Yes 3  No
  - j. Use no-till or minimum till cropping practices? ..... 709 1  Yes 3  No
  - k. Maintain buffer strips or border rows to isolate organic products from non-organic crops or land or take a buffer harvest? ..... 710 1  Yes 3  No
  - l. Use water management practices such as irrigation scheduling, controlled drainage, or structures for water control? ..... 711 1  Yes 3  No
  - m. Use rotational grazing? ..... 713 1  Yes 3  No
  
2. In 2019, did this operation market any of its organic products through **community supported agriculture shares (CSA's)**? ..... 865 1  Yes 3  No
  
3. In 2019, were any of this operation's total organic acres covered by crop insurance?
 

510 1  **Yes** - Continue 3  **No** - Go to Item 4

  - a. What percent of this operation's total organic acres were covered by crop insurance in 2019? ..... 511 

| Percent |
|---------|
|         |

 %
  
4. Which of the following best describes the reason why crop insurance was not purchased for the uninsured organic acres in 2019? (Check one)
 

512

  - 1  Organic crop insurance is too expensive
  - 2  I am unfamiliar with organic crop insurance
  - 3  Crop insurance agents are unfamiliar with organic crop insurance
  - 4  Organic crop insurance is not available for the organic commodities I produce
  - 5  Organic price elections are not offered for the organic commodities I produce
  - 6  I do not need/want organic crop insurance
  - 7  Other (specify): <sup>513</sup>

21809124





5. Have you ever experienced economic loss due to the unintended presence of **GMO** material in a certified organic crop you produced for sale? (*Check all that apply*)

- 731  Yes, in 2019      732  Yes, prior to 2018      733  Don't Know  
 734  Yes, in 2018      735  No

6. Have you ever experienced economic loss due to the unintended presence of non-NOP approved **pesticides** in a certified organic crop you produced for sale? (*Check all that apply*)

- 736  Yes, in 2019      737  Yes, prior to 2018      738  Don't Know  
 739  Yes, in 2018      740  No

**SECTION 12    MARKETING PRACTICES FOR ORGANIC PRODUCTS**

1. During 2019, did this operation produce and sell any organic crops, livestock, poultry, or agricultural products that were food for humans to eat or drink?

INCLUDE

- edible agricultural products for human consumption

EXCLUDE

- non-edible products such as hay, cut flowers, Christmas trees, nursery products, etc.
- commodities produced under production contracts
- products purchased and resold

- 2750 1  **Yes** - Go to question 2      3  **No** - Go to question 3

2. How much was received in 2019 for the food produced and sold directly to:

a. **Consumers:** Farmers markets, on-farm stores or farm stands, roadside stands or stores, u-pick, CSA (Community Supported Agriculture), online marketplaces, etc.?

Mark "X" if None

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

(i) Specify the food(s) that was produced and sold directly to consumers in 2019.

2761

b. **Retail Markets, Institutions, or Food Hubs for Locally or Regionally Branded Products:** Supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives, K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks, etc.?

Mark "X" if None

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

(i) Specify the food(s) that was produced and sold directly to retail markets, institutions, or food hubs in 2019.

2751

3. During 2019, did this operation produce and sell any processed or value-added organic products from its own organic agricultural production?

INCLUDE

- jam, wine, cheese, meat, floral arrangements, cider, etc.

EXCLUDE

- products purchased and resold
- live animals

- 2753 1  **Yes** - Continue      3  **No** - Go to SECTION 13

a. How much was received in 2019 for the sale of the processed or value-added product(s)?

Mark "X" if None

| Gross Value of Sales (Dollars) |     |
|--------------------------------|-----|
| \$                             | .00 |

b. Specify the processed or value-added product(s)

2728

21809132



| SECTION 13 |   | OTHER INFORMATION |                              | Mark "X" if None            | Acres                         |
|------------|---|-------------------|------------------------------|-----------------------------|-------------------------------|
| 1.         | How many of the 2019 organic acres in this operation were enrolled in the EQIP Organic Initiative (administered by NRCS)?   | 901               | <input type="checkbox"/>     |                             |                               |
| 2.         | Did this operation participate in the National Organic Certification Cost Share Program in 2019?  | 903               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                               |
| 3.         | Was this operation able to acquire sufficient amount of organic seed in 2019?   | 904               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                               |
| 4.         | Were adequate organic production inputs (such as pest control, crop/soil nutrients, organic feed for livestock, etc.) available as needed for this operation in 2019? | 905               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                               |
| 5.         | Which of the following would you consider a <b>major challenge</b> to you as an organic farmer? (Check all that apply)  |                   |                              |                             |                               |
| 913        | <input type="checkbox"/> Regulatory problems (excessive paperwork/record keeping, certification costs, etc.)  |                   |                              |                             |                               |
| 914        | <input type="checkbox"/> Price issues (low premiums, lack of price information, prices inconsistent, etc.)  |                   |                              |                             |                               |
| 915        | <input type="checkbox"/> Production problems (high input costs, low yields, poor product quality)   |                   |                              |                             |                               |
| 916        | <input type="checkbox"/> Market access (too much competition, not enough volume produced, lack of buyers, etc.)   |                   |                              |                             |                               |
| 917        | <input type="checkbox"/> Management issues (overall time requirement, labor management, access to capital, etc.)  |                   |                              |                             |                               |
| 918        | <input type="checkbox"/> Other, specify: <input type="text" value=""/>  | 919               |                              |                             |                               |
| 6.         | In what year did this operation first grow or raise any agricultural products?  | 907               |                              |                             | YYYY                          |
| 7.         | In what year did any portion of this operation become certified organic?  | 920               |                              |                             |                               |
| 8.         | Over the next 5 years, does this operation plan to: (check one)   |                   |                              |                             |                               |
| 909        | 1 <input type="checkbox"/> Increase organic agricultural production?  |                   |                              |                             |                               |
|            | 2 <input type="checkbox"/> Maintain current levels of organic agricultural production?  |                   |                              |                             |                               |
|            | 3 <input type="checkbox"/> Decrease organic agricultural production?  |                   |                              |                             |                               |
|            | 4 <input type="checkbox"/> Discontinue organic agricultural production?   |                   |                              |                             |                               |
|            | 5 <input type="checkbox"/> Discontinue all agricultural production?   |                   |                              |                             |                               |
|            | 6 <input type="checkbox"/> Don't know   |                   |                              |                             |                               |
| 9.         | Report <b>production expenses</b> paid by this operation in 2019.   |                   |                              |                             |                               |
|            | • <b>Include</b> expenses paid by your landlords and contractors.   |                   |                              |                             |                               |
|            | • <b>Include</b> only expenses related to the farm business.  |                   |                              |                             |                               |
|            |   |                   | Mark "X" if None             |                             | Production Expenses (Dollars) |
| a.         | Organic certification expense   | 930               | <input type="checkbox"/>     | \$                          | .00                           |
| b.         | Certified organic feed purchased for livestock and poultry  | 931               | <input type="checkbox"/>     | \$                          | .00                           |
| c.         | Food safety related expense   | 932               | <input type="checkbox"/>     | \$                          | .00                           |
| d.         | Hired agricultural labor including contract labor (include wages and benefit expenses)  | 933               | <input type="checkbox"/>     | \$                          | .00                           |
| e.         | Seed, annual seedlings, and planting stock  | 934               | <input type="checkbox"/>     | \$                          | .00                           |
|            | (i) Organic seed, annual seedlings, and planting stock purchased  | 935               | <input type="checkbox"/>     | \$                          | .00                           |
|            | (ii) Non-organic seed, annual seedlings, and planting stock purchased   | 936               | <input type="checkbox"/>     | \$                          | .00                           |

21809140



10. What was this operation's total gross value of sales of ALL (organic and conventional) agricultural products in 2019? (*check one*)

- 910
- |  |   |   |
|--|---|---|
| 1 <input type="checkbox"/> \$1 - \$999         | 6 <input type="checkbox"/> \$25,000 - \$49,999    | 11 <input type="checkbox"/> \$1,000,000 - \$2,499,999 |
| 2 <input type="checkbox"/> \$1,000 - \$2,499   | 7 <input type="checkbox"/> \$50,000 - \$99,999    | 12 <input type="checkbox"/> \$2,500,000 - \$4,999,999 |
| 3 <input type="checkbox"/> \$2,500 - \$4,999   | 8 <input type="checkbox"/> \$100,000 - \$249,999  | 13 <input type="checkbox"/> \$5,000,000 and over      |
| 4 <input type="checkbox"/> \$5,000 - \$9,999   | 9 <input type="checkbox"/> \$250,000 - \$499,999  |   |
| 5 <input type="checkbox"/> \$10,000 - \$24,999 | 10 <input type="checkbox"/> \$500,000 - \$999,999 |   |

11. What percent of this operation's total gross value of sales reported in Item 10 came from the sale of organic agricultural products? . . . . . 911

| Percent of Total Gross Value of Sales |   |
|---------------------------------------|---|
|                                       | % |

**SECTION 14 TRANSITIONAL ACREAGE**

1. In 2019, did this operation own or operate any **transitional acres**?

- 9600
- 1  **Yes** - Continue                      3  **No** - Go to Section 15

2. In 2019, how many **transitional acres** did this operation:

- |  |              |
|--|--------------|
|  | <b>Acres</b> |
| a. Own? . . . . . 9606   |              |
| b. Rent or lease <u>from</u> others? . . . . . 9607  |              |
| c. Rent or lease <u>to</u> others? . . . . . 9601  |              |
| 3. [Calculate Items 2a + 2b - 2c] Then the <b>total transitional acres operated in 2019</b> were: . . . . . 9608 |              |

4. Of the total (Item 3) transitional acres operated in 2019, what percent was:

- |  |                |   |
|--|----------------|---|
|  | <b>Percent</b> |   |
| a. Cropland? . . . . . 9620              |                | % |
| b. Pasture and rangeland? . . . . . 9621 |                | % |

5. In general, how large of a price premium (in percent) over conventional prices did you receive for production from transitional acres? . . . . . 9602

|  |   |
|--|---|
|  | % |
|--|---|

6. In general, what percent of production from transitional acres was sold and delivered under a marketing contract arrangement? . . . . . 9603

|  |   |
|--|---|
|  | % |
|--|---|



**SECTION 15 NO CERTIFIED ORGANIC PRODUCTION**

1. If this operation did **NOT** have certified organic production in 2019, complete this section. If this operation had certified organic production in 2019, skip to Section 16.

2. Was this operation certified organic under the USDA NOP standards, but had no certified organic production in 2019? 9710  
 1  **Yes** 3  **No**

3. In 2019, was this operation exempt from organic certification (sales below \$5000)? 9711  
 1  **Yes** 3  **No**

4. Was this operation certified organic under the USDA NOP standards at any time prior to 2019? 9712  
 1  **Yes** 3  **No**

5. Did this operation produce or grow any organic products according to USDA NOP standards that were neither certified nor exempt from organic certification? 9709  
 1  **Yes** 3  **No**

6. Was this operation certified as a handler or processor of certified organic products in 2019? 9713  
 1  **Yes** 3  **No**

7. Was this operation engaged only in the collection of wild products in 2019? 9714  
 1  **Yes** 3  **No**

8. Other reason you had NO certified organic production in 2019, please specify: 9715  
 1  **Yes** 3  **No**  
 9716

**SECTION 16 CONCLUSION**

1. Is it possible the information on this form could be duplicated on a form with another name or address?  
 1080 1  **Yes** - Provide the other name and address below: 3  **No** - Go to Comments

Possible Duplicate Name Address  
 1081  1082

City State Zip  
 1083  1084  1085

COMMENTS:

**Survey Results:** To receive the complete results of this survey on the release date, go to [www.nass.usda.gov/results/](http://www.nass.usda.gov/results/)

To have a brief summary emailed to you at a later date, please enter your email address: 1095

Respondent Name Area Code and Phone Number Date (MM DD YY)  
 9912  9911  -  -  9910

**Thank you for your response.**

| Office Use  |      |   |      |  |      |      |                |      |                     |
|---|------|---|------|--|------|------|----------------|------|---------------------|
| Response  | 9901 | Respondent  | 9902 | Mode   | 9903 | 9998 | 9900           | 9985 | 9989                |
| 1-Comp<br>2-R<br>3-Inac<br>4-Office Hold<br>5-R-Est<br>6-Inac-Est<br>7-Off Hold-Est<br>8-Known Zero |      | 1-Op/Mgr<br>2-Sp<br>3-Acct/Bkpr<br>4-Partner<br>9-Other |      | 1-PASI (Mail)<br>2-PATI (Tel)<br>3-PAPI (Face-to-Face)<br>6-Email<br>7-Fax<br>19-Other |      |      |                |      |                     |
|   |      |   |      |  |      |      | <b>R. Unit</b> |      | <b>Optional Use</b> |
|   |      |   |      |  |      |      | 9921           |      | 9907 9908 9906 9916 |
| S / E Name  |      |   |      |  |      |      |                |      |                     |



# 2020 LOCAL FOOD MARKETING PRACTICES SURVEY

OMB No. 0535-0259  
Approval Expires: 09/30/2023  
Project Code: 683  
Survey ID: 3835



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Email: [nass@nass.usda.gov](mailto:nass@nass.usda.gov)

Please make corrections to name, address, and ZIP Code, if necessary.

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**Your report is due by February 16, 2021.**

1. In 2020, did this operation (name on label) –

- grow any crops, including field crops, fruit, vegetables, nursery/greenhouse, or other specialty crops; or
- cut any hay; or
- have any livestock, aquaculture, poultry, or honey bees?

0300 1  Yes - Continue 3  No - Go to Section 10

2. During 2020, did this operation produce and sell any crops, livestock, poultry, or agricultural products directly to –

a. **consumers** (individuals who purchased your products from farmers markets, on-farm stores or farm stands, roadside stands or stores, CSAs [Community Supported Agriculture], online marketplaces, etc.)?

0310 1  Yes 3  No

b. **retail markets** (supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives, etc.)?

0311 1  Yes 3  No

c. **institutions** (K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks, etc.)?

0312 1  Yes 3  No

d. **intermediate markets** (businesses or organizations in the middle of the supply chain marketing locally- and/or regionally-branded products, such as distributors, food hubs, brokers, auction houses, wholesale and terminal markets, food processors, etc.)?

0313 1  Yes 3  No

3. Did you answer YES to ANY of the questions in item 2 (2a - 2d)?

0301 1  Yes - Continue 3  No - Go to Section 10

4. Were any of the products that this operation produced and sold directly to consumers, retail markets, institutions, or intermediate markets in 2020 **food for humans to eat or drink**?

INCLUDE **processed** food products (also known as value-added food products) produced by this operation.

EXCLUDE

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

0302    1  Yes - Continue                      3  No - Go to Section 10

**Section 1 – Direct-to-Consumer Sales**

1. During 2020, did this operation **produce and sell** any crops, livestock, poultry, or agricultural products **DIRECTLY TO CONSUMERS**?

INCLUDE

- farmers markets
- on-farm stores or farm stands located on this operation
- roadside stands or stores located off of this operation
- CSAs (Community Supported Agriculture)
- online marketplaces
- other direct-to-consumer markets (pick-your-own, mobile market, etc.)

EXCLUDE

- products purchased and resold
- products produced and sold directly to retail markets (Section 2), institutions (Section 3), or intermediate markets (Section 4)

1150    1  Yes - Continue                      3  No - Go to Section 2

2. Were any of the products that this operation produced and sold directly to consumers in 2020 **food for humans to eat or drink**?

INCLUDE **processed** food products (also known as value-added food products) produced by this operation.

EXCLUDE

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

1151    1  Yes - Continue                      3  No - Go to Section 2

3. The rest of the questions in this section are about the food produced and sold **directly to consumers** in 2020.

4. Was any of the food that this operation produced and sold directly to consumers in 2020 sold through a **farmers market**?

1152    1  Yes - Continue                      3  No - Go to item 7

5. At how many separate farmers market locations did this operation sell food that it produced in 2020? Report each location only once.....
- |        |
|--------|
| Number |
| 1153   |

6. Approximately how many miles (one way) was this operation located from the farmers market from which it received the largest gross value of food sales in 2020?.....
- |       |
|-------|
| Miles |
| 1154  |

7. Was any of the food that this operation produced and sold directly to consumers in 2020 sold through an **on-farm store or farm stand located on this operation?**

EXCLUDE roadside stands or stores located off of this operation.

1156 1  Yes - Continue                      3  No - Go to item 10

8. In 2020, was there food sold at this on-farm store or farm stand that was produced by another operation?

1157 1  Yes - Continue                      3  No - Go to item 10

9. How many other operations produced food that was sold at this on-farm store or farm stand in 2020?

1158 1  1-4 operations  
2  5 or more operations  
3  Don't know

10. Was any of the food that this operation produced and sold directly to consumers in 2020 sold through a **roadside stand or store NOT located on this operation?**

EXCLUDE on-farm stores or farm stands, and farmers market stands.

1159 1  Yes - Continue                      3  No - Go to item 16

11. At how many total roadside stands or stores NOT located on this operation did this operation sell food that it produced in 2020?.....

Number

|      |
|------|
| 1160 |
|------|

12. In 2020, was there food sold at these roadside stands or stores that was produced by another operation?

1163 1  Yes - Continue                      3  No - Go to item 14

13. How many other operations produced food that was sold at these roadside stands or stores in 2020?

1162 1  1-4 operations  
2  5 or more operations  
3  Don't know

14. Did this operation own any of these roadside stands or stores?

1250 1  Yes    3  No

15. Approximately how many miles (one way) was this operation located from the roadside stand or store located off of this operation from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 1161 |
|------|

16. Was any of the food that this operation produced and sold directly to consumers in 2020 sold through a **CSA (Community Supported Agriculture)**?

1165 1  Yes - Continue 3  No - Go to item 22

17. In 2020, was there food sold in this CSA that was produced by another operation?

1164 1  Yes - Continue 3  No - Go to item 19

18. How many other operations produced food that was sold in this CSA in 2020?

1167 1  1-4 operations  
2  5 or more operations  
3  Don't know

19. Was the CSA pick-up site from which this operation received the largest gross value of sales in 2020 located on this operation?

1168 1  Yes - Go to item 21 3  No - Continue 4  CSA does not use pick-up sites - Go to item 21

20. Approximately how many miles (one way) was this operation located from the CSA pick-up site from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 1169 |
|------|

21. Did this operation own this CSA?

1166 1  Yes 3  No

22. An **online marketplace** is a web-based platform designed for selling goods and processing financial transactions. Was any of the food that this operation produced and sold directly to consumers in 2020 sold through an **online marketplace**?

1172 1  Yes - Continue 3  No - Go to item 26

23. In 2020, what was the percentage of this operation's online sales of food sold directly to consumers living within the same state as, or within a 400-mile radius of, this operation?.....

Percent

|      |   |
|------|---|
| 1173 | % |
|------|---|

24. Did this operation own this online marketplace?

1174 1  Yes 3  No

25. In what year did this operation first produce and sell food directly to an online marketplace?.....

Year (YYYY)

|      |         |
|------|---------|
| 1171 | _ _ _ _ |
|------|---------|



26. In 2020, did this operation accept Supplemental Nutrition Assistance Program (SNAP) benefits either with electronic benefit transfer (EBT) technology owned by this operation, or at a direct-to-consumer market that administers SNAP payments with EBT technology?

1175  Yes - Continue  No - Go to item 28

27. In 2020, from which of the following direct-to-consumer markets did this operation accept SNAP benefits with EBT technology? Mark all that apply.

- 1310  Farmers markets
- 1311  On-farm stores or farm stands located **on** this operation
- 1312  Roadside stands or stores located **off** of this operation
- 1313  CSAs
- 1314  Online marketplaces
- 1315  Other direct-to-consumer markets (pick-your-own, mobile markets, etc.)

Year (YYYY)

|               |
|---------------|
| 1177<br>_____ |
|---------------|

28. In what year did this operation first produce and sell food directly to **consumers**?.....

29. Report the **total gross value of sales** this operation received for the unprocessed and processed food it produced and sold directly to **consumers** in 2020. Report by the market through which the product was sold in the table below.

**Processed** food products (also known as value-added food products) are food products that have been altered or packaged before being sold to the consumer. Examples include honey, canned or preserved vegetables, jam, jelly, wine, juice, and cider.

**EXCLUDE**

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

| Direct-to-Consumer Market   | Fresh Fruit and Vegetable Sales |           | Meat, Farmed Seafood, and Egg Sales |           | Milk and Dairy Product Sales |           | Other Processed Food Product Sales (honey, jam, etc.) |           | Total                    |           |
|---|---------------------------------|-----------|-------------------------------------|-----------|------------------------------|-----------|---|-----------|--------------------------|-----------|
|   | Mark "X" if None                | (Dollars) | Mark "X" if None                    | (Dollars) | Mark "X" if None             | (Dollars) | Mark "X" if None                                      | (Dollars) | Mark "X" if None         | (Dollars) |
| a. Farmers markets  | <input type="checkbox"/>        | 1178      | <input type="checkbox"/>            | 1278      | <input type="checkbox"/>     | 1378      | <input type="checkbox"/>                              | 1478      | <input type="checkbox"/> | 1878      |
| b. On-farm stores or farm stands located <b>on</b> this operation   | <input type="checkbox"/>        | 1180      | <input type="checkbox"/>            | 1280      | <input type="checkbox"/>     | 1380      | <input type="checkbox"/>                              | 1480      | <input type="checkbox"/> | 1880      |
| c. Roadside stands or stores located <b>off</b> of this operation   | <input type="checkbox"/>        | 1182      | <input type="checkbox"/>            | 1282      | <input type="checkbox"/>     | 1382      | <input type="checkbox"/>                              | 1482      | <input type="checkbox"/> | 1882      |
| d. CSAs   | <input type="checkbox"/>        | 1184      | <input type="checkbox"/>            | 1284      | <input type="checkbox"/>     | 1384      | <input type="checkbox"/>                              | 1484      | <input type="checkbox"/> | 1884      |
| e. Online marketplaces  | <input type="checkbox"/>        | 1186      | <input type="checkbox"/>            | 1286      | <input type="checkbox"/>     | 1386      | <input type="checkbox"/>                              | 1486      | <input type="checkbox"/> | 1886      |
| f. Other direct-to-consumer markets (pick-your-own, mobile markets, etc.)<br>Specify: <sup>1188</sup> _____ | <input type="checkbox"/>        | 1189      | <input type="checkbox"/>            | 1289      | <input type="checkbox"/>     | 1389      | <input type="checkbox"/>                              | 1489      | <input type="checkbox"/> | 1889      |

**Section 2 – Direct-to-Retail Market Sales**

1. During 2020, did this operation **produce and sell** any crops, livestock, poultry, or agricultural products **DIRECTLY TO RETAIL MARKETS?**

INCLUDE

- supermarkets or supercenters
- restaurants or caterers
- other direct-to-retail markets (independently owned grocery stores, food cooperatives, small food stores, corner stores, etc.)

EXCLUDE

- products purchased and resold
- products produced and sold directly to consumers (Section 1), institutions (Section 3), or intermediate markets (Section 4)

2000 1  Yes - Continue

3  No - Go to Section 3

2. Were any of the products that this operation produced and sold directly to retail markets in 2020 **food for humans to eat or drink?**

INCLUDE **processed** food products (also known as value-added food products) produced by this operation.

EXCLUDE

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

2001 1  Yes - Continue

3  No - Go to Section 3

3. The rest of the questions in this section are about the food produced and sold **directly to retail markets** in 2020.

4. Was any of the food that this operation produced and sold directly to retail markets in 2020 sold through a **supermarket or supercenter?**

2002 1  Yes - Continue

3  No - Go to item 6

5. Approximately how many miles (one way) was this operation located from the supermarket or supercenter from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 2003 |
|------|

6. Was any of the food that this operation produced and sold directly to retail markets in 2020 sold to a **restaurant or caterer?**

2005 1  Yes - Continue

3  No - Go to item 8

7. Approximately how many miles (one way) was this operation located from the restaurant or caterer from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 2006 |
|------|

8. In what year did this operation first produce and sell food directly to **retail markets?**.....

Year (YYYY)

|      |
|------|
| 6009 |
|------|

9. Report the **total gross value of sales** this operation received for the unprocessed and processed food it produced and sold directly to **retail markets** in 2020. Report by the market through which the product was sold in the table below.

**Processed** food products (also known as value-added food products) are food products that have been altered or packaged before being sold to the retail market. Examples include honey, canned or preserved vegetables, jam, jelly, wine, juice, and cider.

**EXCLUDE**

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

| Direct-to-Retail Market   | Fresh Fruit and Vegetable Sales |           | Meat, Farmed Seafood, and Egg Sales |           | Milk and Dairy Product Sales |           | Other Processed Food Product Sales (honey, jam, etc.) |           | Total                    |           |
|---|---------------------------------|-----------|-------------------------------------|-----------|------------------------------|-----------|---|-----------|--------------------------|-----------|
|   | Mark "X" if None                | (Dollars) | Mark "X" if None                    | (Dollars) | Mark "X" if None             | (Dollars) | Mark "X" if None                                      | (Dollars) | Mark "X" if None         | (Dollars) |
| a. Supermarkets or supercenters   | <input type="checkbox"/>        | 6010      | <input type="checkbox"/>            | 2101      | <input type="checkbox"/>     | 2102      | <input type="checkbox"/>                              | 2103      | <input type="checkbox"/> | 2104      |
| b. Restaurants or caterers  | <input type="checkbox"/>        | 6012      | <input type="checkbox"/>            | 2106      | <input type="checkbox"/>     | 2107      | <input type="checkbox"/>                              | 2108      | <input type="checkbox"/> | 2109      |
| c. Other direct-to-retail markets (independently owned grocery stores, food cooperatives, small food stores, corner stores, etc.)<br>Specify: <sup>6014</sup> _____ | <input type="checkbox"/>        | 6015      | <input type="checkbox"/>            | 2111      | <input type="checkbox"/>     | 2112      | <input type="checkbox"/>                              | 2113      | <input type="checkbox"/> | 2114      |

**Section 3 – Direct-to-Institution Sales**

1. During 2020, did this operation **produce and sell** any crops, livestock, poultry, or agricultural products **DIRECTLY TO INSTITUTIONS**?

INCLUDE

- K-12 schools
- colleges and universities
- hospitals
- other direct-to-institution markets (workplace cafeterias, prisons, preschools, food banks, gleaners, senior care facilities, etc.)

EXCLUDE

- products purchased and resold
- products produced and sold directly to consumers (Section 1), retail markets (Section 2), or intermediate markets (Section 4)

3000 1  Yes - Continue

3  No - Go to Section 4

2. Were any of the products that this operation produced and sold directly to institutions in 2020 **food for humans to eat or drink**?

INCLUDE **processed** food products (also known as value-added food products) produced by this operation.

EXCLUDE

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

3001 1  Yes - Continue

3  No - Go to Section 4

3. The rest of the questions in this section are about the food produced and sold **directly to institutions** in 2020.

4. Was any of the food that this operation produced and sold directly to institutions in 2020 sold through a **K-12 school**?

3002 1  Yes - Continue

3  No - Go to item 6

5. Approximately how many miles (one way) was this operation located from the K-12 school from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 3003 |
|------|

6. Was any of the food that this operation produced and sold directly to institutions in 2020 sold to a **college or university**?

3005 1  Yes - Continue

3  No - Go to item 8

7. Approximately how many miles (one way) was this operation located from the college or university from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 3006 |
|------|

8. Was any of the food that this operation produced and sold directly to institutions in 2020 sold to a **hospital**?

3008 1  Yes - Continue

3  No - Go to item 10

9. Approximately how many miles (one way) was this operation located from the hospital from which it received the largest gross value of food sales in 2020?.....

Miles

|      |
|------|
| 3009 |
|------|

Year (YYYY)

|       |
|-------|
| 3011  |
| _____ |

10. In what year did this operation first produce and sell food directly to **institutions**?.....

11. Report the **total gross value of sales** this operation received for the unprocessed and processed food it produced and sold directly to **institutions** in 2020. Report by the market through which the product was sold in the table below.

**Processed** food products (also known as value-added food products) are food products that have been altered or packaged before being sold to the institution. Examples include honey, canned or preserved vegetables, jam, jelly, wine, juice, and cider.

**EXCLUDE**

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

| Direct-to-Institution Market   | Fresh Fruit and Vegetable Sales |           | Meat, Farmed Seafood, and Egg Sales |           | Milk and Dairy Product Sales |           | Other Processed Food Product Sales (honey, jam, etc.) |           | Total                    |           |
|--|---------------------------------|-----------|-------------------------------------|-----------|------------------------------|-----------|---|-----------|--------------------------|-----------|
|  | Mark "X" if None                | (Dollars) | Mark "X" if None                    | (Dollars) | Mark "X" if None             | (Dollars) | Mark "X" if None                                      | (Dollars) | Mark "X" if None         | (Dollars) |
| a. K-12 schools  | <input type="checkbox"/>        | 3012      | <input type="checkbox"/>            | 3031      | <input type="checkbox"/>     | 3032      | <input type="checkbox"/>                              | 3033      | <input type="checkbox"/> | 3034      |
| b. Colleges and universities   | <input type="checkbox"/>        | 3014      | <input type="checkbox"/>            | 3036      | <input type="checkbox"/>     | 3037      | <input type="checkbox"/>                              | 3038      | <input type="checkbox"/> | 3039      |
| c. Hospitals   | <input type="checkbox"/>        | 3016      | <input type="checkbox"/>            | 3041      | <input type="checkbox"/>     | 3042      | <input type="checkbox"/>                              | 3043      | <input type="checkbox"/> | 3044      |
| d. Other direct-to-institution markets (workplace cafeterias, prisons, preschools, food banks, gleaners, senior care facilities, etc.)<br>Specify: <sup>3018</sup> _____ | <input type="checkbox"/>        | 3019      | <input type="checkbox"/>            | 3046      | <input type="checkbox"/>     | 3047      | <input type="checkbox"/>                              | 3048      | <input type="checkbox"/> | 3049      |

**Section 4 – Direct-to-Intermediate Market Sales**

1. An **intermediate market** is a business or organization in the middle of the supply chain marketing locally- and/or regionally-branded products.

During 2020, did this operation **produce and sell** any crops, livestock, poultry, or agricultural products **DIRECTLY TO INTERMEDIATE MARKETS** which sold them as locally- and/or regionally-branded products?

INCLUDE businesses or organizations in the middle of the supply chain marketing locally- and/or regionally-branded products, such as distributors, food hubs, brokers, auction houses, wholesale and terminal markets, and food processors.

EXCLUDE

- products purchased and resold
- products produced and sold directly to consumers (Section 1), retail markets (Section 2), or institutions (Section 3)
- intermediate markets that **do not** market locally- and/or regionally-branded products

4000 1  Yes - Continue 3  No - Go to Section 5

2. Were any of the products that this operation produced and sold directly to intermediate markets in 2020 **food for humans to eat or drink**?

INCLUDE **processed** food products (also known as value-added food products) produced by this operation.

EXCLUDE

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

4001 1  Yes - Continue 3  No - Go to Section 5

3. Report the type(s) of intermediate markets this operation sold to in 2020 and indicate if the intermediate markets sold those products as locally- and/or regionally-branded products by marking the appropriate boxes below. Mark all intermediate market types that apply.

| Intermediate Market Type  | Did the intermediate market(s) sell these products as locally- and/or regionally-branded products?      |
|---|---|
| 4020 <input type="checkbox"/> Distributors                          | 4021 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4022 <input type="checkbox"/> Food hubs                             | 4023 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4024 <input type="checkbox"/> Brokers                               | 4025 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4026 <input type="checkbox"/> Auction houses                        | 4027 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4028 <input type="checkbox"/> Wholesale and terminal markets        | 4029 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4030 <input type="checkbox"/> Food processors                       | 4031 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |
| 4032 <input type="checkbox"/> Other, specify: <sup>4033</sup> _____ | 4034 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know |

4. The rest of the questions in this section are about the food produced and sold **directly to intermediate markets** in 2020.

5. Approximately how many miles (one way) was this operation located from the intermediate market from which it received the largest gross value of food sales in 2020?..... Miles

6. In what year did this operation first produce and sell food directly to **intermediate markets**?..... Year (YYYY)

7. Report the **total gross value of sales** this operation received for the unprocessed and processed food it produced and sold directly to **intermediate markets** in 2020. Report by the market through which the product was sold in the table below.

**Processed** food products (also known as value-added food products) are food products that have been altered or packaged before being sold to the intermediate market. Examples include honey, canned or preserved vegetables, jam, jelly, wine, juice, and cider.

**EXCLUDE**

- non-edible products such as hay, cut flowers not intended for consumption, Christmas trees, and nursery products
- commodities produced under production contracts
- products purchased and resold

| Direct-to-Intermediate Market            | Fresh Fruit and Vegetable Sales |           | Meat, Farmed Seafood, and Egg Sales |           | Milk and Dairy Product Sales |           | Other Processed Food Product Sales (honey, jam, etc.) |           | Total                    |           |
|--|---------------------------------|-----------|-------------------------------------|-----------|------------------------------|-----------|---|-----------|--------------------------|-----------|
|  | Mark "X" if None                | (Dollars) | Mark "X" if None                    | (Dollars) | Mark "X" if None             | (Dollars) | Mark "X" if None                                      | (Dollars) | Mark "X" if None         | (Dollars) |
| a. Distributors                          | <input type="checkbox"/>        | 4050      | <input type="checkbox"/>            | 4051      | <input type="checkbox"/>     | 4052      | <input type="checkbox"/>                              | 4053      | <input type="checkbox"/> | 4054      |
| b. Food hubs                             | <input type="checkbox"/>        | 4055      | <input type="checkbox"/>            | 4056      | <input type="checkbox"/>     | 4057      | <input type="checkbox"/>                              | 4058      | <input type="checkbox"/> | 4059      |
| c. Brokers                               | <input type="checkbox"/>        | 4060      | <input type="checkbox"/>            | 4061      | <input type="checkbox"/>     | 4062      | <input type="checkbox"/>                              | 4063      | <input type="checkbox"/> | 4064      |
| d. Auction houses                        | <input type="checkbox"/>        | 4065      | <input type="checkbox"/>            | 4066      | <input type="checkbox"/>     | 4067      | <input type="checkbox"/>                              | 4068      | <input type="checkbox"/> | 4069      |
| e. Wholesale and terminal markets        | <input type="checkbox"/>        | 4070      | <input type="checkbox"/>            | 4071      | <input type="checkbox"/>     | 4072      | <input type="checkbox"/>                              | 4073      | <input type="checkbox"/> | 4074      |
| f. Food processors                       | <input type="checkbox"/>        | 4075      | <input type="checkbox"/>            | 4076      | <input type="checkbox"/>     | 4077      | <input type="checkbox"/>                              | 4078      | <input type="checkbox"/> | 4079      |
| g. Other, specify: <sup>4080</sup> _____ | <input type="checkbox"/>        | 4081      | <input type="checkbox"/>            | 4082      | <input type="checkbox"/>     | 4083      | <input type="checkbox"/>                              | 4084      | <input type="checkbox"/> | 4085      |

**Section 5 – Other Information**

1. In 2020, what was this operation's total gross value of food sales for the food it produced and sold directly to consumers, retail markets, institutions, or intermediate markets? Mark one.

- 5000
- |  |  |   |   |
|--|--|---|---|
| 1 <input type="checkbox"/> \$1 - 999       | 5 <input type="checkbox"/> \$10,000 - 24,999 | 9 <input type="checkbox"/> \$100,000 - 249,999  | 13 <input type="checkbox"/> \$1,000,000 - 2,499,999 |
| 2 <input type="checkbox"/> \$1,000 - 2,499 | 6 <input type="checkbox"/> \$25,000 - 49,999 | 10 <input type="checkbox"/> \$250,000 - 499,999 | 14 <input type="checkbox"/> \$2,500,000 - 4,999,999 |
| 3 <input type="checkbox"/> \$2,500 - 4,999 | 7 <input type="checkbox"/> \$50,000 - 99,999 | 11 <input type="checkbox"/> \$500,000 - 999,999 | 15 <input type="checkbox"/> \$5,000,000 and over    |
| 4 <input type="checkbox"/> \$5,000 - 9,999 |  |   |   |

2. In 2020, approximately what percent of this operation's **food sales** were from food sold directly to consumers, retail markets, institutions, or intermediate markets within the following distance from the operation?

|   |                                   |      |
|---|-----------------------------------|------|
|   | Percent                           |      |
| a. 100 miles or less.....                           | 5001                              | %    |
| b. More than 100 miles but less than 400 miles..... | 5002                              | %    |
| c. 400 miles or more.....                           | 5003                              | %    |
|   | TOTAL (sum of items 2a + 2b + 2c) | 100% |

3. Were any of the crops, livestock, or agricultural products that this operation produced and sold directly to consumers, retail markets, institutions, or intermediate markets in 2020 **NOT food for humans to eat or drink**?

INCLUDE

- hay
- cut flowers not intended for consumption
- Christmas trees
- nursery products
- live animals
- wool

EXCLUDE edible agricultural products for human consumption.

- 5011 1  Yes - Continue                      3  No - Go to item 5

4. In 2020, what was the total gross value of sales for these crops, livestock, or agricultural products that were **NOT food for humans to eat or drink**?

|            |
|------------|
| Dollars    |
| 5012<br>\$ |

5. In 2020, how many acres did this operation –

|  |       |   |
|--|-------|---|
|  | Acres |   |
| a. own?.....   | 0901  |   |
| b. rent or lease <b>FROM</b> others or use rent free?<br>EXCLUDE land used on an animal unit month (AUM) basis, BLM and Forest Service land..... | 0902  | + |
| c. rent <b>TO</b> others?.....   | 0905  | - |
| 6. Calculate item 5a + 5b - 5c. Then the total acres operated in 2020 was.....   | 0900  | = |



7. For 2020, report the (1) overall agricultural products this operation produced and sold, and (2) agricultural products this operation specifically produced and sold for food to consumers, retail markets, institutions, and/or intermediate markets.

| Crops and Livestock   | (1)<br>Overall agricultural products produced and sold in 2020       | (2)<br>Agricultural products produced and sold for food to consumers, retail markets, institutions, and/or intermediate markets in 2020 |
|---|--|---|
| a. Grains, oilseeds, dry beans, and dry peas (corn, flaxseed, grain silage and forage, grains and oilseeds, popcorn, rice, small grains, sorghum, soybeans, sunflower straw, etc.)                          | 5050<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5052<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| b. Tobacco  | 5053<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No |   |
| c. Cotton and cottonseed  | 5056<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No |   |
| d. Vegetables, melons, potatoes, and sweet potatoes (beets, cabbage, cantaloupes, pumpkins, sweet corn, tomatoes, watermelons, vegetable seeds, etc.)   | 5059<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5061<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| e. Fruit, tree nuts, and berries (almonds, apples, blueberries, cherries, grapes, hazelnuts, kiwifruit, oranges, pears, pecans, strawberries, walnuts, etc.)  | 5062<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5064<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| f. Nursery, greenhouse, floriculture, and sod (bedding plants, bulbs, cut flowers, flower seeds, foliage plants, mushrooms, nursery potted plants, shrubbery, sod, food crops grown under protection, etc.) | 5065<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5067<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| g. Cut Christmas trees and short rotation woody crops   | 5068<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No |   |
| h. Other crops, hay, CRP, and pasture (grass seed, hay and grass silage, hops, maple syrup, mint, peanuts, sugarcane, sugarbeets, CRP, etc.)  | 5071<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5073<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| i. Hogs and pigs  | 5074<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5076<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| j. Milk and other dairy products from cows  | 5077<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5079<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| k. Cattle and calves (beef and dairy cattle for breeding stock, fed cattle, beef and dairy cull animals, stockers and feeders, veal calves, etc.)   | 5080<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5082<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| l. Sheep, goats, and their products   | 5083<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5085<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| m. Horses, ponies, and mules (burros and donkeys)   | 5086<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No |   |
| n. Poultry and eggs (broilers, chickens, turkeys, ducks, eggs, emus, geese, hatchlings, ostriches, pigeons, pheasants, quail, poultry products, etc.)   | 5089<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5091<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| o. Aquaculture (catfish, trout, ornamental and other fish, mollusks, crustaceans, etc.)   | 5092<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5094<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| p. Other animals and other animal products (bees, honey, rabbits, fur-bearing animals, other animal specialties, etc.)  | 5095<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No | 5097<br>1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |

8. Please classify this operation in terms of the gross value of sales and government agricultural payments in 2020.

INCLUDE

- sales of all crops, livestock, poultry, and livestock products (milk, eggs, etc.) sold in 2020
- the value of hay, silage, and other crops harvested in 2020, but not sold
- the value of all crops, livestock, and poultry produced under contract in 2020
- landlord's share of government payments and crops sold in 2020

EXCLUDE dollars received on land rented to others.

- 0860 1  \$0 - \$999  
 2  \$1,000 - \$9,999  
 3  \$10,000 - \$49,999  
 4  \$50,000 - \$99,999  
 5  \$100,000 - \$249,999  
 6  \$250,000 - \$499,999  
 7  \$500,000 - \$999,999  
 8  \$1,000,000 - \$4,999,999  
 9  \$5,000,000 and over

Dollars

9. What were this operation's total expenses in 2020?.....

|      |
|------|
| 1936 |
| \$   |

10. Report **marketing expenses** paid by this operation in 2020 for the food produced and sold directly to consumers, retail markets, institutions, and/or intermediate markets in 2020. Expenses reported in items 10a through 10f should have also been reported in item 9.

INCLUDE

- expenses paid by you and your landlords
- expenses from processed and value-added products

EXCLUDE

- expenses not related to the farm business
- any expenses paid by the contractor
- expenses for food not produced and sold directly to consumers, retail markets, institutions, or intermediate markets

| Marketing Expenses for Food Produced and Sold Directly to Consumers, Retail Markets, Institutions, or Intermediate Markets in 2020 | Mark "X" if None         | Expenses (Dollars) |
|--|--------------------------|--------------------|
| <b>Total Marketing Expenses in 2020</b>  | <input type="checkbox"/> | 6120               |
| a. Hired labor to work at market channel outlets   | <input type="checkbox"/> | 6100               |
| b. Transportation and distribution costs to market channel outlets (vehicle insurance, gas, depreciation costs, etc.)              | <input type="checkbox"/> | 6101               |
| c. Market promotion/advertisement expenses (website, brochures, etc.)  | <input type="checkbox"/> | 6102               |
| d. Equipment/supply expenses associated with market channel outlets (boxes, bags, coolers, crates, scales, tables, etc.)           | <input type="checkbox"/> | 6103               |
| e. Food safety expenses (compliance costs, training, third-party auditing costs, etc.)   | <input type="checkbox"/> | 6104               |
| f. Other marketing expenses (market fees, licenses, insurance, etc.)<br>Specify: <sup>6105</sup> _____                             | <input type="checkbox"/> | 6106               |
| <b>Sum of items 10a through 10f (should equal Total Marketing Expenses in 2020)</b>  |                          | 6107               |

**Section 6 – Practices**

1. At any time during 2020, did this operation have Internet access, either on the operation or at the principal producer's residence?  
5013      1  Yes                                      3  No
2. In 2020, did this operation use the Internet to do any of the following?
- a. Purchase input supplies, commodities, equipment, and other materials for farm operation..... 5014    1  Yes    3  No
  - b. Use online and/or peer learning resources (live or recorded webinars, tutorials, peer user groups, etc.)..... 5015    1  Yes    3  No
  - c. Use online business products and services (business planning, accounting, legal, banking, etc.)..... 5016    1  Yes    3  No
  - d. Identify sources and/or submit requests or proposals for funding, grants, or subsidies..... 5017    1  Yes    3  No
  - e. Access USDA Market News price and market information..... 5018    1  Yes    3  No
  - f. Access price and market information from other sources..... 5130    1  Yes    3  No
3. In 2020, did this operation have a farm business website?  
5019      1  Yes - Continue                                      3  No - Go to item 5
4. In 2020, did this operation use its farm business website to –
- a. provide background/history on farm operation or practices?..... 5020    1  Yes    3  No
  - b. advertise products for sale or on-farm activities/services?..... 5021    1  Yes    3  No
  - c. carry out transactions or sell farm products online?..... 5022    1  Yes    3  No
5. In 2020, did this operation use social media to provide –
- a. information about the farm to consumers?..... 5140    1  Yes    3  No
  - b. market channels where consumers can buy its products?..... 5141    1  Yes    3  No

6. Did this operation participate in the following programs in 2020?

- a. Noninsured Crop Disaster Assistance Program..... 5023 1  Yes 3  No
- b. Farm Loan programs..... 5024 1  Yes 3  No
- c. Whole-Farm Revenue Protection Program..... 5025 1  Yes 3  No
- d. Federal crop insurance, other than Whole-Farm Revenue Protection..... 5142 1  Yes 3  No
- e. Environmental Quality Incentives Program (EQIP)..... 5026 1  Yes 3  No
- f. Value-Added Producer Grant Program..... 5027 1  Yes 3  No
- g. Paycheck Protection Program (PPP)..... 5146 1  Yes 3  No
- h. Economic Injury Disaster Loans (EIDL)..... 5147 1  Yes 3  No
- i. USDA Farmers to Families Food Box Distribution Program..... 5148 1  Yes 3  No
- j. USDA CFAP Direct Payment Program..... 5149 1  Yes 3  No
- k. Other, specify: <sup>5143</sup> \_\_\_\_\_ 5144 1  Yes 3  No

7. In 2020, did this operation maintain the following farm management records?

- a. Balance sheet..... 5037 1  Yes 3  No
- b. Income statement..... 5038 1  Yes 3  No
- c. Cash flow budget or projection..... 5039 1  Yes 3  No
- d. Written business plan..... 5040 1  Yes 3  No
- e. Separate marketing plan..... 5041 1  Yes 3  No

8. Was this operation a member of a cooperative in 2020?

<sup>5042</sup> 1  Yes 3  No

9. In 2020, did this operation perform any agritourism activities (pick your own, event hosting, dining/tasting, overnight lodging, etc.) featuring products produced by this operation?

<sup>5145</sup> 1  Yes 3  No

**Section 7 – Third-Party Certification and Food Safety**

1. In 2020, did this operation have the following practices certified or verified by a third party?
- a. USDA Certified Organic..... 7100 1  Yes 3  No
  - b. Pasture-based management (grass fed, free range, pasture raised)..... 7101 1  Yes 3  No
  - c. Animal care-based management (cage free, raised without antibiotics, animal welfare approved, certified humane)..... 7102 1  Yes 3  No
  - d. Naturally Grown Certified..... 7103 1  Yes 3  No
  - e. Other USDA labels/quality verification..... 7112 1  Yes 3  No
  - f. Local or regional product origin third party certified or verified practices, excluding food safety certification.  
Specify: <sup>7115</sup> \_\_\_\_\_ 7104 1  Yes 3  No
2. Did this operation have a food safety plan that covered produce in 2020?
- INCLUDE
- fruit
  - berries
  - vegetables
  - herbs
  - tree nuts
  - dry beans
  - peas and lentils
  - peanuts
  - sprouts
  - mushrooms
- 7001 1  Yes - Continue 3  No - Go to item 4
3. Is the food safety plan written?
- 7002 1  Yes 3  No
4. Did this operation have a third-party food safety audit of produce in 2020?
- INCLUDE
- fruit
  - berries
  - vegetables
  - herbs
  - tree nuts
  - dry beans
  - peas and lentils
  - peanuts
  - sprouts
  - mushrooms
- 7003 1  Yes - Continue 3  No - Go to Section 8
5. In 2020, did this operation receive –
- a. USDA individual Good Agricultural Practices (GAP) certification?..... 7110 1  Yes 3  No
  - b. other third party Good Agricultural Practices (GAP) certification?  
Specify: <sup>7116</sup> \_\_\_\_\_ 7111 1  Yes 3  No

**Section 8 – Personal Characteristics**

1. In 2020, did your household and extended family own more than 50% of this farming operation?

Select YES if more than 50% of the assets of this operation are owned by you (the principal operator), members of your household, and/or other persons related to you by blood, marriage, or adoption, including relatives not residing in your household. Consider only farm or ranch assets owned - not rented or leased - by this operation, and exclude the assets held by non-family landlords and contractors.

1600 1  Yes 3  No

2. In 2020, how many men and women were involved in decisions for this operation?

INCLUDE family members and hired managers.

EXCLUDE hired workers unless they were a hired manager or family member.....

| Men  | Women |
|------|-------|
| 1571 | 1574  |

3. Answer the following questions for up to four individuals who were involved in the decisions for this operation as of **December 31, 2020.**

|  | Person 1   | Person 2   | Person 3   | Person 4   |
|--|--|--|--|--|
| a. Sex.....  | 1926 1 <input type="checkbox"/> Male<br>2 <input type="checkbox"/> Female  | 1586 1 <input type="checkbox"/> Male<br>2 <input type="checkbox"/> Female  | 1597 1 <input type="checkbox"/> Male<br>2 <input type="checkbox"/> Female  | 1614 1 <input type="checkbox"/> Male<br>2 <input type="checkbox"/> Female  |
| b. What was this person's age on December 31, 2020?.....   | 1925 _____ age   | 1585 _____ age   | 1596 _____ age   | 1615 _____ age   |
| c. Is this person of Hispanic, Latino or Spanish origin?.....  | Hispanic, Latino or Spanish origin<br>1927 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | Hispanic, Latino or Spanish origin<br>1587 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | Hispanic, Latino or Spanish origin<br>1598 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  | Hispanic, Latino or Spanish origin<br>1622 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No  |
| d. Race.....   | <b>Mark one or more.</b><br>2701 <input type="checkbox"/> White<br>2702 <input type="checkbox"/> Black or African American<br>2703 <input type="checkbox"/> American Indian or Alaska Native, Specify tribe: _____<br>2733 _____<br>2705 <input type="checkbox"/> Asian<br>2704 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <b>Mark one or more.</b><br>1801 <input type="checkbox"/> White<br>1802 <input type="checkbox"/> Black or African American<br>1803 <input type="checkbox"/> American Indian or Alaska Native, Specify tribe: _____<br>1833 _____<br>1805 <input type="checkbox"/> Asian<br>1804 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <b>Mark one or more.</b><br>1901 <input type="checkbox"/> White<br>1902 <input type="checkbox"/> Black or African American<br>1903 <input type="checkbox"/> American Indian or Alaska Native, Specify tribe: _____<br>1933 _____<br>1905 <input type="checkbox"/> Asian<br>1904 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <b>Mark one or more.</b><br>1616 <input type="checkbox"/> White<br>1617 <input type="checkbox"/> Black or African American<br>1618 <input type="checkbox"/> American Indian or Alaska Native, Specify tribe: _____<br>1619 _____<br>1620 <input type="checkbox"/> Asian<br>1621 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander |
| e. At which occupation did this person spend the majority (50% or more) of his/her work time in 2020?..... | <b>Mark one.</b><br>1928 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | <b>Mark one.</b><br>1580 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | <b>Mark one.</b><br>1591 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   | <b>Mark one.</b><br>1623 1 <input type="checkbox"/> Farm or ranch work<br>2 <input type="checkbox"/> Work other than farming or ranching   |
| f. In what year did this person begin to operate ANY farm operation?.....                                  | 2834 _____   | 1851 _____   | 1871 _____   | 1628 _____   |
| g. Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?.....  | <b>Mark one.</b><br>1633 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now   | <b>Mark one.</b><br>1634 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now   | <b>Mark one.</b><br>1635 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now   | <b>Mark one.</b><br>1636 1 <input type="checkbox"/> Never served in the military<br>2 <input type="checkbox"/> Only on active duty for training in the Reserves or National Guard<br>3 <input type="checkbox"/> Now on active duty<br>4 <input type="checkbox"/> On active duty in the past, but not now   |

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**Section 9 – COVID-19 Impact on Operation (Agricultural Marketing Service)**

1. When comparing 2020 to 2019, how have **farm sales** for this operation been affected by the COVID-19 pandemic? Mark one.

- 5900 1  Large decrease in farm sales  
2  Moderate decrease in farm sales  
3  Little or no effect on farm sales  
4  Moderate increase in farm sales  
5  Large increase in farm sales  
6  Don't know  
7  Not applicable to this operation

2. When comparing 2020 to 2019, how have **online sales** for this operation been affected by the COVID-19 pandemic? Mark one.

- 5901 1  Large decrease in online sales  
2  Moderate decrease in online sales  
3  Little or no effect on online sales  
4  Moderate increase in online sales  
5  Large increase in online sales  
6  Don't know  
7  Not applicable to this operation

3. When comparing 2020 to 2019, how has the **pre-ordering of agricultural products** to be picked-up at a farmer's market, on-farm stand, or CSA been affected by the COVID-19 pandemic? Mark one.

- 5902 1  Large decrease in pre-ordering agricultural products  
2  Moderate decrease in pre-ordering agricultural products  
3  Little or no effect on pre-ordering agricultural products  
4  Moderate increase in pre-ordering agricultural products  
5  Large increase in pre-ordering agricultural products  
6  Don't know  
7  Not applicable to this operation

4. When comparing 2020 to 2019, how have **marketing expenses** for this operation been affected by the COVID-19 pandemic? Mark one.

- 5903 1  Large decrease in marketing expenses  
2  Moderate decrease in marketing expenses  
3  Little or no effect on marketing expenses  
4  Moderate increase in marketing expenses  
5  Large increase in marketing expenses  
6  Don't know  
7  Not applicable to this operation

**Section 10 – Conclusion**

1. It is important that we do not have duplication on our list of farms and ranches. Is it possible the information on this form would be reported by another operation or under another name?

1080  1 Yes - Please provide the name, phone number, and address below  3 No - Go to item 2

1088 Operation Name \_\_\_\_\_ 1081 Operator Name \_\_\_\_\_

1089 Phone Number \_\_\_\_\_ 1082 Address \_\_\_\_\_

1083 City \_\_\_\_\_ 1084 State \_\_\_\_\_ 1085 Zip Code \_\_\_\_\_

2. **Survey Results:** To receive the complete results of this survey on the release date, go to: [nass.usda.gov/results](http://nass.usda.gov/results)

To have a brief summary emailed to you, please enter your email address:

1095

**Section 11 – Contact Information**

Operation Email:

Operation Phone:

|   |   |   |
|---|---|---|
| 9937 <input style="width: 95%; height: 30px;" type="text"/> | 9936 <input style="width: 95%; height: 30px;" type="text"/> | check if cell phone<br><input type="checkbox"/> |
|---|---|---|

Respondent Name:

Respondent Phone (if different from above):

|   |   |   |                                |
|---|---|---|--------------------------------|
| 9912 <input style="width: 95%; height: 30px;" type="text"/> | 9911 <input style="width: 95%; height: 30px;" type="text"/> | check if cell phone<br><input type="checkbox"/> | 9910 MM DD YY<br>Date: _ _ _ _ |
|---|---|---|--------------------------------|

This completes the survey. Thank you for your help.

| OFFICE USE ONLY   |      |   |      |  |      |       |       |         |        |                     |      |      |      |
|---|------|---|------|--|------|-------|-------|---------|--------|---------------------|------|------|------|
| Response  |      | Respondent  |      | Mode   |      | Enum. | Eval. | R. Unit | Change | Office Use for POID |      |      |      |
| 1-Comp<br>2-R<br>3-Inac<br>4-Office Hold<br>5-R – Est<br>6-Inac – Est<br>7-Off Hold – Est | 9901 | 1-Op/Mgr<br>2-Sp<br>3-Acct/Bkpr<br>4-Partner<br>9-Oth | 9902 | 1-PASI (Mail)<br>2-PATI (Tel)<br>3-PAPI (Face-to-Face)<br>6-Email<br>7-Fax<br>19-Other | 9903 | 9998  | 9900  | 9921    | 9985   | 9989                |      |      |      |
|   |      |   |      |  |      |       |       |         |        | Optional Use        |      |      |      |
|   |      |   |      |  |      |       |       |         |        | 9907                | 9908 | 9906 | 9916 |
| S/E Name _____  |      |   |      |  |      |       |       |         |        |                     |      |      |      |



## INSTRUCTION SHEET UNITED STATES 2017 CENSUS OF AGRICULTURE Your report is due February 5, 2018

### Who Should Report?

A reply is required from **EVERYONE** who receives a report form, including persons who operated a farm, ranch, or other agricultural operation in 2017, anyone who has any agricultural activity, as well as those who were not involved in agriculture. More census information is on the Internet at [www.agcensus.usda.gov](http://www.agcensus.usda.gov)

**If you do not return your report form, you will continue to receive contacts from us.**

**If you were a landlord only** and rented out all of your land, complete the front page, Section 1, and Section 34 on the back page of the enclosed report form and return it in the preaddressed envelope. If you were a landlord but still operated other land yourself, you should complete the entire report form for that land which you operated.

**If you had no land, no livestock, and no agricultural operations**, return the report form with a note indicating your status on the front of the form below the address label.

**Partial Year Operations** - If you stopped farming, ranching, or producing agricultural products during 2017, complete the report form for the portion of the year that you did farm. Write "Stopped farming during 2017" and the date you stopped below the address area. Mail the completed report form in the return envelope. If the person whose name is on the label was deceased during 2017, complete the form for the portion of the year that they farmed, and write a note.

**Involved In More Than One Operation** - If you made decisions for more than one operation, you may have received a report form for each operation. Provide information for each operation on a separate form. To obtain additional report forms, or if you have questions, please call the toll-free help line at 1-888-424-7828.

**Partnership Operation** - Complete only ONE form for the entire partnership's agricultural operation and include the entire operation on that one form. If you made day-to-day decisions for another operation, complete a report form for each separate operation. We have listed all known partners below the address area to assist in defining the operation. Make any necessary corrections to these names.

**If you owned farm or ranch land in 2017 that was idle and NOT rented out**, you should complete and return the report form. If all the cropland was enrolled in conservation programs like CRP, complete the form and include these acres.

**Specialty Commodities** - Horses, bees, elk, emus, fish, nursery, etc., are an important part of the agriculture industry. Report for all commodities, regardless of the amount of production or sales you had in 2017.

**Land in Federal conservation programs in 2017** - If you had land in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) and you made the decisions on the acres, include the conservation land on the report form in Sections 1, 2, and 5.

**Received More Than One Report Form For the Same Operation** - If you received more than one report form for the same operation, complete only ONE form per operation. Write "Duplicate" below the address area of each extra form. Return all forms in the same return envelope with your completed form so that we can correct our records.

**Entering Your Responses Use BLUE or BLACK INK only.** Enter your replies in the unit requested, i.e., dollars, bushels, tons, etc. When reporting dollars, report in whole dollars only. Convert fractions to decimals. Please print clearly and keep numbers and letters within the white boxes. Mark all applicable Yes/No and None boxes with an "X".

### SECTION 1 - ACREAGE IN 2017

Your answers in this section will determine the land (**Acres in "THIS OPERATION"**) referred to throughout the report form. Include all land owned, rented, or used by you, your spouse, or by the partnership, corporation, or organization named on the front of the form, regardless of location or use during 2017, even if only for part of the year. Include cropland, non-tillable land, land in government programs such as Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), etc., pastureland and rangeland, woodland and idle land, farmsteads, buildings, and structures. Include only actively managed tidelands. Exclude residential or commercial land. Report land in whole acres.

**Item 1 (Box A)** - Report all land owned in 2017 whether held under deed, purchase contract or mortgage, homestead law, or as heir/heirless or trustee of an undivided estate. Include all land owned by you and/or your spouse, or by the partnership, corporation, or organization named on the front of the report form.

**Item 2 (Box B)** - Report all land rented or leased from others by you or your operation. Include water area leased for aquaculture production. Exclude land used under Government grazing permits or on a fee per-head or animal unit (AUM) basis. Bureau of Land Management (BLM) Section 15 land leased by your operation with a specified acreage tract should be included here even though your fees to BLM are paid on an AUM basis.

**Item 3 (Box C)** - Include all land rented out to others for any purpose if it was part of the acreage reported in Items 1 and 2. Your tenant(s) will receive a form to report production for the land they rent. Do not report land placed in conservation programs as acres rented to others.

**Item 3a** - Report all land owned by the operation and rented or leased to others.

**Item 4 (Box D)** - This is all land you operated at any time in 2017. Land use in Section 2 should be reported for these acres.

**Item 5 Total acres equals zero (0)** - After completing Section 1, if the acres in Item 4, BOX D equal zero and you did not raise or own any livestock, aquaculture, or poultry in 2017, write a description of land use in the space by question 5. Complete Section 34 and mail the report form in the return envelope.

### SECTION 2 - LAND USE IN 2017

The total acres from Items 1 - 4 entered in BOX E should equal the total acres in Section 1, Item 4, BOX D. These acres represent "this operation" for this census report. **If these two numbers are not the same, please GO BACK and CORRECT your figures.** Do not report any crops grown on land rented or leased to others or worked by others on shares during 2017.

**Land used for more than one purpose** - Do not report the same acreage in more than one of the listed categories. If part or all of your land was used for more than one listed purpose in 2017, report that land only in the first purpose listed. For example, if you planted and harvested a grain crop and grazed the crop residue in the fall, report the land in Item 1a, cropland harvested. Do not report those acres again in Item 2c pasture or grazing land.

**CRP/WRP and other conservation programs** - Report these acres in the Items in this section that best describe them. For example, CRP land may be reported in cropland harvested, cropland idle, or woodland not pastured depending on its use.

**Item 1a** - Land maintained for orchards or vineyards is included even if the crop failed or the trees or vines are not of bearing age. Abandoned acres of orchards or vineyards should be reported in Item 1d. Harvested cropland includes acres of trees for fruit, nuts, and berries along with acres of grape vines, Christmas trees, and short rotation woody crops in production. Do not include the area harvested for timber or firewood. If more than one crop was harvested from the same land in 2017, report that land as cropland harvested only once.

**Item 1b** - Include land you intended to harvest but had to abandon or had the crop fail.

**Item 1c** - Include cropland left unseeded for the 2017 harvest and tilled summer fallowed, or treated with herbicides to control weeds and conserve moisture. Include cropland summer fallowed in 2017 even though it may have been planted to wheat, etc., for the 2018 harvest.

**Item 4** - Include tidelines actively managed for aquaculture production, whether owned or rented from others. Include other water area leased for the production of aquaculture.

**SECTION 3 - LAND RENTED OR LEASED FROM OTHERS FOR CASH**

Report for cropland and pastureland leased on a per acre basis for cash only. Exclude flex and share rent arrangements. Also, exclude aquaculture arrangements. For cash rental agreements that include dwellings and buildings, only report the acres of cropland and pastureland.

**SECTION 4 - LAND USE PRACTICE S**

**Item 1b** - Land drained by ditches refers only to manmade ditches installed to improve drainage, not natural waterways.

**Item 1c** - A conservation easement limits the right to develop the land, now and in the future.

**Items 2a through d** - Include all cropland acres planted in the operation with the practice, not just cropland harvested. Conservation tillage leaves 30 percent or more of the soil surface covered by crop residue after planting. Conventional tillage has 100 percent of the soil surface mixed or inverted.

**Items 3a and 3b** - Include acres irrigated by all methods and from all water sources including those irrigated from lagoons through a sprinkler or flood system.

**SECTION 5 - CROP INSURANCE AND GOVERNMENT PROGRAMS**

**Item 1** - Report all acres covered by any crop insurance policy in 2017. Include land in pasture insurance programs and acres covered by guaranteed revenue policies.

**Items 2a and 3** - For conservation program costs, include the government's share of the amount paid.

**Items 3 and 4** - Exclude any payments from loans or programs that must be repaid.

**Item 5** - Report amount received for commodities placed under CCC loan during 2017. Include amount received even if commodity was redeemed or forfeited prior to December 31, 2017. Exclude CCC loans to build crop storage facilities.

**Item 6** - Report the total amount to repay CCC loans in 2017, regardless of the crop year the loan was made.

**SECTION 6 - TYPE OF ORGANIZATION**

Use the following definitions to determine the type of organization for this operation.

**An operation organized as a Limited Liability Company (LLC) may fall into any of the categories.**

**Family or individual operation** - Farm or business organization controlled and operated by a family or an individual (sole proprietor). Include family operations that are not incorporated and not operated under a partnership agreement. Report family corporations under "Incorporated under state law."

**Partnership operation** - Two or more persons who conduct an operation together and share work and profits. Co-ownership of land by husband and wife or joint filing of income tax forms by husband and wife does not constitute a partnership unless a specific agreement to share contributions, decision making, profits, and liabilities exists. Production under contract or under a share rental agreement does not constitute a partnership.

**Incorporated under state law** - A corporation is a legal entity or artificial person created under the laws of a State to carry on a business, including family corporations. Exclude cooperatives, even if they are incorporated.

**Other** - Estate or trust, grazing association, American Indian Reservation, university farm, prison farm, institution run by a government or religious entity, cooperatives (an incorporated or unincorporated enterprise or an association created and formed jointly by the members), etc.

**Item 4** - The number of households that share in the net farm income are those households involved with the day-to-day decisions and not those households that received funds because they are landlords, custom equipment operators, or provide other supplies that are listed in Section 30, Production Expenses.

**SECTION 7 - PERSONAL CHARACTERISTICS**

This section collects information about decision makers of this operation. A farm may be a family operation and still have multiple operators. Complete one column for each operator.

**Item 1** - Enter the number of men and the number of women who made day-to-day decisions for this operation. Do not report as operators minor-aged children who only worked on the farm.

**Item 2** - Answer each question for up to four operators. If there were more than four, answer for the four individuals most involved in the decision making for this operation.

**Item 2k** - Report the first year the specified operator began to operate any part of this operation on a continuous basis. If the operator returned to a place previously operated, report the year operations were resumed on this operation.

**Item 2l** - Report the first year the specified operator began to operate part of ANY operation on a continuous basis.

**Item 4** - The principal operator is the person in charge, such as a hired manager, business manager, or other person primarily responsible for the on-site, day-to-day operation of the farm or ranch business.

**REPORTING VALUE OF SALES**

Report the value of all crops and livestock sold from this operation in 2017 in the appropriate commodity section. Report the sales in 2017 regardless of the year crops were harvested or raised. Include the value of your landlord's share of the commodities harvested. Report livestock as sold that you owned and moved to someone else's operation for further feeding, such as cattle. Report the gross value before the deduction of expenses, marketing charges, hauling fees, other fees, or income taxes. Include payments received in 2017 from cooperatives or marketing organizations for crops produced on this operation regardless of the year in which the crops were harvested. Also, include as sales your estimate of the value of any crop or livestock removed from this operation in trade of services, such as baled hay for labor or other services. Report the total value you received for animals and poultry sold from this operation in 2017, without deducting production or marketing expenses (costs for feed, livestock purchase price, hauling, selling, etc.).

**Exclude:**

- Proceeds from CCC loans or other government payments.
- The value of sales of any cattle, hogs, or poultry owned by you but kept and sold from a location you did not operate.
- The value of commodities grown under a production contract.

**SECTION 8 - HAY AND FORAGE CROPS**

Include hay and forage from alfalfa, wild or native grasses, and hay or forage from clovers, small grains, soybeans, and peanuts. Report production in tons or, for dry hay, bales/weight per bale. Any pasture or conservation land that had hay cut from it should be reported as cropland harvested in Section 2, Item 1a.

**SECTION 9 - CULTIVATED CHRISTMAS TREES, SHORT ROTATION WOODY CROPS, AND MAPLE SYRUP**

**Item 2** - Acres in production of cultivated Christmas trees include both those to be harvested in future years as well as those harvested in 2017. Trees cut should include only those trees cut in 2017.

**Item 3** - A short rotation woody crop is a tree that is harvested in 10 years or less. These are trees for use by the paper or pulp industry or as engineered wood. Exclude trees cut for timber. Acres in production of short rotation woody crops include both those harvested in 2017 and future years. Acres harvested should include only those harvested in 2017.

**Item 4** - Producers should report number of taps and gallons of syrup. If sap was sold, estimate the number of gallons of syrup it would have produced. Report the acres of tapped maple trees in Section 2, Item 3, woodland not pastured.

**SECTION 10 - FIELD CROPS**

**Acres harvested** - Enter the acres harvested in 2017. Round fractions to whole acres except for tobacco, where tenths should be reported.

**Crops names not listed** - For those seed or field crops not listed in the table that fall into the Other seeds (code 770) or Other field crops (code 752) categories, please specify each crop on a separate line in the table along with the requested data.

**Total production harvested** - If your unit of measure is different than the unit requested on the report form, convert your figure for the production harvested to the unit requested. If the harvest was incomplete by December 31, 2017, estimate the total production to be harvested.

**Acres irrigated** - Report the irrigated harvested acres only once, even if the crop was irrigated multiple times during the growing season.

**Double cropping** - If two or more crops were harvested from the same land (double cropping), report the total acres and production of each harvested crop.

**Interplanted crops** - If two crops were grown at the same time in alternating strips in the same field, report the acreage of the field used for each crop.

**Skip row planting** - If a crop was planted in an alternating pattern of planted and non planted rows, such as two rows planted and two rows skipped, report the acreage occupied by the crop and report the skipped portion as cropland idle in Section 2, Item 1d.

If you rented land under a share arrangement, include your landlord's share of the crop in value of sales.

**SECTION 11 - NURSERY, GREENHOUSE, FLORICULTURE, SOD, MUSHROOMS, VEGETABLE SEEDS, AND PROPAGATIVE MATERIALS**

Report Christmas trees grown on this operation and sold live as nursery stock, code 0488. Exclude crops bought for resale without additional growing, and garden center items, such as chemicals and fertilizers. Report all acres of Christmas trees in production for cut Christmas trees and the number cut in 2017 in Section 9, Item 2.

**SECTION 12 - VEGETABLES, POTATOES, AND MELONS**

**Item 4** - Report acres harvested for individual crops. If the same crop was planted more than once during the year on the same field, report the sum of the acres harvested during 2017. For example, if 4 acres were planted to lettuce and harvested, then replanted to lettuce and harvested, report 8 acres of lettuce in Item 4 but only 4 acres in Item 2.

**SECTION 13 - FRUIT, NUTS AND BERRIES**

If nonbearing trees and vines are intermixed with bearing trees and vines, estimate area for each category. Exclude abandoned acres of orchards or vineyards. Abandoned acres should only be reported in Section 2, Item 1d. Bearing age acres are the acres of trees or vines that produced any fruit or nut crop in 2017 or previous years. If fruit and nut trees and vines were interplanted with other crops, report only the total acres for the orchard in Section 13, and the total acres of each interplanted crop in their appropriate section(s).

**Berries** - Report all acres on which berries were grown in 2017.

**SECTION 14, 15, AND 19 - CATTLE AND CALVES, HOGS AND PIGS, AND POULTRY**

Include all animals on this operation on December 31, 2017 owned by you, raised by you under contract, or kept by you for others. Include animals on unfenced lands, National Forest land, Indian Reservation Land, cooperative grazing association land, or rangeland administered by the Bureau of Land Management on a per head, animal unit month (AUM), or lease basis. Animals in transit on December 31, 2017, should be reported by the person who had control of the animals on that day. Report beefalo and cattalo as cattle in Section 14. Report buffalo as bison in Section 21, Item 2.

**Contract and custom feeding operations** - Report numbers of all animals or poultry on this operation on December 31, 2017. Animals and poultry kept on a contract or custom basis and moved or sold from this operation in 2017 should be reported as sold. Do NOT include fees received for commodities produced under a production contract in the value of sales. In addition, report in Section 22 - *Production Contracts and Custom Feeding* on the appropriate line the quantity delivered of custom fed livestock or production contract livestock and poultry and the dollar amount received from the contractor.

**Cattle, hogs, and poultry to exclude from the report form** - Exclude animals or poultry kept on land rented to others or kept under a share arrangement on land rented to others. Exclude animals quartered in feedlots that were not located on this operation. Do not report the sales of animals bought and then resold within 30 days. Such purchases and sales are considered dealer transactions.

**Number sold** - Report all animals and poultry sold or moved from this operation in 2017, regardless of ownership or who shared in the receipts. Include animals sold for a landlord or given to a landlord or others in trade or in payment for goods or services. Do not report number sold of any hogs and pigs, cattle and calves, or poultry owned by you that were kept and sold from a location that you did not operate.

**Number moved from this operation** - For animals and poultry moved from this operation to another, such as for further feeding, report them as "sold." Cattle moved are not considered sold if they were moved to another operation for a short term, such as for winter wheat or corn stubble grazing, or during the winter to public grazing land.

**Cattle in feedlots** - Exclude the following for this item:

- Cattle and calves sold or moved off the operation for further feeding
- Veal calves or any calves weighing less than 500 pounds
- Cull or dairy cows fed only the usual dairy ration before being sold
- All cows and bulls

**SECTION 16 - HORSES, PONIES, MULES, BURROS, AND DONKEYS**

Exclude horses owned by this operation but stabled elsewhere. Horses, mules, burros and donkeys that are on this operation should be reported regardless of ownership. Exclude feral equine.

**SECTION 17 - SHEEP AND GOATS**

Report goats based on utilization regardless of breed. Report pounds of wool shorn and mohair clipped in 2017 only.

**SECTION 18 - AQUACULTURE**

Include all sizes for each type. Report each type sold or moved on a separate line and specify whether the sale was fish eggs, fry, fingerlings, food size, or a combination. Convert units such as bushels, bags, or gallons to number or pounds. Do not duplicate the same quantity sold in both the pounds and number columns.

**SECTION 20 - COLONIES OF HONEY BEES**

**Item 2** - Report the number of bee colonies owned regardless of location. Report the pounds of honey collected in 2017 whether sold or not sold. Report sales of packaged bees, nuclear colonies, whole colonies, queen, and all non-apis bees (bumble, leaf cutter, etc.) in Section 21, Item 2. Report sales of honey bee products such as wax, pollen, and propolis in Section 21, Item 3. Report pollination fees in Section 32, Item 7.

**SECTION 21 - OTHER LIVESTOCK AND LIVESTOCK PRODUCTS**

**Item 2** - Report the sales of only live animals.

**Item 3** - Include pelts and any meat from mink and rabbits.

**SECTION 22 - PRODUCTION CONTRACTS AND CUSTOM FEEDING**

A production contract is an agreement between a grower and contractor (integrator) that specifies that the grower will raise an agricultural commodity and that the contractor will provide certain inputs such as seed, livestock, etc. The grower receives a payment or fee from the contractor, generally after delivery, which is less than the full market price of the commodity.

Commodities raised under a production contract should be reported in Section 22 and also included in Sections 8 through 21. The money received as a production contract fee is reported in Section 22 only, under "Total dollar amount received" and not in Sections 8 through 21.

Please report amount of the specified commodity that you raised and delivered under production contracts in Item 2. If you had multiple contracts to produce different commodities, report the appropriate amount of each commodity produced under each contract in the proper categories. Exclude marketing contracts, futures contracts, forward contracts, or other contracts based strictly on price. The contractor should not report commodities that were produced by the grower.

**SECTION 23 - ORGANIC AGRICULTURE**

Certified National Organic Program (NOP) farms, those exempt from certification because they sell less than \$5,000 in organic products a year, and farms with acres transitioning to future NOP production should report in this section.

**Item 3** - Report the total sales of NOP organically produced commodities. Include gross value of agricultural sales before expenses or taxes. Exclude sales of crops and livestock from transitioning land. Exclude the value of processed or value added items.

**SECTION 24 - PRACTICES**

**Item 1c - Alley Cropping** is the growing of annual or perennial crops between rows of trees. The agricultural crop generates annual income while the tree crop matures. *Silvopasture* combines timber, livestock and forage production on the land. Trees provide longer-term returns, while livestock generates an annual income. *Forest farming* is the intentional management of woodlands to grow non-tree crops such as mushrooms, berries, and root crops under trees. *Riparian forest* buffers are natural or planted trees, shrubs and grasses adjacent to water bodies to protect water resources from non-point source pollution.

**Item 3** - Do not include access from a computer at a public site such as a library.

**SECTION 25 - FOOD MARKETING PRACTICES**

Include only edible commodities sold directly for human consumption, such as vegetables, fruit, eggs, milk, cattle, chickens, hogs, turkeys, etc. Report only commodities grown or raised on this operation. Exclude crops, livestock, poultry, or other products that you bought and resold within 30 days. Exclude nonedible products such as hay, cut flowers, Christmas trees, nursery products, etc.

**SECTION 26 - FERTILIZERS, CHEMICALS, AND SOIL CONDITIONERS APPLIED**

**Fertilizer** - Report acres on this operation on which commercial fertilizer was applied during 2017 only once, even if multiple applications were made. Report fertilizer and manure expenditures in Section 30, Item 1.

**Chemicals** - Include acres on which custom application of chemicals was applied. If multiple applications of chemicals for the same purpose (for example, herbicides) were applied on the same acres, report the acreage only once. If chemicals were applied for different purposes, report the acres for each purpose on which the chemicals were applied. Report agricultural chemical expenditures in Section 30, Item 2. Estimate the acreage for spot treatments.

**SECTION 27 - RENEWABLE ENERGY**

**Item 1** - Report the following renewable energy producing systems, regardless of ownership:

**Solar panels** - panels designed to capture the sun's energy. Include photovoltaic systems which convert light from the sun into electricity, and thermal systems that passively generate electricity. Include water heaters and pumps. Report if there are solar panels on this operation owned by you or others used to produce electricity. Exclude low wattage solar panels that supply power for just one item, e.g. solar livestock fence or a solar security light.

**Wind turbines** - Devices which convert wind power into electricity. Include wind generators, wind power units, wind energy converters, and aero generators. Exclude windmills that do not produce electricity. Exclude wind powered water pumps.

**Methane digesters** - These are devices which capture biogas from the decomposition of manure, processing by-products, and other materials and convert it to methane.

**Geothermal/Geexchange system** - These are systems which capture heat stored in the earth to reduce the operational costs of heating and cooling.

**Small hydro system** - These are water driven systems which produce electricity from the gravitational force of falling or flowing water. Exclude water driven systems that only provide mechanical power, such as turning a grinding stone for a flour mill.

**Biodiesel production system** - Systems which produce nonpetroleum-based diesel fuel from vegetable oil or animal fats.

**Ethanol production system** - Systems which produce fuel by converting crops such as corn and sugarcane, biomass crops, or wood.

**Other, specify** - Report any other renewable energy system not listed. Exclude wood-burning stoves and densified biomass-producing systems.

**SECTION 28 - MACHINERY AND EQUIPMENT**

Report the total on this operation, or normally on this operation and normally used on this operation, in the first column. Do not report obsolete or abandoned equipment. In the second column, report only the number manufactured in the last five years.

**SECTION 29 - FARM LABOR**

Report the number of paid farm or ranch workers who performed agricultural labor on this operation in 2017. Include paid family members. Include workers such as hired bookkeepers, office workers, maintenance workers, etc., if their work was primarily associated with agricultural production on this operation.

**Item 1** - Include any short term or temporary workers who may have worked only a few days. Exclude contract labor.

**SECTION 30 - PRODUCTION EXPENSES**

Include farm production expenses paid by you or your landlord(s) for crops, livestock, or poultry produced on this operation in 2017 in Items 1 through 16. Include expenses associated with the generation of farm-related income reported in Section 32. Include expenses incurred in 2017 even if they were not paid in 2017. Estimate if exact figures are not known.

**Contract growers or custom feeders** - Do not report as production expenses the value of inputs provided by the contractor or livestock owner. Identify the items that were contractor provided in Section 22, Item 3.

**Item 2** - Include surfactants and oils and other products used to increase a chemical's effectiveness.

**Item 6** - Report the purchase cost of all grains, silage, hay, commercially mixed and premixed feeds, ingredients, concentrates, etc., fed to livestock or poultry on this operation. Contract livestock and poultry growers should not report the value of feed that was provided by a contractor. Do not report the value of feed raised and fed on this operation as an expense.

**Item 9** - Include the cost of repairs and upkeep of farm machinery, vehicles, buildings, fences, and other equipment used in the farm business. Include expenses for repairs to machinery and equipment used only for custom work if income from those machines is reported in Section 32. Exclude repairs to vehicles not used in the farm business. Exclude expenditures for the construction of new buildings or the cost of additions to existing buildings.

**Item 10a** - Include labor expense for the farm business for gross salaries and wages, commissions, dismissal pay, vacation pay, and bonuses paid to hired workers, family members, hired managers, administrative and clerical employees, and salaried corporate officers. Include cost for benefits such as employer's social security contributions, unemployment compensation, worker's compensation insurance, employer paid life and medical insurance expense, pension plans, etc.

**Item 10b** - Include the labor costs of workers furnished on a contract basis by labor contractor, crew leader, or cooperative for harvesting vegetables or fruit, shearing sheep, or similar farm activities. Report costs for repair work done by a construction contractor in Item 9. Report the cost of customwork or machine hire in Item 11.

**Item 12a** - Exclude rent paid for operator dwelling or other nonfarm property. Exclude the value of shares of crops or livestock paid to landlords.

**Item 13** - Report all interest expenses paid in 2017 for the farm business. Include interest paid on CCC loans in Item 13b. Exclude interest associated with activities not related to production of crops or livestock on this operation, such as land or buildings rented to others, packing sheds, or feed mills that provided services to others. Exclude interest on owner/operator dwelling where the amount is separated from the interest on the land and buildings on this operation.

**Item 14** - Include real estate property taxes you paid on the acres and buildings you owned and used in the farm business and property taxes on equipment or livestock. Exclude property taxes on land or buildings rented to someone else, or property taxes paid on other property not associated with the farm business.

**SECTION 31 - MARKET VALUE OF LAND, BUILDINGS, MACHINERY, AND EQUIPMENT**

**Item 1** - Estimate the value of the land, houses, barns, and other buildings for each of the three listed categories if they were sold in the current market. The real estate tax assessment value should not be used unless that value represents a full market value assessment and the land, house, and buildings could reasonably be assumed to be sold at that price. Do not deduct real estate marketing charges from your estimate. Report the total value, not the value on a per acre basis.

**Item 2** - The estimated market value refers to all machinery and equipment kept primarily on this operation and used for the farm business. Report the value in its present condition, not the replacement or depreciated value. Include mobile implements, hand tools, and office supplies. Permanently installed equipment or equipment that is an integral part of a building should be included as a part of the value of land and buildings and reported in Item 1.

**SECTION 32 - INCOME FROM FARM-RELATED SOURCES**

Report gross amounts received before taxes and expenses.

**Item 2** - Exclude rental income from nonfarm property.

**Item 3** - Include only those forest products cut from this operation, not items cut from other nonfarm timber acreage. Exclude income from a sawmill business. Report sales of Christmas trees, maple syrup, or sap products in Section 9.

**Item 7** - Include pollination fees.

**SECTION 33 - AGRICULTURAL ACTIVITY WITHIN THE BORDERS OF AMERICAN INDIAN RESERVATIONS, PUEBLOS, AND SERVICE AREAS**

Complete this section if any of your cropland or livestock was on an American Indian Reservation, Pueblo, or service area in 2017. Include trust acres used, as well as deeded land or land leased from others that was on the Reservation.

**SECTION 34 - CONCLUSION**

**Item 1** - If the agricultural activity on your operation might be identified under a different name than is printed on the front of the form (for example, a farm name or another partner), please provide these names.

**Item 2a** - All farms and ranches should receive their own forms to complete. If you operated another farm or ranch, indicate whether you received a form for that operation.

## INSTRUCCIONES para completar el CENSO DE AGRICULTURA DE PUERTO RICO: 2018 Su informe se necesita en o antes del 5 de febrero de 2019

### ¿Quién debe dar la información?

Se requiere respuesta de toda persona que reciba un formulario, incluyendo individuos, propietarios, inquilinos, sociedades, corporaciones, instituciones y aun de aquellos que ya no tienen fincas, para poder obtener un cuadro claro y preciso de la situación agrícola del país. Favor de completar el formulario que se le incluye y devuélvalo en el sobre pre-dirigido que se le provee. Si usted recibió formularios duplicados, favor de devolverlos también dentro de este sobre. Si necesita ayuda llame GRATUITAMENTE al 1-866-716-5655. Para servirle mejor, nuestro asistente le preguntará por el código de 11 dígitos, impreso en el formulario en el área de la dirección, directamente sobre su nombre. Necesitamos que nos devuelva TODOS los formularios aunque usted no haya trabajado en la agricultura.

**Devuelva su formulario completado en o antes del 5 de febrero de 2019.**

**Si usted nunca fue agricultor** – Escriba “Nunca he sido agricultor” debajo del área con su nombre y dirección y devuelva el formulario.

**Si usted se retiró de la agricultura en el 2018** – Complete el formulario para el tiempo trabajado durante el año. Escriba “Retirado en 2018” y anote la fecha en que se retiró en el área debajo de su nombre y dirección. Si conoce el nombre y la dirección de la persona que le sucedió, favor de anotarlo cerca de su nombre, en este formulario.

**Si usted es sólo un propietario, que NO trabaja la finca, o que no la trabajó en el 2018** – Escriba “No trabajo la finca” debajo del área con su nombre y dirección. Provea el nombre y la dirección de los arrendatarios en la Sección 1, partida 5 y devuelva el formulario.

**Si usted recibió más de un formulario para la misma finca** – Complete solamente UNO para la finca. Escriba “Duplicado” en el área de la dirección de cada formulario extra. Devuelva todos los formularios en un solo sobre, incluyendo el completado por usted. De esta manera podemos corregir nuestros registros.

**Si usted tiene más de una finca** – Debe haber recibido un formulario para cada finca o puede que haya recibido un solo formulario. Si este es el caso, favor llamar al 1-866-716-5655. No provea información para las otras fincas en un solo formulario.

**Operaciones en sociedad** – Llene un solo formulario censal para cada finca u operación agrícola realizada en sociedad con otros. Incluya en el mismo la parte que le corresponde a cada socio participante.

**¿Cómo hacer sus anotaciones en el formulario?** – Tenga la bondad de escribir sus respuestas en los espacios o encasillados correspondientes o en la línea correcta usando siempre las unidades de medir requeridas, tales como: toneladas, libras, quintales, etc. Anote cualquier explicación aclaratoria en el margen, al lado de la respuesta. Para aclarar dudas, llame gratuitamente al 1-866-716-5655.

Para toda anotación que requiere valor de venta anote dólares únicamente (sin centavos).

|                         |                 |
|-------------------------|-----------------|
| Por ejemplo, \$1,714.25 | Valor de ventas |
| debe ser informado      | (Dólares)       |
| como se indica          | → \$1,714       |

No incluya fracciones en sus respuestas. Las fracciones de cuerdas deben informarse en centésimos bajo la columna “Cent.” Si usted no recuerda cifras exactas, por favor anote su mejor estimado.

**¿Cómo llenar el formulario?** – Estas instrucciones están organizadas por secciones siguiendo el mismo orden que sigue cada sección de su formulario.

**Identificación del formulario** – Nos referimos al código de 11 dígitos impreso en el área con el nombre y la dirección.

**Nombre y dirección del agricultor** – Si es necesario, corrija su nombre y dirección. Verifique que el nombre y la dirección es el de la persona que está a cargo de la finca u operación agrícola. Haga los cambios necesarios en letra de molde.

Necesitamos saber la dirección postal o sea, la dirección donde recibe su correspondencia. Esta puede ser la de su residencia o la dirección de su oficina principal en la finca.

### SECCIÓN 1 – TOTAL DE CUERDAS EN EL 2018

Esta sección determina la cantidad de terreno para el cual usted debe informar las actividades agrícolas. Incluya en esta sección todo el terreno asociado con la siembra y/o crianza en cualquier época durante el 2018.

**Partida 1 – Todo terreno de SU propiedad** – Informe todo terreno que usted y/o su esposa(o) posea(n) bajo título de propiedad, hipoteca, contrato de compra, por ley de herencia sin dividir o que era propiedad de la sociedad, corporación u otra organización para la cual usted está llenando este formulario censal.

**Partida 2 – Todo terreno rentado (o arrendado) DE OTROS - Informe todo terreno rentado por usted. Incluya:**

- Terreno rentado de otros mediante el pago en efectivo.
- Terreno trabajado a base de compartir la producción (a medias).
- Terreno (propiedad de otro) pero que usted utiliza libre de costo.
- Terreno del gobierno rentado o arrendado a base de cuerdas.

**Partida 3 – Todo terreno rentado (o arrendado) A OTROS** - Incluya en la partida todo terreno rentado a otros para cualquier otro propósito, siempre y cuando el terreno sea parte del total incluido en las partidas 1 y 2.

**Partida 4 – Cuerdas en esta finca** – Esta es toda la tierra que usted trabajó durante el 2018. El resto del formulario deberá cubrir solamente aquellas operaciones efectuadas en las cuerdas reportadas en la partida 4.

Si usted cosechó algún cultivo o crió algunos animales o aves en “esta finca” en el año 2018 – usted debe de completar el formulario del censo.

Si usted no estaba envuelto en ninguna actividad agrícola – en la primera página, cerca de la dirección, dé una breve explicación tal como “retirado, vendió la finca”, etc., y devuelva el formulario en el sobre que se le incluye.

**Si la partida 4 es cero (“0”) cuerdas en esta finca y:**

Todas sus tierras fueron rentadas o (arrendadas) por otra persona o si fueron operadas por un medianero - usted no tiene que completar TODO el formulario censal. Pase a la Sección 1, partida 5, Terreno rentado A Otros. Escriba el nombre, la dirección y la cantidad de cuerdas de la persona(s) que rentó (arrendó) su tierra o que la operaba a medias. Devuelva el formulario en el sobre que se le incluye.

**Partida 5 – Terreno rentado “A Otros”** – Provea el nombre y la dirección de los arrendatarios.

**Partida 6 – Localización de la actividad agrícola para esta finca** – En esta partida queremos saber el/los barrio(s) y municipio(s) donde estuvieron localizadas sus operaciones agrícolas en el 2018. Escriba el barrio y municipio principal (la porción que le produjo la mayoría de sus ventas) en la primera línea de esta partida. Anote cualquier otro municipio(s) en las líneas correspondientes. Por favor, anote la cantidad de cuerdas para cada localización. La suma total de cuerdas y centésimas reportadas tiene que ser igual a la reportada en la partida 4 “Cuerdas en esta finca”.

### SECCIÓN 2 – USO DE TERRENO

#### Partida 1 – Terreno cultivable

- Terreno cultivado – Incluya todas las cuerdas de las que se cosechó algún cultivo durante el año. Incluya el área en árboles, viveros e invernaderos (umbráculos). Además todo terreno de donde se cortó pasto para alimentar ganado. Si se cosecharon dos o más cultivos de las mismas cuerdas, estas cuerdas deberán ser informadas sólo una vez.
- Terreno cultivable usado sólo para pastoreo – Aunque usado para pastar, este terreno puede usarse para sembrar en cualquier momento.
- Terreno cultivable – No en uso, bajo tratamiento para mejorar el suelo.
- Terreno cultivable – Terreno donde se perdieron las cosechas debido a sequías, huracanes, plagas, etc.
- Terreno en descanso – Terreno cultivable que no está en uso, (barbechos).

**Partidas 2 a la 4 – Terreno no cultivable** – Cualquier terreno en pasto que NO ha sido cultivado y que no es considerado como pastos naturales deberá ser informado en estas partidas. También se incluyen terrenos con árboles, bosques y malezas así como terrenos ocupados por edificios, lagos, caminos, charcas, etc.

**Partida 5 – Total de cuerdas en esta finca** – Esta partida debe ser igual a la suma de las cantidades que anotó en las partidas 1 a la 4. Además, debe ser igual al total que se anotó en la Sección 1, partida 4.

**Partida 5a – Terreno ubicado en una Reserva Agrícola** – Clasificación de “Reserva Agrícola” según definido por la ley, ya sea del Estado Libre Asociado de Puerto Rico o por ley Federal.

### **SECCIÓN 3 – RIEGO**

Se requiere información sobre riego en esta finca durante el año. Si usó riego durante el 2018, indique el tipo principal de riego utilizado. Utilizando cualquiera de las dos medidas, galones o metros cúbicos, provea su mejor estimado sobre la cantidad de agua utilizada durante el año. Informe las cuerdas (no el número de veces que se regaron) que fueron regadas utilizando un sistema público y las cuerdas regadas utilizando un sistema privado. Si utilizó un sistema privado, marque la fuente principal de abasto de agua para regar.

### **SECCIONES 4 a la 11 – SIEMBRAS Y COSECHAS**

Informe sólo siembras y cosechas producidas en las cuerdas y centésimos que usted reportó en la Sección 1, partida 4 “Cuerdas en esta finca”. No incluya ninguna otra cosecha(s) producida en tierras rentadas o arrendadas a otros o tierras trabajadas a medias por otros durante el 2018.

Cuerdas cosechadas – Anote las cuerdas cosechadas durante el año 2018 en las columnas correspondientes.

Cantidad cosechada – Las unidades de medir impresas en el formulario son aquellas más comúnmente usadas en Puerto Rico. Si usted usa una unidad de medida diferente a la impresa en el formulario, por favor convierta dicha unidad a la unidad de medida usada en el formulario para indicar la cantidad cosechada. Más adelante se dan varios ejemplos de cómo informar los cultivos cosechados y las unidades de medidas usadas.

### **SECCIÓN 4 – GRANOS, LEGUMBRES Y CAÑA DE AZÚCAR**

Es práctica común sembrar habichuelas y maíz, café y plátanos, u otros cultivos en el mismo terreno. Es importante que anote el área total para cada producto cosechado en la Sección 4, pero cuando llene la Sección 2, Uso de Terreno, informe las cuerdas intercaladas sólo una vez.

Por ejemplo, si cuatro cuerdas fueron sembradas de maíz y habichuelas verdes, anote cuatro cuerdas en la partida 3 para maíz y cuatro cuerdas para habichuelas verdes. En la Sección 2, partida 1a, sólo debe informar cuatro cuerdas, ya que ambos productos fueron cosechados en el mismo terreno.

### **SECCIÓN 5 – CAFÉ, PIÑAS, PLÁTANOS Y GUINEOS**

Informe el número de arbustos de café o de matas de piña, plátanos y guineos, en producción y aquellos nuevos, que tiene en su finca. Informe el café en quintales, las piñas en toneladas, los plátanos y los guineos en millares. Si fuese necesario, use los siguientes factores de conversión:

1 tonelada (tons) = 2,000 libras (lbs)  
1 quintal (qq) = 100 libras (lbs)

### **SECCIÓN 6 – HENO Y COSECHAS DE FORRAJE**

Informe en la partida 2 el total de cuerdas cosechadas así como las cuerdas bajo riego en el 2018. Informe las cuerdas cosechadas, el total de la cantidad cosechada y la cantidad cosechada para uso de esta operación para el tipo de heno seco según listado en la partida 3. Si hubiese alguna otra clase de heno seco, anote la información en la línea “Otro heno seco.” Si es necesario, convierta “pacas” a libras. Si cosechó pasto verde o heno para forraje de las variedades listadas, reporte las cuerdas y libras en la línea 12. Reporte cualquier otra cosecha de pasto verde y ensilaje en la línea 13. Incluya el total de cuerdas en pasto que ya fue cortado para alimentar su propio ganado. Reporte el valor de ventas por todo el heno seco, pasto verde, y ensilaje realizado en esta finca en el 2018.

### **SECCIÓN 7 – PLANTAS ORNAMENTALES, FLORES, GRAMAS, SEMILLAS Y ARBOLITOS**

Informe el área total y el área bajo riego dedicadas a las plantas ornamentales, flores, gramas, semillas y arbolitos en la partida 2. Informe el total de cuerdas (cuerdas enteras y centésimos) de campo abierto y pies cuadrados bajo protección (vidrio, sarán o plástico) para el área total y el área bajo riego. En la partida 3, informe el área usando pies cuadrados bajo protección y/o cuerdas de campo abierto y el valor de ventas para cada cultivo listado que cultivó en el año 2018.

### **SECCIÓN 8 – HORTALIZAS Y MELONES**

Informe el total de cuerdas cosechadas en la partida 2. Si se utilizó un sistema de riego, informe el área bajo riego también en la partida 2. Esta sección se refiere a las hortalizas cosechadas tradicionalmente, NO en hidropónicos. En la partida 3, anote las cuerdas cosechadas en la columna 1, la cantidad cosechada (lbs.) en la columna 2 y el valor de ventas de ese cultivo en la columna 3.

### **SECCIÓN 9 – SIEMBRAS HIDROPÓNICAS**

Esta sección se refiere a la producción de hortalizas o cualquier otro producto utilizando métodos hidropónicos, normalmente bajo protección o umbráculos. Informe los pies cuadrados y la cantidad cosechada según se pide en la partida 3. Informe el valor de ventas para todos los cultivos hidropónicos en la partida 4.

### **SECCIÓN 10 – FRUTAS**

Marque el encasillado apropiado para indicar si usted cultivó o no, frutas o cocos. Si contestó que “Sí”, complete la partida 2 anotando el total de cuerdas sembradas en árboles frutales (incluyendo palmas de cocos y las enredaderas) y el total de estas cuerdas bajo riego en el 2018. Siga las instrucciones que se le dan.

**Partida 3, columnas 1 a 5** – Para cada cultivo, anote el número de árboles o plantas, área sembrada, cantidad cosechada y valor de ventas. Columnas 1 y 2 – reporte el total de árboles nuevos (no productivos) y el total de árboles productivos que hay en esta finca. Columna 3 – anote el área sembrada de ese cultivo. Si dos cosechas fueron sembradas juntas en las mismas cuerdas y al mismo tiempo, anote el total de cuerdas en que se están produciendo las frutas. Por ejemplo: si un agricultor tiene 20 cuerdas sembradas en árboles de chinás y en las mismas 20 cuerdas tiene café sembrado bajo la sombra de los árboles de chinás, anote 20 cuerdas en la línea de naranjas (chinás). Además 20 cuerdas deben anotarse en la partida café bajo sombra de la Sección 5. Columna 4 – informe la cantidad cosechada en el 2018, reportando en cientos o libras como se indica.

### **SECCIÓN 11 – RAÍCES Y TUBÉRCULOS (FARINÁCEOS)**

Si usted cosechó raíces y/o tubérculos, informe el total de cuerdas utilizadas para estos cultivos así como las cuerdas bajo riego en el 2018. Por cada cultivo cosechado, informe las cuerdas cosechadas, la cantidad cosechada (en quintales) y el valor de ventas. La partida “Otros” podría incluir papas, chayotes, etc. No incluya plátanos ni guineos. Estos son incluidos en la Sección 5.

### **SECCIONES 12 a la 16 – GANADO, AVES, CERDOS,**

#### **ACUICULTURA, OTROS ANIMALES Y SUS PRODUCTOS**

INFORME todos los animales que había en la finca el día 31 de diciembre de 2018; aquellos que eran de su propiedad y los que usted cuidaba para otros.

NO INFORME animales que se mantenían en terrenos que usted rentó a otros en cualquier época durante el año. Por ejemplo: 1) Animales vendidos a otros lugares, 2) Animales que eran de su propiedad pero que estaban siendo cuidados y fueron vendidos en otra finca o lugar, propiedad de otra persona. 3) Animales comprados y revendidos antes de los 30 días de haber sido comprados. Este tipo de compra y venta son consideradas como transacciones de “negociante.”

### **SECCIÓN 12 – GANADO VACUNO (LECHE Y CARNE)**

Informe todo ganado vacuno, ya sea lechero o de engorde, que usted vendió durante el año y el que poseía el día 31 de diciembre de 2018. Informe como vacas de engorde, las vacas que no fueron usadas para producir leche. Las vacas jóvenes son frecuentemente llamadas novillas; cuéntelas como vacas si han parido por primera vez. Al referirnos a novillas o becerras las definimos como ganado hembra que aún no ha parido.

**Inventario** – Note que su inventario debe ser informado en las partidas 2, 3 y 4. Observe que la suma de las cantidades anotadas en esas partidas debe ser igual a la cantidad total reportada en la partida 5. Informe por separado el ganado de leche y el de carne o engorde según se indica.

**Partidas 6 y 7 – Ventas** – Reporte el ganado vacuno vendido en el 2018 o llevado de esta finca o vaquería y el valor de ventas. Informe como vendido todo el ganado llevado de esta finca o vaquería en el 2018, bien que haya sido vendido, negociado a cambio de otro producto o en pago de servicios recibidos. En la partida 6 informe todas las becerras y becerros menores de 8 meses y/o de menos de 500 libras de peso, vendidos durante el año. En la partida 7, informe todo ganado mayor de 8 meses y/o de 500 libras o más. No incluya animales comprados y revendidos antes de los 30 días.

**Partida 8 – Cuartillos** – En Puerto Rico, al litro se le llama a veces “cuartillo”. Anote la cantidad de cuartillos de leche que se entregaron durante el año. Debe informarse el valor total de la venta de estos productos antes de descontarse el costo de transporte y cuotas cooperativas.

### **SECCIÓN 13 – AVES DE CORRAL**

Informe cualquier ave que usted vendió durante el año y las que tenía en esta finca el día 31 de diciembre de 2018, en las partidas 2 a la 8 de esta sección, según se indica.

Incluya los pollos mantenidos bajo contrato y que fueron transportados de la finca durante el año. Su mejor estimado de la cantidad vendida sería aceptado para informar las aves que han sido criadas bajo contrato. En la partida 9 informe el número de aves incubadas en la finca. Informe la cantidad de docenas de huevos de mesa o huevos fértiles vendidos o llevados de la finca durante el año, en las partidas 10a y 10b.

**Valor de ventas** – Informe el valor en el mercado de cada categoría de aves y huevos vendidos durante el año. NO descunte los impuestos o cualquier otro gasto de producción o mercadeo tales como alimento, electricidad, trabajo o transporte. Dé su mejor estimado del valor en el mercado de los pollos o huevos producidos bajo contrato y que se acarrearon de esta granja, y la parte que le toca al arrendador en la venta de los pollos y los huevos.

#### **SECCIÓN 14** – CERDOS Y CERDITOS

Informe los cerdos y cerditos de todas las edades que había en esta finca el día 31 de diciembre de 2018, así como el número vendido durante el año y su valor bruto de ventas.

**Inventario** – Note que su inventario debe ser informado en las partidas 2a a la 4. Observe que la suma de las cantidades anotadas en las partidas 2a y 2b más las partidas 3a y 3b debe ser igual a la cantidad reportada en la partida 4.

**Partida 2** – Cerdos y cerditos para crianza – En la partida 2 informe por separado los padrotes, cerdas y los críos de todas las edades, los cuales serán retenidos para crianza.

**Partida 3** – Cerdos y cerditos para venta – Informe el número de cerdos y cerditos en la finca y el total vendido durante el año.

**Partida 4** – Indique la cantidad total de cerdos y cerditos que hubo en la finca el 31 de diciembre de 2018.

**Valor de ventas** – Informe el valor en el mercado de los cerdos vendidos en el año, según las categorías indicadas en esta sección. El valor de estos animales debe ser el valor bruto antes de descontar el costo de los alimentos, cerdos comprados, gastos de mercadeo, etc. Si no sabe el número vendido o el precio de la venta, dé su mejor estimado.

#### **SECCIÓN 15** – ACUICULTURA

Informe en esta sección peces o cualquier producto de acuicultura, tales como: tilapia, camarones, langostinos, etc., que usted tenía o vendió durante el año. Reporte el número de charcas y las cuerdas que ocupan en la partida 2. En la partida 3 indique el total de tanques y piscinas que usó sobre el terreno. En la partida 4, indique que tipo de producto de acuicultura tenía o vendió durante el año. Reporte la cantidad vendida en libras (lbs.) o en número total de peces en caso de que sean ornamentales y el valor bruto en el mercado de cada producto, en las columnas correspondientes. Dé su mejor estimado para el valor de las ventas.

#### **SECCIÓN 16** – OTROS ANIMALES Y SUS PRODUCTOS

Informe los animales listados y cualquier otro animal de la finca que no haya sido reportado en secciones anteriores. Incluya todos los animales que estaban en esta finca el día 31 de diciembre de 2018 en la columna 1 y el número vendido durante el año en la columna 2 y el valor de ventas en la columna 3. Si se especifica miel de abejas, anote los galones vendidos y el valor de ventas de miel producida en Puerto Rico únicamente.

**Valor de ventas** – El valor de venta de estos animales debe ser el valor bruto antes de descontar el costo de los alimentos, animales comprados, gastos de mercadeo, etc. Si no sabe el precio de venta, dé su mejor estimado.

#### **SECCIÓN 17** – AGRICULTURA ORGÁNICA

Complete esta sección si se vendió cualquier producto identificado como orgánico en el 2018. Informe si la finca, o parte de la finca, está certificada como orgánica por el Departamento de Agricultura de los Estados Unidos o por un gobierno local u organización no gubernamental.

#### **SECCIÓN 18** – EMPLEADOS AGRÍCOLAS

Informe todos los obreros empleados (incluyendo miembros de su familia si se les pagó jornales) que trabajaron directamente en las operaciones agrícolas en esta finca por paga durante el año. Informe cada persona sólo una vez, aunque él/ella haya trabajado en diferentes ocasiones durante el año censal. También incluya aquellos trabajadores que llevaron los libros de cuentas para la operación agrícola.

NO INCLUYA:

1. Trabajadores que sólo hicieron trabajo de construcción u otro trabajo no relacionado con la producción de cosechas y crianza o cuidado de animales.
2. Empleados de un contratista, cooperativa o negociante que llevó a cabo trabajo por contrato en esta finca. Incluya estos en la sección 21, partida 10, "Trabajo por contrato". Es importante diferenciar entre obreros que usted empleó y que trabajaron para usted durante el año, y trabajadores por contrato y los medianeros.

Un agregado es una persona que vive en la finca. A él/ella se le ha dado una casa para vivirla y a veces un predio de terreno para que lo trabaje. Un medianero o aparcerero es una persona que trabaja el terreno mediante un arreglo con el operador de la finca (agricultor) y el cual recibe una parte de las cosechas, ganado, aves o cualquier producto agrícola a cambio de su labor.

En la partida 2, combine el número de familias de agregados y aparceros que viven en esta finca. Anote el número de familias en esta finca al 31 de diciembre de 2018.

#### **SECCIÓN 19** – PROGRAMAS AGRÍCOLAS, FEDERAL Y LOCAL

Complete esta sección SÓLO si su finca participa de estos programas. No incluya dinero recibido por préstamos que usted tendrá que pagar más adelante.

**Partida 2a.** – Informe todas las cuerdas cubiertas al 30 de septiembre de 2018 por los programas Federales CRP, WRP, FWP, y CREP y los pagos recibidos por ellos.

**Partida 2b.** – Informe todas las cuerdas cubiertas bajo cualquier póliza aseguradora de cultivos en el 2018.

**Partida 2c.** – Informe todos los pagos directos del gobierno Federal según definido bajo la Ley Agrícola del 2014. Si su finca participa en programas de subsidio salarial ofrecido por el Departamento de Agricultura del Estado Libre Asociado de Puerto Rico, indique la cantidad recibida durante el año en la partida 2f.

#### **SECCIÓN 20** – INGRESO DE ACTIVIDADES RELACIONADAS A LA FINCA

**Instrucciones generales** – Incluya en esta sección cualquier otro ingreso recibido por usted procedente de fuentes relacionadas con la finca. Estas anotaciones deben ser el ingreso bruto antes de descontar los gastos por servicios, impuestos, seguros, etc.

**Partida 1** – Ingresos por servicios agrícolas provistos a otros – Anote el ingreso bruto recibido por servicios agrícolas prestados por usted a otros durante el año. Incluya pagos en EFECTIVO recibidos por el arado de la tierra, fumigación o cualquier otro trabajo realizado en otras fincas por el cual usted recibió pago.

**Partida 2** – Ingresos por agroturismo y servicios recreativos – Anote el ingreso bruto recibido por usted durante el año por servicios recreativos provistos a otros, tales como uso de los terrenos para cazar, pescar, acampar, alojamiento, giras u otros servicios recreativos.

**Partida 3** – Ingresos por rentar terrenos agrícolas a otros – Anote el ingreso bruto en EFECTIVO recibido por usted por la renta de terrenos agrícolas durante el año, incluya los pagos recibidos en efectivo pagados por día, semana, mes o anualmente, por el uso del terreno para mantener ganado o por cualquier otro arreglo para uso del terreno agrícola.

**Partida 4** – Ingresos por venta de subproductos de finca – Anote el ingreso bruto recibido durante el año por la venta de abonos naturales tales como: gallinaza, pulpa de café, composta, estiércol o por la venta de espeques u otros productos de finca.

#### **SECCIÓN 21** – GASTOS DE PRODUCCIÓN

En las partidas 1 a la 19, incluya los gastos incurridos por usted para la producción de cosechas, crianza de aves, cerdos, ganado y la elaboración de otros productos agrícolas en esta finca durante el año 2018. Sus mejores estimados son aceptables, si usted no sabe las cantidades exactas. Excluya gastos no relacionados a las operaciones de la finca.

**Partida 1** – Animales – Compra de cerdos, ganado, aves u otros animales criados o alimentados en esta finca. Informe el costo estimado cuando fueron traídos a esta finca. No incluya el costo de animales comprados y luego revendidos antes de los 30 días.

**Partida 2** – Alimentos – Informe el costo estimado de todos los alimentos que fueron suministrados por otros y usados en esta finca, incluyendo contratos para crianza de pollos. Incluya el costo de alimentos que se le dio al ganado mientras se mantenía bajo permiso en terreno para pastoreo, pero no incluya el costo de alimento que se le dio al ganado que fue alimentado fuera de esta finca.

**Partida 3** – Medicamentos y drogas – Incluya medicinas compradas y administradas por usted al ganado y a las aves. No incluya los gatos de veterinaria.

**Partida 4** – Servicios de veterinaria – Estos son los gastos incurridos por pagos por servicios profesionales al veterinario. No incluya medicinas compradas por usted sin la autorización del veterinario. Incluya el costo de las medicinas y drogas administradas por el veterinario.

**Partida 6** – Semillas – Compra de bulbos, plántulas, etc. No incluya el valor de semillas que se produjeron en esta finca.

**Partida 7** – Abonos comerciales – Compra de abonos para esta finca. No incluya el costo de abonos comerciales o fertilizantes usados en terreno rentado a otros o en terreno trabajado por otros.

**Partida 8** – Gasolina, aceite y otros combustibles – Incluya sólo costos incurridos en combustibles para maquinarias y equipos utilizados en la finca.

**Partida 9** – Jornales y salarios pagados a empleados de la finca – Informe la cantidad bruta pagada en salarios y jornales a los trabajadores antes de hacer descuentos, por cualquier trabajo relacionado con las operaciones agrícolas en esta finca. Incluya en esta partida el Seguro Social y cualquier otro impuesto.

**Partida 10** – Trabajo por contrato – Incluya gastos por trabajo de la finca hecho por contratistas, corporaciones, etc., en base de contrato. No incluya gastos por trabajo hecho a cambio de otro trabajo o por trabajo doméstico o gastos incurridos en nuevas construcciones o en reparaciones hechas por empleados contratados para estos propósitos.

**Partida 11** – Servicios agrícolas especializados – Informe el alquiler de maquinaria y mano de obra para tareas específicas como arado, siembra, recogido de cosechas, etc. **NO INCLUYA** costos relacionados con aplicaciones de abono ni agroquímicos – esos costos deben ser reportados en las partidas 7 y 12 de esta sección.

**Partida 12** – Productos químicos agrícolas – Informe el costo total de productos químicos que se compraron durante el año, aun cuando se hayan hecho pagos parciales y aunque los productos químicos no se hayan usado en su totalidad. No incluya el costo de aplicar los productos químicos, de rentar la maquinaria, ni el costo de empleados bajo contrato.

**Partida 13** – Reparación y mantenimiento de maquinaria – Informe los gastos de reparación y mantenimiento de maquinaria y equipo relacionado con la finca.

**Partida 14** – Reparación y mantenimiento de edificios – Informe los gastos de reparación y mantenimiento de edificios relacionados con la finca.

**Partidas 15 y 16** – Consumo de agua y electricidad – Informe sólo los costos de agua y electricidad relacionados con la operación agrícola. **NO INCLUYA** costos de agua y electricidad del hogar.

**Partida 17** – Interés sobre deudas – Reporte todos los gastos de interés relacionados con la finca que fueron pagados en 2018. Excluya los intereses pagados por actividades no relacionadas con la producción de cultivos o animales en esta finca.

**Partida 19** – Todo otro gasto – Incluya cualquier gasto relacionado con la finca que no haya sido listado previamente.

#### **SECCIÓN 22** – ABONOS, CAL, INSECTICIDAS U OTROS QUÍMICOS USADOS

Informe las cuerdas sólo una vez en relación con cualquier abono o producto químico que se les haya aplicado, a pesar de que se le haya aplicado más de una vez.

**Partida 2** – Terreno cultivable tratado con abonos comerciales – Anote el total de cuerdas abonadas sólo una vez, sin importar el número de aplicaciones que se le dio al terreno. Incluya aquí las aplicaciones de cal, fosfato de roca y yeso.

**Partida 3** – Terreno en pastos tratado con abonos comerciales – Aquí también debe anotarse el total de cuerdas abonadas sólo una vez, sin importar el número de aplicaciones que se le dio al terreno. Incluya aquí las aplicaciones de cal, fosfato de roca y yeso.

**Partida 4** – Terrenos cultivables o en pastos tratado con estiércol, composta u otros productos orgánicos – Anote las cuerdas abonadas con estiércol de vaca, gallinaza, pulpa de café o cualquier otro fertilizante natural. Incluya las cuerdas sólo una vez.

**Partida 5** – Terreno cultivable o en pastos tratado con productos químicos – En esta partida anote el número de cuerdas tratadas con productos químicos, para controlar los insectos en los cultivos, las plagas, las yerbas y los nemátodos. Las mismas cuerdas pueden ser anotadas para la aplicación de diferentes químicos. Sin embargo, no anote las cuerdas más de una vez para el mismo producto químico, no importa el número de aplicaciones.

#### **SECCIÓN 23** – VALOR EN EL MERCADO DE LA TIERRA Y LOS EDIFICIOS

Informe su mejor estimado del valor en el mercado para el total de cuerdas reportado en la sección 1, partidas 1, 2 y 3 en la página 2. Incluya además el valor estimado de todos los edificios, entre ellos su vivienda.

#### **SECCIÓN 24** – MAQUINARIA, EQUIPO Y EDIFICIOS

En las partidas 1 y 2 informe el número total de maquinaria, equipo, edificios y estructuras que estén en función y localizados en la finca al 31 de diciembre de 2018.

#### **SECCIÓN 25** – PRÁCTICAS

Partida c) – Incluya agua utilizada para cualquier propósito agrícola, riego, limpieza, alimentar ganado, etc.

#### **SECCIÓN 26** – PRÁCTICAS DE MERCADEO DE ALIMENTOS

Incluya solamente alimentos vendidos directamente para el consumo humano, tales como verduras, frutas, huevos, leche, ganado, pollos, cerdos, pavos, etc. Excluya cultivos, ganado, aves de corral u otros productos que haya comprado y revendido en un plazo de 30 días. Excluya productos no comestibles como heno, flores cortadas, plantas ornamentales, etc.

#### **SECCIÓN 27** – TIPO DE ORGANIZACIÓN

Use las siguientes definiciones para que pueda determinar el tipo de organización apropiado para su operación agrícola. Marque la definición que mejor describa el tipo de organización de su finca.

**Finca Individual o de familia (un solo propietario)** – Este tipo de organización está controlada y operada por un individuo o una familia y no está incorporada ni es operada bajo un convenio de sociedad.

**Sociedad** – Fincas operadas por dos o más personas bajo un acuerdo de compartir las aportaciones (capital y trabajo), decisiones, gastos y beneficios. Se incluyen las sociedades de familia pero se excluyen las fincas operadas por esposos y esposas.

**Corporación** – Una agrupación organizada y autorizada por ley que funciona como un solo individuo aunque consiste de dos o más personas y está dotada de derechos y responsabilidades legales. Incluye corporaciones de familia pero no cooperativas. Si el terreno que se está utilizando para actividades agrícolas ha sido rentado de una corporación sin participación corporativa en la operación, no marque esta partida como una corporación.

**Otro** – Algunos ejemplos de otros tipos son:

- Sucesión** – Propiedad sin dividir y que aún está sujeta a las condiciones del testamento.
- Fideicomiso** – La finca está siendo operada por una persona que actúa como fideicomisario para otra persona menor de edad, o recluida en un hospital o institución, o que no le sea posible operar la finca por sí misma.
- Cooperativa** – La finca es operada en forma de cooperativa. Se define como empresa incorporada, o sin incorporar, creada y formada en conjunto por sus socios.
- Institución** – Finca operada como parte de una escuela, prisión, hospital, organización religiosa, etc.
- Estación experimental** – La finca es operada principalmente para fines experimentales, ya sea por medio de una agencia pública o privada, y tal vez, pero no necesariamente, en conexión con una entidad educativa.

#### **SECCIÓN 28** – PRODUCCIÓN DE ENERGÍA EN LA FINCA

Anote todos los tipos de producción de energía renovable que existían en la finca durante el 2018. Si hay un arreglo con otros sobre derechos al viento en el terreno de esta operación, indíquelo en la partida 2.

#### **SECCIÓN 29** – CARACTERÍSTICAS DEL AGRICULTOR

Las partidas en la Sección 29 se refieren a la persona que es propietario, que opera o administra la finca, o al socio mayor, si se trata de una sociedad.

**Partida 1** – Anote el número de personas que diariamente toman las decisiones en la finca. No incluya menores trabajando en la finca.

**Partida 2** – Conteste las preguntas para hasta 3 agricultores cuando aplique la situación. Si hay más de 3 personas tomando decisiones, sólo conteste para tres de ellas.

**Partida 2b** – Sexo – Marque (X) el encasillado apropiado.

**Partida 2c** – La ocupación principal es aquella donde el agricultor trabaja la mayor parte del tiempo. Si el agricultor pasa la mayoría de su tiempo trabajando para otro agricultor, esto se considera como horas dedicadas a otro trabajo.

**Partida 2e** – Educación – Marque (X) el encasillado que indica el nivel más alto de educación que usted completó.

**Partida 2f** – Trabajo fuera de la finca – Marque (X) el encasillado que indica el número total de días que usted trabajó fuera de la finca por lo menos 4 horas diarias, por paga, en el año 2018.

**Ingreso**

**Partida 3** – Informe el número de familias que se beneficiaron del ingreso neto de esta finca en el 2018. Por ejemplo, un productor puede proveer apoyo financiero a sus padres que viven aparte de él.

#### **SECCIÓN 30** – VERIFICACIÓN

**Partida 1** – Si esta finca puede ser identificada bajo otro nombre diferente del impreso en la página 1 de este formulario (por ejemplo: Nombre de finca, tal como Hacienda, Estancia, etc. o bajo otra persona), favor de proveer nombre y dirección.

**Partida 2** – Finca Adicional – Informe el nombre y número de teléfono de cualquier otra finca, de la cual usted está a cargo y para la cual NO recibió el formulario censal.

**Partida 3** – Persona que completó el formulario – En los espacios provistos, escriba su nombre y los apellidos en letra de molde, su número de teléfono y la fecha (día, mes y año) en que completó este formulario. Se le agradece su cooperación y el tiempo tomado para leer y seguir estas Instrucciones. Recuerde que si necesita ayuda puede llamar gratis al 1-866-716-5655.





## INSTRUCTION BOOKLET 2018 IRRIGATION AND WATER MANAGEMENT SURVEY



### Completing the 2018 Questionnaire

Everyone who receives a questionnaire must fill it out and return it, including nursery, greenhouse, and other horticultural crop producers.

Use a **blue** or **black** ball point pen.

Round to whole acres.

### If You Received More than One Questionnaire for the Same Operation

Duplicate form(s) — If you received extra report forms for the SAME farming operation, return all report forms in the same envelope as the completed report. Make all entries clear and easy to read.

Irrigation is the application of water by any artificial or controlled means, such as sprinklers, furrows and ditches, spreader dikes, flooding, hand watering, or subirrigation pipes. Include the area where lagoon waste water from livestock operations was distributed by a sprinkler or flood system.

Include area in the open and under protection. Under protection includes nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses. Crops covered only temporarily to be further grown in the open should not be included for area under protection.

### General

Refer to the instructions below for completing your questionnaire. The enclosed census follow-on questionnaire was mailed to producers and growers throughout the United States. Because it is meant for use in all parts of the country, it may contain items and inquiries which do not apply to your operation. In this case, mark the "No" or "None" box and go on to the next item or section.

### Partial Year Operation

If you stopped farming during 2018, complete the questionnaire for the portion of 2018 that you did farm. Write "Stopped farming in 2018" and the date you stopped farming below the address area. Mail the completed questionnaire in the return envelope.

### Partnership Operations

Complete only ONE questionnaire for a partnership operation and include all partners' shares on the same questionnaire. If two or more questionnaires were received for the partnership, see instruction on "If You Received More Than One Questionnaire for the Same Operation" above.

### How to Enter Your Responses on the Questionnaire

Please enter your answers in the spaces provided and in the units requested, i.e., number of acres, dollars, percent, etc. Mark all applicable Yes/No boxes with an "X".

### Instructions by Section

Complete Sections 1 and 2 of the questionnaire. If you did not irrigate or water any cropland (including nursery and greenhouse area in the open and under protection), pastureland, or rangeland in 2018, complete Sections 1 and 2 and then go to Section 16 on the back page and complete the remainder of the questionnaire.

### Section 1 – Acreage in 2018

Report land owned, rented, or used by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. If you did not operate any land in 2018, go to Section 18 on the back page and complete the remainder of the questionnaire.

**Include** all land, regardless of location or use; cropland, pastureland, rangeland, woodland, idle land, **greenhouses or other area under protection**, farmsteads, Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP). All responses in this section should be rounded to whole acres. Area under protection less than one acre should be reported as one acre. **Exclude** land used under a grazing permit.

**Item 1** - Report all land owned in 2018 by you and/or your spouse, or by the partnership, corporation, or organization named on the questionnaire. Include all fields and tracts of cropland, pastureland, woodland, wasteland, idle land, and farmsteads.

**Item 2** - Report all land rented or leased from others on shares, cash rent, used rent-free, in exchange for services, for taxes, etc., regardless of location, even if used for part of the year. **Exclude** land used on a per-head basis under a grazing permit or animal unit month (AUM) basis.

**Item 3** - Report all land rented or leased to others regardless of the purpose. Include land that was rented and subleased to others.

**Item 4** - The acres in item 4, **Box A**, should equal item 1 plus item 2 minus item 3. All responses to this questionnaire should refer to these **total acres in this operation**. It is important that this number is correct as it is used to establish consistency throughout the questionnaire. The acreage of this operation must equal the acreage reported in Section 2, item 4, column 1, **Box B**. After completing Section 1, if the acres in Item 4, Box A equal zero and you did not raise or own any livestock, aquaculture, or poultry in 2018, write a description of the land use in the space by item 4. Complete Section 18 and mail the questionnaire in the return envelope.

## Section 2 – Land in 2018

Account for total acres in **this operation** in column 1 and irrigated land in **this operation** in column 2. If the same land had more than one use in 2018, report that land only once in the first use that applies. Irrigation refers to the one or more applications of water to land or crops by any artificial or controlled means, such as sprinklers, furrows and ditches, spreader dikes, flooding, hand watering, or subirrigation pipes. Include the area where lagoon waste water from livestock operations was distributed by a sprinkler or flood system.

Include area in the open and under protection. Under protection includes nursery, greenhouse, floriculture, sod, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, “tunnel” protection and hoop houses. Crops covered only temporarily to be further grown in the open should not be included for area under protection.

In addition to fully irrigated land, report as irrigated any land to which partial, supplemental, or semi-irrigation was applied in column 2. Also include any acreage which received only preplant irrigation (watered before planting). Hayland, pastureland or rangeland should be reported as irrigated if spring flood water was spread by man-made canals, ditches, spreader dikes, pipes, or other water works. Include acres where lagoon wastewater from livestock operations was used for irrigation. Include area under protection that was hand watered.

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For conservation program land, if the operator was allowed to cut conservation program land for hay, then this land should be considered cropland harvested; if it was grazed, it should be considered other pasture and grazing land. Except for disaster designation uses, almost all conservation program land will be reported in item 1c, cropland not harvested or grazed.

**Item 1a** - Include as cropland harvested in the open: field crops, hay and forage, land in vegetables, citrus groves, vineyards, berries, nuts, orchards, Christmas trees (whether harvested in 2018 or not), short rotation woody crops, nursery and other horticultural crops such as bedding and garden plants, nursery stock, and propagative materials.

For winter wheat, report the 2018 acres harvested.

For double cropped acres if more than one crop was harvested from the same land in 2018, report those acres only once as cropland harvested.

**Item 1b** - Include as nursery, greenhouse, and other horticulture under protection: crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, “tunnel” protection, and hoop houses. Crops covered only temporarily, such as for frost protection, to be further grown in the open should not be included for area under protection.

**Item 1c** - Include cropland used for cover crops, cropland on which all crops failed, idle cropland, cropland in summer fallow, and cropland in government programs, including conservation program land unless used for grazing, hay, or forage. Include land on which sugarcane and pineapples were grown but not harvested in 2018.

**Item 2a** - Exclude land used under a grazing permit.

**Item 2b** - Report woodland pastured.

**Item 2c** - Include any pastured land other than cropland and woodland pastured. Include rotation pasture and grazing land that could have been used for crops without additional improvements.

**Item 3** - Any land that does not fit into one of the above categories. Include land in roads, buildings, farmsteads, woodland not pastured, and wasteland.

**Item 4** - This should equal the sum of all land uses reported in items 1 through 3. Also, **Box B** acres must equal acres in “this operation” reported in Section 1, item 4, **Box A**. Anyone who irrigated any land in 2018 should complete the entire questionnaire.

**Item 5** - This question helps determine if this operation irrigated any area in the open or under protection in 2018. If the answer to this question is 'Yes', then continue completing the form. If you did not irrigate any area in the open or under protection, check the 'No' box and go to Section 16 on the back page.

**Item 6** - Report the state with the largest amount of irrigated land for "this operation." If you irrigate in more than one state and the acres irrigated happens to be the same in those states, then report the state that includes your farmstead.

### **Section 3 – Ground Water From Wells**

Water usage for this survey will be published in acrefeet. An acre-foot is the quantity of water needed to cover one acre to the depth of one foot, or 326,000 gallons. Ground water is water from a well or wells located on this operation.

**Item 1** - Report whether this operation irrigated any land with ground water from wells on this operation at any time during 2018.

**Item 2** - Report acres in the open irrigated with ground water from wells and the estimated quantity of ground water used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

**Item 3** - Report the area under protection irrigated with ground water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

**Item 4** - Report the total number of wells used on this operation in 2018.

**Item 4a** - Report the number of wells reported in item 4 above that used backflow prevention devices (check valves) in 2018. Report the number of acres and area under protection irrigated in 2018 with water pumped from wells with backflow prevention devices.

**Item 4b** - Report how many wells reported in item 4 above used flow meters or flow measuring devices. Report the number of acres and area under protection irrigated in 2018 with water from wells with flow measurement devices.

**Item 4c** - Report the number of free-flowing wells used in 2018. Free-flowing wells do not require the use of a pump to lift the water to the surface. Water flows to the surface under natural pressure. These are most commonly found in Florida and some western states.

**Item 5** - Report the well characteristics for up to 3 primary wells pumped on this operation in 2018.

**Note:** The 3 primary wells should include those wells with the greatest quantity of water pumped in 2018. Report the characteristics for each individual well even if these values are similar across wells. If less than 3 wells were pumped in 2018, then only report for those wells used. Do not include the characteristics of free flowing wells that did not use a well pump, reported in Item 4c.

**Item 5a** - If you used more than 3 wells in 2018, then for all other wells (excluding the 3 primary wells), report the average value for well characteristics.

**Item 6** - Change in depth to water is defined as a change in the depth of water from the well-head to the water table level that has occurred over the last five years prior to 2018.

### **Section 4 – On-Farm Surface Water**

On-farm surface water is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

**Item 1** - Report whether this operation used any on-farm surface water including recycled and reclaimed water. For this survey, recycled water is the reuse of irrigation water that was previously used to irrigate a crop on the operation. Reclaimed water is treated wastewater used for irrigation.

**Item 2** - Report acres in the open on this operation irrigated with on-farm surface water and the estimated quantity used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

**Item 3** - Report the total area under protection irrigated with on-farm surface water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

**Item 4** - Report whether this operation used recycled water to irrigate any crops in 2018.

**Item 4a** - Report the area on which one or more applications of recycled water for irrigation were made in 2018. Report the acres only once even if multiple applications were made to the same acreage.

**Item 5** - Report whether this operation used reclaimed water from on-farm livestock to irrigate any crops in 2018. For the purposes of this survey, the total 2018 application of reclaimed water needs to be at least one half inch to be considered irrigation.

**Item 5a** - Report the area on which one or more applications of reclaimed water for irrigation were made in 2018. Report the acres only once even if multiple applications were made to the same acreage.

**Item 5b** - Report how much reclaimed irrigation water was used on this operation in 2018. Report the quantity of reclaimed water in acre-feet or total gallons.

### **Section 5 – Off-Farm Water**

Off-farm surface water is surface or ground water from U.S. Bureau of Reclamation, other Federal agencies, irrigation districts, or other suppliers.

**Item 1** - Report whether this operation used any water from off-farm sources.

**Item 2** - Report acres in the open on this operation irrigated with off-farm water and the estimated quantity used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

**Item 3** - Report the total area under protection irrigated with off-farm water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

**Item 4** - Report whether this operation received any off-farm water and total cost, if any was purchased. Report in whole dollars.

**Item 5** - Report the supplier of off-farm water.

**Item 6** - Report whether this operation used reclaimed water to irrigate any crops in 2018.

**Item 6a** - Report the area on which one or more applications of reclaimed water for irrigation were made in 2018. Report the acres only once even if multiple applications were made to the same acreage.

**Item 6b** - Report how much reclaimed irrigation water was used on this operation in 2018. Report the quantity of reclaimed water in acre-feet or total gallons.

**Item 6c** - Identify the source(s) of reclaimed water used on this operation by marking an 'X' in all the sources that apply.

### **Section 6 – Pumps, Other Than Well Pumps, Used For Irrigation**

These are pumps that were used for pumping surface water from rivers and streams, irrigation channels, ponds, and other water holding systems.

Tailwater pits hold water that was previously used for irrigation.

Relifting or boosting water within system - Some irrigation systems using water from wells may also have pumps in places other than their well pumps to provide additional lift, pressure, or lateral movement, especially on farms with large distribution systems or irregular terrain. These pumps are often referred to as booster pumps. Include these booster pumps in this section.

Vertical lift refers to the average surface-level feet-of-lift the pumps must raise the water in order to distribute the water through the field irrigation system. Discharge capacity refers to average pumping capacity in gallons per minute (GPM). Discharge operating pressure refers to the average operating pressure in pounds per square inch at the point of discharge.

### **Section 7 – Energy Expense for All Well and Other Irrigation Pumps**

For each energy source, report the number of well pumps and other pumps, the cost of the energy used to power pumps (include the landlord's share of pumping costs), and the number of acres irrigated by water source. The sum of acres irrigated across all energy types may be less than the total acres irrigated for the operation reported in Section 2, item 4, column 2, Box C. The difference should equal those acres irrigated using no pumps to supply water to the field.

### **Section 8 – Method of Water Distribution in Fields in the Open**

This section refers to the method used to distribute irrigation water.

**Item 1** - Report whether this operation irrigated any fields in the open. If so, complete this section.

Report the acres of land irrigated by each of the distribution systems listed. If the same land was irrigated by more than one method, then report acres irrigated by each method used. **Note:** Do not report information for the delivery system used to convey water from the source to the field. Report the method only for the field distribution system.

**Item 2** - Gravity irrigation refers to the free flowing application of water across a field. The water is distributed across a field using either pipes or open ditches near the head of the field from which water is released to flow down furrows or to flood the field.

**Item 2a** - Row crops are generally irrigated by water flowing down furrows.

**Item 2b** - Report the controlled flooding acreage for crops such as rice or cranberries which are flooded across the entire field with the water contained within borders or basins.

**Item 2c** - Uncontrolled flooding is often used to water pasture or rangeland. Water is directed to the area by artificial or controlled means but there are no furrows or borders within the field when uncontrolled flooding is used.

**Item 2d** - Report acreage here if not reported in any of the above gravity system categories.

**Item 3** - Sprinkler irrigation is separated into six categories: center pivot, linear move tower, solid set and permanent systems, mechanical move systems, hand-move systems, and other sprinkler systems. Use nozzle pressure for the pressure categories

**Item 3a** - A center pivot system uses a boom half the width of the field. It is anchored at the center of the field and sweeps in a circle.

**Item 3b** - Linear move tower systems and other linear continuous move drive systems are self-propelled systems that travel in straight lines across the field.

**Item 3c** - Report for solid set and permanent systems. Exclude low-flow micro systems.

**Item 3di** - Mechanical move systems include side roll, wheel move, other mechanical move systems, and other discrete move systems.

**Item 3dii** - Big gun or traveler systems use large pulsating sprinklers and travel across the area being watered.

**Item 3e** - Hand-move systems are any non-propelled system which must be moved manually.

**Item 3f** - Report acreage here if not reported in any of the above sprinkler system categories.

**Item 4** - Drip, trickle, or low-flow micro irrigation water is generally distributed by tubes or tapes which meter out small amounts of water at low pressure.

**Item 4a** - Report acres on which on or above ground surface drip irrigation was used.

**Item 4b** - Report acres on which sub-surface or root zone drip was used.

**Item 4c** - Report acres on which low-flow micro sprinklers were used. This refers to micro sprinklers that apply water at low pressure and are not self-propelled or easily moved.

**Item 4d** - Report acreage here if not reported in any of the above drip, trickle, or low-flow system categories.

The total acres, by method of water distribution, should be equal to or greater than Section 2, column 2, item 4, total acres irrigated, Box C. Every acre reported as irrigated in Section 2 needs to be reported by method of irrigation in Section 8. If you use multiple methods of water distribution for the same acres, this sum may be larger than Section 2, column 2, item 4, total acres irrigated, Box C.

### **Section 9 – Acres Harvested in the Open and Pastureland**

Report the acres of each crop harvested and its corresponding average yield per acre. Report acres of each crop harvested, even when multiple crops have been harvested off the same land. In addition, for each irrigated crop harvested, report the estimated average quantity of water applied per acre for the 2018 irrigation season. Report water applied in average acre-feet per acre or in inches per acre (but not both). Acre-feet per acre should be reported to the nearest tenth of a foot (for example, 1.6 or 2.3 acre-feet per acre), while acre-inches per acre should be reported to the nearest whole inch (for example, 19 or 28 inches per acre).

The sum of irrigated acres harvested in Section 9 should be equal to or greater than Section 2, item 4, column 2, Box C, total acres irrigated.

Any harvested crop grown in the open not pre-listed should be entered under item 18 'all other crops grown in the open.' Report the crop name in the 'specify' area.

## Section 10 – Field Water Distribution and Water Source for Crops in the Open

For each crop with irrigated acres harvested reported in Section 9, report the primary type of irrigation system in the first column by selecting the appropriate water distribution code from the water distribution code list above the table. Report the number of acres irrigated from each water source (ground, on-farm surface, and off-farm suppliers).

Then, for each irrigated crop, report the number of acres that were irrigated applying chemigation, that is, the application of fertilizers or pesticides through the irrigation water. Report the acres of commercial fertilizer application and acres for pesticide application separately.

**Note:** For each crop, an irrigated acre harvested may be reported in both the fertilizer and pesticide columns. Therefore, for each crop, the sum of chemigation acres may total more than the corresponding irrigated harvested acres reported for that crop in column 1 of section 9.

Report the acres of the irrigated crop by water source.

## Section 11 – Irrigation for Nursery and Other Horticultural Crops Grown in the Open

**Item 1** - Report whether this operation irrigated any nursery, greenhouse, floriculture, mushrooms, propagative materials, or other horticultural crops grown in the open in 2018. If any horticultural crops on your operation were grown in the open, then complete this section.

**Item 2** - Report the total acres and irrigated acres for horticulture crops grown in the open to the nearest tenth acre. Report the acres only once even when multiple crops were harvested off the same land. Irrigation refers to the application of water to land or crops by any artificial or controlled means.

**Item 3** - Report acres for each horticulture crop listed to the nearest tenth acre. Report acres of each crop harvested, even when multiple crops were harvested off the same land. For example, if annual bedding plants and a nursery crop were harvested from the same 2 acres, enter 2.0 acres in the Floriculture and bedding crops category and 2.0 acres in the Nursery crop category. For each category, enter the total acres grown in the open and irrigated acres.

Report for each crop category grown on this operation the total acres in the open and irrigated acres in the appropriate category:

- a. Floriculture and bedding crops - Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets
- b. Nursery crops - Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants
- c. Sod
- d. Propagative materials - Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields
- e. Christmas trees and short rotation woody crops - A short rotation woody crop is a tree that grows from seed to a mature tree in 10 years or less.
- f. Other horticultural crops - If more than one crop was grown for this category, report the primary type of crop in the specify area.

**Item 4** - Report the area irrigated or watered for horticultural crops grown in the open in 2018 by irrigation method used on this operation. If more than one method was used, report area in all methods that apply. Report quantity of water in the unit of measure most used for each method. If the total quantity of water, column 2a, and the unit of measure, column 2b, is known, then skip column 3.

Report for the following irrigation methods:

- a. Hand Watered
- b. Gravity Irrigation - refers to the free-flowing application of water.
- c. Sprinkler - Exclude hand-held sprinklers.
- d. Drip, trickle, or low-flow micro irrigation - the water is distributed down the rows by tapes which meter out small amounts of water at low pressure near the plant's roots.
- e. Subirrigation - this is sometimes referred to as water seepage. It is used to maintain a water table at a predetermined depth. Normally these systems are permanently in place below the rootline. Water is usually applied by using emitters. Include hydroponic in this category.

The total area reported, by method used, should be equal to or greater than item 2, irrigated area, code 0738.

**Item 5** - Report the water source percentage for each irrigation method listed. The percentage for ground water, on-farm water, and off-farm water should add to 100% for each method (row).

### **Definitions of Water Sources**

**Ground water** is water from a well or wells located on this farm.

**On-farm surface water** is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

**Off-farm surface water** is surface or ground water from U.S. Bureau of Reclamation, other Federal agencies, or other suppliers.

### **Section 12 – Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection**

**Item 1** - Report whether this operation irrigated any nursery, greenhouse, floriculture, mushrooms, propagative materials, or other horticultural crops grown under protection. Under protection includes horticultural crops grown under glass, rigid plastic, plastic film, including "tunnel" protection and hoop houses. If any horticultural crops on your operation were grown under protection, then complete this section.

**Item 2** - Report the total area and irrigated area under protection in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area. Irrigation refers to one or more applications of water to land or crops by any artificial or controlled means.

**Item 3** - Report the area irrigated in square feet for each horticultural category listed. Report the area of each horticulture crop, even when multiple crops were harvested off the same land. For example, if two crops of annual bedding plants were grown from 1,000 square feet, enter 1,000 in the Floriculture and Bedding Crops category. If 500 square feet of food crops were also grown in the same area, then also report 500 in the Food crops grown under protection category. For each category, enter the total area under protection that was irrigated.

Report crops grown on this operation in the appropriate category:

- a. **Floriculture and bedding crops** -Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets
- b. **Nursery crops** - Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants

- c. **Propagative materials** - Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields
- d. **Food crops grown under protection** - Tomatoes, other vegetables and fresh cut herbs, fruits and berries.
- e. **Mushrooms**
- f. **Other horticultural crops** - If more than one crop was grown for this category, report the primary type of crop in the specify area.

**Item 4** - Report the area irrigated or watered for horticultural crops grown under protection in 2018 by irrigation method used on this operation.

If more than one method was used, report area in all methods that apply. Report quantity of water in the unit of measure most used for each method. If the total quantity of water, column 2a, and the unit of measure, column 2b, is known, then skip column 3.

Report for the following irrigation methods:

- a. **Hand Watered**
- b. **Gravity Irrigation** - refers to the free-flowing application of water.
- c. **Sprinkler** - Exclude hand-held sprinklers.
- d. **Drip, trickle, or low-flow micro irrigation** - the water is distributed down the rows by tapes which meter out small amounts of water at low pressure near the plant's roots.
- e. **Subirrigation** - this is sometimes referred to as water seepage. It is used to maintain a water table at a predetermined depth. Normally these systems are permanently in place below the rootline. Water is usually applied by using emitters. Include hydroponic in this category.

The total area reported, by method used, should be equal to or greater than item 2, irrigated area, code 0629.

**Item 5** - Report the water source percentage for each irrigation method listed. The percentage for ground water, on-farm water, and off-farm water should add to 100% for each method (row).

### **Definitions of Water Sources**

**Ground water** is water from a well or wells located on this farm.

**On-farm surface water** is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

**Off-farm surface water** is surface or ground water from U.S. Bureau of Reclamation, other Federal agencies, or other suppliers.

### **Section 13 – Expenditures for Irrigation**

For the construction and improvement categories report the cost of the expenditure in column 1, the irrigated acres affected in column 2, the primary purpose code of the expenditure in column 3, and the primary source code of the funding assistance in column 4 if any were received. Primary purpose codes and source codes of the funding can be found at the top of the page.

### **Section 14 – Irrigation and Water Management Practices**

**Item 1** - Report on the method(s) or approach(es) used to decide when to schedule water applications in 2018. Mark all that apply.

**Item 2** - Report whether this operation had to discontinue irrigation in 2018 long enough to affect crop yield.

**Item 2a** - Report the acres which had to discontinue or reduce irrigation long enough to reduce crop yields.

**Item 2b** - Report the reason(s) if irrigation was discontinued. Mark all that apply. If "other" is marked, report the reason for discontinuing irrigation in the "specify" response area.

**Item 3 and 4** - If you reported gravity irrigation in Section 8, then complete Items 3 and 4. In Item 4, for each practice, a through d, report the number of gravity irrigated acres using the specific practices.

**Item 5** - Report the sources that this operation relied on for guidance in reducing irrigation costs or to conserve water. Mark all that apply.

**Item 6** - Report any issues which prevented you from implementing improvements to existing irrigation systems during the past five years. Mark all that apply.

**Item 7** - If you made irrigation and/or drainage improvements above regular maintenance in the past five years, then mark item 7 'Yes'

**Item 8 and 8a** - If you received any technical or financial assistance for irrigation and/or drainage improvements, mark yes to item 8 and indicate the sources you received technical or financial assistance in item 8a. Mark all that apply. If no assistance was received, do not mark any check box.

### **Section 15 – Labor Used for Irrigation on This Operation in 2018**

If you paid any labor cost for the irrigation activities, report total hours and average hourly wage in item 1a and report contract labor expenses for irrigation activities in item 1b. Labor costs here should pertain only to the operation and maintenance of the irrigation system and facilities. Include the landlord's share of irrigation labor costs. Exclude cost for custom work and contract labor for harvesting.

### **Section 16 – No Irrigated Land in 2018**

Complete this section ONLY if you did not irrigate in 2018. If you did irrigate in 2018, skip to Section 17.

**Item 2** - Report whether any land on this operation was irrigated in 2017.

**Item 3** - Report the reasons for not irrigating in 2018. Mark all that apply and if 'other' is marked, report the reason(s) in the "specify" response area.

**Item 4** - Report whether the discontinuance of irrigation is permanent.

### **Section 17 – Value of Sales in 2018**

**Item 1** - Select the appropriate range of the gross value of sales of all agricultural products sold from this operation in 2018. Agricultural products include all crops and livestock sold from this operation.

**Item 2** - Report the percent of the total gross value of sales that were from **irrigated crops**.

**Item 3** - Report the percent of the total gross value of sales that were from **non-irrigated crop** or **livestock** sales. The sum of items 2 and 3 should equal 100 percent.

### **Section 18 – Person Completing this Form**

Please print the name of the person completing this questionnaire, the date completed, and telephone number. Please indicate if you would like a free summary of the survey results in the mail.





## INSTRUCTION SHEET 2018 CENSUS OF AQUACULTURE



### Completing the 2018 Census of Aquaculture Census form

Make all entries clear and easy to read. Use a **blue** or **black** ball point pen.

#### General

Refer to the instructions below for completing your 2018 Census of Aquaculture form. The enclosed census form was mailed to aquaculture producers throughout the United States. Because it is meant for use in all parts of the country, it may contain items and inquiries which do not apply to your operation. In this case, mark the "No" or "None" box and continue to the next item or section. If you did not produce aquaculture products of any kind in 2018, please see the instructions in Section 1 on this page.

#### Partial Year Operation

If you stopped producing aquaculture products at any time during 2018, complete the census form for the portion of 2018 that you did produce. Write "Stopped producing in 2018" and the date you stopped producing below the address area. Mail the completed census form in the return envelope.

#### If You Receive More Than One Census Form for the Same Operation

Return any duplicate census forms in the same envelope with your completed census form(s). In the address area of the census form(s) you complete, write the 11-digit ID number from the label of the extra census form(s).

#### Partnership Operations

Complete only ONE census form for a partnership operation and include all partners' shares on the same census form. If two or more census forms are received for the partnership, see instructions above for "If You Receive More Than One Census Form for the Same Operation".

#### How to Enter Your Responses on the Census Form

Please enter your answers in the proper spaces and in the units requested, i.e., tenth of acres, gallons per minute, dollars, etc. Mark all applicable Yes/No boxes with an "X".

### Instructions by Section

#### Section 1 – Aquaculture Production Screening

This section determines whether or not your operation is within the scope of this census.

**Item 1** – Report whether you produced any aquaculture or aquaculture products of any kind in 2018. Aquaculture products include fish of any kind, shellfish, mollusks, crustaceans, egg production, food or sport fish, baitfish, ornamentals, catfish, crawfish, koi, minnows, oysters, perch, soft-shell crabs, trout, turtles, algae, alligators, live rock, and any other aquaculture products. If you did not produce any aquaculture products of any kind in 2018, please mark "No" and continue to Section 13 on the back page of the form and complete the remainder of the census form.

#### Section 2 – Sources of Water

This section determines sources of water that this operation used for its aquaculture production in 2018.

#### Section 3 – Methods of Production

**Items 1 and 2** – Report the freshwater and saltwater acres or surface area owned, rented, or used for aquaculture production in 2018 by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. All responses in this section should be rounded to tenths of acres **OR** reported in square feet of surface area.

**Items 1a and 2a** – Report the freshwater and saltwater acres or surface area used for aquaculture production in 2018 that was rented or leased **FROM** others on shares, cash rent, used rent-free, in exchange for services, for taxes, etc., regardless of location, even if used for part of the year. Include leased from the State. All responses should be rounded to tenths of acres **OR** reported in square feet of surface area.

**Freshwater** is water with less than 0.5 parts per thousand dissolved salts. May be found in lakes,

rivers, bodies of groundwater, or obtained from wells or surface runoff.

**Saltwater** is water from a sea or ocean, including brackish water. In addition, it is freshwater converted to saltwater by adding chemicals.

**Item 3a (i) – Ponds.** A body of standing water, either natural or artificial, that is usually smaller than a lake.

**Item 3b – Cropland used for crawfish.** Include both permanent and rotational.

**Item 3c – Flow through raceways.** A confined area, usually long and narrow, in which water enters one end and exits the other. Raceways can either be a natural flow system, using the natural flow of a river or stream, or a closed system where the water from the raceway flows through a series of ponds and then is pumped into a header pond that flows back into the raceway. The water area for a closed system would be the surface acres of the raceway and of all associated ponds. The area for a natural flow system would be the surface acres that the raceway occupies.

**Cubic feet to gallons conversion.** U.S. gallon = cubic feet x 7.5.

**Item 3d (i) – Recirculating systems.** Metal, plastic, or fiberglass tanks normally above ground and usually under cover used for the rearing of aquatic organisms where 90 percent or more of the system water is recycled. Some tanks may consist of frames with liners.

**Item 3e (i) – Non-recirculating systems.** Metal, plastic, or fiberglass tanks normally above ground and usually under cover used for the rearing of aquatic organisms where 89 percent or less of the system water is recycled. Some tanks may consist of frames with liners.

**Item 3f (i) – Aquaponics.** A system that combines aquaculture with hydroponics (cultivating plants in water) in a symbiotic environment.

**Item 3g (i) –** Report the number of **cages and pens** used to produce Aquaculture products. Exclude traps (used to capture aquatic creatures).

**Cages.** The sides of the cages are rigid and are made of materials like plastic or plastic-covered wire.

**Pens** are large enclosures usually placed in rivers or ocean bays. Pens are usually floated in the water, but may also be secured to the bottom. Pens are supported in some way, with the sides being flexible.

**Item 3h – Mollusks on bottom.** Growing on the bottom.

**Item 3i – Mollusks off bottom.** Growing without touching the bottom.

**Item 3j – Other method.** Other methods not listed.

#### Section 4 – Catfish

**Item 5 –** The hybrid catfish is a combination of a female channel catfish and a male blue catfish.

#### Section 5 – Trout

**Item 4a - Disease** includes losses from both parasitic and bacterial caused sickness.

**Item 4b - Theft or vandalism** includes the unauthorized removal of fish and/or the destruction of property causing a loss of fish by intentional acts of persons known or unknown.

**Item 4c - Chemical contamination** includes losses from pesticide or herbicide poisoning.

**Item 4d - Droughts** include losses from lack of water causing oxygen depletion.

**Item 4e - Flood** include losses from too much water washing the fish away.

**Item 4f - Predators** include losses from mink, otters, birds, and other animals.

**Item 4g - Other** include losses from any source not fitting the pre-listed causes. Please note the cause in comments.

#### Section 6 – Food and/or Sport Fish

**Item 1 –** This question determines whether you produced and sold **Food and/or Sport Fish**.

**Item 2** – Report the number sold, total pounds and total sales for each type and size of food and/or sport fish produced.

**Column 1** – Record the type of food or sport fish produced and sold.

**Column 2** – Record the size category code being reported. **Foodsize** includes grown aquaculture products ready for market. **Stockers** are large enough to be placed in the final grow-out pond, net, pen, or tank. **Fingerlings** are young fish, larger than a fry but not an adult. **Fry** are very young, post-larval fish. **Broodstock** are fish kept for egg production, including males. **Eggs** are embryos surrounded by nutrient material and a protective covering.

**Column 3** – Report the total number of fish or eggs sold.

**Column 4** – Report total pounds of fish sold. Complete for all size categories **except** eggs.

**Column 5** – Total revenue received from the sale of the food and sport fish produced.

### Section 7 - Baitfish

**Item 1** – This section determines whether you produced and sold **Baitfish**. Crawfish for food is reported in section 8.

**Baitfish** are fish used for bait, such as crawfish, fathead minnows, golden shiners, emerald or silver shiners, feeder and bait goldfish, suckers, chubs, leeches, and other types of minnows.

**Table 3a** – For Baitfish sold by the pound or number of fish, report the Total pounds live weight sold, and Total Sales. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs.

Report either the total number of fish sold or number of fish per pound.

**Table 3b** - For Baitfish sold by the gallon, report the total number of gallons sold, Pounds per gallon, number of fish per gallon and total sales.

### Section 8 – Crustaceans and Mollusks (Includes clams, crawfish, oysters, shrimp, soft-shell crabs, etc.)

**Item 1** – This section determines whether you produced **Crustaceans and/or Mollusks**, including crawfish for food. Crawfish for bait is reported in section 8.

**Crustaceans** are invertebrate animals with a hard shelled segmented body, and jointed legs. Examples include crawfish, lobsters, prawns, shrimp, and soft shell crabs.

**Mollusks** are marine invertebrates (no backbone). In general, mollusks have three body regions: a head, a visceral mass, and a “foot.” Mollusks usually have a shell, although some do not. This category includes abalone, clams, mussels, oysters, scallops and scallop seed.

### Section 9 - Ornamental Fish

**Item 1** – This section determines whether you produced and sold **Ornamental Fish**.

**Ornamental fish** are raised for water gardens, aquariums, etc. Examples include koi, ornamental goldfish, tropical fish, and ornamental catfish.

**Item 2** – Report each species and type of unit sold on separate lines. Types of units sold include number of fish, pounds, boxes, bags, etc. Report the number of units produced and sold in column 2.

**Column 5** -- Report total sales in dollars. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs

### Section 10 – Miscellaneous Aquaculture

**Item 1** – This section determines whether you produced and sold **Miscellaneous Aquaculture**. This includes Algae, alligators, eels, frogs, sea urchins, snails, tadpoles and turtles. Do not include wild caught or harvested items.

**Item 2** – Report total number and weight sold of all sizes within each species. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs.

**Section 11 – Sales Outlet by Species (Exclude catfish and trout)**

**Item 1** – Report where the operation sold its production directly. The percentage for each category of product must equal 100 percent. Catfish and trout are reported in sections 4 or 5.

**Processors** are companies that convert live fish to a product ready to cook and distribute, such as fish fillets.

**Live haulers/brokers** are individuals or companies that purchase aquaculture products from a producer for immediate resale. They may or may not take possession of the product. Live haulers transport aquaculture products in oxygenated tank trucks to other outlets, including processing plants, pay lakes, recreational lakes, and retail outlets.

**Retail outlets** are individuals, grocers, restaurants, or companies who buy aquaculture products to resell to consumers.

**Direct to consumers** are sales made directly to individuals for home consumption or placement in their ponds for personal use. This includes places that raise and market fish through their own fee fishing operation.

**Recreational stocking** includes aquaculture sold to individuals or private enterprises for the sole purpose of stocking recreational waters.

- Aquaculture sold to Federal State or local government agencies for stocking public waters should be reported as sold to “Government Agencies.”
- Aquaculture that are sold for the purpose of stocking another producer’s commercial ponds should be reported as sold “Wholesale to Other Producers.”
- Fish sold **by** fee-fishing or U-fish operations should be listed as being sold “Direct to Consumers.”

**Wholesale to other producers** includes aquaculture sold to other farmers who raise for future sale.

**Government agencies** includes sales to Federal, State, or local government hatcheries or other groups involved in purchasing aquaculture to stock

Federal, publicly owned, or regulated waters and recreational areas.

**Exports** includes aquaculture moved outside the United States borders.

**Other** includes outlets not meeting the above definitions. Export sales should be listed here if not going directly out of the United States. If in doubt as to where to put sales, list them here with notes explaining the situation.

**Section 12 - Aquaculture Produced and Distributed (not sold) for Restoration, Enhancement, Conservation, or Recreational Purposes**

Complete this section if the operation distributed any aquaculture products for restoration, enhancement, conservation or recreational purposes in 2018. If the operation did not distribute any aquaculture products, skip to Section 13.

Fish and eggs distributed without charge should be entered here. Fish and eggs sold should be excluded from this table and reported as sales in the appropriate section.

**Section 13 – Operation**

**Item 3** – If this operation has additional names, or connections to additional operations, record the name and phone number here.

**Item 4** – This question determines if the operator made day to day decisions for multiple operations. If you are involved with any other aquaculture operation, list them here.

**Item 5** – If this operation was sold or turned over to someone else, record the new operators name and phone number here.

**Section 14 – Conclusion**

Print your name, phone number, e-mail address, and the date you completed the questionnaire.

## INSTRUCTION SHEET UNITED STATES 2019 CENSUS OF HORTICULTURAL SPECIALITIES

**Who Should Report - A reply is required from everyone who received a questionnaire**, including both persons who operated a horticultural operation in 2019 as well as those who were not involved in horticulture. Your report is due by February 5, 2020. More census information is on the Internet at <https://www.nass.usda.gov/AgCensus/>

If you were in business in 2019, complete the enclosed questionnaire and return it in the preaddressed envelope.

If you had no land and no horticultural operations, return the report form with a note indicating your status on the front of the form below the address label.

**General** - A horticultural establishment is an operation growing and selling horticultural crops (greenhouse crops, outdoor-grown floricultural crops, nursery plants, sod, sprigs and plugs, greenhouse produced food crops, vegetable and flower seeds, Christmas trees, unfinished plants or propagation materials, and other horticultural crops) during 2019. Operations producing food crops, grown in the open are not considered horticultural establishments.

Refer to the instructions below for completing your questionnaire. The enclosed census questionnaire was mailed to producers and growers throughout the United States. Because it is meant for use in all parts of the country, it may contain items and inquiries which do not apply to you. In this case, mark the "No" or "None" box and go on to the next item or section.

If you did not operate a horticultural operation, go to Section 27 and complete the questionnaire. If you had less than \$10,000 in sales, or your facilities were idle in 2019, go to Section 22 and complete the remainder of the questionnaire.

**If you owned a horticultural facility in 2019 that was idle and NOT rented out, you should complete and return the report form.**

**Partial Year Operations** - If you stopped operating during 2019, complete the questionnaire for the portion of the year that you did operate. Write "Stopped operating during 2019" and the date you stopped operating below the address area. Mail the completed report form in the return envelope.

**Involved In More Than One Operation** - If you made decisions for more than one horticultural operation, you should have received a report form for each operation. Provide information for each operation on a separate form. To obtain additional report forms, please call the toll-free help line at 1-888-424-7828.

**Received More Than One Questionnaire For the Same Operation** - If you received more than one

report form for the same operation, complete only ONE form per operation. Write "Duplicate" below the address area of each extra form. Return all forms in the same return envelope with your completed form so that we can correct our records.

**Have a Partnership Operation** - Complete only ONE questionnaire for a partnership operation, including all partners' shares on the same questionnaire. If two or more questionnaires were received for the partnership, see instruction on "If You Received More than One Questionnaire" above.

**How to Enter Your Responses on the Questionnaire** - Use **BLUE or BLACK INK only**. Please enter your answers in the proper spaces and in the units requested, i.e. dollars, pot size, pounds, etc. Write any explanations outside the answer spaces or on a separate sheet of paper. Enter whole numbers unless tenth's acres are requested, such as reporting acres of flower seeds in Section 14. If you have 1/2 of an acre, convert to the nearest tenths. For example, convert 1/2 to 5/10 and enter .5 in the space provided.

If you do not have exact figures, please give your best estimates. You may indicate "EST." (for estimated) beside the answer. For all dollar items, we need only whole dollars; cents are not required.

### COMPLETING THE QUESTIONNAIRE

The units of measure on the questionnaire are those most commonly used throughout the country. If you used a different unit of measure, convert your figure to the unit requested.

When reporting value of sales, do not include crops bought for resale without additional growing. Do not report sales of non-crop garden center items, i.e. chemicals, fertilizers, etc. Report retail sales and wholesale sales for those crops grown on this operation and sold directly from this operation. Report only the wholesale value of any crops sold to a retail outlet that was not on this operation or if the retail outlet was considered a separate business establishment. Estimates are acceptable if exact figures are not available.

**To Report Plants in Sections 1-6; 9 & 16** - In each of these sections, report any of the plants which you grew that are listed in that section. For plants which are not prelisted:

1. Find the plant name and the corresponding code number from the list in that section.
2. Enter the plant name and code in the space provided for that item.
3. Enter the information requested in each column. In Sections 2, 3, 4, and 5 enter the information on the proper line for each type of container.
4. If additional space is needed, use a separate sheet of paper.

**FACE PAGE - HORTICULTURE CROPS PRODUCED IN 2019 AND VALUE OF SALES**

Check the boxes next to each of the horticultural crops your operation produced in 2019. If no horticultural crops were produced in 2019, check "None of the above" and go to Section 27. The scope of the census of horticulture is places which sold \$10,000 or more of horticultural crops in 2019. If you sold \$10,000 of horticultural crops, check yes and continue with Section 1, otherwise go to Section 22.

**SECTION 1 - CUT FLOWERS**

For each type of cut flower grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. If the units your operation produces for cut flowers (stems, bunches, spikes, etc.) are different than the units listed for a particular cut flower, convert to the listed unit or estimate for the listed unit in the section. For cut flowers not listed in the section, code as "other cut flowers". If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 2 - POTTED FLOWERING PLANTS FOR INDOOR OR PATIO USE**

For each type of potted flowering plants grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. There are two types of potted flowering plants provided in this section; potted flowering plants and potted spring flowering bulbs. The two sizes of containers are: pot sizes less than 5 inches and pot sizes greater than five inches. If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 3 - POTTED HERBACEOUS PERENNIALS**

For each type of potted herbaceous perennial grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. For Chrysanthemums, the containers are pot sizes less than 5 inches and pot sizes 5 inches or greater. For all other potted herbaceous perennials the type of containers are less than 1 gallon, 1 gallon up to 2 gallons, and 2 gallons or larger. For potted herbaceous perennials not listed in the section, code as "other herbaceous perennials." Report bareroot herbaceous perennials you grew and sold in Section 9. If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 4 - ANNUAL BEDDING/GARDEN PLANTS**

For each type of annual bedding/garden plant grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. There are two types of annual bedding/garden plants provided in this section; annual bedding/garden plants and vegetable type bedding plants. There are four container types to report plants sold and value of sales: flats; pots less than 5 inches; pots 5 inches or greater; and hanging baskets. For flats, report a standard size of 10" X 20" to 11" X 22". If reporting a non-standard flat size, enter the dimensions of the majority of flats in the area provided. For annual bedding/garden plants not listed in the section, code as "other flowering and foliar annuals" or "other vegetable type bedding plants". If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 5 - FOLIAGE PLANTS FOR INDOOR OR PATIO USE**

For each type of foliage plant grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. There are four container types to report plants sold and value of sales: pots less than 6 inches; pots 6 inches to 13 inches; pots 14 inches or more; and hanging baskets. For foliage plants not listed in the section, code as "other foliage plants." If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 6 - CUT CULTIVATED GREENS**

For each type of cut cultivated greens grown and sold on the operation in 2019, record the number grown and sold and the total value of sales for retail and wholesale sales. If the units your operation produces for cut cultivated greens (stems, bunches, vines) are different than the units listed for a particular cut cultivated greens, convert to the listed unit or estimate for the listed unit in the section. For cut cultivated greens not listed in the section, code as "other cut cultivated greens". If more space is needed, list additional plants on a separate sheet of paper.

**SECTION 7 - FOOD CROPS GROWN UNDER PROTECTION**

For each type of vegetable grown and sold on the operation in 2019, report the total square feet under protection used to produce that crop, the total production (in hundredweight), the percent of the vegetable crop produced from hydroponic systems (the cultivation of plants in water containing inorganic nutrients) and the total value of sales for retail and wholesale sales. If the same area was refilled to different vegetable crops during the year, report the square feet for each crop. If refilled with the same crop, report the total value of production under protection. For food crops not listed in the section, record as "other food crops grown under protection." Exclude food crops grown in the open.

**SECTION 8 - CULTIVATED CHRISTMAS TREES**

For each type Christmas tree grown on the operation in 2019, report the acres in production (to the nearest 1/10 acre), the number of trees sold, and the total value of sales. Include the value of trees sold, even though payment was not received in 2019. For each type of Christmas tree, report the number of trees of uncut-growing trees on the operation on January 1, 2020. Also report an estimate for the percentage of the total number of trees on the operation that you expect to sell over the course of the next several years. Report balled and burlapped live Christmas trees grown and sold in Section 9. Report cut evergreens or coniferous greens in Section 6.

**SECTION 9 - NURSERY STOCK PRODUCTION AND SALES**

For each type of tree, shrub, fruit and nut plants grown on the operation in 2019, report the number of plants sold and the total value of sales for retail and wholesale sales. For each type of nursery stock, report the number of uncut-growing trees or plants on the operation on January 1, 2020. Nursery stock in this section is divided into 11 separate categories: broadleaf evergreens, coniferous evergreens, deciduous flowering trees, deciduous shade trees, deciduous shrubs, fruit and nut plants, ornamental grasses, landscaping palms, other woody ornamentals and vines, cacti and succulents, and

bareroot herbaceous perennials. If more space is needed, list additional plants on a separate sheet of paper.

For the nursery stock items reported, report the percentage of sales (retail and wholesale) in 2019, for the following categories: bareroot, balled and burlapped, containers, and other. The summation across these categories for a nursery stock item should equal 100%.

**SECTION 10 - SOD, SPRIGS, OR PLUGS**

Report the acres (to the nearest 1/10 acre) in production and acres harvested for sod, sprigs, or plugs in 2019. Also report the total value of sales for retail and wholesale sales in 2019. Acres planted to grass intended for sale as sod in subsequent years, but not harvested in 2019 should be included in the area in production in 2019.

**SECTION 11 - SHORT ROTATION WOODY CROPS**

For the short rotation woody crops listed, report the acres (to the nearest 1/10 acre) in production and acres harvested in 2019. Also report the quantity harvested and the total value of sales for retail and wholesale sales in 2019. Short rotation woody crops are quick growing trees, such as hybrid poplars or cottonwood trees, that are grown for harvest in less than 10 years. The production of these trees involves more than simply planting tree seedlings. Operations that provide inputs and resources, such as fertilization, thinning, watering, and spraying should be included. Operations planting seedlings for pulpwood with limited or no intervention by external resources are considered forestry operations and not horticulture operations.

**SECTION 12 - AQUATIC PLANTS**

Report the area used for the production of aquatic plants in 2019 which was under protection (square feet) and the area in the open (to the nearest 1/10 acre). Also report the number of aquatic plants sold and total value of sales for retail sales and wholesale sales in 2019. Include underwater plants that live completely submerged in water, floating leaved plants that grow with their roots anchored in the soil and with their leaves and flowers floating on the surface of the water, plants with roots that float freely on the water, and marginal plants that live at the edge of the water with most of their growth above the water but their roots under water. Do not include algae or seaweed.

**SECTION 13 - VEGETABLE SEEDS**

Report the area used for the production of vegetable seeds in 2019 which was under protection (square feet) and the area in the open (to the nearest 1/10 acre). Also report the quantity of vegetable seed harvested and sold (pounds of clean seed) and the total value of sales for retail and wholesale sales in 2019. Onion Seeds are classified as vegetable seeds which would be reported in Sec. 14.

**SECTION 14 - FLOWER SEEDS**

Report the area used for the production of the listed flowering plants for flower seeds in 2019 which was under protection (square feet) and the area in the open (to the nearest 1/10 acre). Also report the quantity of flower seeds harvested and sold (pounds of clean seed) and the total value of sales for retail and wholesale sales in 2019.

**SECTION 15 - DRIED BULBS, CORMS, RHIZOMES, OR**

**TUBERS**

Report the area used for the production of dried bulbs, corms, rhizomes or tubers in 2019 which was under protection (square feet) and the area in the open (to the nearest 1/10 acre). Also report the quantity harvested and sold (pounds) and the total value of sales for retail and wholesale sales in 2019. Include bulbs harvested even though they may have been previously harvested for cut flowers.

**SECTION 16 - PROPAGATIVE HORTICULTURAL MATERIAL, BAREROOT AND UNFINISHED PLANTS**

Report the total value of sales (retail and wholesale) in 2019 for the following plant categories: cut flowers, potted flowering plants, annual bedding/garden plants, herbaceous perennials, foliage plants, and cut cultivated greens. Individual unfinished plants in this section are classified as cuttings, plug seedlings, tissue cultured plantlets, prefinished plants, and liners. Liners are further categorized as bedding and flowering plants, foliage plants, and nursery stock. For each type of plant grown on the operation in 2019, report the number of plants sold, and the total value of sales for retail and wholesale sales. For crops not listed in the section, record as "other" for a particular category.

**SECTION 17 - TRANSPLANTS FOR COMMERCIAL VEGETABLE AND STRAWBERRY PRODUCTION**

Report the area used for the production of the listed vegetable crops in 2019 which were under protection (square feet) and the area in the open (to the nearest 1/10 acre). Also report the total value of sales for retail and wholesale sales in 2019. For commercial vegetable transplants not listed in the section, record as "other transplants for commercial production." Exclude vegetable bedding plants for home use.

**SECTION 18 - TOBACCO TRANSPLANTS**

Report the area used for the production of tobacco transplants in 2019 which was under protection (square feet). Also report the total value of sales for retail and wholesale sales in 2019.

**SECTION 19 - MARKETING CHANNELS**

Report whole percents of horticultural crops sold (retail and wholesale sales) to the listed marketing channels. The percentages should sum to one-hundred percent.

**SECTION 20 - ESTIMATED VALUE OF LAND, BUILDINGS, MACHINERY AND EQUIPMENT**

*Item 1* - Estimate the value of the land, greenhouses, shade structures, and other buildings both owned and rented if they were sold in the current market. The real estate tax assessment value should not be used unless that value represents a full market value assessment and the land, greenhouses, and buildings could reasonably be assumed to be sold at that price. Do not deduct real estate marketing charges from your estimate. Report the total value, not the value on a per-acre basis.

*Item 2* - The estimated market value refers to all machinery and equipment kept primarily on this operation and used for the horticulture production business. Report the value in its present condition, not the replacement or depreciated value. Include mobile implements, hand tools, and office supplies. Permanently installed equipment or equipment which is an integral part of a building should be included as a part of the value of land and buildings and reported in Item 1.

**SECTION 21 - HORTICULTURAL PRODUCTION EXPENSES**

Include horticultural production expenses paid by you and anyone else for the production of greenhouse crops, outdoor-grown floricultural crops, nursery plants, sod, sprigs and plugs, Christmas trees, and other horticultural crops on this operation. Include expenses incurred in 2019 even if they were not paid in 2019. Estimate if exact figures are not known.

**Item 1d** - Include surfactants and oils and other products used to increase a chemical effectiveness.

**Item 1f** - Report labor expenses for workers who worked less than 150 days in 2019 and labor expenses for workers who worked 150 or more days during 2019. Include labor expense for the farm business for gross salaries and wages, commissions, dismissal pay, vacation pay, and bonuses paid to hired workers, family members, hired managers, administrative and clerical employees, and salaried corporate officers. Include cost for benefits such as employer's social security contributions, unemployment compensation, workman's compensation insurance, employer paid life and medical insurance expense, pension plans, etc. Exclude retail.

**Item 1g** - Include the labor costs of workers furnished on a contract basis by labor contractor, crew leader, or cooperative for planting, maintaining, harvesting crops and similar horticultural activities. Exclude costs for building or repair work done by a construction contractor.

**Item 1j** - Include the cost of repairs and upkeep of horticultural machinery, vehicles, buildings, fences, and other equipment used in the horticultural operation. Exclude repairs to vehicles not used in the horticultural operation. Exclude expenditures for the construction of new buildings or the cost of additions to existing buildings.

**Item 1k** - Exclude rent paid for operator's dwelling or other nonfarm property.

**Item 1l** - Report all interest expenses paid in 2019 for the farm horticultural operation. Exclude interest associated with activities not related to production of horticultural crops on this operation. Exclude interest on owner/operator's dwelling where amount is separated from the interest on the land and buildings on this operation.

**Item 1m** - Include real estate property taxes you paid on the acres and buildings you owned and used in the horticultural operation and property taxes on equipment. Exclude property taxes on land or buildings rented to someone else, property taxes paid on other property not associated with the horticultural operation, income, social security, and excise taxes.

**Item 2** - Sales returns may occur when customers return defective, damaged, or otherwise undesirable products to the seller. Sales allowances may occur when customers agree to keep such merchandise in return for a reduction in the selling price. Include trade discounts (reductions in prices from what normally is listed in a catalog or other place) and cash discounts.

**SECTION 22 - TOTAL AREA**

**Item 1** - Report the area (square feet) covered by glass, rigid plastic and plastic film greenhouses. Report area only once regardless of the number of crop turns which took place within a structure in 2019. The roof covering (glazing) determines the greenhouse classification. For example, a structure with a glass roof, but insulated fiberglass sides is considered a glass greenhouse. Or, a structure that has an acrylic plastic roof with film plastic

sides that can be rolled up in warmer weather should be considered a rigid plastic greenhouse.

**Item 2** - Additional Shade Structures include cloth and screen).

**Item 3** - Natural Shade areas would include palm, citrus, etc.

**SECTION 23 - AREA USED FOR HORTICULTURAL PRODUCTION**

**Item 1** - Report the area for each horticultural category listed. For example, if two crops of annual bedding/garden plants were harvested from 1,000 square feet, report 1,000 square feet in the "annual bedding/garden plants" category. If 500 square feet of potted flowering plants were also grown in the same area, report 500 square feet in the "potted flowering plants" category and 1,000 square feet in the "annual bedding/garden plants" category. Include hydroponic area under the category "All other horticultural crops."

**SECTION 24 - GREENHOUSE, NURSERY AND OTHER HORTICULTURAL LABOR**

Report the number of paid workers who performed horticultural labor on this operation in 2019. Include paid family members. Include workers such as hired bookkeepers, office workers, maintenance workers, etc. only, if their work was primarily associated with horticultural production on this operation.

**Item 1a** - Include any short term or temporary workers who may have worked only a few days and exclude contract labor.

**Item 1b** - Exclude contract labor.

**SECTION 25 - TYPE OF HORTICULTURAL OPERATION**

**Item 1** - Use the following definitions to determine the type of organization for this operation. **An operation organized as a Limited Liability Company (LLC) may fall into any of the categories.**

**Family or Individual Operation** - Defined as a farm or business organization controlled and operated by an individual (sole proprietor). Include family operations that are not incorporated and not operated under a partnership agreement. Report family corporations under "Incorporated under state law."

**Partnership** - Defined as two or more persons who conduct an operation together and share work and profits. Co-ownership of land by husband and wife or joint filing of income tax forms by husband and wife does not constitute a partnership, unless a specific agreement to share contributions, decision making, profits, and liabilities exists. Production under contract or under a share rental agreement does not constitute a partnership.

**Incorporated under state law** - Defined as a legal entity or artificial person created under the laws of a State to carry on a business, including family corporations. Exclude cooperatives, even if they are incorporated.

**Other, such as estate or trust, prison farm, grazing association, American Indian Reservation, etc.** - If your operation did not fall into the provided categories, mark item code 0600 = 4 and describe the type of ownership existed in the specify type item code box during 2019. Other organizations include institutions run by a government or religious entity, and cooperatives (an incorporated or unincorporated enterprise or an association created and formed jointly by the members).

**SECTION 26 - TOTAL VALUE OF HORTICULTURAL SALES**



**Item 1** - Select the sales range which most accurately represents the operation's total gross value of horticultural sales in 2019. Exclude sales of fertilizer, statues, gardening books, chemicals, etc.

**Item 2** - Indicate whether the operation expects to sell \$10K or more of any horticultural crops in the future, regardless of the year.

**SECTION 27** - CHANGE IN OPERATOR

Complete this section only if there was no horticultural production for the operation on the label in 2019. If an operation was in business part of 2019, and then sold to someone else, complete the questionnaire for that part of the year that you operated the business.

**SECTION 28** - ADDITIONAL OPERATIONS

**Item 1 - Additional Operations In This State** - If you are involved with any other horticultural operations in this State (other than the one listed on the label of the questionnaire) list them here.

**Item 2 - Additional Operations In Any Other State(s)**- If you are involved with any other horticultural operations in any other State(s) list them here.

**SECTION 29** - CONCLUSION

Print your name, telephone number and the date (month, day, and year) the questionnaire was completed in the space provided.

**INSTRUCTION SHEET**  
**2019 ORGANIC SURVEY**  
**Your report is due January 10, 2020**

**Completing the 2019 Questionnaire**

Everyone who receives a questionnaire must fill out this form and return it.

Use a **blue** or **black** ball point pen.

Make all entries clear and easy to read.

**If You Received More than One Questionnaire for the Same Operation**

Duplicate form(s) – If you received more than one questionnaire for the SAME farming operation, return all questionnaires in the same envelope as the completed report.

**General**

Refer to the instructions below for completing your questionnaire. The enclosed census follow-on questionnaire was mailed to producers and growers throughout the United States. Because it is meant for use in all parts of the country, it may contain items and inquiries which do not apply to your operation. In this case, mark the "No" or "None" box and go on to the next item or section.

**Partial Year Operation**

If you stopped farming during 2019, complete the questionnaire for the portion of 2019 that you did farm. Write "Stopped farming in 2019" and the date you stopped farming below the address area. Mail the completed questionnaire in the return envelope.

**Partnership Operations**

Complete only ONE questionnaire for a partnership operation and include all partners' shares on the same questionnaire. If two or more questionnaires were received for the partnership, see instruction on "If You Received More Than One Questionnaire for the Same Operation" above.

**How to Enter Your Responses on the Questionnaire**

Please enter your answers in the spaces provided and in the units requested, i.e., number of acres, dollars, percent, etc. Mark all applicable Yes/No boxes with an "X".

**Instructions by Section**

Complete Sections 1 of the questionnaire. If you did not produce or grow any organic agricultural products complete Section 1, item 1, select "No", then go to Section 14 and complete the remainder of the questionnaire. If you did not have any certified organic production as determined by the USDA's National Organic Program (NOP) standards complete Section 1, item 2, select "No", then go to Section 14 and complete the remainder of the questionnaire.

**Section 1 – Operation Information**

The operation includes land owned, rented, or used by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire.

If you did not operate any land in 2019, go to Section 14 on page 15 and complete the remainder of the questionnaire.

**Include** all land, regardless of location or use; cropland, pastureland, rangeland, woodland, idle land, farmsteads, Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP). All responses in this section should be rounded to whole acres. **Exclude** land used under a grazing permit.

**Item 1** - Include all organic agricultural products of any kind produced or grown on this operation, including field crops, hay, fruits, berries, tree nuts, vegetables, floriculture, nursery and greenhouse crops, Christmas trees, maple syrup, livestock, poultry, etc.

**Item 2** - Report if the operation had certified organic production as determined by the USDA's National Organic Program (NOP) standards. Operations not certified by these standards must select "No" and go to Section 14.

**Item 3** - Report the agency or organization that certified this operation for certified organic production in 2019.

**Item 4** - Report in whole numbers the number of certified organic acres owned, leased from others, and/or leased to others. The acres in item 4a, should equal certified organic land owned by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. The acres in item 4b, should equal certified organic land this operation leased or rented from others. The acres in item 4c, should equal certified organic land this operation leased or rented to others.

**Item 5** - Report the total certified organic acres operated in 2019. This value should equal items 4a + 4b - 4c. All responses to this questionnaire should refer to these **total certified organic acres in this operation**. It is important that this number is correct as it is used to establish consistency throughout the questionnaire.

**Item 6a** - Report in whole numbers the number of certified organic acres reported in item 5 that were cropland. Cropland includes certified organic land from which crops were harvested or hay was cut, including land used for field crops, vegetables, fruits, nuts, berries, orchards, vineyards, nursery and greenhouse crops, Christmas trees, citrus groves, and maple syrup.

**Item 6b** - Report in whole number the number of certified organic acres reported in item 5 that were pastureland and/or rangeland.

**Section 2 – Certified Organic Vegetables Grown In the Open**

Report total acres harvested and production for any certified organic vegetables that were grown in the open on this operation in 2019. If not preprinted, enter the name and code of the certified organic vegetable harvested in 2019 from the Vegetables Code box on the bottom of the page. If a vegetable is not listed, select code 3530 (Vegetables not listed) and write in the name of the vegetable. If additional space is needed to report a vegetable and its production, use a separate piece of paper.

**Item 2** - Include acreage harvested in the open, total production, and gross value of sales of certified organic vegetables grown on this operation in 2019. Report acres harvested to the tenth-acre. Report production using any unit. If pounds or tons is not used for the unit of production, report the pounds per unit. Value of sales should be reported in whole dollars.

**Item 3** - Report the utilization of the certified organic vegetables grown on this operation. If the utilization is 100% fresh market, indicate via the screener question and proceed to the next section of the questionnaire.

Vegetables sold in a processed form such as juiced, canned, dried, etc. should be reported under commercial processing. Report the total certified amount sold in 2019 for commercial processing. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold for commercial processing in whole dollars.

Vegetables sold as fresh produce (including fresh packaged fruit) should be reported as fresh market. Report the total certified amount sold fresh in 2019. Report any unit for the quantity sold. If pounds

or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold as fresh market in whole dollars.

### Section 3 – Certified Organic Floriculture Crops, Nursery Crops, Mushrooms, Vegetables/Herbs under Protection

**Items 1a - 1f** - Report for each crop category the certified organic square feet harvested in 2019. Reported gross value of sales should equal the sum of sales from products both grown under protection and in the open.

Under protection is defined as any crop covering including glass, rigid plastic, and plastic film, including "tunnel" protection and hoop houses .

- a. Floriculture and bedding crops - Include bedding/garden plants, annuals, herbaceous perennials, vegetable plants, cut flowers, cut florist greens, indoor foliage plants, potted flowering plants, and other floriculture and bedding plants.
- b. Nursery crops and aquatic plants - Include nursery stock - ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees, and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials and aquatic plants.
- c. Propagative materials sold - Include bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco transplants to farm fields, vegetable seeds and vegetable transplants to farm fields.
- d. Mushrooms
- e. Tomatoes grown under protection
- f. Other Vegetables and fresh herbs grown under protection

**Items 1a - 1d** - Report for each category the certified organic acres in the open harvested in 2019 for all certified organic floriculture crops, nursery crops, propagative materials, and mushrooms on this operation. Report the gross value of sales for production grown in the open in whole dollars.

- a. Floriculture and bedding crops - Include bedding/garden plants, annuals, herbaceous perennials, vegetable plants, cut flowers, cut florist greens, indoor foliage plants, potted flowering plants, and other floriculture and bedding plants.
- b. Nursery crops and aquatic plants - Include nursery stock - ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees, and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials and aquatic plants.
- c. Propagative materials sold - Include bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco transplants to farm fields, vegetable seeds and vegetable transplants to farm fields.
- d. Mushrooms

### Section 4 – Certified Organic Cultivated Christmas Trees and Maple Syrup

**Item 1a** - Report acres in production, number of cultivated Christmas trees cut, and gross value of sales of certified organic cultivated Christmas trees sold on this operation in 2019.

**Item 1b** - Report the number of certified organic taps on the operation in 2019, the total gallons of certified organic syrup produced, and the gross value of sales of certified organic production.

### Section 5 – Certified Organic Grapes

**Item 2a** - Report total acres of certified organic grapes harvested on this operation in 2019. Acreage should be reported to the nearest tenth-acre.

**Item 2b** - Report total pounds of certified organic grapes produced on this operation in 2019. Total production should be reported to the nearest pound.

**Item 2c** - Report for each utilization the quantity of certified organic grapes produced on this operation in 2019. Quantity sold should be reported in pounds. Gross value of sales should be reported in whole dollars.

Enter the name and code of the certified organic grape variety(ies) harvested in 2019 from the Grape Variety Code box at the bottom of the page. If a variety was harvested for fresh and wine production, report in both (a.) fresh and (b.) wine production. If a grape variety is not listed, select the code 31 (Varieties not listed) and write in the name of the grape. If additional space is needed to report a grape variety, use a separate piece of paper.

- a. Grapes harvested as fresh (Table Use)
- b. Grapes harvested for wine production
- c. Grapes harvested for juice production (all varieties)
- d. Grapes harvested for raisins (all varieties)
  - Fresh weight
  - Dry weight
- e. Grapes harvested for other processing uses (all varieties)

### Section 6 – Certified Organic Apples

**Item 2** - Report acreage harvested, total production and gross value of sales of certified organic apples grown on this operation in 2019 by variety. Report acres harvested to the tenth-acre. Report production using any unit. If pounds or tons is not used for the unit of production, report the pounds per unit. Value of sales should be reported in whole dollars.

**Item 3** - Report the utilization of the certified organic apples harvested on this operation by variety. If the utilization is 100% fresh market, indicate via the screener question and proceed to the next section of the questionnaire.

Apples sold in a processed form such as juiced, canned, dried, etc. should be reported under commercial processing. Report the total certified amount sold in 2019 for commercial processing. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold for commercial processing in whole dollars.

If not preprinted, enter the name and code of the certified organic apple variety, harvested in 2019 from the Apples Code box on the bottom of the page. If an apple variety is not listed, select code 4480 (Varieties not listed) and write in the name of the apple variety. If additional space is needed to report an apple variety and its production, use a separate piece of paper.

Apples sold as fresh produce (including fresh packaged fruit) should be reported as fresh market. Report the total certified amount sold fresh in 2019. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold as fresh market in whole dollars.

### Section 7 – Certified Organic Citrus fruits

**Item 2** - Report total acreage harvested, total production and gross value of sales of certified organic citrus fruits grown on this operation in 2019 by type. Report acres harvested to the tenth-acre. Report production using any unit. If pounds or tons is not used for the unit of production, report the pounds per unit. Value of sales should be reported in whole dollars.

If not preprinted, enter the name and code of the certified organic citrus fruit, harvested in 2019 from the Citrus fruits Code box on the bottom of the page. If a citrus fruit is not listed, select code 7130 (Citrus Fruits not listed) and write in the name of the citrus fruit variety. If additional space is needed to report a citrus fruit and its production, use a separate piece of paper.

**Item 3** - Report the utilization of the certified organic citrus fruits harvested on this operation by type. Citrus fruits sold in a processed form such as juiced, canned, dried, etc. should be reported under commercial processing. Report the total certified amount sold in 2019 for commercial processing. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold for commercial processing in whole dollars.

Citrus fruits sold as fresh produce (including fresh packaged fruit) should be reported as fresh market. Report the total certified amount sold fresh in 2019. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold as fresh market in whole dollars.

### Section 8 – Certified Organic Berries, Tree Nuts, and Fruits

**Item 2** - Include acreage harvested, total production and gross value of sales of certified organic berries, tree nuts and fruits grown on this operation in 2019. Report acres harvested to the tenth. Report production using any unit. If pounds or tons is not used for the unit of production, report the pounds per unit. Value of sales should be reported in whole dollars.

If not preprinted, enter the name and code of the certified organic berry, tree nut or fruit variety, harvested in 2019 from the berries, tree nuts and fruits code box on the bottom of the page. If a berry, tree nut or fruit is not listed, select code 6130 (berries not listed), 6320 (nuts not listed) or 6660 (fruits not listed) and write in the name of the berry, tree nut or fruit. If additional space is needed to report a berry, tree nut or fruit and its production, use a separate piece of paper.

**Item 3** - Report the utilization of the certified organic berries, tree nuts and fruits harvested on this operation. If the utilization is 100% fresh market, indicate via the screener question and proceed to the next section of the questionnaire.

Berries, tree nuts and fruits sold in a processed form such as juiced, canned, dried, etc. should be reported under commercial processing. Report the total certified amount sold in 2019 for commercial processing. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold for commercial processing in whole dollars.

Berries, tree nuts and fruits sold as fresh produce (including fresh packaged fruit) should be reported as fresh market. Report the total certified amount sold fresh in 2019. Report any unit for the quantity sold. If pounds or tons is not used for the unit sold, report the pounds per unit. Report the gross value of sales for certified organic production sold as fresh market in whole dollars.

### Section 9 – Certified Organic Field Crops and Hay

Report total acres and production for any certified organic field crops and hay that were grown on this operation in 2019. If not preprinted, enter the name and code of the certified organic field crop harvested in 2019 from the Crops Code box on the bottom of the page. If a crop is not listed, select code 2700 (Field Crop not listed), 2510 (Dry beans not listed), and/or 2650 (Dry peas not listed) and write in the name of the crop. If additional space is needed to report field crops, hay and its production, use a separate piece of paper.

**Item 2** - Include acreage harvested, total production, quantity sold and gross value of sales for certified field crops and hay grown on this operation in 2019. Report acres harvested to the tenth for tobacco only. Field crops other than tobacco should be reported to the whole acre. Report production using the specified unit for each crop. Value of sales should be reported in whole dollars.

### Section 10 – Certified Organic Livestock, Poultry, and Livestock Products

Report all certified organic livestock, poultry, and their products on the land you operate. This includes livestock owned by someone else under a production contract. Include livestock on public or industrial property under a grazing permit. Do not include livestock on a grazing permit or AUM that this operation does not own. Do not include livestock or poultry grown or fed by someone else on a contract basis. If a type of livestock is not listed, select the code 8406 (Other Livestock), 8414 (Other Livestock Products) or 8246 (Other Poultry) and write in the name of the livestock, poultry or livestock product.

**Item 1** - Report the largest inventory number on your operation during 2019, the number of each livestock commodity that was on the operation on December 31, 2019, quantity sold or moved in 2019 and gross value of sales.

- a. Milk cows and milking heifers that have calved
- b. Milk (quantity sold/value of sales)
- c. Beef cows and beef heifers that have calved
- d. Other cattle (include heifers that have not calved, steers, calves and bulls)
- e. Hogs and pigs
- f. Sheep and lambs
- g. Goats and kids
- h. Goat milk (quantity sold/value of sales)
- i. Other Livestock
- j. Other Livestock Products (quantity sold/value of sales)
- k. Broilers
- l. Layer s
- m. Eggs (quantity sold/value of sales)
- n. Turkeys
- o. Other Poultry (include pullets)

**Item 2** - A production contract is a verbal or written agreement setting terms, conditions, and fees to be paid by the contractor to the operation for the production of livestock, poultry, or their products. The contractor owns the livestock or poultry and often supplies other inputs. Do not include marketing contracts, which is a contract for only the price and quantity of a deliverable. If this operation produced any certified organic livestock or poultry under contract in 2019, specify the name of the contractor.

### Section 11 – Organic Production Practices, Crop Insurance, Economic Loss

**Item 1a** - Report whether this operation applied or released any beneficial organisms to manage pests.

**Item 1b** - Report whether this operation maintained a beneficial insect or vertebrate habitat for the specific purpose of managing/reducing the spread of pests or disease.

**Item 1c** - Report whether this operation plans planting locations to avoid cross infestation of pests for the purpose of managing/reducing the spread of pests.

**Item 1d** - Report whether this operation chose a crop variety because of specific resistance to specific pests for the purpose of managing/reducing the spread of pests on this operation.

**Item 1e** - Report whether this operation planted crops at a specific time to avoid cross contamination from other crops/weeds .

**Item 1f** - Report whether this operation produced or used organic mulch/compost .

**Item 1g** - Report whether this operation applied animal manure.

**Item 1h** - Report whether this operation planted green manures (cover crops plowed under to enrich the soil).

**Item 1i** - Report whether this operation planted cover crops not plowed into the soil.

**Item 1j** - Report whether this operation used no-till or minimum till cropping practices.

**Item 1k** - Report whether this operation maintained buffer strips or border rows to isolate organic products from non-organic crops or land. Or did this operation take a buffer harvest.

**Item 1l** - Report whether this operation used water management practices such as irrigation scheduling, controlled drainage, or structures for water control.

**Item 1m** - Report whether this operation used rotational grazing.

**Item 2** - Report whether this operation marketed any of its organic products through community supported agriculture shares (CSA's).

**Item 3** - Report whether this operation's total organic acres were covered by crop insurance.

**Item 3a** - Report the percent of this operation's organic crop that was covered by crop insurance in 2019. Report in whole percent.

**Item 4** - If applicable, report the reason that best describes why crop insurance was not purchased for uninsured organic acreage in 2019. Mark only one answer.

**Item 5** - Report item(s) describing when economic losses due to unintended presence of GMO material in a crop you produced occurred. Mark all that apply.

**Item 6** - Report item(s) describing when economic losses due to unintended presence of non-NOP approved pesticides in a crop you produced for sale occurred. Mark all that apply.

#### Section 12 – Marketing Practices for Organic Products

**Item 1** - Report if this operation produced and sold edible agricultural products for human consumption.

**Item 2a** - Report the gross value of sales for food produced and sold directly to consumers from this operation. Report sales in whole dollars. Specify what type of food was produced and sold.

**Item 2b** - Report the gross value of sales for food produced and sold to retail markets, institutions, or food hubs for regional or local products. Report sales in whole dollars. Specify what type of food was produced and sold.

**Item 3** - Report if this operation produced and sold processed or value added products produced on this operation.

**Item 3a** - Report the gross value of sales for the sale of processed or value added products. Report sales in whole dollars.

**Item 3b** - Specify the type of processed or value added product produced and sold by this operation.

#### Section 13 – Other Information

**Item 1** - Report the total number of certified organic acres on this operation that were enrolled in the EQUIP Organic Initiative (Administered by NRCS). Report to the nearest whole acre.

**Item 2** - Report if this operation participated in the National Organic Certification Cost Share Program in 2019.

**Item 3** - Report if the operation was able to acquire a sufficient amount of organic seed in 2019.

**Item 4** - Report if adequate organic production inputs, such as organic feed for livestock, pest control or crop nutrients, were available as needed in 2019.

**Item 5** - Report item(s) describing what you consider a major challenge to you as an organic farmer. Mark all that apply.

**Item 6** - Report the year that this operation first grew or raised any agricultural products.

**Item 7** - Report the year that any portion of this operation became certified organic.

**Item 8** - Report item describing what may occur on this operation within the next 5 years. Mark only one item.

**Item 9** - Report production expenses paid by this operation in 2019. Include expenses paid by your landlords and contractors. Include farm business expenses only. Report to the nearest whole dollar.

- a. Organic certification expense
- b. Certified organic feed purchased for livestock and poultry
- c. Food safety related expenses
- d. Hired agricultural labor including contract labor expenses
- e. Seed, annual seedlings, planting stock
  - Organic seed, annual seedlings, and planting stock purchased
  - Non-Organic seed, annual seedlings, and planting stock purchased

**Item 10** - Report item describing the total gross value of sales of ALL (organic and conventional) agricultural products from this operation in 2019. Mark only one item.

**Item 11** - Report percent of this operation's total gross value of sales that came from the sale of certified organic agricultural products. Report the nearest whole percent.

#### Section 14 – Transitional Acreage

**Item 1** - Report if this operation owned or operated any transitional acres in 2019.

**Item 2** - Report in whole numbers the number of transitional acres owned, leased from others, and/or leased to others. The acres in item 2a, should equal transitional land owned by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. The acres in item 2b, should equal transitional land this operation leased or rented from others. The acres in item 2c, should equal transitional land this operation leased or rented to others.

**Item 3** - Report the total transitional acres operated in 2019. This value should be the result of  $2a + 2b - 2c$ .

**Item 4a** - Report the percent of transitional acres reported in item 3 that were cropland. (Cropland includes certified organic land used for field crops, vegetables, fruits, nuts, berries, orchards, vineyards, nursery and greenhouse crops, Christmas trees, citrus groves, and maple syrup).

**Item 4b** - Report the percent of transitional acres reported in item 3 that were pastureland and/or rangeland.

**Item 5** - Report the price premium this operation received for production from transitional acres by percentage. Report to the nearest whole percent.

**Item 6** - Report the percentage of production grown on transitional acreage on this operation was sold and delivered under a production contract. Report to the nearest whole percent.

#### Section 15 – No Certified Organic Production

Complete this section only if this operation did not have certified organic production. If you did have certified organic production, skip to Section 16.

**Item 2** - Report if this operation was certified organic under USDA NOP standards but had no organic production in 2019.

**Item 3** - Report if this operation was exempt from organic certification (sales below \$5,000).

**Item 4** - Report if operation was certified organic under USDA NOP standards prior to 2019.

**Item 5** - Report if this operation produced or grew any agricultural products according to USDA NOP standards that were neither exempt nor certified.

**Item 6** - Report if this operation was certified as a handler or processor of organic products in 2019.

**Item 7** - Report if this operation was involved in only the collection of wild products.

**Item 8** - Report other reasons this operation had no certified organic production in 2019. Specify reason.

#### Section 16 – Conclusion

**Item 1** - If it is possible that the information on this form could be duplicated on a form with another name or address please provide the name and address of that operation.

**Survey Results** - Please print the name of the person completing this form, the date completed, and telephone number. If you would like a brief summary of the results of the survey emailed to you at a later date, enter your email address in the space provided.



## 2020 LOCAL FOOD MARKETING PRACTICES SURVEY

This guide gives information on completing your survey form. If you need more help, call 1-888-424-7828, or email [nass@nass.usda.gov](mailto:nass@nass.usda.gov). The telephone call is free. Once you have completed your survey, please return it in the postage-paid envelope we have provided.

You may respond online at [www.agcounts.usda.gov](http://www.agcounts.usda.gov). This method is fast, easy, and secure.

If you do not return your form by **February 16th**, a second copy will be mailed. If you still do not return a completed form, we will contact you to arrange a telephone or personal interview.

**Why should I report?** The information to be gathered in the Local Food Marketing Practices Survey is vital to the USDA's and the public's understanding of the local foods sector, which in turn informs policymaking and program implementation. Section 10016(a) (1) (A) of the 2014 Farm Bill (P.L. 113-79) directs the USDA to collect data on "the production and marketing of locally or regionally produced agricultural food products," while Section 10016 (b) (2) requires the USDA to "conduct surveys and analysis and publish reports relating to the production, handling, distribution, retail sales, and trend studies... of or on locally or regionally produced agricultural food products." This survey fulfills those requirements.

**Who Should Report?** A reply is needed from EVERYONE who receives a report form, including persons who operated a farm, ranch or other agricultural operation in 2020 as well as those who were not involved in agriculture. More Local Food Marketing Practices Survey information is on the Internet at [www.agcensus.usda.gov](http://www.agcensus.usda.gov).

**If you were a landlord only** and rented out all of your land, complete the front page of the enclosed report form and return it in the preaddressed envelope. If you were a landlord but still operated other land yourself, you should complete the entire report form for that land which you operated.

**If you had no land, no livestock, and no agricultural operations**, return the report form with a note indicating your status on the front of the form below the address label.

**Partial Year Operations** - If you stopped farming during 2020, complete the report form for the portion of the year that you did farm. Write "Stopped farming during 2020" and the date you stopped farming below the address area. Mail the completed report form in the return envelope. If the person whose name is on the label was deceased during 2020, complete the form for the portion of the year that was farmed, and write a note.

**Involved In More Than One Operation** - If you made decisions for more than one operation, you may have received a report form for each operation. Provide information for only the operation name on the label.

**Partnership Operation** - Complete only ONE form for the entire partnership's agricultural operation and include the entire operation on that one form. If you made day-to-day decisions for more than one partnership operation, complete a report form for each separate operation.

**Specialty Commodities** - Bees, elk, emus, fish, nursery, maple syrup, etc., are an important part of the agriculture industry. Report for all commodities, regardless of the amount of production or sales you had in 2020.

**Received More Than One Report Form For the Same Operation** - If you received more than one report form for the same operation, complete only ONE form per operation. Write "DUPLICATE" below the address area of each extra form. Return all forms in the same return envelope with your completed form so that we can correct our records. If you received a green form and a blue form, complete ONLY the green form.

**What does the National Agricultural Statistics Service do with the information you provide?**

NASS will publish results of 2020 Local Food Marketing Practices survey in the winter of 2021 to provide valuable insight on trends in local food sales in the agricultural economy. Results will be available on the NASS website, [www.nass.usda.gov](http://www.nass.usda.gov) and [www.agcensus.usda.gov](http://www.agcensus.usda.gov). Only aggregate level data will be published, so that no individual reports or farm operator information will be disclosed in the summary data. The information will be available to everyone from the general public to your leaders from government, business, and non-profit organizations to have more information when considering local foods policy and program decisions.

**How was this address selected?**

Your address was scientifically selected to represent other local food producers in your community. As part of a sample, you represent many other people. Food producers from all 50 States have been selected to participate in this very important survey.

**Is it safe to provide my information over the Internet?**

Yes. The 2020 Local Food Marketing Practices survey is encrypted at all times. Our secure servers ensure the encrypted transmission of data between your browser and the National Agricultural Statistics Service. This means your browser and our server encode or scramble all data using a security key.

**What do these terms in the survey mean?**

|                               |   |
|-------------------------------|---|
| <b>Operation:</b>             | A farm or ranch, a piece of land, or a structure where production takes place and an agricultural product is grown or raised.   |
| <b>Produced and Sold:</b>     | An agricultural product that is grown or raised by an operation and is also sold by that same operation.  |
| <b>Food:</b>                  | Edible agricultural products for humans to eat or drink in its current state.   |
| <b>Selling Food Directly:</b> | The first point of sales of the food produced and sold by an operation.   |
| <b>Production Contract:</b>   | A verbal or written agreement setting term, conditions, and fees paid by the contractor to the operation for the production of crops or livestock. The contractor owns the product being grown or raised and often provides inputs. |

**What are the four channels for marketing food directly?**

|                              |  |
|------------------------------|--|
| <b>Consumers:</b>            | (Individuals who purchase your products from farmers' markets, on-farm stores or farm stands, roadside stands or stores, CSA (Community Supported Agriculture), and online marketplaces.   |
| <b>Retail Markets:</b>       | Supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, and food cooperatives   |
| <b>Institutions:</b>         | K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, and foodbanks  |
| <b>Intermediate Markets:</b> | Businesses or organizations in the middle of the supply chain that market locally- and/or regionally-branded products, such as distributors, food hubs, brokers, auction houses, wholesale and terminal markets, and food processor) |

[Instructions by Section](#)

**Face Page** – Answer the questions about whether you produce agricultural products on your farming/ranching operation, and whether you sell food products directly to consumers, retail establishments, institutions or an intermediate market. If you check “NO” to all questions on the face page, please turn to page 16, the last page, fill out your name and phone number, and return the form in the prepaid envelope provided. If you have any questions about the survey, please call 1-888-424-7828, or email [nass@nass.usda.gov](mailto:nass@nass.usda.gov). **Exclude crop and livestock production under production contract.**

**Section 1-4 Sales** – Report the value of edible agricultural products for human consumption this operation produced and sold through the appropriate direct marketing channel. Report only the first point of sale, even if that sale was to another farm or business you also own. Exclude sales of products that were not for human food or drink such as animal feed, wool, nursery and flowers not intended for human consumption. Report sales completed in 2020 regardless of the year production was harvested or raised. Report the gross value of sales before the deduction of expenses, marketing fees, or taxes. Include as sales your estimate of the value of any crop or livestock bartered directly to consumers for services or other goods. Report in whole dollars only. If you sell in more than one direct-to-consumer marketing channel, please report sales of each marketing channel separately in the tables at the end of sections 1-4. **Exclude crop and livestock production under production contract.**

- **Fresh Fruit and Vegetable Sales** - Report the value of the fresh fruits and vegetables sold as food for human consumption in 2020 in the appropriate category. Also include crops such as grains, tea, coffee, and any agricultural products that are unprocessed for human consumption in this column. Report the sales in 2020 regardless of the year crops were harvested or raised. Include the value of your landlord's share of the commodities harvested. Report the gross value before the deduction of expenses or fees.
- **Meat, Farmed Seafood, and Egg Sales** - Report the value of meat, farmed seafood and eggs sold by this operation for human consumption in 2020. Include food items sold in their unprocessed state, such as farmed clams, oysters, soft-shelled crabs, and bulk sales of honey. Some farms offer hunting or fishing for a fee. If this farm sells only whole game animals or fish, those transaction are not included. If this farm raises the game or fish and processes the game or fish into meat, those transactions are included as value added. Fee hunting and fishing operations on farms are in the category of "other direct-to-consumer markets" in Section 1. Include the value of your landlord's share of the commodities produced. Report the gross value before the deduction of expenses or fees.
- **Milk and Dairy Product Sales** - Report the value of milk and dairy products, such as butter, cheese, and yogurt, sold by this operation for human consumption in 2020. Include the value of your landlord's share of the commodities produced. Report the gross value before the deduction of expenses or fees.
- **Other Processed Food Product Sales** – are products that have been altered or packaged before being sold to the consumer. Include canned or preserved vegetables, jam, jelly, wine, juice, cider, and meats. Include only those commodities which the initial agricultural commodity was produced on this operation. For example, if wine was produced from grapes purchased from another operation do not include it. If the grapes were produced on this operation, then the value of sales for wine produced from grapes grown on this operation should be reported.



**Section 1, item 8-9** – If you operate more than one on-farm store report yes in question 7, if any of these stores/stands sells food produced by another operation. In question 8, report for all on-farm stores/stands combined.

**Section 1, item 12-13** – If you operate more than one off-farm store report yes in question 11, if any of these stores/stands sells food produced by another operation. In question 12, report for all off-farm stores/stands combined.

**Section 1, item 15** – If you operate more than one off-farm store report for the store with the highest gross value of food sales in 2020.

**Section 1, item 16-18** – If you sell to more than one CSA, report yes in question 16. If any of these CSAs sell food produced by another operation, report yes in question 17. In question 18, report for all CSAs combined.

**Section 1, item 21** – Report yes if you have ownership in any CSA through which you sold food your operation produced.

**Section 1, item 24** – Report yes if you have ownership in any online marketplace through which you sold food your operation produced.

**Section 1, item 27; Section 2, item 8; Section 3, item 10; Section 4, item 6** – Report the first year that this operation used the marketing practice listed. If there have been gaps in the use of this marketing practice, report the most recent return to the practice if the gap exceeded five years.

**Section 5, item 1** – Report by category the total value of all local food sales reported in Sections 1-4. The total reported should represent the sum of items reported in Section 1, item 27 and item 29, Section 2, item 8 and item 10, Section 3, item 10 and item 12, and Section 4, item 5 and item 7.

**Section 5, item 2** – Report the percentage of all local food sales reported in Sections 1-4 by distance

from operation. Items 2a, 2b, and 2c must sum to 100%.

**Section 5, items 5-6** – Include all land on this operation, not just the portion used for directly marketed production.

**Section 5, item 8** – Check yes or no in columns 2 and 3 to determine whether any of the crop and livestock categories in column 1 were produced and sold, regardless of marketing channel. Exclude any crops and/or livestock sold under production contract.

**Section 5, item 9** – Check the code that represents your total gross value of sales. Exclude value added sales, but include the value of commodities used in value added production.

**Section 5, item 12** – Include all farm expenses paid by you and/or your landlord(s) for crops, livestock, or poultry produced on this operation in question 12. Include expenses incurred in 2020 even if they were not paid in 2020. Estimate if exact figures are not known. Include marketing expenses in item 12, which include expenses incurred from value added production. Marketing expenses are also itemized in item 13.

**Sections 6 and 7** – Report practices used, particularly program participation, certifications by the USDA or other organizations, and food safety audits/plans used by the whole operation.

**Section 8** – Report in this section the characteristics of the persons who make the day to day decisions for your farm or ranch. In item 2, report the total number of persons making day to day decisions, including both the men and women. Do not report as operators minor-aged children who work on the farm. In item 3, answer questions about those people for up to 4 operators. If there are more than 4 operators, answer for the 4 that make most of the day to day decisions for the operation. For number of years farming, include only years over the age of 16.

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## APPENDIX F. ACRONYM LISTING

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|        |  |
|--------|--|
| ACES   | Agricultural Coverage Evaluation Survey              |
| ADC    | Automated Data Capture                               |
| ADVFU  | Advance Follow-up                                    |
| AIS    | Agricultural Identification Survey                   |
| AMS    | Agricultural Marketing Service                       |
| APHIS  | Animal and Plant Health Inspection Service           |
| ARMS   | Agricultural Resources Management Study              |
| AS     | Active Status  |
| ASCII  | American Standard Code for Information Exchange      |
| ATAC   | Automated Tracking and Control System                |
| AUM    | Animal Unit Month                                    |
|        |  |
| BOC    | Bureau of the Census                                 |
| BLM    | Bureau of Land Management                            |
|        |  |
| CASI   | Computer-Assisted Self Interview                     |
| CATI   | Computer-Assisted Telephone Interview                |
| CBO    | Community-Based Organization                         |
| CCC    | Commodity Credit Corporation                         |
| CCT    | Census Content Test                                  |
| CDQT   | Census Data Query Tool                               |
| CES    | Classification Error Study                           |
| C-FARE | Council on Food, Agriculture, and Resource Economics |
| CFI    | Correct Form Image                                   |
| CML    | Census Mail List                                     |
| CNMI   | Commonwealth of Northern Mariana Islands             |
| CPB    | Census Planning Branch                               |
| CREP   | Conservation Reserve Enhancement Program             |
| CRP    | Conservation Reserve Program                         |
| CSD    | Census and Survey Division                           |
| CSV    | Comma-Separated Values                               |
| CV     | Coefficient of Variation                             |
|        |  |
| DCC    | Data Collection Center                               |
| DOC    | Department of Commerce                               |
| DUP    | Duplicate  |
| DVD    | Digital Versatile Disc                               |
|        |  |
| EDR    | Electronic Data Reporting                            |
| EFO    | Eastern Field Operations                             |
| EIN    | Employer Identification Number                       |
| ELMO   | Enhanced List Maintenance Operations                 |
| ELMA   | Enhanced List Maintenance Assistant                  |
| ERS    | Economic Research Service                            |
| ES     | Extension Service                                    |

|       |  |
|-------|--|
| FMG   | Frames Maintenance Group                                 |
| FO    | Field Office   |
| FPG   | Forms Processing Group                                   |
| FRIS  | Farm and Ranch Irrigation Survey                         |
| FSA   | Farm Service Agency                                      |
| FWP   | Farmable Wetlands Program                                |
| FY    | Fiscal Year (October - September)                        |
| GPO   | Government Printing Office                               |
| GCV   | Generalized Coefficients of Variation                    |
| HUC   | Hydrologic Unit Code                                     |
| iCADE | Integrated Computer Assisted Data Entry                  |
| ID    | Identification   |
| I/S   | In-Scope (Meets the census definition of a farm)         |
| IT    | Information Technology                                   |
| ITC   | Incoming Telephone Call System                           |
| ITD   | Information Technology Division                          |
| IWMS  | Irrigation and Water Management Survey                   |
| JAS   | June Agricultural Survey                                 |
| KFI   | Key From Image   |
| KFP   | Key From Paper   |
| LACS  | Locatable Address Conversion System                      |
| LAN   | Local Area Network                                       |
| LSF   | List Sampling Frame                                      |
| LRC   | Low Response County Follow-up                            |
| MD    | Methodology Division                                     |
| MIS   | Management Information System                            |
| MISO  | Marketing and Information Services Office                |
| MSA   | Metropolitan Statistical Area                            |
| NACS  | National Agricultural Classification Survey              |
| NAD   | National Appeals Division                                |
| NAFB  | National Association of Farm Broadcasting                |
| NAICS | North American Industry Classification System            |
| NAMA  | National Agricultural Marketing Association              |
| NASDA | National Association of State Departments of Agriculture |
| NASS  | National Agricultural Statistics Service                 |
| NCOA  | National Change of Address                               |
| NITC  | National Information Technology Center (USDA)            |
| NML   | Not-on-the-Mail List                                     |
| NOC   | National Operations Center                               |
| NOD   | National Operations Division                             |
| NPC   | National Processing Center (Bureau of the Census)        |
| NR    | Nonresponse  |

|        |  |
|--------|--|
| OA     | Office of the Administrator                              |
| O&B    | Osborn & Barr Communications                             |
| OMB    | Office of Management and Budget                          |
| OMR    | Optical Mark Recognition                                 |
| O/S    | Out-of-Scope (Does not meet census definition of a farm) |
| PAO    | Public Affairs Office                                    |
| PDF    | Portable Document Format                                 |
| PII    | Personally Identifiable Information                      |
| POID   | Person Operator Identification                           |
| PR     | Puerto Rico  |
| PRD    | Previously Reported Data                                 |
| PRDA   | Puerto Rico Department of Agriculture                    |
| PRISM  | Project to Renew & Improve System Methodology            |
| PRL    | Probabilistic Record Linkage                             |
| PSA    | Public Service Announcement                              |
| PSU    | Primary Sampling Unit                                    |
| QA     | Quality Assurance  |
| QAS    | Quarterly Agricultural Survey                            |
| QC     | Quality Control  |
| RDD    | Research and Development Division                        |
| REE    | Research, Education, and Economics                       |
| RFO    | Regional Field Office                                    |
| SET    | Senior Executive Team                                    |
| SSN    | Social Security Number                                   |
| StPOID | State Person Operator Identification                     |
| TOTAL  | Tenure, Ownership, and Transition of Agricultural Land   |
| TVP    | Total Value of Product                                   |
| UAA    | Undeliverable As Addressed                               |
| UPR-ES | University of Puerto Rico - Extension Service            |
| U.S.C. | United States Code                                       |
| USDA   | U.S. Department of Agriculture                           |
| USGS   | United States Geological Survey                          |
| UTN    | Universal Telecommunications Network                     |
| VNR    | Video News Release                                       |
| VPN    | Virtual Private Network                                  |
| WFO    | Western Field Operations                                 |
| WFP    | Work Force Participation                                 |
| WRA    | Water Resource Area                                      |
| WRP    | Wetlands Reserve Program                                 |

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## APPENDIX G. SOURCES

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The following NASS source documents were utilized in the 2017 Census of Agriculture History publication:

1. 2017 Census of Agriculture, Volume 1, Geographic Area Series, United States (AC-17-A-51) dated April 2019.
2. 2018 Census of Agriculture, Volume 1, Geographic Area Series, Puerto Rico (AC-17-A-52) dated June 2020.
3. 2018 Census of Agriculture, Volume 1, Geographic Area Series, Guam (AC-17-A-53), dated July 2020.
4. 2018 Census of Agriculture, Volume 1, Geographic Area Series, U.S. Virgin Islands (AC-17-A-54) dated July 2020.
5. 2018 Census of Agriculture, Volume 1, Geographic Area Series, American Samoa (AC-17-A-55) dated July 2020.
6. 2018 Census of Agriculture, Volume 1, Geographic Area Series, Northern Mariana Islands (AC-17-A-56) dated July 2020.
7. 2017 Census of Agriculture, Volume 2, Subject Series, American Indian Reservations (AC-17-S-5) dated August 2019.
8. 2017 Census of Agriculture, Volume 2, Subject Series, Watersheds (AC-17-S-6) dated July 2019.
9. 2012 Census of Agriculture, Volume 2, Subject Series, History (AC-17-S-7) dated March 2017.
10. 2017 Census of Agriculture, Volume 2, Subject Series, Specialty Crops (AC-17-S-8) dated December 2019.
11. 2017 Census of Agriculture, Volume 2, Subject Series, Specialty Crops for Outlying Areas (AC-17-S-9) dated August 2020.
12. 2017 Census of Agriculture, Volume 2, Subject Series, Farm Typology (AC-17-S-10) dated January 2021.
13. 2018 Irrigation and Water Management Survey, Volume 3, Special Studies (AC-17-SS-1) dated November 2019.
14. 2018 Census of Aquaculture, Volume 3, Special Studies (AC-17-SS-2) dated December 2019.
15. 2019 Census of Horticultural Specialties, Volume 3, Special Studies (AC-17-SS-3) dated December 2020.
16. 2019 Organic Survey, Volume 3, Special Studies (AC-17-SS-4) dated October 2020.
17. 2017 Census Administration Manual (CAM) dated October 2017.
18. 2018 Irrigation and Water Management Survey, Census Administration Manual (CAM) dated November 2018.
19. 2019 Certified Organic Survey, Census Administration Manual (CAM) dated December 2019.
20. 2018 Census of Aquaculture, Census Administration Manual (CAM) dated December 2018.
21. 2017 Census of Agriculture Report Form Guide dated November 2017.
22. 2017 NASS Organization Chart.