

## Chapter Two. Prices Received Program

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This chapter presents program history and background information and the current methodology used in NASS's Prices Received program. This program covers the prices received by producers for the commodities they sell in their local market or at the point where they deliver their product. Since the program's inception, modifications are necessary to address the changing environment and market in agriculture. The need for timely and accurate price data is more demanding than ever.

USDA's National Agricultural Statistics Service (NASS) estimates monthly prices received by producers for about 60 crop and livestock items and annual or market year average (MYA) prices for 35 additional items. MYA prices are estimated for States where sample surveys do not allow monthly estimates because of limited sales. Prices for fruit and vegetable crops for processing are estimated on a market year average basis as most production is contracted. Contract prices do not become final until after crop delivery. Prices received by producers and Prices Received indexes are published each month in *Agricultural Prices*.

The index series has maintained the 1910-1914 base reference period as prescribed in permanent legislation. A more recent base period is provided and has undergone a number of updates through the years. The current program survey methodology to include universe development and maintenance, survey sample design and selection, survey instrument design, data collection means, use of administrative data, data review, analysis, and summarization, estimate construction, estimate revisions, and public availability of the price estimates are presented. To provide as much detail and transparency in this document as possible, overlapping discussion is necessary. This chapter also provides a presentation of data needs and uses

for the data as well as limitations with the data series.

## History and background

The U.S. Department of Agriculture (USDA) began collecting prices received by farmers in 1866. The early reports covered December 1 prices for 10 crops. Collection for six species of livestock farm values (January 1) began in 1867. Prices as of the first of each month were collected in 1908 for eight crops, and during the next 2 years, monthly prices received for livestock, poultry, and their products were added.

Monthly prices weighted to season-average prices have replaced the December 1 prices for valuing crop production and sales. January 1 values have continued to be used for livestock inventories, except for hogs and poultry. Hogs and poultry inventory values as of December 1 began in the late 1960s.

In 1924, monthly prices received were collected as of the middle of the month instead of the first. The series for the earlier years were converted to a mid-month basis to maintain continuity.

From time to time, commodities have been added to or dropped from the price program because of their changing importance. While few commodities have been added since the middle 1930s, some have been divided into marketing or utilization classes. In 1944, weights for aggregating State prices to a U.S. price were shifted from production to estimated sales. Most regional prices were discontinued in January 1973.

In 1977, the grain price survey began using a probability sample. Actual quantities sold and dollars received from those sales are collected for the entire preceding month. For the current month, preliminary month (mid-month) price estimates are based on market quotations, grower surveys, and data published by Government agencies and private associations.

The last price program review for Prices Received along with Prices Paid occurred in 1995. In this review, no changes were made to the coverage of Prices Received data. Several changes, however, were made to the Prices Received index which include using five year moving weights, seasonal marketing adjustments, changing the base reference period to 1990-1992 = 100, and index commodity coverage. This is further explained in the Prices Received index section

The current series of Prices Received by farmers include monthly prices for most major agricultural commodities. MYA prices are estimated for agricultural commodities that have production estimates. Milk, fruits, and vegetables have prices by product use. State prices are available for many commodities. Equivalent prices by location in the marketing channel are calculated for citrus fruits.

## Survey Methodology

The universe for agricultural commodity prices is all sales from producers to first buyers. Prices for points of first sale can be obtained from either producers or first buyers. Individual producers generally market commodities relatively few times during the year. A single buyer is a more active participant on a continuing basis and can

report on many transactions. Buyers, then, are the preferred data collection contacts.

Price reporters include independent local buyers like grain elevators and produce dealers, cooperative marketing organizations, Federal milk market administrators, State fruit boards, other marketing agencies, processors, canneries, slaughtering plants, other Government agencies, and producers or growers. Data furnished by the different types of reporters vary in usefulness, depending on accessibility, timeliness, and completeness. The cost of developing a complete sampling frame of all buyers of farm products far exceeds any available resources. Market channel surveys provide information on major sales localities of major agricultural products. Sample surveys are then concentrated in the market channels accounting for the bulk of commercial sales.

The sampling frames for agricultural commodities are segmented into several commodity areas. Grain price information is obtained from grain elevators and buyers. Hay price indications are gathered from surveys of dealers, hay auctions, and other buyers or other lists such as dairies or cattle feeders. Cotton price information is obtained from contacts to cotton buyers, including cooperatives and private merchants. Peanut price data is gathered from all known peanut buyers. Firms are stratified or grouped according to size or volume of products purchased. A probability sample proportionate to size is selected from each stratum. This universe and sample process allows NASS to cover a high proportion of products sold at minimum cost. Livestock prices are collected by the Agricultural Marketing Service (AMS).

Probability sample surveys used to collect price data for most major crops increase accuracy, give greater quality control, provide a method for

estimating sampling error, and use smaller but more representative samples.

Price surveys for prices received for corn, wheat, soybeans, cotton, and rice are designed to provide a coefficient of variation (CV) of less than one percent at the U.S. level and less than five percent at the State level. State level CVs for major producing States run as low as two to three percent. Nonsampling errors in conducting the surveys may be larger than the sampling errors. Current methods of summarization for non-probability commodities are not designed to calculate sampling errors. Analytical measures, however, approximate the U.S. relative sampling errors at around five percent. Any nonsampling errors are attributed to obtaining correct data, differences in interpreting questions and definitions, and mistakes in coding or processing the data. Efforts are made at each step in the survey process to minimize nonsampling errors.

Primary sales data used to determine grain prices are obtained from probability samples of some 1,900 mills and elevators. The probability survey procedures ensure that virtually all grain moving into commercial channels has a chance of selection in the survey. States surveyed account for 90 percent or more of total U.S. production. Livestock prices are obtained from USDA's Agricultural Marketing Service (AMS). Sales between farms are not included since they represent very small percentages of the total marketings. Grain marketed for seed is also excluded. Fruit and vegetable prices are obtained from sample surveys and market data from private marketing organizations, State agencies, universities, and from USDA's AMS.

## Frame Development

The universe for agricultural commodity prices is all sales from producers to first buyers. The universe for Prices Received by producers for commodities sold, therefore, is comprised from various sources. Sample units for frame construction are classified in the following categories: merchants, farm produce dealers at local shipping points, mills, and elevators, Federal Milk Order Administrators, State milk control agencies, milk distribution and manufacturing plants, cooperative marketing organizations, bankers, and farm and ranch operators.

The frame development for the following Prices Received commodity groups vary dependent on business type and commodity. A commodity type is one of the following five groups.

- Livestock and Livestock Products
- Poultry and Specialty Commodities
- Field Crops
- Fruit and Nuts
- Commercial Vegetables

When building the frame for all five commodity types, responsibility for universe building is shared between the list frame developers, commodity analysts, and survey statisticians.

*Livestock and Livestock Products.* The target population for livestock products like milk contains any entity involved with the purchase of livestock products from producers. Livestock prices are obtained from AMS; so, a frame for livestock is not needed.

Sources for the frame development and maintenance of livestock products include:

- Producers in the Quarterly Milk Production Survey .
- Buyers, cooperatives, wool pools, and Farm Service Agency (FSA) records.
- Data from AMS, State Departments of Agriculture, and State universities

*Poultry and Specialty Commodities.* NASS collects no price data from producers for the highly integrated poultry industry. A list frame of handlers, slaughtering plants, and packing plants is maintained for surveying when Agricultural Marketing Service / Market News Service (AMS/MNS) price data for chickens and live turkeys are not available. State departments of agriculture, national poultry associations, State poultry improvement associations, extension poultry agents at State universities and county agents provide names of egg handlers. A sampling frame of bee and honey producers is developed and maintained.

*Field Crops.* The target population for field crops includes establishments which sell or purchase field crops directly from the producer. Thirty-seven monthly program States are sampled on a probability basis.

NASS constructs field, oilseed, specialty and other crop Prices Received lists using the following procedures:

- Develop and maintain a list of elevators, dealers, and specialty buyers that purchase grain, oilseeds, rice, peanuts, dry beans, pulse crops or cotton for monthly and probability surveys that purchase directly from farmers. Information captured also includes capacity size and multi-unit

status for each operation. Lists are kept current and complete through processing of monthly updates.

- Develop and maintain a list of growers, buyers, ginners, and other agricultural entities for crops surveyed on a non-probability, non-monthly basis. Updates are processed on a regular basis to keep lists current and complete with priority given to the largest growers and buyers
- Develop and maintain universe lists to conduct supplementary surveys when additional price data are needed to strengthen price indications.
- Sources of operations, buyers, and other entities for the Prices Received probability and non-probability populations include:
  - Farm Service Agency,
  - Agricultural Marketing Service / Market New Service,
  - State Departments of Agriculture,
  - Various organizations such as licensing bureaus, grain associations, commodity associations, cooperatives, extension crop specialists at universities, dealers, auction facilities, factories, mills, buyers, feeders, brewers, ginners, processors, distributors and other related organizations.

*Fruit and Nuts.* The target population for fruits and nuts consists of entities involved with the sale or purchase of fruits and nuts at the first point of sale. NASS constructs fruit and nut Prices Received lists using the following procedures:

- Grower contacts originate from the following sources:
  - Farm Service Agency,
  - Agricultural Marketing Service (AMS), and
  - Various organizations like grower associations, marketing associations, cooperatives, dealers, packers, shippers, processors, wineries, exchanges, marketing boards, administrative committees, county extension agents and other related persons or groups.
- Maintain current grower lists and other non-grower lists related to the fruit and nut industries for commodities included in the NASS estimation program.
  - Direct purchases from producers by non-grower entities.
  - Maintain complete coverage of the largest growers and buyers as no area frame is utilized to supplement the list frame populations.
- Maintain a list of packers, processors, cooperatives, and other related entities purchasing directly from producers. Sources include:
  - AMS,
  - State Departments of Agriculture,
  - Extension fruit specialists at universities, Trade magazines.
- States with access to administrative data sources.
  - Utilize these sources and do not necessarily maintain a list of other contacts.
  - Maintain a list frame to conduct supplementary surveys when additional price data are needed to strengthen price indications.

*Commercial Vegetables.* The target population for vegetables consists of any entity involved with the sale or purchase of vegetables at point of first sale (POFS). POFS prices reflect the point in the marketing chain where the grower no longer owns the commodity. NASS constructs commercial vegetable contact lists using the following procedures:

- Maintain a list of contacts with knowledge of fresh market prices, to supplement administrative data or when these data are not available.
  - The list includes growers, roadside and farmer markets, U-pick sales, grower auctions, dealers, packers, commodity marketing associations, producer co-ops or market orders.
  - Other sources include terminal markets and packinghouses.
  - Maintain current and complete list frame, to help manage the variability within different vegetable industries and localities. Priority given to maintaining complete coverage of the largest growers and buyers.
- Maintain an up-to-date list of processors to represent plant door pricing.
  - Processor sources include canners' and freezers' associations, trade journals, State licensing boards, and health inspection records.
- Federal/State Market News Service provide sufficient coverage for major producing areas during the primary marketing season.
  - Maintain a list frame to conduct a survey when no administrative data and/or when administrative data needs strengthening.

## Frame Maintenance

NASS focuses on regular frame maintenance to maintain current and complete list frames to obtain complete coverage resulting in reliable indications for setting accurate official estimates. The following Prices Received commodity groups follow the same frame maintenance process.

- Livestock and Livestock Products
- Poultry and Specialty Commodities
- Field Crops
- Fruits and Nuts
- Commercial Vegetables

NASS reviews and updates the list frame universe for the five commodity groups using the following procedures:

- Annually and prior to the sampling cycle, review and update frame with new and existing records and control data.
  - Review established lists checking for omissions, name changes, mergers and consolidations.
  - Add new plants.
  - Add new products by established plants.
  - Update record profile type information identifying plant closings (both temporary and permanent), and any contact changes.
- Check for duplication between list frame units at least once a year
- Process survey data and list frame control data through a NASS sampling application.
  - During the annual sampling cycle, these data are processed through the sampling application with the most re-

cent/largest control data selected for each associated list frame record.

- Update control data for use in selecting the Prices Received samples for the next survey year.
- Add new control data to list frame records.
- Directly after program surveys are completed, NASS manually updates name, address, status codes, and control data. Surveys occur on a weekly, monthly, quarterly, annual or intermittent basis.
  - Manually updating records through a NASS database application. Name, address, status code and other data from surveys are entered one record at a time. Data from new lists received in non-electronic form follow the same process.
- Collect control data through NASS program surveys and the list maintenance surveys. Records with control data become eligible for survey sample selection. Survey control data are captured to list frame records through automated or manual means.
- A resolution application that processes databases obtained through list building efforts.
  - After duplication between the list frame and the outside database is removed, new records automatically get appended to the list frame data base.
  - New list frame records cannot be used for surveys unless the appropriate status code and control data are present.

## Sample Design and Selection

A sample process is utilized for field crops, milk, and honey. Other Livestock and Livestock products use administrative sources and State Field Offices (FO) determined agribusinesses. Fruits & Nuts and Commercial Vegetables use administrative sources and survey growers for MYA data and monthly revisions.

***Livestock and Livestock Products.*** No Headquarters (HQ) sampling for Livestock and Livestock products except for milk.

Milk production estimates are made for all fifty States. There are currently twenty-three States in the monthly estimating program covering 93 percent of the total milk production. All other States are estimated quarterly (January, April, July, and October). State coverage is reviewed every five years after the Census of Agriculture. The milk survey uses a stratified random sample within a State based on the size of the operation. Sample sizes are based on historical response rates, number of milk operations, and coefficients of variation (CVs).

***Poultry and Specialty Commodities.*** No HQ sampling for poultry and specialty commodities except for honey. Mink, catfish, and trout are completely enumerated annually.

Bee and honey data are sampled in all 50 States. Beekeepers must have more than five total colonies to be in the population. The sample is stratified by number of colonies, a honey producer indicator, and a multi-State operation indicator.

***Field Crops.*** Thirty-seven States are sampled across six groups of commodities: grains, oilseeds,

pulse crops, peanuts, cotton, and hay. Table 2.1 shows the list of States by the commodity groups.

***Cotton.*** Seventeen States are sampled for the upland cotton survey. The sample cycle begins in September. Seven States are sampled for the annual survey. The seven States involved are Florida, Kansas, New Mexico, Missouri, Oklahoma, South Carolina, and Virginia. Ten States are sampled for the monthly survey. The ten States are Alabama, Arizona, Arkansas, California, Georgia, Louisiana, Mississippi, North Carolina, Tennessee, and Texas.

The number of bales of cotton produced by the universe operator is the primary stratification variable for the 17 States. One stratum is for extreme operators which are sampled with a probability of one because of their importance. Table 2.2 shows the strata used for cotton by the States.

***Feed Grains and Oilseeds.*** NASS samples feed grains and oilseeds together on the grain survey. The sample cycle begins in October. Thirteen States are sampled for feed grains and oilseeds. The 13 States are Illinois, Indiana, Iowa, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, Ohio, Pennsylvania, Tennessee, and Wisconsin.

The stratification for each State is unique to that State. The commodities within the State determine the strata. Stratification is based on the storage capacity of the facility and elevator type. Specialty elevators are stratified to insure adequate coverage for rare commodities. Table 2.3 shows the types of elevator indicators for stratification.

*Small Grains and Pulse Crops.* Nineteen States are sampled for small grains. The sample cycle begins in July. The 19 States are Arizona, Arkansas, California, Colorado, Idaho, Kansas, Michigan, Minnesota, Montana, North Dakota, Nebraska, New York, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. All the States except Nebraska are sampled for pulse crops.

Like feed grains and oilseeds, the stratification for each State is unique to that State for small grains and pulse crops. The commodities within the State determine the strata. Stratification is based on the storage capacity of the facility and elevator type. Specialty elevators are stratified to insure adequate coverage for rare commodities. Table 2.3 shows the types of elevator indicators for stratification.

*Peanuts.* Seven States are sampled for peanuts. The seven States are Alabama, Florida, Georgia, New Mexico, North Carolina, Texas, and Virginia. The sample cycle begins in August. Data for Mississippi, Oklahoma, and South Carolina are collected by other States.

Prior to any data collection operations, State FOs compare the peanut buyers with Farm Service Agency (FSA) known buyers. Go to <http://www.fsa.usda.gov/FSA/> for more information about the FSA.

*Fruit and Nuts.* No sampling is conducted from HQ for fruit and nuts. Administrative data is used to establish price estimates.

*Commercial Vegetables.* No sampling is conducted from HQ for commercial vegetables. Administrative data is used to establish price estimates.

*Coefficients of Variation by Reference Months for Sampling Process.* Target coefficients of variation (CVs) are specified for the U.S. for selected months, where the U.S. is defined to be the States in the Prices Received estimating program for a specific commodity. These months were chosen based on their relative ability to monitor survey performance. The target CVs are for the re-weighted ratio price estimator from the list frame. Table 2.4 shows the target CVs by commodity and reference month.

*State Level Sample Size.* Once a U.S. sample count is determined, NASS uses CVs defined at the stratum level within the State to calculate the sample size at the State level. The stratum level CVs within the State are loosely defined. Then NASS adjusts the State allocations (if needed) to assure the CVs meet the U.S. target level.

Year to year samples at the State level are fairly consistent. If the target CVs at the U.S. level are not met, then the sample sizes are increased in states with high CVs. Likewise to maintain reasonable sample sizes, if a sample consistently maintains a low CV, the sample size for that state is lowered.

NASS follows a work schedule for each commodity. State FOs are notified by HQ when the sample process is complete. The State FOs can then begin sample preparations for data collection.

## Questionnaire

Under provisions of the Federal Reports Act, all federally funded survey questionnaires must be cleared in advance by the Office of Management and Budget (OMB) and must carry an OMB approval number and expiration date. New questions, questionnaires, and/or requests for revisions in present questionnaires are submitted to the Questionnaire Design Section at least 6 months prior to the scheduled use of the questionnaire along with appropriate “supporting statement”.

Monthly and annual master questionnaires contain the questions approved by OMB. A check sheet sometimes accompanies the master questionnaires mailed to each State FO indicating the questions approved for a particular State FO and the month(s) each question is to be used. Some questions are specifically approved for a particular State FO and are so noted. All other questions may be used in any State, provided approval is obtained from the Questionnaire Design Section. All questionnaires whether HQ or State FO generated must use the question wording contained on the master questionnaire.

Paper forms or computerized instruments (CATI, CAPI) are used for collecting data. The questionnaires and computerized instruments include an introductory paragraph about the importance and need for the data being collected. This introduction also informs the respondent of the confidentiality of the data provided and that response is voluntary and not required by law.

Questionnaires are used to collect information from respondents. NASS uses paper forms or computerized instruments like CATI or CAPI for this purpose. CATI and CAPI are computerized assisted interviewing techniques using telephone or personal interview, respectively. The questionnaires and computerized instruments include an introductory paragraph about the importance and need for the data being collected. This introduction also informs the respondent of the confidentiality of the data provided and that response is voluntary and not required by law.

A general questionnaire once used for a number of commodities is no longer adequate for estimating prices received by producers. Specialized inquiries are now used for most farm produced commodities. Price data alone do not provide sufficient information to adequately estimate prices for most commodities. Information on quantities and uses are also needed for developing reliable weighted average prices at State and National levels.

The State FOs design questionnaires for commodities in fruit and nuts and vegetables specific to their State. For other commodities, NASS prepares a master questionnaire for distribution to the State FOs. Questionnaires are prepared for the five commodity groups: livestock & livestock products, poultry & specialty commodities, field crops, fruit & nuts, and vegetables.

**Livestock and Livestock Products.** NASS does not conduct data collection activities for livestock. NASS obtains livestock data from AMS. For livestock products such as milk and honey, questionnaires are prepared for data collection activities. Agency policy is followed when using Administrative or outside data sources. See the Use of Administrative Data Section of this chapter for details.

**Milk.** NASS conducts monthly and quarterly milk production surveys collecting information on the number of milk cows, number of cows milked, and total milk produced. Each State Field Office also conducts milk price inquiries either by contacting dairy programs at State agricultural offices, Agricultural Marketing Service (AMS), or non-government sources.

NASS prepares a master questionnaire for use by all the States in the milk production program. The reference date for the monthly or quarterly milk production surveys is the first day of the month or at the beginning of a quarter. The quarters include January, April, July, and October.

The State FOs collect two grades of milk, fluid grade and manufacturing grade. Within each grade, information about the quantity of milk produced and price received are collected. The milk price inquiries conducted by the States use a month as the reference period.

**Poultry and Specialty Commodities - Honey.** NASS prepares a master questionnaire for use by all program States. December 15<sup>th</sup> is the reference date for honey stocks in the Bee and Honey survey. All other questions use the calendar year as the reference date. To prevent duplication across States, data for operations within a State are collected for all States individually. Data for production including number of bee colonies, pounds of honey harvested for sale, and total dollars received are collected.

Sales of honey are by four color classes. The Pfund scale expressed in millimeters is a scale used in the honey industry to describe the color of honey. Color is not a factor in grades of honey in the U.S. but the color description which accompanies the grade. August Herman Pfund, American physicist, discovered the hydrogen Pfund lines used in the scale to measure color classes. Table 2.5 shows the color classes. Specialty areas include sourwood, tupelo, and buckwheat.

The pounds of honey produced and dollars received from sales are by marketing channels. The four marketing channels include sales to cooperatives, sales to private processing companies, wholesale, and retail.

**Mink.** The Utah and Wisconsin FOs handle the distribution of questionnaires and the data collection for mink. Prices are collected at the first point of sale before marketing costs are deducted. Other data collected include sales of pelts by color class by State, number of farms, females bred, and value of mink pelt production. The questionnaire lists the colors by trade names known in the industry. The trade names are categorized by color class during the editing process. Table 2.6 shows the color classes by trade names.

*Catfish.* States in the catfish program are Alabama, Arkansas, California, Louisiana, Mississippi, North Carolina, and Texas. Data collected include number of farms, water area devoted to production, number, pounds, and value of catfish produced, point of first sale, and inventory by size of fish. Table 2.7 shows the size categories.

*Trout.* Trout includes all freshwater species of trout as well as sea run trout and steelhead that are raised in a controlled environment. Fish caught in the wild are excluded. Data collected include number of farms, inventory by size, pounds, and value of trout produced for trout sold and distributed for restoration, conservation, or recreational purposes. Table 2.7 shows the size categories.

**Field Crops – Cotton.** NASS prepares a master questionnaire for use by States in the monthly and annual cotton surveys. Two versions of cotton questionnaires are used, one version for private merchants and the other for cotton cooperatives. Private merchant questionnaires collect cash purchases, contract deliveries, and cotton under loan acquired from producers by option payment. Cooperative questionnaires gather data for pool marketings and cash purchases. The monthly survey uses the first half of the month as a reference period for mid-month data and the previous month as the reference period for full month data.

Questions in the survey include number of bales, average price in cents per pound for cash purchases and contract deliveries, and type of cotton. The two types of cotton produced in the U.S. are Upland cotton and American Pima cotton.

*Grains (except Rice), Pulse Crops, and Oilseeds.* NASS prepares a master questionnaire for use by States in the monthly grain, pulse crops, and oilseed survey. The monthly survey uses the first half of the month as a reference period for mid-month data and the previous month as the reference period for full month data.

Questions in the survey include quantity purchased, average price purchased in dollars, and the total value received for the type of grain, pulse crop, or oilseed. The respondent specifies the unit of measure for which the commodity is purchased. There are four units of measure, bushels, pounds, tons, or hundredweight.

Price data for corn, wheat, oats, barley, soybeans, sorghum, and proso millet are collected monthly. Corn includes yellow and white corn. Wheat includes winter, Durum, other spring, hard red winter, soft red winter, and white. Barley includes feed and malting barley. Price data are collected for pulse crops, including lentils, dry edible peas, chick peas, Austrian winter peas, and wrinkled seed peas.

Price data are collected for oilseeds, including canola, flaxseed, mustard seed, rapeseed, safflower, soybeans, and sunflowers. Sunflower types include oil and non-oil.

*Rice.* NASS prepares two master questionnaires for rice, one for cooperatives and one for private merchants. Both surveys use the first half of the month as a reference period for mid-month data and the previous month as the reference period for full month data. All States in the rice estimating program submit rice prices monthly.

Prices for the three types of rice - long, medium, and short grain - are collected for both questionnaires. The questionnaire for cooperatives allows respondents to report an "all rice" price.

Questions in the private merchant survey include quantity purchased and total dollars paid for the three types of rice. The respondent specifies the unit of measure used. There are three units of measure: bushels, barrels, or hundredweight.

Questions in the cooperative survey include quantity shipped and average value per hundredweight in dollars and cents for the three types of rice. Items to be deducted from the reported price are government payments, storage costs, losses from hedging, interest expenses, and handling and processing until the product is sold. Items included in the price are interest income, gains from hedging, storage income, capital retains from rice marketings, producer check-off fees, and transportation costs prior to the cooperative acquisition.

*Peanuts.* NASS prepares a master questionnaire for use by States in the weekly peanut survey. The survey includes all known peanut buyers. The weekly survey uses the previous week as the reference period and each week, the previous three survey periods are open for revision. All ten peanut-producing States are included on the weekly survey.

Questions in the survey include pounds purchased and dollars paid for the purchase, by type of peanut. There are four types of peanuts in the survey: Runner, Spanish, Valencia, and Virginia. Purchases and dollars paid are broken into two categories: peanuts under loan acquired from

producers by option contract and peanuts acquired from producers by transactions other than an option contract (direct cash purchases and direct marketing contracts). Discounts for quality factors, transportation charges from farm to buying points, and freight differentials are deducted from the weekly gross value of purchases from producers. Premiums for producers delivering the peanuts and quality factors are added to weekly gross value of purchases. Options for peanuts redeemed from CCC loan and seed bonus for peanuts redeemed from CCC loan are also added to the gross value of purchases from producers.

There is no monthly survey for peanuts. Quantity and price recommendations for the previous entire month and current mid-month are generated based on the weighted averages from the weekly survey.

*Fruit and Nuts.* No master questionnaires are prepared by Headquarters and distributed to the States for prices of fruit and nuts.

*Commercial Vegetables.* No master questionnaires are prepared by Headquarters and distributed to the States for prices of vegetables.

## **Data Collection**

Grain Prices Received surveys are primarily self administered (mail, fax, EDR). Electronic Data Reporting (EDR) through the Internet begins on the first business day of the month for States that use check data for their mid-month prices and begins on the last day of the mid-month reference period for States that use survey data for mid-month prices. Grain Prices Received surveys be-

gan using EDR in July of 2005. The price data collected from producers and agribusinesses are confidential and responses are voluntary. Live-stock price data are collected through AMS which include statistics compiled by Agricultural Marketing Service / Market News Service (AMS/MNS).

Each State FO prints the questionnaires made available from NASS Headquarters. NASS uses a standardized questionnaire to ensure that data is comparable across States. State FOs submit any questionnaire changes to NASS for approval. Paper questionnaires are kept identical to the EDR version. States and NASS Headquarters work together to have concise and efficient instruments to collect statistically sound data.

Several State Field Offices collect data via their office fax number. The fax number appears on all questionnaires. Each year respondents receive a letter explaining the importance of the Prices Received surveys and stresses the use of the fax phone number as well as the EDR option for questionnaire submission.

State FOs collecting data for another State FO forward them to the State FO to which the data pertains. Instruction cards on how to complete the paper questionnaire or the EDR version get included to insure consistency across questionnaires.

Phone enumeration follow-up is used to ensure a good response rate and survey coverage. Field enumeration is used when requested by the respondent and for those who are reluctant to participate.

State FO editing adjusts questionable data prior to key entry when respondent information is not clear. A call back is made to verify the validity of the data. Justification codes and comments show the reasons for the data changes and who authorized the change.

Enumerators verify questionable data while conducting a telephone or field interview. Enumerators ask probing questions about ambiguous data. Enumerators post written validation comments for any questionable data revised or verified to be correct. For example, when an organic operation reports an extremely high price, the enumerator writes a comment to support why the response is valid.

Prices Received data is never imputed any time during the data collection or data review process. Missing data can be coded in the following circumstances:

- A respondent reports data for one commodity, but data for a second commodity seems unreasonable., the good commodity data can be used by coding the unreasonable data as missing.
- A report with suspect data can have the data cell coded as missing and later submit the valid data as a late report.
- A respondent reports corn and soybean data but does not know the wheat purchases. A missing data code is valid for the wheat cells.
- A respondent cannot report both the quantity and dollars for a commodity (i.e., knows the quantity but not dollars or vice versa). A missing data code is valid for the unknown data.

Rice and peanut price surveys contact all known buyers. Inaccessible or respondent refusal reports are edited based on prior knowledge of the operation and other completed operations of similar size. Outlier data verified by the respondent is coded to be included as reported.

Respondents have the option of reporting in bushels, pounds, tons, or hundredweight (cwt). The computer edit converts the reported unit to the standard published unit of bushels for feed and small grains and cwt. for most oilseeds and pulse crops.

*Honey Data Collection Process.* The collection of honey price data differs from the collection of price data for other commodities. Honey price data is collected by Data Collection Centers (DCC) and estimated in Estimation Centers (EC). Honey quantity data are converted from pints and quarts to pounds during data collection.

In 2006, the data collection and estimation activities for the Bee and Honey Inquiry survey were consolidated regionally, with one DCC and four EC. In 2009, two DCCs began data collection activities. The Bee and Honey Inquiry survey collects prices for the current and previous year honey crops marketed in the current calendar year. There is a Wyoming Data Collection Center (WY DCC) and an Arkansas Data Collection Center (AR DCC). Florida, Wisconsin, North Dakota, and California have an Estimation Center. The Bee and Honey survey covers all States except Puerto Rico. Table 2.8 shows the relationship between the DCCs and ECs and the States covered by each.

The WY DCC is responsible for the following:

- Receive data collection method codes from all Client States (CS).
- Transmit data collection method codes to Print Mail Center.
- Transmit data collection method codes to the AR DCC in preparation for follow-up phoning.
- Process all mail returns and paper forms for all Client States.

All paper forms held and completed by CS will be sent in to the WY DCC for check-in, processing, keying, scanning, and loading to the NASS developed edit and analysis tool. The following processes are completed.

- Load national sample to EDR.
- Transmit final EDR codes back to all Client States to use in data collection.
- Process all EDR data for the nation, load into Blaise and transmit EDR data to EC.
- Phone follow-up for West & West Central EC regions.
- Transmit daily check-in files to the AR DCC.
- Transmit data daily to the EC for editing.

Before data collection begins, the WY DCC processes all CS data collection method codes for each record. Each State field office assigns a data collection method code for each record in their sample, and transmits these to the WY DCC. Before phone follow-up begins, the WY DCC transmits data collection method codes to the AR DCC which assists with the telephone follow-up.

The WY DCC is responsible for submitting to the Print Mail Center, the U.S. file for all States containing name and address data for potential mail respondents. The WY DCC is responsible for submitting final EDR codes back to all States so they can offer EDR to those respondents they wish to hold and mail themselves. The States must not mail before the final EDR codes are received from the WY DCC.

The AR DCC is responsible for the following:

- Phone follow-up on East and East Central EC Region.
- Transmit data daily to the EC for editing.

The AR DCC receives a daily check-in file from the WY DCC of mail and EDR receipts, to facilitate management of Computer Assisted Telephone Interview (CATI).

## **Use of Administrative data**

External survey data and administrative data are used by NASS to measure the performance of Agency surveys and, in some cases, to set official estimates. Evaluation of external and administrative data occurs before use in the estimation process. The use of administrative data to set official estimates is valid under NASS policy providing the differences including reliability, coverage, and definitions are understood and documented.

The following four areas are evaluated and documented before the administrative data is used to establish price estimates.

**Frame Maintenance.** Define and evaluate the universe represented by the external and administrative data in order to:

- identify differences between that universe and the target population used in NASS indications and estimates,
- ensure the universe is current,
- determine the degree of incompleteness,
- identify the potential for duplication within the universe,
- recognize potential maintenance problems, and
- determine whether a census or sample was used.

**Data Collection.** Review the conditions under which the data are collected to determine whether:

- the data supplied by the respondent are voluntary or required by law,
- data represents Point Of First Sale prices; therefore no NASS surveys or adjustments are needed,
- the forms used to collect the data are well designed and worded in such a way that accurate data are obtained,
- the terms and definitions used are consistent with those used by NASS in developing its indications and estimates,
- the reference date, survey period, cut-off dates, and time of release are adequate for comparison with NASS data,
- the method of data collection is identified,
- potential nonsampling errors are identified and minimized,
- follow-up methodology for refusals and inaccessible units is used, and
- the actual coverage approached the targeted coverage.

**Data Validation and Summary.** Review the handling of data after data collection to determine:

- what validation procedures and edit checks are used,
- how refusals and nonrespondents are treated and what imputation procedures are used in the summary process,
- how invalid data are handled,
- how the data are expanded and/or summarized,
- how sampling errors are estimated when sampling is used,
- how outliers or unusual data situations are identified and handled in the summary,
- if data are correctly updated when errors are found, or if later period totals are adjusted to account for corrections and late reports.

For some commodities, administrative data may be incomplete. In these cases, survey data are used to revise price estimates. For example, the January Sheep & Goat and Mink surveys are used to revise wool, mohair, and mink prices, respectively. Government program support is provided if the average price received by all producers for shorn wool marketed during the year is below the support price. Producers need to be surveyed because program participation is incomplete and may not reflect an accurate market price.

The 2008 farm bill (P.L. 110-246, Title I, subtitle B) provides wool and mohair producers with nine-month nonrecourse marketing assistance loans and loan deficiency payments for crop years 2008-2012. Producers who obtain nonrecourse loans pledge their crop as collateral and can forfeit their crop in full payment of the loan. USDA determines the loan repayment rate based on either the lesser of the loan rate plus interest, or a rate that will limit loan forfeitures, stock accumu-

lation, and storage costs, and will allow competitive marketing of the commodity. Producers who agree not to take out a loan can receive loan deficiency instead. The loan deficiency payment rate is the difference between the loan rate and the repayment rate.

**Data Quality and Consistency.** Determine the overall quality of the administrative series by:

- reviewing the nonresponse rate for impact on both the overall level and the change in level between reporting periods,
- examining year-to-year procedures to verify consistency of the data over time, and
- identifying and documenting quality control procedures.

State directors and Statistics Division branch chiefs have the responsibility for ensuring that the above factors are used to the extent possible to evaluate and document all external surveys and administrative data used in the preparation or review of official estimates. Documentation of national or multi-state data will be prepared by the appropriate Headquarters branch and then placed in the estimation manual where it will be available to all State Field Offices (FOs). Documentation of data used in individual States will be prepared and maintained by the FO. Similarly, a State field office's reasons for not using data provided by Headquarters should be documented in the FO.

## **Edit, Analysis, and Estimation**

USDA's National Agricultural Statistics Service (NASS) estimates monthly prices received for about 60 major crop and livestock commodities and market year average prices for an additional 35 items. Market year average prices are made for States where sample surveys or administrative data

do not allow monthly estimates because of limited marketings.

The concept used to estimate prices received by producers is a price if multiplied by the total quantity of a commodity sold would give the total amount received by all producers for that commodity. The estimated price reflects prices received by producers for all classes and grades of the commodity being sold, including quality premiums or discounts. Estimates generally relate to prices producers receive for their products at the point of first sale, usually a local market, or the point to which producers deliver their products.

One of the primary uses of the price data is to value commodities marketed and develop estimates of income to agriculture, which are part of the national income accounts. For the result of multiplying quantity sold by price to be meaningful in terms of cash receipts, the price must represent the average of all grades of the commodity sold.

The various series of prices received by producers include monthly prices for most major agricultural commodities, market year average prices for all commodities having production estimates, prices by utilization for milk, fruits, and vegetables, and prices by States for most commodities and by specific area for a few commodities.

Equivalent returns are when adjustments are made in actual prices to shift to a point of sale different from the reported one. An example is free on board (FOB) shipping point to packing-house door. Equivalent returns by location in the marketing channel for citrus fruit, and December 1 or January 1 inventory values for livestock and poultry.

State preliminary month (mid-month) prices are weighted by historic average marketings by month to determine the U.S. preliminary prices. For commodities that have multiple types (classes), such as hay, sunflowers, and wheat, historic average marketings by type (class) are used as weights. An “All” price is calculated for these commodities using historic average marketings.

Estimates of prices for major crops are based on data from probability sample surveys of firms that purchase directly from producers. Prices for commodities such as fruits, vegetables, and livestock come primarily from market check data or producer and buyer reports. See Table 2.14 for a summary of estimates by selected commodities.

**Monthly Prices.** Preliminary month (mid-month) price estimates reflect prices based on data reported for the first 2 weeks of the month or at the middle of the month, generally the 13<sup>th</sup> through the 17<sup>th</sup>. Preliminary month prices are subject to revision the following month when data for the entire month becomes available. Entire month prices represent a weighted price based on associated reported marketings or purchases.

Reported “average” prices may not reflect the actual proportion of sales by various end uses and method of sale. Available price and quantity data by utilization are used to weight the price for each method of sale or utilization by the appropriate quantity sold.

**Market Year Average Prices.** Commodities include varying months in their market year. See Tables 9 through 13 for the months in the commodity market year. Only a market average price is estimated for States where monthly marketings are not adequate to obtain reliable prices using sample surveys. For commodities having only

MYA prices, no monthly prices are estimated. The U.S. prices for those commodities are determined by weighting each State's price by its production. In other words, the sum of the value of production for each State divided by the U.S. production yields the U.S. MYA price. The weighted product of prices and monthly marketings represent market year average prices. For poultry, eggs, and hogs the 12 month marketing year begins with December. The calendar year provides the 12 month marketing year for other livestock species and products.

Sales during the marketing season weight monthly prices to derive at the market year average price for crops. For a given crop the market season for a State is the 12 month period beginning in the month in which harvest is usually actively underway. See tables 9 through 13 for crop market years.

In some years, the Government acquires ownership of agricultural commodities under price support or income programs. Market year prices include an allowance for the value of the quantities acquired by the Government, but monthly prices are not adjusted to include this allowance. For some commodities, the Government makes supplemental payments on all or a part of the actual production, or potential production. These payments, such as deficiency payments for grain, are not included in monthly or market year average prices. The payments are shown under "Government payments" for farm income calculations.

**U.S. Prices.** The U.S. monthly and annual prices for all commodities are derived from weighting State prices by their respective sales. Estimates of quantities sold in each State during the month provide the weights for computing the monthly prices. The quantities sold changes each month, especially for crops which have seasonal marketing patterns. The relative weight for each State in the computation of the U.S. price varies from month to month. Price level differences and shifts in weights between States may change the U.S. price more or less than the sum of changes for individual States. Other factors influencing changes in the U.S. price include commodity quality, shifts in utilization, change in type of commodity marketed, relative importance of old and new crops, and importance of contract deliveries.

**Price Revisions.** Published prices are subject to annual revision if additional data become available. Revisions of monthly prices get published at scheduled times. The December issue of *Agricultural Prices* contains this schedule in the index of special features. Monthly price revisions generally occur during the setting of market year average prices. Livestock and poultry market year average prices get set after the market year is complete. Preliminary market year average prices get published prior to the end of the market year for most crops. Except for cotton, preliminary market year average prices are based on monthly prices to date with an estimate for the remainder of the season. Forecasting of cotton prices is prohibited by law.

The monthly prices or other indications for the entire year are included in the averages when the market year is over. End of season average prices are subject to further revision the following year or in the five year review. In this review very few prices get revised. Revisions, however, in the production, sales, or utilization estimates do occur. These revisions result in changes

in the U.S. prices. Estimates become final with no further revision following the five year revision review.

***Methods of Computation, Summarization, and Estimation.*** NASS uses both probability and non-probability surveys, each of which has its advantages. A textbook definition of a probability survey is that every element in the population has a chance of being selected. A population is a well-defined collection of all the items to be surveyed. In the population of all licensed grain elevators in a State, each elevator is an element of the population. The target population tries to be specific about who belongs to the population, and "licensed" achieves that for the population of grain elevators. For separate surveys of catfish producers and rice farmers, a grower who raises and sells both belongs to two populations.

In a probability survey, each operation must have a chance of selection. When data are obtained from every operation the result is a census of the population. In other words, for a census every operation in the population is in the survey. For a probability sample, every operation in the population has a chance to be in the survey. The probability survey will estimate the same farm characteristics as the census but will only survey a subset of the population chosen by chance.

With only a subset of the population chosen for a probability survey, each interview is vital because many other elements of the population are represented by that one interview. The sample weights are used to expand the individual responses up to an estimate for the entire population. A sample weight of 293 means that one respondent in the probability survey represents 293 operations in the population.

A non-probability survey is any survey which does not conform to the definition of a probability survey. For example, NASS usually tries to pretest new procedures before their adoption into the operational program. Rather than use a random sample for the pretest, NASS will often use a preselected set of producers in a few specified States because these interviews are likely to expose as many potential problems as possible in the proposed procedures. NASS uses non-probability surveys for needs such as crop weather, monthly dairy, off-farm grain stocks, cattle on feed, crop yield, and many commodity price surveys.

If it is reported there are 4.7 million acres of corn for grain, how much confidence is there in that estimate? A unique feature of an estimate from a probability survey is that a measure of the precision for the estimate is available. In other words, a measure of how much the estimate might "deviate" because a sample was used rather than a census.

The precision of probability estimates is measured by the standard error. The major indication from a probability survey is usually the direct expansion of the data reported by each respondent. Although NASS usually incorporates several indications before releasing an estimate, a direct expansion could be published as an estimate. Data users could then draw their own conclusions in comparisons with previous indications.

The indication from a non-probability survey is usually judged in relation to a previous month's or year's indication before an estimate is published. The indication is not expected to stand alone but instead to show the change that has occurred. Thus, there is a great reliance on seasonal cycles or changes from a base period. An example

is the Monthly Dairy Survey where producers who return the January questionnaire become the group which is tracked from month-to-month during the year. Thus, non-probability surveys rely heavily on being able to model the relationships from one-time period to another. The probability surveys tend to rely on direct expansions while non-probability surveys tend to rely on ratios or percent changes.

A complex set of procedures is used to ensure that each operation is defined to avoid duplicate reporting. Probability surveys usually require stringent follow-up procedures for producers who do not respond. An effort is made to convert refusals to meet Office of Management and Budget (OMB) standard of 80 percent response rate.

Non-probability surveys may be difficult and complex also, but they do not have to obey the requirements of a probability survey. Sometimes there is little or no follow-up required, and the survey process might be complete as soon as the questionnaires are received. Other times stringent follow-up procedures are required. It is more a subjective decision of how much effort NASS places on the survey. Probability surveys, however, are always required to have fairly stringent follow-up.

Probability surveys demand that procedures are followed exactly from statistician to statistician and from State to State. The surveys that NASS conducts nationwide tend to be probability surveys. NASS strives to ensure the same procedures are used in all States and Regional centers. In contrast, a non-probability survey may or may not have strict consistency requirements. NASS places strict demands on non-probability surveys.

The objective of any survey is to provide information on the characteristics of the population by examining a subset of the population. By analyzing the data from that subset, called a sample, estimates of population parameters such as means, totals, and ratios are determined. The goal of estimation is to analyze the characteristics of the population while recognizing sample limitations.

Sample surveys have two primary limiting factors, sampling error and non-sampling error. Sampling error is controlled by the sample design, especially the sample size. Non-sampling error causes a sample to misrepresent the true characteristics of the population. The sum of the sampling error and the non-sampling error defines the total error associated with a particular sample. This total error limits how much useful information can be obtained from the sample about the population.

The estimation process has two components, the estimator and the indication. The estimator is derived from the sample data using formulas. In other words, the formula(s) is the estimator and the actual number produced from the sample data is the estimate. NASS has created a variation on this terminology by using indication to refer to the number produced from the data and letting estimate refer only to the Board estimate, the official number that is set after reviewing all indications.

There are two types of indications in general use, point indications and interval indications. A point indication is a single value calculated from the sample data. An interval indication has two values to provide upper and lower bounds on the population parameter. A confidence interval is an example of an interval indication. NASS uses point indications. Whenever coefficients of variations (CVs) are utilized, the indication is edging

toward the interval concept rather than the point concept.

The sample design can yield several estimators. Different estimators may be a better fit in certain situations. The Board process is a tool used by NASS to evaluate multiple indications along with available administrative data to produce an official estimate. The Board process considers the relative strengths and weaknesses of each indication.

State indications from survey and administrative data collected provide the framework for State recommended price estimates. The State's recommended estimates generally follow the average reported prices. If there is conclusive evidence that the sample is biased or incomplete, the State field office can make an adjustment to the indicated price estimates. In such cases, explanations for any adjustments are submitted to Headquarters along with data indications, administrative data, and recommended price estimates.

Commodity price estimates at the State and U.S. level are produced using NASS developed analytical and estimation tools. These tools provide a standard basis for establishing State and U.S. prices. The NASS developed tools for data handling, analysis, and generating State and National estimates. The tools populate commodity databases with survey and administrative data, provide a standardized framework for reviewing, analyzing, and establishing estimates. The tools also provide trend chart analysis, estimate validation, estimate tracking, and supportive comments for the estimation process.

In setting U.S. prices, analysis of State recommended prices and U.S. level indications

provide the framework for establishing a U.S. commodity prices. Some State recommended prices require adjustment in order for the State prices to weight to the national price level. The tool provides for a State rebuttal process of National Board changes to State recommended prices. The commodity operational data base maintains an official record of State submitted recommendations and Board estimates.

***Livestock and Livestock Products.*** Livestock estimates refer to cattle, milk cows, hogs, sheep, wool, and mohair. Estimates of prices received for meat animals refer to cattle, hogs, sheep, and lambs sold within a State. Registered or purebred breeding stock, and diseased or crippled animals are excluded. The source of data for meat animal prices includes data compiled by USDA's Agricultural Marketing Service.

Each month cattle and pig data are obtained from the Agricultural Marketing Service (AMS). AMS collects livestock data required by the Livestock Mandatory Reporting Rule Act of 1999 (The Act) as an amendment to the Agricultural Marketing Act of 1946. Livestock data covered under The Act are comprised of cattle, swine, and lambs. Cattle include cows, steers, heifers, and calves. Swine include hogs, barrows, gilts, and sows. Lambs include only lambs. The Act mandates the Secretary of Agriculture to produce national reports pertaining to the marketing of cattle, swine, and lambs.

Under The Act, certain livestock packers, processors, and importers, specifically those organizations meeting or exceeding volume thresholds established for each type of livestock, are required to report on a daily and weekly basis. The Act also establishes the format and content for the information to be reported. To comply with The

Act, AMS developed the Livestock Mandatory Price Reporting (LMPR) system. The LMPR provides timely, accurate, and reliable market information. Information about The Act is at <http://www.ers.usda.gov/Data/meatscanner/LivestockMandatoryReportingAct.pdf>.

USDA requires federally inspected processing facilities to comply with the LMPR reporting schedule if average annual slaughter over the preceding 5 years reached 125,000 head of cattle, 100,000 head of hogs, or 75,000 head of lambs. Any processing plant or person engaged in the business of purchasing livestock for purposes of slaughter must report to the AMS when purchases exceed any of these annual limits. The LMPR system requires cattle packers to report specific price and quantity information twice daily. Hog packers must report three times per day. Lamb processors must report once daily. All livestock packers supply a weekly summary.

AMS collects livestock data on a voluntary basis from facilities that are not required to report to the LMPR. The livestock data collected on a voluntarily basis include cattle, swine, and lambs as well as sheep and goats. The voluntarily collection includes quality of the meat, weight, and number of head.

AMS field office staff prepares electronic reports of agricultural market news activities. The AMS market news employee or reporter maintains a list of industry and trade contact information including names and telephone numbers. At the market locations, like auction markets, the reporters observe enough sales of each class to obtain a complete cross section of the trading. The reporters do not report strictly by tabulating observed sales. Reporters interview as many trade members, producers, distributors, and others as possible, be-  
USDA, National Agricultural Statistics Service

fore, during, and after trading. The information gathered includes facility locations, demand, supply, movement of commodities, prices, number of livestock, and situations that would affect supply or prices such as weather conditions, insect damage, transportation problems, etc. Other information collected includes time of trade, discounts or premiums, volume, date of delivery, and weight. Demand may be described as “very good,” “good,” “moderate,” “light,” or “very light,” in relation to normal demand at each market. Terms for supply are “light,” “moderate,” and “heavy.” The reporters combine information obtained from the trade with the data derived from sales observed. Livestock that are “passed out,” “bid in,” or “buy back” at the auction are not used in the reports. Individual head sales that are more than \$1 above or below the bulk of sales are not reported. Weighted average programs are used for feeder and slaughter sections.

Prices received for milk cows includes only cows sold by producers for dairy herd replacements. Milk cow replacement prices are estimated on a quarterly basis in January, April, July, and October in the twenty largest milk producing States. All 50 States estimate a market year average (calendar) price in January. Annual wool and mohair prices represent yearly producer sales.

Quarterly milk cow replacement price estimates are set using four indications:

- Ratio to Base;
- Direct Expansion;
- Ratio to Previous Quarter; and
- Unexpanded Average.

The January sample size is increased to provide sound base period estimates and future

ratio to base indications for the smaller samples used in the other three quarters. The four previous quarter milk cow replacement price estimates are reviewed and revised in January each year. New or additional data support any needed revisions.

Administrative data used for estimating livestock specie and product prices must be consistent and meet definitional requirements. Meat animal prices are rounded to the nearest dime for prices less \$100 per cwt and to the nearest dollar when equal to or greater than \$100 per cwt. Milk cow prices below \$1,000 per head are rounded to the nearest five dollars and to the nearest 10 dollars when \$1,000 or greater per head. Wool and mohair prices are rounded to the nearest penny.

Estimates for hogs and cattle require classes of prices along with weights to derive a total price for each month and preliminary month estimates. Monthly meat animal prices for the past two calendar years are reviewed and revised if any additional or new data supports the price revision.

The weighted average price received for fluid or manufacturing grade milk sold during the calendar year is the MYA price. The U.S. MYA price is calculated by weighting each State's MYA price by the total pounds of milk marketed from each State. At the State level, each month's fluid or manufacturing grade price is weighted by the monthly marketing percents for each grade. The pounds of milk purchased from milk producers by milk processors in each month divided by the total pounds purchased from milk producers during the year provides an indication of the monthly marketing percentages. For each month, the percent fluid grade and percent manufacturing grade are estimated based on the quantity of each grade purchased by milk handlers and processors. For each State, the monthly all milk price is calculated by

weighting the monthly fluid and manufacturing grade prices by the monthly percent fluid grade or percent manufacturing grade. The MYA all milk price for each State is weighted by the all milk monthly marketing percentages.

***Poultry and Specialty Commodities.*** Poultry estimates refer to eggs, broilers, and turkeys. The source for poultry prices includes data compiled by USDA's Agricultural Marketing Service. See the Use of Administrative Data section for details.

The honey MYA price is a weighted average based on actual reported sales of honey. At the U.S. level, prices are published by class and marketing channel. At the state level, an all price is estimated. Table 2.5 shows the classes.

The U.S. mink MYA prices is a weighted average based on actual mink pelt sales from major auction houses. At the State level, an average price is estimated. Prices are collected at the first point of sale before marketing costs are deducted.

The catfish and trout Market Year Average prices are weighted averages based on actual reported fish sales. U.S. and state level prices are published by size category. Table 2.7 shows the size categories.

***Field Crops.*** State monthly Prices Received estimates originate in the State Field Offices (FO) except for tobacco. No monthly commodity price estimate is made when sales account for less than 0.5 percent of total market year sales.

Prices producers receive for ten grain and oilseed crops (canola, corn, soybeans, oats, barley, flaxseed, wheat, grain sorghum, and sunflowers) are estimated using a weighted average from a monthly probability sample of more than 1,900 mills, elevators, and other buyers that purchase grain from producers in 35 States. States surveyed account for 90 percent of U.S. sales for each commodity. The probability grain price surveys began in 1977.

From the Grain Prices Received survey, the indications are:

- The full month expanded quantity is the total indicated amount of the commodity sold by farmers during the previous month. This indication is calculated by taking the reported quantity purchased for each reporting operation (buyer, elevator, etc.) and multiplying it by the expansion factor for the stratum and summarizing at the stratum and State level.
- The full month expanded dollars are the total indicated amount of dollars paid to farmers during the previous month. The expanded dollars are calculated by taking the reported dollars paid by each operation and multiplying by the stratum expansion factor for the operation. This data are summarized at the stratum and State level and used to calculate the full month price.
- The full month price is the weighted average price for a commodity for the previous month. The weighted average price is calculated by dividing the full month expanded dollars by the full month expanded quantity (unit value).

- The mid-month weighted price is the weighted average price of all reports that contain a mid-month price. The calculation of the mid-month weighted price is calculated differently than the full month weighted price. A straight average of the reported mid-month price is first calculated at the stratum level and then weighted by the full month expanded quantity to derive a State mid-month price indication.

Prices are for “open market sales” at first point of sale and do not include adjustments for CCC loans or government payments. These prices provide the basic component of market year average prices. The prices represent crops moving into the commercial channels for feed, food, and fuel. Crops purchased for resale as seed are excluded.

In February of each year, annual market year average prices and value of production for field crops estimates are published. The value of production is the product of the market year average price and its corresponding production. For crops having an “all” category such as hay and sunflowers, the “all” value of production will not equal the product of the “all” market year price and the “all” production for States that are in the monthly price program for those crops. The “all” value of production for these crops will equal the sum of the values of production by type.

**Cotton.** The probability cotton price survey, initiated in 1974 to provide more reliable data, gathers information on monthly marketings and ensures that all types of sales (including contract sales) are represented.

The universe of about 800 cotton buyers is updated annually and is used to develop a stratified random sample of buyers in major cotton-producing States. Bales reported on the sample survey normally account for more than half of the cotton production. Each month, a questionnaire is mailed to sampled cotton buyers. Nonrespondents are contacted by telephone or personally enumerated. The questionnaire asks for bales purchased and dollars paid for the first 2 weeks of the current month and bales for the previous month. Procedures for computing State and U.S. monthly prices and later revisions are similar to the grain and livestock surveys.

**Hay.** Estimates of prices received for hay are based on sales of baled hay on a per ton basis. Weights, however, are based on total sales which include baled hay, stacked hay, or loose hay, all of which are included in hay production estimates. Hay production consists of cured grasses, small grains, and legumes. Hay must be fully cured before utilization. Crops that are not fully cured and thus not included in production or sales include silage, green chop, and haylage. Alfalfa or other forage crops sold standing in the field, pelleted, or other forms are not included as hay, either for prices or sales. Sales of baled hay include all sizes of bales. Estimates submitted include (1) alfalfa and alfalfa mixtures, (2) other hay, and (3) all hay, as appropriate depending upon hay production estimates in each State. The "all" hay price is a weighted average of alfalfa and other hay estimates of price per ton, if the State has both types. Otherwise, the "all" hay price represents the alfalfa or other hay price, respectively. Every other year, the biennial survey of farmers will furnish data on monthly hay sales (weights) for revision purposes and computation of market year average prices. Monthly hay sales percentages are carried forward for the year not surveyed.

Estimates for the current month prices are considered a mid-month price. The estimates are based on sales by producers around the middle of the month or during the first half of the month and currently vary by State. Indications are derived from surveys of dealers, hay auctions, and other buyers or other commodity survey lists such as dairies or cattle feeders. Data sources in a given State will depend upon the importance of the marketing channel(s) in that State, availability of universe lists, and the need for more than one survey. States with very few hay dealers, for example, depend more heavily on surveys of those who purchase hay such as dairies or feedlots and the biennial survey to provide data on the proportions of alfalfa and other hay sold.

Administrative data, if available, may be used to derive a estimator. Administrative data, where quantities as well as prices are available for actual sales by producers, may be the sole indicator providing geographic coverage is adequate. Estimators are reviewed with particular attention to circumstances affecting changes in supply and demand and the relationship between alfalfa and other hay price levels. Administrative data used in estimators should be closely related to prices received by producers. These sources vary from State to State based on marketing channels commonly used.

Estimates of the percent of all hay marketed that is alfalfa hay and the percent of all hay marketed that is other hay are used to weight the component prices to the all hay price. Data available from the biennial survey allows weights to be based on sales rather than production.

**Tobacco.** Tobacco price estimates are set annually. Data are collected from growers in the Program States to set a U.S. MYA price. The estimation and publication program for tobacco prices received by farmers includes prices for each tobacco type, class, and all tobacco by State and U.S. There are no U.S. or State prices for tobacco published on a monthly basis. See Table 2.1 for the States and see Table 2.9 for the months in the market year of the tobacco program.

Preliminary market year average prices for the current year's crop include types grown in each State. When sales data are less than two percent of production, the average price estimated for the previous year's crop is used to compute value of production.

The tobacco buyout in 2005 eliminated the need for MNS auction and contract sales price data. MYA prices are based on a survey of growers, leaf dealers, tobacco companies, and other industry sources. Price and quantity weights are used from these sources in establishing tobacco prices.

**Fruit and Nuts.** Producers of fruits, tree nuts, and vegetables are usually concentrated in small, often scattered, production areas, and the number of marketing channels is limited. Price and quantity information is obtained from growers, marketing points, and processors.

In States where fruits, tree nuts, and vegetables are of major importance, prices are obtained separately for fresh market and processing sales, except for citrus fruits. Average prices of deciduous fruits sold for processing usually apply to bulk fruit delivered to processing plants. Most deciduous fruit sold by growers for processing changes

ownership at processing plants. Prices are also estimated for major uses, such as canning, drying, freezing, and crushing.

Reported average prices may not reflect the actual proportion of sales by the various end uses and method-of-sale categories. Thus, when price and quantity data by use are available, average prices for all sales are derived by weighting the price for each method of sale by the appropriate quantities sold.

For fruit, adjustments are made in prices to shift to a point of sale other than that at which the sale occurred (such as "f.o.b. (free on board) shipping point" or "packinghouse door"). These estimates are called equivalent per unit returns to growers and are usually calculated for two points of sale. Equivalent "packinghouse door" returns refer to the price for all fruit, regardless of method of sale, converted to a price at the packinghouse door. Equivalent "on-tree" returns refer to the price for all fruit, converted to a price that would be received if the fruit were sold on the tree. States converting to equivalent returns contact growers, handlers, and shippers to determine harvesting and marketing costs. In some cases, industry cost studies may be used. Based on historic data, conversion factors are established for calculating equivalent returns for the next marketing season. Use of more than one pricing point is determined by industry request and the need for parity computations for use in the administration of Federal marketing orders.

**Citrus Fruits.** The fruit crops in the monthly and MYA price programs are grapefruits, lemons, oranges, tangelos, and tangerines. The table below shows the monthly price estimating States for each commodity.

Commodity	STATE			
	AZ	CA	FL	TX
Grapefruit (all)		X	X	X
Grapefruit, white			X	
Grapefruit, colored			X	
Lemons	X	X		
Oranges (all)		X	X	X
Oranges, Valencia		X	X	X
Oranges <sup>1</sup> ,		X	X	X
Tangelos			X	
Tangerines	X	X	X	

x= monthly price estimating State  
<sup>1</sup>early, mid-season, Navel, and miscellaneous

Citrus fruit prices are set for the current month and are subject to revision at the end of the growing season and again at the end of the next growing season. Estimates and comments that document analysis perspective along with any supporting survey indications and administrative data used to track citrus fruit prices are entered into the citrus fruit analytical data base using NASS developed tools.

The analytical and estimation tools show relationships between survey indications and

board estimates. Seasonal price fluctuation and quantity marketed throughout the growing season are analyzed through the tool. Trend charts provide a useful review tool for analyzing survey prices. These charts show deviations from trends as the result of economic and weather related situations and help to determine validity of fluctuating prices.

Complete documentation is provided for every citrus fruit revision or preliminary estimate. Documentation comments are specific and include as many details as necessary to support the estimates.

**Noncitrus Fruit and Tree Nuts.** The fruit crops under the MYA price program are apples, apricots, avocados, bananas, blackberries (Evergreen, Marion, and other), blueberries, boysenberries, cherries (tart and sweet), cranberries, dates, figs, grapes, guavas, kiwifruit, loganberries, nectarines, olives, papayas, peaches, pears (Bartlett, all and other), , prunes and plums, and raspberries (black, red, and all).

The following shows the monthly price estimating States for each commodity.

Commodity	STATE										
	CA	GA	MI	NJ	NY	OH	OR	PA	SC	VA	WA
Apples	X		X		X	X		X		X	X
Grapes	X										
Peaches	X	X		X				X	X		X
Pears	X						X				X

x = monthly price estimating State

Noncitrus fruit prices are set for the current month and are subject to revision at the end of the growing season. Estimates and comments documenting the analysis perspective along with any supporting survey indications and administrative data used to track noncitrus fruit prices are entered into the citrus fruit analytical data base using NASS developed tools.

Complete documentation is provided for every noncitrus fruit revision or preliminary estimate. Documentation comments are specific and include as many details as necessary to support the estimates.

*Tree Nuts.* The tree nut crops in the MYA price program are almonds, hazelnuts, macadamia nuts, pecans, pistachios, and walnuts.

MYA price estimates are set along with acreage and production for publication in the January *Noncitrus Fruits and Nuts, Preliminary Summary* and the July *Noncitrus Fruits and Nuts, Summary*. MYA prices are first estimated for January following the year of harvest. The Walnut MYA price is first estimated for July following the year of harvest. Pecan prices are required for improved, native and seedling, and all pecans. All price estimates are subject to revision whenever production revisions are made. California uses handler surveys to estimate almond prices while pistachio and walnut prices are derived from grower surveys. The Federal Marketing Orders for these crops provide administrative data for production only; no price data are collected by the Market Order Administrators.

***Commercial Vegetables.*** Market News Service (MNS) FOB prices are used to set monthly prices. Occasionally, the point of first sale for commodity-  
USDA, National Agricultural Statistics Service

ties is not at the FOB level. In these situations, prices are adjusted for costs to arrive at the point of first sale. During the analysis and estimation process, the NASS price reflects the point of first sale price of all grades, sizes, and varieties being sold that month. Fresh market prices can fluctuate widely in a short time period. Price fluctuations generally result from unusual supply situations such as beginning or end of season shortages, weather induced shortages, or over-supply from large crops.

Unusually high or low price quotes during normal supply/demand periods are verified with the source. These high or low price quotes are generally associated with a very small quantity of unusually high or low quality produce or with a special class or variety. These prices are weighted to the total marketings the price represents. The average price is one which represents all grades and qualities sold.

Price estimates are weighted averages. Price and quantity are gathered by survey or from MNS. MNS publishes daily "mostly" price quotes and shipment totals for a number of markets. The "mostly" range contains the prices where most produce is being sold. The midpoint of the daily price range is weighted with the daily shipment data to calculate first half and full month FOB prices. When the point of first sale price is not at the FOB level, adjustments to the weighted FOB price are made. In the complete absence of weighted data, straight averages are calculated from quoted prices or from the midpoint of quoted price ranges. The "mostly" price ranges and price quotes for the container sizes most commonly used in the market are selected. Analysts must be knowledgeable of the commodity market and exercise good judgment when analyzing available indications to set a price.

**Market Year Prices.** Comprehensive administrative data and/or an end of year survey provide the indications for establishing MYA prices for commercial vegetables. Compilation and summarization of MYA price data are completed in FO's developed systems.

States with crops in the monthly price program submit monthly prices with monthly weights. The monthly weights must add to 100 percent and the weighted average of the monthly prices must equal the MYA fresh price.

**End of Season Monthly Prices.** The following example shows how the end of year monthly prices and weights are determined. In this example, more than 2 percent of the fresh market tomato crop in State A was marketed during July, August, September and October. The in season prices represent point of first sale level prices that were arrived at by adjusting FOB prices obtained from MNS. The end of year weights are also obtained from MNS shipments data accumulated throughout the marketing year and summarized at the end of the year. When applying weights to each month, the monthly weights (percents) must add to 100. The MYA price was obtained from end of season surveys or other data only available at the end of the year. An end of season survey is useful in collecting prices which become known only at the season's end. Contract prices are not know until the end of the season. So in many cases the in season monthly prices will have to be adjusted to arrive at the end of season MYA price. End of year surveys are conducted in States where the point of first sale for significant amounts of production is something other than the FOB.

Example: The in season monthly FOB prices were obtained from MNS and adjusted to arrive at an in season point of first sale price and submitted to HQ for the monthly Prices Received program. At the end of the season monthly weights were calculated using MNS shipment data. New end of season data were obtained showing the end of season MYA to be \$34.70 per cwt. Since monthly prices are required to be submitted to HQ for States in the monthly price programs, new monthly prices need to be calculated to arrive at the \$34.70 per cwt price. The procedures for arriving at new monthly prices are:

- Obtain a weighted average price by multiplying the in-season monthly prices by the appropriate monthly MNS weight. In this example, the monthly in-season weighted average price is \$36.90 per cwt.
- Next, take the ratio between the end of season MYA and the in-season weighted average price  $\$34.70 / \$36.90 * 100 = 94\%$ .
- Next, multiply this percentage (.94 for this example) by each in-season monthly price to arrive at the final End of Season Monthly Prices.
- Then, calculate the weighted average of the final End of Season Monthly Prices to make certain it calculates to the end of season MYA price (\$34.70).

Ex.: For Fresh Market Tomatoes when new end-of-season prices are available at the end of the year.

	In-Season Monthly Prices <sup>1</sup>	MNS Weights By Month (%)	Final Monthly Prices <sup>1</sup>
July	37.50	10	35.30
August	35.00	47	32.90
Sept.	38.40	35	36.10
October	40.80	8	38.40

<sup>1</sup> dollars per cwt

In-season MYA price is \$36.90.

MYA price is \$34.70

Ratio =  $\$34.70 / \$36.90$  or (94 %)

Revisions of monthly and MYA prices for fresh market vegetables are submitted annually in December via NASS developed analysis and estimation tools.

## Submission of Estimates

**Monthly Prices.** States submit price estimates for commodities in the monthly fresh vegetable price program, a preliminary month (mid-month) price for the current month and a full month price for the previous month for each month with sufficient crop marketings. No estimate is submitted when marketing represent less than 2 percent of the current year's production. At the beginning of a marketing season, FOs submit a preliminary current mid-month price only. At the end of a season, FOs submit a full month price for the previous month. States submit monthly prices for fresh market vegetables using standard NASS developed tools. States enter and submit indications, Administrative data, and estimates for the previous full Month and for the current mid Month. States are allowed to view and enter data for the commodities and the months within the marketing season only.

**MYA Prices.** States submit MYA prices to Headquarters for fresh market vegetable using standard NASS developed tools for Annual Vegetable Submission. MYA prices are submitted for each State and for each vegetable commodity in the National Vegetable Estimation Program.

## Agricultural Statistics Board Review

A Board review happens the day before the *Agricultural Prices* report is issued. The Board members include the Agricultural Statistics Board Chairperson, Statistics Division Director, Crops Branch Chief, Livestock Branch Chief, Environmental, Economics, and Demographics Branch Chief, and the Economics Section Head.

## Revisions

Price revisions are made to provide data users with the best possible estimates. These revisions are based on additional information such as late or corrected survey data (late reports); data from assessments, FSA data, or commodity check data from producer associations. All estimates are subject to further review at five-year intervals which coincides with the Census of Agriculture. The estimates following the five-year Census of Agriculture are final.

**Analytic and Program Relationships.** In using prices received by producers to compute receipts from sales, the monthly or season average price is multiplied by the estimated quantities sold. Estimates of receipts from other sources are added to this total to compute gross farm income which is part of the gross national product.

Data on prices received by producers have a close relationship to the various national programs of price and income support to American producers that have been developed over the last several decades. Some of these Federal programs operate directly through the price mechanism and reflect their effect through enhanced prices for

farm products. To the extent that a program affects the price that a producer receives when products are sold, it is reflected in the series on prices received by producers.

This is the situation, in the case of marketing agreement programs, which, by exerting controls over marketing, result in enhanced prices. It is, to a degree, the case for commodities affected by loan-purchase agreements. To the extent that producers can place their products under loan (with storage) they are relieved of the pressure to sell below the loan level, with a consequent buoyant effect on price. At the end of the marketing year, producers who wish to forfeit their collateral, and thus in effect sell to the Government, may do so. The prices received by producers for such sales are averaged with the open market prices that were reported throughout the year.

Most of the programs by which farm income is enhanced do not operate to affect prices of farm products. The non-price-influencing effects are not reflected in prices received by producers, nor are adjustments made in the price series to accomplish such a result. Their effects are included as supplements to income and reflected in the income series published by the Department. This set of programs includes conservation payments, wool incentive payments, direct, counter-cyclical, Average Crop Revenue Election (ACRE), loan deficiency payments (LDP), and several other similar programs.

## Limitations of Series

Most Prices Received data are collected by means of a mailed questionnaire. Because of the characteristic nonrandom nature of mail survey data, no precise estimates of standard errors and

therefore no statement about statistical precision can be made. However, the mail questionnaire technique and related procedures have worked reasonably well on the whole and have provided estimates of prices received for most commodities consistent with the known facts. Although there are several inherent weaknesses in such procedures, resource limitations have resulted in continuing mail survey data collection activities.

A large number of *t-tests* were made in connection with price research projects in North Carolina, Ohio, and Colorado to determine whether the prices collected by mail questionnaires differed significantly from those collected by enumeration. Results of these tests showed that the number of differences was somewhat greater than would have been expected if the null hypothesis of no difference were true, but not to the extent that serious doubt could be raised concerning the validity of mail survey data. (USDA, 1970)

One basic weakness of mail questionnaires in non-probability samples is that they do not provide the basis for a determination of the precision of the estimates. Response errors can bias the reported price. Reporters may misinterpret the question or may report a price when they do not have actual knowledge of the price information requested. Reporters may report in a unit of bushels when the question asks for a unit of hundredweight. A reported price for a particular grade, for example No. 2 yellow corn, may be provided when the request is for average price covering all grades and qualities being sold. These cover some examples of nonsampling errors involved in mail surveys. Their effect is difficult to measure, but judicious editing procedures can often prevent serious errors from occurring as a result of them. Market reports provide useful guides in editing, as a result of which gross misinterpretations can be eliminated.

Perhaps the greatest weaknesses of the present system are (1) the sampling errors associated with the mail survey procedures, and (2) the nonsampling errors introduced by use of judgment estimates rather than transaction data. An ideal solution would include the following: (a) The design of a sampling plan which would give to every unit of a commodity sold by producers in the U.S. an assignable probability of being included in the sample. The pattern of sales for one commodity is different from that for every other commodity, and, moreover, is different each month for a given commodity. Therefore, an ideal model would necessarily contemplate a different sample design for each month for each commodity. (b) Tabulation of prices and quantities sold from sales slips covering the selected sales. (c) Use of suitable expansion and weighting factors in summarizing the data. (d) Completion of the operation by publishing such prices by States, by regions, and for the U.S. on or near the last business day of the same month.

In practice, a number of compromises with the ideal solution are necessary, partly because of the physical impossibility of changing a sampling design month by month in the time limits imposed by the work schedule, partly because designing a separate sample for every commodity would escalate costs to astronomical levels, and partly because absolutely comprehensive lists of buyers of all farm commodities are difficult if not impossible to establish, particularly since not all of those active in the market one month are active in all months.

In any practical operating program it is necessary to design a sample in terms of groups of generally like items, with probabilities of selection representing their sum total of business over a year and for several commodities rather than for each commodity separately. Because of the competitive aspects of the price making process in the econo-

my, it is likely that these compromises cost relatively little in accuracy of reporting.

Other compromises are necessary. Although many businesses cooperate very fully in price reporting programs, some are reluctant to disclose finite details of their business to outsiders, or to the Government except as required by law. Some decline to permit inspection of sales documents; others decline to give price information; and others decline to give information on quantities sold. In such cases, either an alternate respondent must be selected, or perhaps an estimate must be accepted in lieu of documented transactions.

In sampling any complex population, it is necessary to consider whether an unrestricted random sample would provide the most efficient design. Considering the geographical distribution of agriculture and the marketing structure within any general area, there is considerable basis in fact for the belief that a stratified probability sample, a cluster sample, or some combination would be more efficient.

In view of the importance of the State as a unit of government, in terms of both the economic importance of State statistics and the administration of a Department program such as price support and marketing agreements, it seems reasonable to consider the State as one useful basis of stratification. Within States, types of farming may provide a guide to stratification. Almost certainly, the various elements in the marketing structure should be reflected in the strata.

A closely related procedure lies in stratifying questions. Thus, instead of asking for the average price of beef cattle, questionnaires ask for the

price of cows and steers & heifers. These are the two major component groups comprising all beef cattle. Variability within each group is generally less than the difference between them. Weights derived from available records of historical marketings, together with analysis of the inventory balance sheet, are used for combining the price of cows and the price of steers and heifers into an average price for all beef cattle.

A method employed to minimize response errors is the use of specialized mailing lists in preference to general or all purpose lists. This process has limits, however, since in its ultimate form it would mean a separate list for nearly every commodity which increases survey expenses. Consequently, the practical solution represents a workable compromise between the extremes. Special questionnaires are used for a number of commodities to reach handlers specializing in them. Separation of the crop price questionnaires from the livestock and livestock product questionnaires is also advantageous.

To the extent that satisfactory weights can be derived, this process generally results in improvement in the overall average price over that from an undifferentiated question. Prior to introducing this breakout, respondents normally tended to over-represent steers and heifers in their reported prices, forgetting that cows comprise a sizeable proportion of the cattle sold for slaughter.

The only limitations imposed by the concept of average price, sometimes called "unit value," as distinguished from price of a commodity specified in detail, is the obvious fact already suggested, that neither type of price is a complete substitute for the other. Each has its place. Although price changes of a closely specified commodity (barrows and gilts, U.S. No.2 & 3, 200-220 pounds, at Kansas City) will generally be highly

correlated with an average price (all hogs, Missouri) over almost any substantial time period, the correspondence between them will not be one-to-one. The difference may be either in terms of absolute level or in terms of magnitude of change from one time to another. Each price serves its specific purpose and neither serves well the specific uses of the other. (USDA, 1970)

## Prices Received Index

One of the major uses of the price received estimates is to calculate price index. The index of prices received by producers is a measure of changes in the average price level of the agricultural commodities that producers sell. It measures this level by averaging into one figure or index number the changes in prices of major agricultural commodities, so that comparisons in the price level of these commodities can be made from month to month and year to year. It is a measure of the U.S. average price level of this combined group of commodities relative to the level in a base period, rather than a measure of the level of the price of any one commodity or of any restricted group of agricultural commodities sold by any producer (USDA, 1952).

The index of Prices Received by farmers provides an estimate of the price change between two periods. The Prices Received index series are constructed and calculated monthly for a reference base of 1990-1992=100. The percentage change of the index represents the degree of the average agricultural products price changed to the base period. The prices receive index also links back to the reference base 1910-1914 = 100 by chain index for the purpose of parity price and parity ratio calculations.

NASS applies the index number method for seasonal adjustment to the Prices Received indexes (Diewart, 2009). Only seasonal adjusted indexes are published. It takes the seasonal marketing pattern as monthly share to adjust the index weight. The monthly pattern was obtained by the average monthly marketings of each commodity over the 1988-1992. The seasonal adjustment removes the fluctuation in price or quantity and to handle some commodities prices not available during part of year. It is also useful to remove the seasonal effects from price index for economic analysis and other purposes (Milton, 1995).

The structural framework for the Prices Received index contains the following indexes:

- Two top level indexes: all farm products and food commodities;
- Two component indexes: all crops and livestock & products;
- Twelve subcomponent indexes: food grains, food grains, hay, cotton, tobacco, oilseeds, fruits & nuts, commercial vegetables, potatoes & dry beans, other crops, meat animals, dairy products, and poultry & eggs.

The Prices Received index includes a total of 48 items. The price relatives are constructed from the U. S. average prices of the 48 items relative to the prices in the base period, 1990-1992 = 100. The price relatives are compiled with the five-year moving average weights to build the Prices Received index. Then the index is converted to the price index 1910-1914 = 100. See Table 2.15 for the relative weights of the 48 items in Prices Received index.

NASS publishes the price received indexes on the last working day or next to last working day of each month. NASS revises the price received indexes back three years or five years to

coordinate the revision of commodity prices. The revised price indexes are then published on NASS Quick Stats.

## History / background

Indexes of Prices Received by Farmers were first available to the public beginning in 1910. These indexes had their genesis in a set of computations based on 1909 prices for 10 crops. A second series was published in 1918 incorporating livestock prices. The third series of indexes was published in 1921 based on 31 farm products. The base period for this series was August 1909-July 1914, and the weights were based on census sales for 1909 (USDA, 1970).

The Bureau of Agricultural Economics published a new Prices Received index in 1924. This index included prices of 30 commodities. In addition, indexes were computed for each of six groups into which the 30 commodities were divided. The index used the period August 1909-July 1914 as a base period. The weights were quantities selected to represent average annual marketings for the period 1918-1923. The index was of the fixed-weight aggregative type. At least one reason for the selection of the weight-base period was to permit comparisons with the Bureau of Labor Statistics Index of wholesale prices of agricultural products and of all commodities which, at that time, were weighted with 1919 quantities.

The Prices Received index was revised in 1934. The principal changes were (1) the use of improved price series of dairy products and tobacco, (2) the addition of prices of 20 products including a group of truck crops, and (3) a shift in weights from marketings during the 1918-1923 period to those of the 1924-1929 period. Truck

crops were introduced into the index in 1924 at the level of all groups for the period 1924-1929 (Stauber, 1950).

A further major revision in the price received index was published in the January 1944 issue of *Agricultural Prices*. Price Received Indexes for 12 subgroups were set up and the subgroups were combined into two major groups of all crops, and livestock and livestock products. The quantity weights were shifted to marketings during the five-year period 1935-1939. Several of the price series were revised and the Prices Received index was extended to cover 48 commodities (USDA, 1970).

The 1950 index revisions put both the indexes of price received and prices paid on the same base, namely January 1910 - December 1914 = 100. Both indexes used weights representing the same weighting periods, for the period 1910-1934, index weights were based on marketings for 1924-1929, and beginning with January 1935, weights were based on 1937-1941 marketings. Both indexes were also computed in the same manner, using a modified aggregative formula (Laspeyres index). These changes brought the indexes into compliance with the Agricultural Adjustment Act of 1938 as amended by the Agricultural Acts of 1948 and 1949 (USDA, 1970).

Revision of the Prices Received index in 1959 maintained the same general pattern as the 1950 revision. Principal changes were the revision of weights based on 1953-1957 marketings and sales; the revision of the price system for vegetables and noncitrus fruit. Major commodities groups were unchanged, and shifts in commodities were minor (USDA, 1970).

The revision in 1976 retained the index structure and general method used for the 1959 revision. Principal changes were updating of weights, deleting several specialty commodities, adding broilers, and linking the new and old index series as of January, 1965 (USDA, 1970).

The 1995 revision was the most recent index revision. The changes of this revision included: (1) substituting the fixed base-year weights by the five-year moving average weights to capture the shift in agricultural commodities produced and sold; (2) using seasonal marketing monthly adjustment to adjust the five-year moving weights to reflect the "normal" marketing pattern during the year for each commodity in the index; (3) taking weighted 36-month prices to compute the base period prices (1990-1992=100) instead of computing simple average prices to represent base period prices as previous base prices.

## Reference period selection

The selection of the reference period is one where all prices are considered relatively stable and the agricultural economy is in a healthy state of equilibrium in agricultural production environment. The current Prices Received index reference period is 1990-1992 which replaced the prior reference period of 1977. Overall, the average prices received by producers for the period 1990-1992 are on the trend of the last 20 years, the new era of world markets for major crops. The average all farm products index for the period 1990-1992 is very close to the 20-year trend of overall prices received for farm products (Milton, 1995).

One of the advantages of the national policy of updating the reference and weight base period is to set the intervals of about 10 years. It intends to maintain the good measure of price relationship and to give a more precise comparison. NASS is currently planning a price program revision to move the reference period to a more recent base.

## Commodity selection

NASS selects a commodity when marketing data are available. The average value of marketings for the commodity during the three-year base-weight period of 1990-1992 must represent more than 0.1 percent of total cash receipts or more 2 percent of total value of commodities represented by the component index, such as fruits, vegetables, meat animals, etc.

NASS has expanded the coverage of all crops in the Prices Received index from 73 to 86 percent and all farm products from 85 to 91 percent in the 1995 revision. NASS also increased the coverage for vegetables from 52 to 66 percent and fruits and nuts from 51 to 74 percent. Coverage on a monthly basis was improved by adding sunflowers, grapes, broccoli, cucumbers, snap beans, cauliflower, and cantaloupes. Almonds were also included in the index, with its price change updated on a marketing year average basis. Monthly coverage was dropped for honeydew melons and annual coverage was dropped for green peas. Tables 2.15 and 2.16 show the coverage of commodity items and groups in the Prices Received indexes and relative weights for the 1971-1973 and 1990-1992 periods. Table 2.17 shows the weighted average price for the base price period.

NASS has added "All other crops" as a component index. Cash receipts for "all other crops" now account for 7.5 percent of total cash receipts compared with 4.3 percent in 1971-1973, the prior weighting period. The "other crops" index covers greenhouse/nursery products, sugar beets, sugarcane, mushrooms, and other specialty crops. Prices for many of these other crops are updated annually.

Coverage of the livestock items in the Prices Received index remains at 97 percent. Weights for items covered by the livestock component indexes (meat animals, dairy products, and poultry and eggs) are all factored up proportionally to account for the 3 percent incompleteness (USDA, 1970).

## Basis of Weights

Weights for the index of Prices Received by farmers were determined from USDA official estimates of farmer cash receipts. NASS calculates the weights based on a method of the five-year moving average which means it is updated every year by adding the most recent available year of farm cash receipt data and dropping the earliest year. The five-year moving average weight is designed to capture the continual shift in agricultural commodities produced and sold and to reflect the current agricultural market structure. The five-year moving weights have a two-year lag because of the availability of farm cash receipts data.

Seasonal variation of agricultural commodities in both prices and quantity weights presents a major challenge to price index construction. The annual weights, or five-year average weights, will simply ignore the effect of seasonal

variation in production or consumption. The seasonal marketing pattern method was developed in the 1995 price index revision to adjust the five-year average weights to reflect seasonal variation of agricultural commodities. The seasonal weighting pattern was derived from the monthly marketings collected during 1988-1992 period. These monthly weights represent the percent of commodity normally marketed during each month in this period. The basis for the monthly weighting pattern is the quantities of commodities sold in markets obtained from monthly price surveys for grains, oilseeds, other major field crops, and poultry items, from USDA slaughter data for livestock items, and from State and Federal market news shipment data for fruits and vegetables (see Table 2.18). This weighting pattern remains constant and will be updated periodically such as during intercensal revision or when the time base is revised. The seasonal marketing adjustments intend to prevent a sharp increase in indexes when prices rise sharply but there is little seasonal product movement. Overall, the seasonal weighting tends to lower the all farm products index because, in general, a larger seasonal weight or marketing is associated with a lower price, and a light seasonal weight or marketing with a higher price.

The monthly weight of a commodity is defined as the five-year moving average cash receipts values which are weighted by its marketing pattern:

$$w_{y,m}^j = \frac{\alpha_m^j c_y^j}{\sum_j \alpha_m^j c_y^j}$$

where  $w_{y,m}^j$  is the five-year average weight of  $j^{\text{th}}$  commodity for the  $m^{\text{th}}$  month,  $c_y^j$  is the five-year total cash receipts of the  $j^{\text{th}}$  commodity and  $\alpha_m^j$  represents the base period average marketing share parameter of  $j^{\text{th}}$  commodity for the  $m^{\text{th}}$  month. The average weight for the  $m^{\text{th}}$  month is determined by

both the value of cash receipts and its correspondent base period seasonal marketing pattern parameter. It will be zero if the marketing pattern parameter is zero, which means there is no commodity marketed for that month.

It may be misleading to call  $w_{y,m}^j$  the five-year average cash receipts weight because from one year to another the farm cash receipts are evaluated at the different prices. Then cash receipt changes will include both price and quantity movements. Thus the five-year moving average farm cash receipts have to be evaluated at the same prices (such as base prices 1990-1992=100). (NASS will re-evaluate cash receipt weights to base year prices starting in 2011). The weights formula becomes:

$$w_{b,m}^j = \frac{p_b^j q_{y,m}^j}{\sum_{j=1}^n p_b^j q_{y,m}^j} \quad \text{and}$$

$$p_b^j q_{y,m}^j = p_b^j \alpha_m^j \sum_{k=1}^5 \frac{c_{y-k-1}^j}{p_{y-k-1}^j} = \alpha_m^j \sum_{k=1}^5 \frac{p_b^j}{p_{y-k-1}^j} c_{y-k-1}^j$$

where  $c_{y-k-1}^j$  represents a year cash receipt of  $j^{\text{th}}$  commodity within year-2 to year-6; and  $p_{y-k-1}^j$  represents the corresponding annual price of  $j^{\text{th}}$  commodity. The difference between the weights  $w_{y,m}^j$  and  $w_{b,m}^j$  is that the later is re-evaluated to the base price. Therefore, the weight  $w_{b,m}^j$  includes only the quantity movements of a commodity produced and sold in market.

The Prices Received indexes are constructed using the ratio of the current average price to the base price for each commodity and the 5-year moving average weight (adjusted to reflect seasonal marketing pattern). The following example indicates the August 2010 Food Grain index is 186 on a 1990-92=100 basis.

	<u>Aug. 2010 Price</u>	<u>Base Price 1990-92</u>	<u>Price Ratio (%) (Aug./base)</u>	<u>Weights (Aug.)</u>	<u>Price Ratio x Weight</u>
Wheat (bu.)	\$5.56	\$2.96	187.83	0.8862	166.45
Rice (cwt.)	\$12.10	\$7.07	171.14	0.1138	<u>19.47</u>
					185.92

(Food Grain Index 185.92 rounds to 186.)

### Link Date Selection and Link Process

NASS has constructed the 1990-1992=100 indexes back through 1975 using the moving average weights and monthly seasonal adjustments. The 1910-1914 indexes required for parity purposes have been revised to reflect the changes in the newly constructed 1990-1992 indexes. The 1910-1914 indexes were linked forward starting in February 1975 based on changes in the 1990-1992 indexes. February 1975 was selected as the link date since there was less difference in the new monthly index weights and resulting index levels than in January compared with using the 1971-1973 fixed weights without the monthly seasonal adjustments. A 1910-1914 other crops index for 1975 was established by multiplying the ratio of the 1990-1992 other crops to all crops indexes for February 1975 by the 1910-1914 all crops index for February 1975 (Milton, 1995).

For example, if the price base reference is 1977 (1977=100), the Food Grains average price index for 1990-1992 is 120. If the price base reference changes to 1990-1992 (1990-1992 = 100), then the Food Grains price index becomes 83. To convert the 1977 base index to 1990-1992, divide 100 by 120 to equal 83.

### Index computation

The construction of a price index for agricultural products generally, crops in particular, is

more difficult because of two circumstances: 1) marked seasonal pattern which may shift over year by year for some commodities; and 2) volatility in price and production from year to year which is caused by external conditions such as the weather or economic influences as well as impact of sharply changes in the international market. These two problems have to be addressed by building the indexes into a method for dealing with gaps in the supply of prices and for smoothing volatile elements. At the same time, it has to reflect changes in the trend of agricultural product prices.

The Prices Received index is based on five-year moving average weights which are updated every year to capture shifts in the agricultural market. When the base reference period is updated, the commodities are also updated. This results in a linking process to the prior base reference period. The base prices of commodities are computed from weighted average monthly prices in the period 1990-1992. The seasonal weighting pattern was derived from monthly marketing over the period 1988-1992, which is used to adjust the five-year weights to reflect the mix of producers sell in a given month. These provide some smoothing for handling volatility and seasonality of agricultural commodities sold. As the result of these modifications, the formula of compiling the index of Prices Received becomes close to a Young's index instead of a Laspeyres index because the reference date of the index weights is between the base year period and the current period. However, the weight, often referred to as the market basket, in both the Young and Laspeyres

formula is based on a year or multiple year average. The weight of the prices received index is based on a month because the seasonal marketing pattern is monthly. Consequently, the formula to construct the Prices Received index is not a Young formula, but rather a modified Rothwell formula which was proposed by Doris Rothwell (1958) to incorporate characteristics of seasonal variation. The formula was originally proposed in 1924 by two economists with the USDA, Louis H. Bean and O. C. Stine. The prices received index formula becomes:

$$P_{m/b}^i = \frac{\sum_j^n P_m^j q_{y,m}^j}{\sum_j^n P_b^j q_{y,m}^j} = \sum_j^n w_{b,m}^j \frac{P_m^j}{P_b^j}$$

where  $P_{m/b}^i$  stands for a component  $I$  price index, and the subscript  $b$  indicates as the base period and  $m$  is for month;  $p_b^j$  is the weighted average monthly base price (1990-1992=100) of the  $j^{\text{th}}$  commodity; the  $w_{b,m}^j$  represents the five-year moving average weight of the  $j^{\text{th}}$  commodity in the  $m^{\text{th}}$  month and evaluated at the base period prices.

In the literature of index numbers, it is generally agreed that a price relative should be “weighted” by “values”, since the importance of a

price change in a given context is usually proportional to the value of the commodity price change of which is measured by the relative. Similarly, in the aggregative type of index, prices are weighted by quantities, for the same reason. Under certain conditions, the weighted average of a relative is identical to an aggregative index. The average of relatives derives from the concept that the purpose of an index number is to measure the average price change of a certain phenomenon over a given period; the price change for a particular commodity is indicated by the corresponding price relative; and that, in consequence, an average of relative gives a measure of average change. This explains the concept of second equation in the above formula.

The previous example showed the way to construct the price index by weighted price relatives. In the example, the price relative of wheat is 187.83 and rice is 171.14, weighted by 0.8862 and 0.1138 respectively. The Food Grain price index is 186. The aggregate method to construct the price index is to multiply the item price by its quantity. Suppose the quantity sold is 210 million bushels for wheat and 800 million pounds for rice. Then Food Grain price index will be 186 on a 1990-1992 = 100 basis.

	Base Price (1990 – 92)	Aug. 2010 Price	Quantity (million)	Total Value Base	Total Value Aug.
Wheat (bu.)	\$2.96	\$5.56	210 (bu.)	\$621.60	\$1,167.60
Rice (cwt.)	\$7.07	\$12.10	8 (cwt.)	\$56.56	\$96.80
				\$678.16	\$1,264.40
Food Grain Index = \$1,264.40 / \$678.16 or 186					

Table 2.19 shows relative weights of the component indexes for Prices Received for selected years. The All Farm Products index is the top level index which contains all commodities. The All Crops index includes the components, Food Grains, Feed Grains Hay, Oilseeds, Cotton, Tobacco, Fruits & Nuts, Commercial Vegetables, Potatoes & Dry beans, and Other Crops. The Livestock & Products index covers Meat Animals, Dairy Products, and Poultry & Eggs components. The Food Commodities index is another high level index which includes the components, Food Grains, Oil Crops, Fruit & Nuts, Commercial Vegetables, Potatoes & Dry Beans, Meat Animals, Dairy Products, and Poultry & Eggs. The formula of the up-level index is a weighted average of component indexes within the group, which is identical to a component index except the last terms in summation are indexes instead of price relatives.

## Uses and Limitations

Estimates of agricultural commodity prices received by producers are an important part of the Nation's economic database. They are used by industry management, economists, farmers, farm organizations, legislators, and Government officials for analyses of price trends, production, and sales of agricultural commodities. They are also important for calculating deficiency payments or support payments for Government programs, computing cash receipts from farm marketings, and estimating agriculture's contribution to the gross national product. Further, the series are used in administering marketing orders, including those for milk, fruit, nuts, and vegetables (USDA, 1970).

Factors such as changes in quality, utilization, and movement of old versus new crops affect month-to-month price changes. Shifting areas of marketing, world markets, trade policies, and

changing marketing functions performed by the producer affect longer term price analysis. New varieties or breeds, specialized uses of products, and changing marketing arrangements are all reflected in the average prices received by producers. Analysts should keep these factors in perspective when analyzing data series on Prices Received by farmers (USDA, 1970).

Price data based on statistical surveys are subject to sampling and non-sampling errors. Sampling errors are defined as differences between the population estimates from different samples and the population value. They measure the probability of an estimate's departure from the values obtained with a complete enumeration. Sampling errors can be measured statistically based on probability samples. For major commodities, standard errors for NASS price estimates at the U.S. level are generally in the 1-2 percent range. Efforts are made to control the level of sampling errors by list stratification and increased sample size as resources and respondent burden permit (USDA, 1970).

Non-sampling errors include nonresponse errors introduced when survey respondents refuse to cooperate or cannot be located during the survey period; errors introduced by an interviewer's "leading" the respondent or otherwise influencing the respondent's answer; errors resulting from incorrectly recording or transferring data, whether done manually or with data processing equipment. Errors may also arise from the questionnaire when questions are unclear, definitions are imprecise, or the order of questions is not logical. Non-sampling errors are minimized through standardized questionnaires, instruction manuals, training, manual review of reported data, and automated edit checks during summarization (USDA, 1970).

## Publication and Dissemination

NASS publishes Prices Received estimates which includes the current month in the monthly *Agricultural Prices* report. Issuance occurs at 3:00 p.m. on or near the last business day of each month.

### Publication Process

**Publication process.** NASS developed software to structure the Prices Received estimates in tabular format. A composed draft copy of the *Agricultural Prices* report is prepared 2-3 weeks prior to publication release for program and format review. Commodity Statisticians review the final estimates again in the published formatted tables.

NASS creates a file for the Quick Stats database at the time of composition of the published report. A final review occurs prior to release of the report at 3:00 p.m. on the scheduled day of release. Go to [http://www.nass.usda.gov/Data\\_and\\_Statistics/Quick\\_Stats/index.asp](http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp) for the Quick Stats database.

In addition to *Agricultural Prices* and the on-line Quick Stats data base, a number of commodity reports publish agricultural price data. They include:

- Crop Values
- Noncitrus Fruits and Nuts
- Citrus Fruits
- Vegetables - Annual
- Meat Animals - Production, Disposition, and Income
- Milk - Production, Disposition, and Income
- Poultry - Production and Value

Other USDA agencies also publish NASS *Agricultural Prices* data.

**Publication Constraints.** NASS strives to establish and publish estimates on all data series. There are situations, however, that require an aggregation of the estimates. Also, estimates may not be published if disclosure of an individual operation is possible. Reported data is protected by Title 7 of the U.S. Code. Title 7 can be found at <http://www.law.cornell.edu/uscode/7/>.

NASS Prices Received estimates may be published at the U.S. level or at the State level. No regional level estimates are published for Prices Received. Current month prices are mid-month; prices for previous months and years are entire month.

In the event of a publication constraint, footnotes are used to inform the reader of the reason. The two most common reasons for not publishing data are:

- (D) Withheld to avoid disclosing data for individual operations
- (S) Insufficient number of reports to establish an estimate.

**Revisions.** Prices Received estimates may be revised in subsequent months and years. Data collection is for the current year/period as well as the previous “full-month” price.

Mid-month estimates are based on data for the first two weeks or the 5 business days around the 15<sup>th</sup> of the month in order to publish price estimates by the end of the month. The preliminary month (mid-month) estimates are revised based on

full month data and published the following month.

## Dissemination

*Agricultural Prices* estimates are disseminated to the public through monthly reports. The monthly report is issued each month at 3:00 p.m. Eastern time, on or near the last business day of each month. The 3:00 p.m. embargo and simultaneous access applies to all forms of dissemination. Electronic data and hard copy publications are made available simultaneously. Prior disclosure of data is unlawful, with penalties of fine and imprisonment.

The publication is available in hard copy (printed product); however the main method of dissemination is via the USDA-NASS website. The website address is: [www.nass.usda.gov](http://www.nass.usda.gov).

The main method of dissemination for reports is from the USDA-NASS website. The reports are available at [www.nass.usda.gov](http://www.nass.usda.gov). The reports and data are in the following formats:

- in a text format,
- in a pdf format,
- in a downloadable format for spreadsheets or databases via a comma separated value (csv) format, and
- QuickStats searchable database.

Quick Stats is NASS's on-line searchable database. Customers can obtain the specific data items of interest. These data items of interest are also available historically with some items available back into the 1800s. Historic data can be downloaded for each item of interest.

In addition to *Agricultural Prices* and the on-line Quick Stats data base, a number of commodity reports also publish agricultural price data and include:

- Crop Values
- Noncitrus Fruits and Nuts
- Citrus Fruits
- Vegetables-Annual
- Meat Animals-Production, Disposition, and Income
- Milk-Production, Disposition, and Income
- Poultry-Production and Value

**Historic Data.** The last five years of indexes are published quarterly (January, April, July, and October) in *Agricultural Prices*. However, revised indexes are calculated monthly and posted to the Quick Stats database. These monthly revisions are meant to improve the timeliness of the data series. These revised estimates are official NASS estimates.

Electronic versions (pdf files) are also available for *Agricultural Prices* reports dating back to 1964. These files contained "scanned" copies of the original hard copy reports.

## References

- Diewert, W.E., Alterman, W.F., Feenstra, R.C. (2009). Time Series versus Index Number Methods for Seasonal Adjustment. *Price and Productivity Measurement* Vol. 2, 29-52. Trafford Press. from <http://www.indexmeasures.com/Vol2,%20Seasonality%2009,10,18.pdf>
- Milton, B., Kleweno, D., Vanderberry, H.(1995, January). Reweighting and reconstructing USDA's indexes of prices received and paid by farmers. ESB Staff Report No. ESB-95-01.
- Stauber, R. B., Koffsky, N.M., Randall, C.K. (1950, April). The revised price indexes. USDA. Agricultural Economic Research No. 2. Vol. 2.
- USDA. (1970, April). *Major Statistical Series of the Department of Agriculture, Agricultural Prices, Expenditures, Farm Employment, and Wages*. AH-671, Vol. 1.
- USDA. (1952, May). *A Reference Manual on Parity Price, Index of Prices Paid by Farmers, and Index of Price Received*.

## Appendix of Tables

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual**

State	Austrian Winter Peas	Barley			Canola	All Chick- peas	Corn
		Feed	Malt	All			
Alabama .....							A
Alaska .....							
Arizona.....				A			A
Arkansas.....							A
California .....		M	M	M		A	A
Colorado.....		M	M	M	A		M
Connecticut....							
Delaware .....				A			A
Florida .....							A
Georgia.....							A
Hawaii .....							
Idaho .....	M	M	M	M	A	A	A
Illinois .....							M
Indiana .....							M
Iowa .....							M
Kansas.....				A	A		M
Kentucky .....							M
Louisiana.....							A
Maine .....				A			
Maryland.....				A			A
Massachusetts							
Michigan .....				A			M
Minnesota.....		M	M	M	M		M
Mississippi .....							A
Missouri .....							M
Montana .....	M	M	M	M	A	A	A

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual**

State	Austrian Winter Peas	Barley			Canola	All Chickpeas	Corn
		Feed	Malt	All			
Nebraska .....							M
Nevada .....							
New England..							
New Jersey ....							A
New Mexico...							A
New York.....				A			A
North Carolina				A			M
North Dakota..		M	M	M	M	A	M
Ohio .....							M
Oklahoma.....					A		A
Oregon .....	M	M	M	M	A	A	A
Pennsylvania..				A			M
Rhode Island ..							
South Carolina							A
South Dakota..				A		A	M
Tennessee.....							M
Texas .....							M
Utah.....		M	M	M			A
Vermont .....							
Virginia .....				A			A
Washington ....		M	M	M	A	A	A
West Virginia .							A
Wisconsin.....				A			M
Wyoming .....		M					A

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Cotton			Dry Beans	Dry Edible Peas	Flaxseed
	Upland	Pima	Seed			
Alabama .....	M		M			
Alaska .....				A		
Arizona.....	M	A	M			
Arkansas.....	M		M	M		
California .....	M	A	M	M		
Colorado.....						
Connecticut....						
Delaware .....						
Florida.....	A		A			
Georgia.....	M		M			
Hawaii .....						
Idaho .....				M	A	
Illinois .....						
Indiana .....						
Iowa .....						
Kansas.....	A		A	A		
Kentucky .....						
Louisiana.....	M		M			
Maine .....						
Maryland.....						
Massachusetts						
Michigan .....						
Minnesota.....						
Mississippi .....	M		M			
Missouri .....	A		A	M		A
Montana .....						

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Cotton			Dry Beans	Dry Edible Peas	Flaxseed
	Upland	Pima	Seed			
Nebraska .....				M		
Nevada .....						
New England..						
New Jersey .....				A		
New Mexico...	A	A	A	A		
New York.....						
North Carolina	M		M	M	A	M
North Dakota..						
Ohio .....						
Oklahoma.....	A		A	A	A	
Oregon .....						
Pennsylvania..						
Rhode Island ..						
South Carolina	A		A			
South Dakota..				A		A
Tennessee.....	M		M			
Texas .....	M	A	M	A		
Utah.....						
Vermont .....						
Virginia .....	A		A			
Washington ....						
West Virginia .				A	A	
Wisconsin.....						
Wyoming .....				A		

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Hay			Hops	Lentils <sup>1</sup>	Oats	Oil		Mustard Seed
	Alfalfa	Other	All				Peppermint	Spearmint	
Alabama .....		A	A			A			
Alaska .....	M	M	M						
Arizona.....	A	A	A			A			
Arkansas.....	M	M	M			A	A		
California .....	M	M	M			A			
Colorado.....	A	A	A						
Connecticut....									
Delaware .....	A	A	A						
Florida.....		A	A						
Georgia.....		A	A			A			
Hawaii.....									
Idaho .....	M	M	M	A	M	A	A	A	A
Illinois .....	M	M	M			M			
Indiana .....	A	A	A			A	A	A	
Iowa .....	M	M	M			M			
Kansas.....	M	M	M			A			
Kentucky .....	M	M	M						
Louisiana.....		A	A						
Maine .....	A	A	A						
Maryland.....	A	A	A			A			
Massachusetts									
Michigan .....	A	A	A					A	
Minnesota.....	A	A	A						
Mississippi .....	M	M	M			M	A		
Missouri .....	M	M	M			M			
Montana .....		A	A						A

<sup>1</sup> Only United States prices published monthly

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Hay			Hops	Lentils <sup>1</sup>	Oats	Oil		Mustard Seed
	Alfalfa	Other	All				Peppermint	Spear-mint	
Nebraska .....	M	M	M			M			
Nevada .....	M	M	M						
New England..	A	A	A						
New Jersey.....	M	M	M						
New Mexico...	M	M	M			M			
New York.....	A	A	A			A			
North Carolina	M	M	M		M	M			
North Dakota..	M	M	M			A			A
Ohio .....	M	M	M			A			
Oklahoma.....	M	M	M	A		M	A		
Oregon .....	M	M	M			M		A	A
Pennsylvania..	A	A	A						
Rhode Island ..									
South Carolina		A	A			A			
South Dakota..	M	M	M			M			
Tennessee.....	A	A	A						
Texas .....	M	M	M			M			
Utah.....	M	M	M			A			
Vermont .....	A	A	A						
Virginia .....	A	A	A			A			
Washington ....	M	M	M	A	M	A	A	A	A
West Virginia .	A	A	A						
Wisconsin.....	M	M	M			M	A	A	A
Wyoming .....	M	M	M			A			

<sup>1</sup> Only United States prices published monthly

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Peanuts	Proso Millet	Rapeseed	Rice				
				Short Grain	Medium Grain	Medium/Short Grain	Long Grain	All
Alabama.....	M							
Alaska .....								
Arizona .....								
Arkansas .....				M	M	M	M	M
California .....				M	M	M	M	M
Colorado .....		A						
Connecticut ....								
Delaware.....								
Florida .....	M							
Georgia .....	M							
Hawaii.....								
Idaho .....			A					
Illinois.....								
Indiana .....								
Iowa .....								
Kansas .....								
Kentucky.....								
Louisiana .....					M	M	M	M
Maine.....								
Maryland.....								
Massachusetts								
Michigan.....								
Minnesota .....			A					
Mississippi.....	M				M	M	M	M
Missouri.....					M	M	M	M
Montana.....								

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Peanuts	Proso Millet	Rapeseed	Rice				
				Short Grain	Medium Grain	Medium/Short Grain	Long Grain	All
Nebraska .....		A						
Nevada.....								
New England ...								
New Jersey.....								
New Mexico ....	M							
New York .....								
North Carolina .	M							
North Dakota ...								
Ohio .....								
Oklahoma .....	M							
Oregon .....			A					
Pennsylvania....								
Rhode Island ..								
South Carolina .	M							
South Dakota ...		A						
Tennessee .....								
Texas .....	M			M	M	M	M	M
Utah .....								
Vermont .....								
Virginia.....	M							
Washington.....			A					
West Virginia...								
Wisconsin .....								
Wyoming .....								

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Potatoes				Rye	Safflower	Sorghum Grain
	Spring	Summer	Fall	Winter			
Alabama.....							
Alaska .....							
Arizona .....							A
Arkansas .....							M
California .....	M	M	M	M		A	
Colorado .....		M	M			A	A
Connecticut ....							
Delaware.....		A					
Florida .....	M						
Georgia .....					A		A
Hawaii .....							
Idaho.....			M			A	
Illinois.....		A					M
Indiana .....							
Iowa .....							
Kansas .....		A					M
Kentucky.....							
Louisiana .....							M
Maine.....			M				
Maryland.....		A					
Massachusetts ..			A				
Michigan.....							
Minnesota .....							
Mississippi.....							A
Missouri.....		A					M
Montana.....			A			A	

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Potatoes				Rye	Safflower	Sorghum Grain
	Spring	Summer	Fall	Winter			
Nebraska .....			A		A		M
Nevada .....			A				
New England..							
New Jersey .....		A					
New Mexico...			A				A
New York.....			M		A		
North Carolina					A		
North Dakota..	M		M			A	
Ohio .....			A				
Oklahoma .....					A		M
Oregon .....			M				
Pennsylvania..			A		A		
Rhode Island..			A				
South Carolina					A		
South Dakota..					A	A	A
Tennessee.....							
Texas .....	M	M			A		M
Utah.....						A	
Vermont .....							
Virginia .....		M					
Washington ....			M				
West Virginia.							
Wisconsin.....			M		A		
Wyoming .....							

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Soybeans	Sugarbeets	Sugarcane	Sunflowers			Sweet Potatoes
				Oil	Non-Oil	All	
Alabama .....	A						A
Alaska .....							
Arizona.....							
Arkansas.....	M						A
California .....		A		A	A	A	A
Colorado.....		A		M	M	M	
Connecticut ...							
Delaware .....	A						
Florida .....	A		A				A
Georgia.....	A						
Hawaii .....			A				
Idaho .....		A					
Illinois .....	M						
Indiana .....	M						
Iowa .....	M						
Kansas .....	M			M	M	M	
Kentucky .....							
Louisiana.....	M		A				A
Maine .....							
Maryland.....	A						
Massachusetts							
Michigan .....	M	A					
Minnesota.....	M	A		M	M	M	
Mississippi .....	M						A
Missouri .....	M						
Montana .....		A					

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Soybeans	Sugarbeets	Sugarcane	Sunflowers			Sweet Potatoes
				Oil	Non-Oil	All	
Nebraska .....	M	A					
Nevada .....							
New England..							
New Jersey .....	A						A
New Mexico...							
New York.....	A						
North Carolina	M						A
North Dakota..	M	A		M	M	M	
Ohio .....	M						
Oklahoma.....	A			A	A	A	
Oregon .....		A					
Pennsylvania..	A						
Rhode Island ..							
South Carolina	A						
South Dakota..	M			M	M	M	
Tennessee.....	M						
Texas .....	A		A				A
Utah.....							
Vermont .....							
Virginia .....	A						
Washington ....							
West Virginia.	A						
Wisconsin.....	M						
Wyoming .....		A					

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Tobacco						
	Flue Cure	Fire Cured	Light-Air Cured	Dark-Air Cured	Cigar Binder	Cigar Wrapper	All
Alabama.....							
Alaska .....							
Arizona .....							
Arkansas .....							
California.....							
Colorado .....							
Connecticut.....						A	A
Delaware.....							
Florida .....	A						A
Georgia .....	A						A
Hawaii .....							
Idaho .....							
Illinois.....							
Indiana .....							
Iowa .....							
Kansas .....							
Kentucky.....		A	A	A			A
Louisiana .....							
Maine.....							
Maryland.....							
Massachusetts..						A	A
Michigan.....							
Minnesota .....							
Mississippi.....							
Missouri.....							
Montana.....							

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Tobacco						
	Flue Cure	Fire Cured	Light-Air Cured	Dark-Air Cured	Cigar Binder	Cigar Wrapper	All
Nebraska .....							
Nevada.....							
New England ...							
New Jersey.....							
New Mexico ....							
New York .....							
North Carolina .	A		A				A
North Dakota ...							
Ohio .....			A				A
Oklahoma .....							
Oregon .....							
Pennsylvania....			A		A		A
Rhode Island ..							
South Carolina .	A						A
South Dakota ...							
Tennessee .....		A	A	A			A
Texas .....							
Utah .....							
Vermont .....							
Virginia.....	A	A		A			A
Washington.....							
West Virginia...			A				A
Wisconsin .....							
Wyoming .....							

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Wheat							
	Winter	Hard Red Winter	Soft Red Winter	Other Spring	Hard Red Spring	Durum	Soft White	All
Alabama.....	A							A
Alaska.....								
Arizona.....	A					M		M
Arkansas.....			M					M
California.....	M	M						M
Colorado.....	M	M		M	M	M		M
Connecticut.....								
Delaware.....	A							A
Florida.....	A							A
Georgia.....	A							A
Hawaii.....								
Idaho.....	M	M		M	M	M		M
Illinois.....	M		M					M
Indiana.....	M		M					M
Iowa.....	A							A
Kansas.....	M	M						M
Kentucky.....	A							A
Louisiana.....	A							A
Maine.....								
Maryland.....	A							A
Massachusetts..								
Michigan.....	M		M					M
Minnesota.....	M	M		M	M			M
Mississippi.....	A							A
Missouri.....	M		M					M
Montana.....	M	M		M	M	M		M

Monthly program States designated as M and Annual program States as A

**Table 2.1. Prices Received Program States by Commodity, Monthly and Annual (cont.)**

State	Wheat							
	Winter	Hard Red Winter	Soft Red Winter	Other Spring	Hard Red Spring	Durum	Soft White	All
Nebraska .....	M	M						M
Nevada.....	A			A				A
New England ...								
New Jersey.....	A							A
New Mexico ....	A							A
New York .....	A							A
North Carolina .	M							M
North Dakota ...	M	M		M	M	M		M
Ohio .....	M		M					M
Oklahoma .....	M	M						M
Oregon.....	M	M		M	M			M
Pennsylvania....	A							A
Rhode Island ..								
South Carolina .	A							A
South Dakota ...	M	M		M	M	A		M
Tennessee .....	A							A
Texas .....	M	M						M
Utah .....	A			A				A
Vermont .....								
Virginia.....	A							A
Washington.....	M	M		M	M			M
West Virginia...	A							A
Wisconsin .....	A							A
Wyoming .....	A							A

Monthly program States designated as M and Annual program States as A

**Table 2.2. Strata for Cotton**

Stratum	Description
1 .....	1 – 999 Bales
2 .....	1,000 – 2,499 Bales
3 .....	2,500 – 4,999 Bales
4 .....	5,000 – 7,499 Bales
5 .....	7,500 – 9,999 Bales
6 .....	10,000 – 19,999 Bales
7 .....	20,000 – 49,999 Bales
8 .....	50,000 – 74,999 Bales
9 .....	75,000 – 99,999 Bales
10 .....	100,000 + Bales
11 .....	Cooperative
12 .....	Extreme Operator

**Table 2.3. Specialty Elevator Indicator for Grain Stratification**

Stratum	Description
1 .....	Processing Mill
2 .....	Small Dry Bean Elevator
3 .....	Large Dry Bean Elevator
4 .....	Flax
5 .....	Barley
6 .....	Barley (Malting)
7 .....	Sunflower (Non-oil)
8 .....	Sunflower (Oil)
9 .....	Small White Corn
10 .....	Large White Corn
11 .....	Small Ethanol Plant
12 .....	Large Ethanol Plant
13 .....	Feed Mill
14 .....	Oilseed Processor
15 .....	Railroad Spur
16 .....	Small Buyer/Dealer
17 .....	Large Buyer/Dealer
18 .....	Small Wheat
19 .....	Large Wheat
20 .....	Soybean Crusher
21 .....	Soybeans
22 .....	Oats
23 .....	Wheat (Durum)
24 .....	Terminal
25 .....	Corn
26 .....	Large Livestock or Poultry Grain Buyer
27 .....	Pulse Buyer
28 .....	Large Grain and Large Dry Bean or Pulse Buyer
29 .....	Organic Crops

**Table 2.4. Reference Months and Target CVs for Grain Prices Commodities**

Commodity	Reference Month*	United States
Yellow Corn .....	January, October	0.5
Soybeans .....	January, October	0.5
All Wheat .....	June, July	1.0
Upland Cotton .....	November, December	1.0
Barley .....	August, September	2.5
Oats .....	July, August	2.5
Sorghum .....	November, December	1.5
All Sunflowers .....	November, December	2.5

\* Data are collected in the month following the reference month. Selected months used to measure survey performance.

**Table 2.5. Honey Color Class with Pfund Scale**

Honey Color Class	Pfund Scale (mm)
Water white, extra white, and white	0 - 34
Extra light amber	35 - 50
Light amber, amber, and dark amber	51 +
Specialty areas	any

**Table 2.6. Mink Color Class by Trade Names**

Mink Color Class	Trade Names
Black	Blackgama <sup>1</sup>
Blue Iris	Aleutian <sup>1</sup> , Lutetia <sup>1</sup>
Demi/Wild	Dark Brown, Lunaraine <sup>1</sup> , Ranch Wild
Lavender	Arcturus <sup>1</sup> , Liana, Morning Light
Pastel	Autumn Haze, Dawn, Natural Brown, Orchid
Pearl	Tourmaline <sup>1</sup>
Sapphire	Aeolian <sup>1</sup> , Cerulean <sup>1</sup> , Diaden, Fawn, Palomino
Violet	Azurene <sup>1</sup>
White	Jasmine <sup>1</sup>
Miscellaneous	Pink, Rose, Rovalia <sup>1</sup>

<sup>1</sup> American Legend Trademark Colors

**Table 2.7. Size and Descriptions for Catfish and Trout**

Type	Description
Catfish	
Broodfish	Fish kept for egg production, including males. Broodfish produce the fertilized eggs which go to hatcheries. The desirable size is three to ten pounds or four to six years of age.
Fry	Fish under two inches in length weighing 2 pounds per 1,000 fish
Fingerlings	Fish two to six inches in length weighing 2 pounds to 60 pounds per 1,000 fish
Small Stockers	Fish over six inches in length weighing 60 to 180 pounds per 1,000 fish
Large Stockers	Fish over six inches in length weighing 180 to 750 pounds per 1,000 fish
Small Foodsize	Fish weighing over $\frac{3}{4}$ pound to 1 $\frac{1}{2}$ pounds
Medium Foodsize	Fish weighing over 1 $\frac{1}{2}$ pounds to 3 pounds
Large Foodsize	Fish weighing over three pounds
Trout	
1" to less than 6"	Usually fingerlings
6" to less than 12"	Usually stockers and weigh less than $\frac{3}{4}$ pound
12" or longer	Grown commercially for food usually weighing $\frac{3}{4}$ pound to 1 $\frac{1}{2}$ pounds

**Table 2.8. Data Collection and Estimation Centers by Region and State**

Region	Estimation Center (EC)	Arkansas Data Collection Center	Wyoming Data Collection Center
East	Florida EC: Alabama, Delaware, Georgia, Maryland, Mississippi, North Carolina, New Jersey, South Carolina, Virginia, New England, Florida	Alabama, Delaware, Georgia, Maryland, Mississippi, North Carolina, New Jersey, South Carolina, Virginia, New England, Florida	
East Central	Wisconsin EC: Indiana, Kentucky, Michigan, New York, Ohio, Pennsylvania, Tennessee, West Virginia, Wisconsin	Indiana, Kentucky, Michigan, New York, Ohio, Pennsylvania, Tennessee, West Virginia, Wisconsin	
West Central	North Dakota EC: Arkansas, Iowa, Illinois, Kansas, Louisiana, Minnesota, Missouri, Nebraska, Oklahoma, South Dakota, Texas, North Dakota		Arkansas, Iowa, Illinois, Kansas, Louisiana, Minnesota, Missouri, Nebraska, Oklahoma, South Dakota, Texas, North Dakota
West	California EC: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, Wyoming, California		Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, Wyoming, California

**Table 2.9. Market Year for Selected Field Crop Commodities by Geographic Areas**

Selected Commodity	Market Year	Geographic Area
Barley	June 1 to May 31	U.S. Arizona, California, Delaware, Kentucky, Maryland, New Jersey, North Carolina, Pennsylvania, Virginia
	Aug. 1 to July 31 July 1 to June 30	Alaska, Maine Other Program States
Canola	July 1 to June 30	U.S. and Program States
Chickpeas (Garbanzo Beans)	Sept. 1 to Aug. 31	U.S.
Corn for Grain	Sept. 1 to Aug 31 July 1 to June 30	U.S. Texas
	Aug. 1 to July 31	Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee
	Sept. 1 to Aug. 31	Arizona, California, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Missouri, Nebraska, New Mexico, Ohio, Pennsylvania, South Dakota,
	Oct. 1 to Sept. 30	Virginia, West Virginia, and Other Program States
Cotton	Aug. 1 to July 31	U.S. and Program States
Cottonseed	Aug. 1 to Feb. 28	U.S. and Program States
Dry Edible Beans	Sept. 1 to Aug. 31	U.S. and Program States
Flaxseed	July 1 to June 30	U.S. and Program States
Hay	May 1 to April 30	U.S.
	April 1 to Mar. 31	Arizona and California
	May 1 to April 30	Alabama, Arkansas, Colorado, Florida, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nevada, New Mexico, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia
	June 1 to May 31	Other Program States
Hops	Sept. 1 to Aug 31	United States and Program States

**Table 2.9. Market Year for Selected Field Crop Commodities by Geographic Areas (cont.)**

Selected Commodity	Market Year	Geographic Area
Oats	June 1 to May 31 May 1 to April 30 June 1 to May 31 Aug 1 to July 31 Sept. 1 to Aug 31 July 1 to June 30	U.S. Alabama, Georgia, Texas North Carolina, Oklahoma, South Carolina, Virginia Maine and New York Alaska Other Program States
Peanuts	Aug. 1 to July 31	U.S. and Program States
Potatoes Winter/Spring Summer Fall	Nov. 1 to Aug 31 June 1 to Dec 31 July 1 to June 30	U.S. and Program States
Rice	Aug. 1 to July 31 July 1 to June 30 Aug. 1 to July 31 Oct. 1 to Sept. 30 Sept. 1 to Aug. 31	U.S. Louisiana and Texas Arkansas and Mississippi California Missouri
Sorghum for Grain	Sept. 1 to Aug. 31 June 1 to May 31 Aug. 1 to July 31 Sept. 1 to Aug. 31	U.S. Texas Alabama, Arkansas, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee Other Program States
Soybeans	Sept. 1 to Aug. 31 July 1 to June 30 Aug. 1 to July 31 Sept. 1 to Aug. 31	U.S. Texas Louisiana and Mississippi Other Program States
Sunflowers	Sept. 1 to Aug. 31 July 1 to June 30 Sept. 1 to Aug. 31	U.S. Texas Other Program States
Sweet Potatoes	July 1 to June 30 July 1 to May 31 August 1 to May 31 August 1 to July 31	U.S., Alabama, and California Georgia, Louisiana, North Carolina, and Texas South Carolina and Virginia New Jersey

**Table 2.9. Market Year for Selected Field Crop Commodities by Geographic Areas (cont.)**

Tobacco	Dark Air-Cured	Dec. 1 to Feb. 28	U.S. and Program States
	Flue-Cured	July 1 to Nov. 30	U.S. and Program States
	Fire-Cured	Dec. 1 to Mar. 31	U.S.
		Jan. 1 to Mar. 31	Kentucky and Tennessee
	Dec. 1 to Jan. 31	Virginia	
Light Air-Cured		Nov. 1 to May 31	U.S.
		Nov. 1 to Feb. 28	Indiana, Kentucky, Missouri, North Carolina, Ohio, Tennessee, Virginia, West Virginia
		Mar. 1 to May 31	Maryland and Pennsylvania
Wheat		June 1 to May 31	U.S.
		May 1 to April 30	Alabama, Florida, Georgia, Louisiana, Mississippi, Texas
		June 1 to May 31	Arizona, Arkansas, California, Delaware, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, and Virginia
		July 1 to June 30	Other Program States

**Table 2.10. Market Year for Selected Vegetable Commodities by Geographic Areas**

Selected Commodity	Market Year	Geographic Area
Asparagus	Jan. 1 to Oct. 31 May 1 to July 31 April 1 to July 31	U.S. California Michigan and Washington
Broccoli	Jan. 1 to Oct. 31	U.S. and California
Cantaloups	May 1 to Dec. 31 Oct. 1 to Dec. 31 May 1 to Dec. 31 May 1 to Aug. 31	U.S. Arizona California Texas
Carrots	Jan. 1 to Dec. 31 July 1 to Dec. 31 April 1 to Aug. 31	U.S. and California Michigan Texas
Cauliflower	Jan. 1 to Dec. 31 Nov. 1 to April 30 July 1 to Oct. 31	U.S. and California Arizona New York
Celery	Jan. 1 to Dec. 31 July 1 to Oct. 31	U.S. and California Michigan
Cucumbers	Mar. 1 to Dec. 31 May 1 to Nov. 30	U.S. California
	Mar. 1 to May 31 Oct. 1 to Dec. 31	Florida Florida
	May 1 to June 30 Sept. 1 to Nov. 30	Georgia Georgia
	June 1 to Sept. 30 July 1 to Oct. 31	Michigan New York
	June 1 to July 31 Sept. 1 to Oct. 31	Virginia Virginia
Honeydew Melons	May 1 to Nov. 30 May 1 to Sept. 30	U.S., Arizona, and California Texas
Lettuce	Jan. 1 to Dec. 31 Nov. 1 to April 30 Oct. 1 to April 30 April 1 to Nov. 30	U.S. and California Yuma, Arizona Other Areas in Arizona New Jersey
Onions Spring Onions Summer Onions (non-storage) Summer Onions (storage)	Jan. 1 to Dec. 31 April 1 to July 31 May 1 to Sept. 30 Sept. 1 to April 30	U.S.

**Table 2.10. Market Year for Selected Vegetable Commodities by Geographic Areas (cont.)**

Selected Commodity	Market Year	Geographic Area
Snap Beans	April 1 to July 31 Oct. 1 to May 31 July 1 to Oct. 31	U.S. and California Florida New York
Sweet Corn	Jan. 1 to Dec. 31 April 1 to Nov. 30  Jan. 1 to June 30 & Nov. 1 to Dec. 31  July 1 to Oct. 31	U.S. California  Florida  All Other Monthly States
Tomatoes	Jan. 1 to Dec. 31 May 1 to Nov. 30  Jan. 1 to June 30 Oct. 1 to Dec. 31  Jan. 1 to Dec. 31	U.S. California  Florida  All Other Monthly States

**Table 2.11. Market Year for Selected Noncitrus Fruit Commodities by Geographic Areas**

Selected Commodity	Market Year	Geographic Area
Apples (fresh)	July 1 to January 31	Arizona, Minnesota, Illinois, Iowa, Missouri, Maine, New Jersey, Tennessee, Wisconsin
	Sept 1 to Aug 31	Idaho, Oregon, Utah, Washington, West Virginia California, Colorado, Connecticut, Indiana, Maryland
	July 1 to June 30	Massachusetts, Michigan, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia
Apricots	May 25 to Aug. 20	Utah and Washington
Fresh	May 25 to Aug. 20	California
processed	June 15 to Aug. 15	
Dried	June 20 to Aug. 20	
Dried Figs	June 5 to Oct. 31	U.S. and California
Grapes Concord	Sept 1 to Nov. 1	New York and Pennsylvania
Fresh	May 25 to April 30	U.S. and California
	June 5 to July 15	Arizona
	July 10 to Oct. 31	Arkansas, Georgia, Michigan, Missouri, New York, North Carolina, Ohio, Pennsylvania
Raisin	Sept. 1 to May 31	U.S. and California
Nectarines	April 30 to Oct. 15	U.S. and California
Peaches (fresh)	May 1 to Oct. 31	U.S. Georgia and South Carolina Alabama, Arkansas, California, Colorado, Illinois, Kentucky, Louisiana, Missouri, North Carolina, Ohio, Oklahoma, Tennessee, Texas, Utah, Virginia
	May 20 to Aug. 31	
	June 1 to Sept 30	
Pears (fresh)	Aug. 1 to Sept 30	Connecticut, Massachusetts, Idaho, Michigan, New York Indiana, Maryland, New Jersey, Oregon, Pennsylvania, Washington, West Virginia
	July 1 to Sept 30	U.S. and California
	July 1 to June 30	Oregon and Washington
	July 1 to April 30	Colorado and Connecticut
	Aug. 10 to May 31	Michigan and New York
	July 1 to April 30	Pennsylvania and Utah
Plums		
fresh	May 20 to Sept. 30	California
processed	June 1 to Sept. 30	

**Table 2.12. Market Year for Selected Citrus Fruit Commodities by Geographic Areas**

Selected Commodity	Market Year	Geographic Area
Grapefruit	Nov. 1 to June 30 Nov. 1 to Oct. 31 Sept. 10 to July 1 Oct. 1 to May 30	Arizona California Florida Texas
Lemons	Sept. 1 to March 31 Aug. 1 to July 31	Arizona California
Oranges Navel	Nov 1 to March 31 Nov. 1 to June 15	Arizona California
Valencia	Jan. 1 to June 30 March 15 to Dec. 20 Jan. 1 to July 31 Jan. 15 to May 15	Arizona California Florida Texas
Early and Mid-season	Jan. 1 to Dec. 31 Sept. 25 to Feb. 15	Florida Texas
Tangelos	Oct. 15 to March 1	Florida
Tangerines and Mandarins	Nov. 1 to April 30 Nov. 1 to May 15 Oct. 1 to May1	Arizona California Florida
Temples	Jan. 1 to March 1	Florida

**Table 2.13. Market Year for Selected Livestock Commodities by Geographic Areas**

Selected Commodity	Market Year	Geographic Area
Cattle Honey Lambs Milk Mohair Sheep Turkeys Wool	Jan. 1 to Dec. 31	U.S. and Program States
Broilers Eggs Hogs Other Chickens	Dec. 1 to Nov. 30	U.S. and Program States

**Table 2.14. Summary of Estimates by Selected Commodity**

Commodity	Summary	Level	Class or Type	Time Period
Avocado	State	State & U.S.	No	MYA
Broilers	Weighted average by week	U.S.	No	Month
Citrus	By States	State	Grapefruit (white & color) Lemons, Oranges (navel & Valencia) Tangerines, Tangelos	Month / MYA
Cotton	Weighted Average by State	State	Upland Cotton Pima Cotton	Month / MYA
Date, Kiwi, Olive	State	CA	No	MYA
Floriculture	15 states	State	No (except Hawaii)	MYA
Grain	Weighted Average by Strata Many commodities collapsed.	State	Strata	Month / MYA
Grape	State	State	Raisin, Table, Wine, Concord Juice, Niagara	Month / MYA
Honey	Color Class & Marketing Channel	State	White, Amber, Dark, Other, Coop, Private, Retail	Full year prior sales
Hops	Quantity & Value to calculate average price	State	No	MYA
Market Eggs	Regional price based on AMS data Weighted by state level pro- duction	U.S.	Market and All	Month /
Mushroom	State	Chester Coun- ty, PA Region & U.S.	Agaricus (CA, PA, WA) Regional (East, Central, West) Brown, Shiitake, Oyster, All Other All Specialty	MYA Around Aug 20 <sup>th</sup>
Peach & Pear (Noncitrus)	States	State	Fresh Peaches Fresh pears	Month / MYA
Peanuts	Weighted average by variety	State & U.S.	Runner Spanish Valencia Virginia	Weekly Monthly MYA

**Table 2.14. Summary of Analysis by Commodity (cont.)**

Peppermint / Spearmint	Price data	State & U.S.	Yes (WA by Native & Scotch)	MYA
Potato	States (unique for each state)	State	None	Month / MYA
Rice	Weighted average by grain length and State with no non-response	State & U.S.	Short, Medium, Medium + Short Long	Month / MYA
Sweet Potatoes	States (Unique for each state)	Program States	No	MYA
Tree Nuts	Unique by state and nut	Program States	Almonds, Hazelnuts, Pistachio, Walnuts, Macademia, Pecans (improved, native)	MYA
Turkeys	Weighted average by week	U.S.	No	Month
Wrinkled Seed Peas	States	U.S.	No	MYA

**Table 2.15. Relative Weights of Commodities in the Indexes of Prices Received  
By Farmers, Base Periods 1971-73 and 1990-92**

Commodity and Group	Relative Weights		Commodity and Group	Relative Weights	
	1971-73:	1990-92 <sup>3/</sup>		1971-73:	1990-92 <sup>3/</sup>
	Percent			Percent	
Wheat	6.1	4.0	Green Peas <sup>1/</sup>	.2	
Rice	1.1	.7	Sweet Corn	.4	.4
Food Grains	7.2	4.7	Tomatoes	1.4	1.6
			Broccoli <sup>2/</sup>		.2
Corn	8.0	8.3	Cantaloupes <sup>2/</sup>		.2
Oats	.4	.1	Cauliflower <sup>2/</sup>		.2
Barley	.7	.5	Cucumbers <sup>2/</sup>		.3
Grain Sorghum	1.6	.7	Snap Beans <sup>2/</sup>		.3
All Hay	1.4	1.8	Commercial Vegetables	4.1	5.1
Feed Grains and Hay	12.1	11.4			
			Dry Edible Beans	.4	.3
American Upland	2.9	2.8	Potatoes	1.4	1.3
Cotton	2.9	2.8	Potatoes and Dry Beans		
			Beans	1.8	1.6
Tobacco	2.4	1.7			
			All Other Crops <sup>2/</sup>		7.5
Cottonseed	.5	.3			
Peanuts	.8	.8	All Crops	44.2	48.4
Flaxseed <sup>1/</sup>	.1	.1			
Soybeans	7.8	6.4			
Sunflowers <sup>2/</sup>		.2	Beef Cattle	25.8	22.0
Oil-Bearing Crops	9.2	7.8	Calves	2.6	1.9
			Hogs	8.8	6.7
Apples	1.1	1.2	Meat Animals	37.2	30.6
Grapefruit	.5	.3			
Lemons	.3	.2	Milk, Wholesale	11.1	11.7
Oranges	1.5	1.2	Dairy Products	11.1	11.7
Peaches	.5	.3			
Pears	.2	.2	Eggs	3.4	2.4
Strawberries	.4	.5	Broilers	3.1	5.4
Grapes <sup>2/</sup>		1.4	Turkeys	1.0	1.5
Almonds <sup>2/</sup>		.5	Poultry and Eggs	7.5	9.3
All Fruit and Nut	4.5	5.8			
			Livestock and		
Asparagus	.2	.1	Livestock Products	55.8	51.6
Carrots	.3	.3			
Celery	.3	.2			
Lettuce	.9	.8			
Onions	.4	.5	All Farm Products	100.0	100.0

<sup>1/</sup> Not included in the 1990-92 index.

<sup>2/</sup> Not included in the 1971-73 index. All Other crops include greenhouse/nursery products, sugarbeets, sugarcane, and other specialty crops

<sup>3/</sup> Simple average of 1990-92 for comparison purposes with the prior 1971-73 base price and weight period.

**Table 2.16. Percent Coverage of Index Commodity Groups for Prior Versus Revised Prices Received Indexes <sup>1/</sup>**

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<u>Commodity Groups</u>	<u>Prior (1977=100) (%)</u>	<u>Revised (1990-92) (%)</u>	<u>% of Total Cash Receipts <sup>1/</sup></u>
All Crops	73	86	48.4
Food Grains	100	100	4.7
Feed Grains & Hay	100	100	11.4
Cotton	100	100	2.8
Tobacco	100	100	1.7
Oil-Bearing Crops	98	100	7.8
Fruits and Nuts	51	74	5.8
Commercial Vegetables	52	66	5.1
Potatoes & Dry Beans	100	100	1.6
Other Crops	0	50	7.5
Livestock & Products	97	97	51.6
Meat Animals	100	100	29.7
Dairy Products	100	100	11.4
Poultry & Eggs	97	97	9.0
Other Livestock	-	-	1.5
All Farm Products	85	91	100.0

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<sup>1/</sup> Calculated using 1990-92 cash receipts.

**Table 2.17. 1990-92 Base Price Period Weighted Average Prices Received**

Commodity	Unit	Price	Commodity	Unit	Price
		Dollars			Dollars
WHEAT	(bu)	2.96	ALMONDS	(lb)	1.12
RICE	(cwt)	7.07	ASPARAGUS	(cwt)	65.70
CORN	(bu)	2.30	BROCCOLI	(cwt)	22.00
OATS	(bu)	1.22	CARROTS	(cwt)	10.10
BARLEY	(bu)	2.12	CAULIFLOWER	(cwt)	26.10
SORGHUM GRAIN	(cwt)	3.75	CELERY	(cwt)	11.60
HAY	(ton)	76.30	CUCUMBERS	(cwt)	12.60
COTTON, UPLAND	(lb)	0.606	LETTUCE	(cwt)	11.90
COTTONSEED	(ton)	96.00	ONIONS	(cwt)	11.50
TOBACCO	(lb)	1.74	BEANS, SNAP	(cwt)	13.90
FLAXSEED	(bu)	4.27	CORN, SWEET	(cwt)	5.91
PEANUTS	(lb)	0.304	TOMATOES	(cwt)	7.66
SOYBEANS	(bu)	5.61	CANTALOUPE	(cwt)	13.90
SUNFLOWER	(cwt)	9.50	POTATOES	(cwt)	5.82
APPLES	(lb)	0.151	DRY BEANS	(cwt)	19.10
GRAPEFRUIT	(box)	5.77	CATTLE	(cwt)	72.90
LEMONS	(box)	10.10	CALVES	(cwt)	94.30
ORANGES	(box)	5.79	HOGS	(cwt)	47.70
PEACHES	(lb)	0.155	MILK, WHOLESALE	(cwt)	13.06
PEARS	(ton)	292.00	BROILERS	(lb)	0.317
STRAWBERRIES	(cwt)	47.90	TURKEYS	(lb)	0.380
GRAPES	(ton)	305.00	CHICKEN EGGS	(doz)	0.643

**Table 2.18 Prices Received Monthly Marketing for Index Commodities  
United States:1990-1992 Average**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WHEAT	9	5	5	4	5	14	17	11	9	7	6	8
RICE	12	10	10	8	7	6	6	7	8	9	9	8
CORN	13	7	7	6	6	6	6	6	8	14	12	9
OATS	7	6	6	6	6	7	20	20	9	5	4	4
BARLEY	10	6	7	5	5	6	7	17	11	8	9	9
SORGHUM GRAIN	11	5	5	3	3	4	9	8	7	20	14	11
HAY	8	7	7	6	7	11	12	10	9	8	7	8
COTTON, UPLAND	15	8	6	4	3	2	2	3	6	13	19	19
COTTONSEED	4	2	0	0	0	0	0	3	6	25	38	22
TOBACCO	12	2	1	1	0	0	5	18	19	13	11	18
PEANUTS	1	0	0	0	0	0	0	1	36	48	11	3
FLAXSEED	6	4	5	4	3	4	3	10	29	21	7	4
SOYBEAN	12	6	7	5	5	5	5	5	8	25	10	7
SUNFLOWER	9	7	7	4	3	6	4	3	6	28	14	9
APPLES	9	8	9	8	6	5	3	4	11	14	13	10
GRAPEFRUIT	13	19	20	11	6	2	2	2	2	6	8	9
LEMONS	9	8	9	8	9	8	8	7	6	9	9	10
ORANGES	18	11	9	13	12	4	2	2	2	3	8	16
PEACHES	0	0	0	0	12	21	27	26	14	0	0	0
PEARS	8	8	6	6	4	2	7	14	7	14	14	10
STRAWBERRIES	3	5	12	19	20	13	10	7	5	3	2	1
GRAPES	1	0	0	0	3	9	16	21	18	15	12	5
ALMONDS	8	8	8	8	8	8	8	9	9	9	9	8
ASPARAGUS	1	6	24	30	21	13	2	1	1	1	0	0
BROCCOLI	8	8	8	10	10	10	8	7	7	8	8	8
CARROTS	8	8	10	10	9	9	8	7	7	8	8	8
CAULIFLOWER	7	6	8	9	11	9	8	7	8	11	10	6
CELERY	8	7	9	8	9	9	7	7	7	9	11	9
CUCUMBERS	2	1	4	11	17	12	8	11	11	10	9	4
LETTUCE	8	7	8	9	10	9	8	9	8	9	7	8
ONIONS	9	8	6	6	7	8	9	9	9	11	9	9
BEANS, SNAP	5	6	8	10	14	9	6	9	7	9	10	7
CORN, SWEET	1	1	2	6	18	12	14	23	16	4	2	1
TOMATOES	6	5	8	9	12	7	11	9	8	8	9	8
CANTALOUPE	0	0	0	0	26	39	16	6	4	6	3	0
POTATOES	7	7	8	8	8	6	4	7	14	16	8	7
DRY BEANS	9	6	6	6	6	5	4	5	18	17	10	8
HORTICULTURAL	8	8	9	9	9	9	8	8	8	8	8	8
SUGAR BEETS	9	8	8	8	8	8	8	8	8	9	9	9
CANE FOR SUGAR	9	9	8	8	8	8	8	8	8	8	9	9
MUSHROOMS	9	9	8	8	8	8	8	8	8	8	9	9
CATTLE	9	8	8	8	8	8	8	9	8	10	9	7
CALVES	8	7	8	7	6	6	6	9	10	14	12	7
HOGS	9	8	9	8	8	8	8	8	9	9	8	8
MILK, WHOLESALE	8	8	9	9	9	9	8	8	8	8	8	8

**Table 2.19 Revised and Prior Prices Received Indexes  
Relative Weights of Component Indexes**

Commodity Groups	Prior Base	Revised Base	5-Year Moving Average Weights: <u>2/</u>				
	Period (1971-73) (%)	Period <u>1/</u> (1990-92) (%)	1990	1995	2000	2005	2010
All Crops	44.2	48.4	47.0	47.7	52.2	48.9	53.5
Food Grains	7.2	4.7	5.4	4.8	5.2	3.5	5.4
Feed Grains & Hay	12.1	11.4	10.6	11.0	12.4	11.0	15.9
Cotton	2.9	2.8	2.4	2.7	2.9	1.8	1.6
Tobacco	2.4	1.7	1.5	1.6	1.3	1.0	0.4
Oil-Bearing Crops	9.2	7.8	8.4	7.2	8.3	7.2	8.2
Fruits & Nuts	4.5	5.8	5.4	5.8	6.0	6.4	6.5
Commercial Vegetables	4.1	5.1	5.2	5.4	6.0	6.6	5.6
Potatoes & Dry Beans	1.8	1.6	1.4	1.6	1.6	1.5	1.4
Other Crops	0	7.5	6.7	7.6	8.5	10.0	8.5
Livestock & Products	55.8	51.6	53.0	52.3	47.8	51.1	46.5
Meat Animals	37.2	30.6	30.8	30.6	24.6	27.1	23.8
Dairy Products	11.1	11.7	30.8	30.6	11.8	11.8	10.9
Poultry & Eggs	7.5	9.3	8.9	9.7	11.4	12.2	11.8
All Farm Products	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food Commodities <u>3/</u>			78.8	77.1	74.9	76.3	73.6

1/ Weights represent simple 3-year averages for 1990-92 base price period for comparison purposes with 1971-73, prior base price and weight period.

2/ Examples of 5-year moving weights for constructing 1990-92=100 index numbers. Weights used for 1995 based upon 1989-1993 cash receipts, weights for 1990 based upon 1984-88 cash receipts, etc.

3/ Food Commodities include components, Food Grains, Oil Crops, Fruit & Nuts, Commercial Vegetables, Potatoes & Dry Beans, Meat Animals, Dairy Products and Poultry & Eggs.

# **Glossary of Selected Terms**

## **Advance Recourse Loan**

A price-support loan made early in a crop year that enables a farmer to hold his crops for later sale, usually within the marketing year. Farmers must repay the loan with interest and reclaim their collateral.

## **Agribusiness**

Producers and sellers of agricultural food, fiber, and services. Agribusinesses include manufacturers, processors, wholesalers, dealers, transporters, marketers, and retail outlets.

## **Agricultural Commodity**

Any plant or part of a plant, or animal or part of an animal product, produced by a person primarily for sale, consumption, propagation or other use by humans or animals.

## **Agricultural Marketing Service (AMS)**

A USDA agency that sets standards for grades of cotton, tobacco, meat, dairy products, eggs, fruits, and vegetables; operates grading services; and administers Federal marketing orders.

## **Agricultural Production**

The classification of agricultural production includes: establishments (farms, ranches, dairies, orchards, nurseries, greenhouses, etc.) primarily engaged in the production of crops, plants, vines, or trees (excluding trees for lumber production) and the keeping, grazing or feeding of livestock or livestock products for sale. Livestock include cattle, sheep, goats, hogs, and poultry. Also, included are animal specialties such as horses, rabbits, bees, fur bearing animals and fish in captivity. The classification includes establishments engaged in the production of bulbs, flower seeds, vegetable seeds, and also specialty operations such as sod farms, mushroom cellars, and cranberry bogs.

## **Agricultural Options**

A marketing tool using the Chicago Board of Trade options market, whereby a producer has the opportunity to increase his price if the futures market moves above a predetermined price level, known as a strike price.

## **Agricultural Policy**

A broad term used to encompass those government programs most directly affecting the prices and incomes received by farmers.

## **Agricultural Statistics Board (ASB)**

A selected panel from the National Agricultural Statistics Service (NASS) staff dedicated to providing effective and efficient review of statistics covering all aspects of U.S. agriculture. The ASB acts on behalf of the Secretary of Agriculture.

**Air Cured**

Drying and curing tobacco either outside or in a tobacco barn with natural air.

**American Farm Bureau**

A farmer organization founded in the early twentieth century for the purpose of protecting the economic interests of farmers and ranchers.

**American Pima Cotton**

An extra long staple cotton formerly known as American Egyptian cotton in the U.S., grown chiefly in California, along with some acreage in Arizona, New Mexico, and Texas. Represents only 2 percent of the U.S. cotton crop. Used chiefly for thread and high valued fabrics and apparel. Developed as the Sea Island cotton became extinct in the U.S.

**Artichokes**

A thistle like, herbaceous perennial, cynara scolymus, also known as the globe artichoke. Common United States varieties/types: Green Globe (year round, peak spring), Desert Globe (Dec Mar, Jul Sep), Big Heart (year round, lull in April), Imperial Star (year round, peak spring).

**Asparagus**

A hardy perennial of the Lily family that grows best in cool spring temperatures after having experienced a dormant or resting period. Commercial fields produce for 15 to 18 years with the best crops taken from 5 to 10 year old plants.

**Auction**

A public sale of assets or commodities through competitive bidding to the highest bidder.

**Auction Barn**

A facility for gathering livestock or other commodities for sale by auction. The auction bidding and sale are conducted at the facility. Also, referred to as Sale Barn.

**Auction Pool**

A cooperative method of marketing where individually owned products are pooled and sold to the highest bidder.

**The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)**

ABARES is a research bureau within the Department of Agriculture, Fisheries and Forestry that provide research and analysis about Australia's primary industries.

**Backfat**

The amount of fat covering on the back of a live animal or a carcass. The measurement is usually taken over the ribs and is used to determine yield grade.

## **Balance of Trade**

The difference between the amount of exports and imports. The balance is positive if exports exceed imports or negative when imports exceed exports.

## **Balance Sheet**

A list of assets and liabilities in dollar terms to show the equity or net worth of an individual or business.

## **Barrel (Bbl.)**

A volume unit of measure, used as a standard for selling and trading certain commodities in certain areas of the country.

## **Barrow [Hogs]**

A male hog who was castrated before reaching breeding age and before the development of secondary sex characteristics.

## **Base period**

The base period generally is understood to be the period with which other periods are compared and whose value provide the weights for a price index. However, the concept of the “base period” is not a precise one and may be used to mean the different things. Three types of base periods may be distinguished:

- The *price reference period*, that is, the period whose prices appear in the denominators of the price relatives used to calculate the index, or
- The *weight reference period*, that is, the period, usually a year, but a month for price received index, whose values serve as weights for the index. However, when a hybrid expenditure weights are used in which the quantities of one period are valued at the prices of some other period, there is no unique weight reference period, or
- The *index reference period*, that is, the period for which the index is set equal to 100.

## **Basis**

The difference between two prices, such as a commodity cash price and its futures price assuming the same quality standards. Basis reflects the marketing costs of storage, transportation, and supply and demand.

## **Beans, Lima**

Lima beans are grown for fresh market and processing. Pole beans and Speckled butter beans are not included. Varieties/types: Butter, potato. The National vegetable program estimates only processing utilizations as of crop year 2002.

## **Beans, Snap**

Snap beans are also known as green beans, bush beans, and pole beans. Wax beans are included. Varieties/Types: Snap Beans; (round, also known as string beans), Green Beans; Triumph, Opus, Pod-squad, Strike, Bronco, and Prosperity (yearround, peak Apr Jun); Yellow Wax; Golden Rod, Gold Rush, Klondyke (Oct Jun), Pole Beans; Dade, 42s, 191 (year round).

## **Beef Cattle**

Any breed of cow, heifer, bull, or steer raised primarily for meat consumption.

## **Beef Cows**

Cows, regardless of breed, kept primarily to raise or nurse calves.

## **Board Estimate**

The official measure of the actual quantity or value of an item as derived from sample data or administrative data and approved by the Agricultural Statistics Board.

## **Board of Trade**

See "Chicago Board of Trade."

## **Breed**

Animals having a common origin and distinguishing characteristics.

## **Broccoli**

A cole crop derived from a species of wild cabbage. Through cultivation two types of broccoli have evolved, common broccoli and sprouting broccoli. *Common broccoli* was developed to have a dense central flowering head on a thick stem. *Sprouting broccoli* is a wild looking form that has loose, leafy stems and edible flower shoots but no central head. Exclude broccoli rabe or heading (cauliflower) broccoli.

## **Bushel (Bu.)**

A volume unit of measure, often used as a standard for selling and trading crop commodities. In practice, commodities are traded on a weight basis whereby, a USDA standard weight and moisture content representing a bushel has been established for each commodity.

## **Cabbage**

Cabbages belong to the mustard family and are related to broccoli, cauliflower, and other vegetable crops in the *Brassica* genus. Types included in the cabbage estimates are domestic, Danish, Dutch, Pointed, Red and Savoy types. Estimates do not include Chinese cabbage. Cabbage for fresh market includes cabbage that has been sliced or chopped for salad or slaw. Cabbage for kraut is only to include the cabbage used to make sauerkraut.

## **Calf**

Any young cattle weighing less than 500 pounds.

## **Cantaloups**

Cantaloups is one of the botanical varieties of muskmelons. Casaba, Crenshaw, Honeyball, Persian and Santa Claus are not included in cantaloup estimates. Honeydews are estimated separately. Varieties/Types: Hale's Best, Hymark, Mission.

## **CAPI**

Computer Assisted Personal Interviewing is when an interviewer records the answers from a respondent using a computer during a personal visit.

## **Carrots**

Biennials grown as annuals. Most commercial carrots are long, slender, and tapered. Crops may be handled as topped, short trimmed tops, or bunched with entire top. Carrots that have been trimmed and sold as "baby" carrots or that were sliced for salad trays, etc. are to be included as fresh. Separate acreage, yield, production, price and value are required for processing carrots.

## **Cash Price**

The actual price paid for an item, less any discounts or rebates.

## **Cash Grain Farm**

A farm on which corn, grain sorghum, small grains, soybeans, or field beans and peas account for at least 50 percent of the value of products sold.

## **CATI**

Computer Assisted Telephone Interviewing is when an interviewer records the answers from a respondent over the telephone using a computer.

## **Cattle on Feed**

Cattle or calves for slaughter market on full feed and expected to produce a carcass grading select or better.

## **Cauliflower**

Cauliflower grows on short, cabbage like plants that form large, flat central clusters of flower buds called curds. Varieties/Types:

Early Producing Early Snowball, Super Snowball, Midseason Snowdrift, Danish Giant.

Later Producing Veitch, Autumn Giant.

As the cauliflower head begins to form, field workers bunch the leaves around the head, using rubber bands, to prevent sunlight from yellowing the white cauliflower.

## **CCC Stocks**

Grains and oilseeds forfeited to the USDA Commodity Credit Corporation (CCC) as repayment of nonrecourse marketing loans. Producers may pledge their production as collateral to the CCC to obtain nonrecourse marketing loans. Producers may forfeit the commodity as repayment of the loan.

## **Celery**

A bushy, mounded plant grown year round. Crop estimated includes pascal, golden, Utah types and celery hearts. Celery is boxed in the field as it is harvested. Some of the celery are bagged in plastic and some are simply banded with rubber bands and boxed.

## **Chain Index**

An index number derived by relating the value at any given period to the value in the previous period rather than to a fixed base.

## **Chain Weighted Index**

The chain weighted CPI incorporates changes in both the quantities and prices of products. For example, let's examine clothing purchases between two years. Last year you bought a sweater for \$40 and two t-shirts at \$35 each. This year, two sweaters were purchased at \$35 each and one t-shirt for \$45.

Standard CPI calculations would produce an inflation level of 13.64%

$$((1 \times 35 + 2 \times 45) / (1 \times 40 + 2 \times 35)) = 1.1364.$$

The chain weighted approach estimates inflation to be 4.55%

$$((2 \times 35 + 1 \times 45) / (1 \times 40 + 2 \times 35)) = 1.0455.$$

Using the chain weighted approach reveals the impact of a customer purchasing more sweaters than t-shirts. The chain weighted CPI incorporates the average changes in the quantity of goods purchased, along with standard pricing effects. This allows the chain weighted CPI to reflect the expenditures change of customers shifting the weight of their purchases from one area of spending to another.

## **Check Data**

Information derived from inspections, marketings, acreages contracted or certified, assessments, ginnings, and other sources that have some direct relation to a commodity and can be used, with varying degrees of confidence, to supplement survey data in the preparation or revision of estimates.

## **Check Off**

A fee collected on each unit of a commodity going to market. Fees collected are administered by a producer selected board, usually to fund research and promotion of products made from the commodity.

## **Chicago Board of Trade (CBOT)**

A commodity exchange specializing in trading grain's futures contracts. The CBOT is located in Chicago, IL.

## **Chicken Market Year**

The average price received by farmers from December of the previous year through November of the current year.

## **Chicken Prices**

Price of mature hens and roosters sold for slaughter from egg laying flocks. Price represents a liveweight basis.

## **C.I.F.**

Abbreviation for Cost, Insurance, and Freight.

## **Cigar Binder**

A type of tobacco, usually broadleaf used to bind the filler portion of cigars.

## **Cigar Filler**

Tobacco leaves placed in the core of a cigar. The leaf fragments are as long as the cigar in superior brands and short or shredded in low priced cigars.

## **Cigar Wrapper**

A shade grown tobacco leaf of the Cuban variety tobacco group used as the outside wrapper of cigars. Plants are shaded by a screen of open mesh cotton fabric during growth to protect the leaves from getting holes.

## **Coefficient of Variation (CV)**

Is the ratio of the standard deviation to the mean.

## **Commission Charges**

Charges levied by a commission firm to the seller of the livestock. Charges are for freight, yardage, feed, and the collection of payment from the purchaser. It is generally a percentage of the gross value of sale.

## **Commission Firm**

A firm through which sellers can introduce their livestock into a terminal market. The firm collects a fee for each animal sold and does not take title to the livestock.

## **Commodity**

Any agricultural or agricultural by-product available for sale.

## **Commodity, Contract**

The crop specified in the production flexibility contract. Eligible commodities are wheat, corn, sorghum, barley, oats, Upland cotton, and rice.

### **Commodity Credit Corporation (CCC)**

A government owned and operated entity created to stabilize, support, and protect farm income and prices. CCC helps maintain balanced and adequate supplies of agricultural commodities and in their orderly distribution. It aides producers through loans, purchases, payments, and other operations, and makes available materials and facilities required in the production and marketing of agricultural commodities. CCC also is authorized to sell agricultural commodities to other government agencies or foreign governments, and make food donations to domestic, foreign, or international relief agencies. It assists in the development of new domestic and foreign markets and marketing facilities for agricultural commodities.

### **Commodity Exchange**

A brokerage house specializing in the trading of commodity futures contracts.

### **Commodity Futures Trading Commission (CFTC)**

An independent government commission which regulates commodity trading at U.S. futures exchanges. CFTC also regulates the activities of numerous commodity exchange members, public brokerage houses, commodity trading advisors, and commodity pool operators.

### **Confidentiality**

The assurance from NASS to respondents, backed by Federal law, that individual information collected on authorized USDA surveys will not be released to any person, organization or institution, including court subpoenas.

### **Contract**

A binding agreement, either written or verbal, between the farm operator (contractee) and another party (contractor) specifying one or more conditions for the production and/or marketing of a farm commodity.

### **Contractee or Contract Grower**

A person who is responsible for producing or raising a contractor's commodity (poultry, livestock, crops) for a fee or other financial considerations.

### **Contractor**

A person or firm offering a contract agreement to a producer (contractee). The contractor typically owns the commodity (crop, poultry, or livestock), and may supply the feed, medicine and other such items, but does not care for the commodity.

## **Contract Production**

Producing crops or livestock under an agreement where the owner of the commodity (contractor) supplies some or most of the inputs for production and the farmer (contractee) usually provides inputs such as labor, utilities, housing, machinery, and/or equipment. The contractee is limited in the control over the amount produced and the production practices used. Usually, the contract is established at the beginning of the production cycle for a given number of acres, or number of animals or birds. The contractee has a minimum amount of risk since the amount of payment to be received is agreed upon prior to or during the production period. The contractee does not receive the commodity's full market value and may have quality or other adjustments.

## **Contract Sale**

A sale negotiated for a future date. May be based on the delivery date market price or a predetermined price.

## **Control Data**

Information on file about individual farm or ranch operations which defines the type and size of the operation, i.e. acres of cropland, grain storage capacity, livestock numbers by species, etc.

## **Cooperative**

A voluntarily organized association controlled by its members or patrons. Individuals pool their resources and share in the profits.

## **Corn (Maize) for Grain**

An annual stemmed cereal plant that can grow to 7 or 8 feet tall with one or two large grain ears pollinated from tassels. Corn produces many more bushels of grain per acre than any other feed grain. It is used as a food crop, animal feed, and as a source of oil, syrup, ethanol, and other products. Corn, grown throughout the country, requires good soil and large amounts of water making the Midwest the best producing area. It also requires a large amount of fertilizer, more than any other crop, particularly nitrogen.

## **Corn, Sweet**

Estimates exclude field corn used for table use but include yellow, white and bicolor sweet and supersweet varieties. Exclude ornamental corn and popcorn.

## **Cotton**

A soft, white vegetable fiber obtained from the seed pod of the cotton plant. The two principal types of cotton grown in the United States are Upland cotton and American Pima cotton.

## **Cotton Board**

A quasi government organization whose members are appointed by the Secretary of Agriculture from nominees of cotton producer organizations. The board receives and disburses grower assessments to finance the Cotton Incorporated program.

## **Cotton Compress**

The equipment which forms the ginned raw cotton into a bale. The first compression, primarily to modified flat or universal bale dimensions, is performed at the gin. Further compression of flat or modified flat bales is performed at cotton warehouse locations.

## **Cotton Council**

See National Cotton Council of America. @ <http://www.cotton.org/>

## **Cotton Council International (CCI)**

The overseas operations of the National Council of America. The CCI's primary objective is to develop markets for U.S. exports.

## **Cotton Exchange**

A membership organization which provides facilities where cotton futures contracts are bought and sold.

## **Cotton Gin**

A machine that separates cotton fibers from the seed on which they were produced.

## **Cotton Incorporated**

A private corporation acting as the marketing and research organization representing United States cotton growers.

## **Cotton Quality**

Three major components of cotton quality, grade, staple and micronaire, are included in official USDA cotton quality classifications. Added fiber properties, including length, uniformity, and strength, are also recognized as important and are increasingly being measured by instrument testing. Grade depends on the color, trash content, and preparation (smoothness) of the cotton sample.

## **Cotton Staple**

Used in reference to the length and fineness of cotton fiber.

## **Cottonseed**

Seed of cotton with the lint removed. Cottonseed oil is extracted from the seed through a crushing process. The residue (cottonseed cake or meal) is used as livestock feed.

## **Counter Cyclical Payments**

The Farm Bill added Counter Cyclical Payments, which provide support counter to the cycle of market prices as part of a "safety net" in the event of low crop prices. Counter Cyclical Payments for a commodity are only issued if the effective price for a commodity is below the target price for the commodity.

**Cow**

Female bovine that has had at least one calf.

**Cow-Calf**

A cow with nursing calf.

**Crop Insurance**

Farmers select from various types of insurance policies to partially protect their income. One common type of policy helps minimize losses due to natural causes such as drought, excessive moisture, hail, wind, frost, insects, and disease. The farmer selects the amount of average yield to insure (usually 50 to 75%) and can select the percent of the predicted price he or she wants to insure (usually 55 to 100% of the crop price established annually by the Risk Management Agency). Expected or projected price guarantees are finalized by the USDA Risk Management Agency (RMA) on March 1. If the harvest is less than the yield insured, the farmer is paid an indemnity which is calculated by multiplying the yield difference by the insured percentage of the price selected when the insurance was purchased.

**Cucumbers, Fresh Market**

Closely related to the melon. There are two classes of cucumbers, one for fresh market consumption and one for pickling. The slicing or table type is the fresh market cucumber. It can, especially in larger sizes, also be used for pickling. Only those sold for fresh market should be counted as fresh market. Do not include greenhouse production. Varieties/Types: The most popular slicing varieties include Dasher II, Hybrid Ashley, Palomar, Long Market, Marketmore, Poinsett, Straight Eight, Cherokee 7, Speedway, Gemini, and High Mark II.

**Cucumbers for Pickles**

Processing estimates are made for pickled cucumbers only. Generally, special varieties are grown for pickles but some fresh market varieties are used. Pickles are made by three processes: 1) refrigeration, 2) fermentation or 3) pasteurization. Overnites are included in pickle estimates. Overnites are partially fermented about 2 days as salt stock, and then placed under refrigeration until sold. These are generally made from the same pickling varieties as other pickles. Fresh market slices are sometimes used for overnites in certain supply price situations. Cucumbers processed in any other way are not considered pickles.

**Cwt.**

Abbreviation for Hundredweight or 100 pounds.

**Dairy**

Businesses related to the production, processing, or distribution of milk and its products. Specifically, can refer to a plant in which milk is processed and where dairy products are manufactured and sold.

**Dairy Cattle**

Cattle kept specifically for the production of milk used for sale or home use.

**Dairy Herd Improvement Association (DHIA)**

A cooperative organization of approximately 25 or more farmers. Its purpose is the testing of dairy cows for milk and fat production and recording feed consumed.

**Data Collection**

The process of completing interviews or field counts, or otherwise accounting for (refusal, inaccessible, out of business) all selected sample units in a survey.

**Date, Due - [Enumerators]**

The date assigned materials must be received in the State office.

**Date, Due - [State office]**

The date assigned materials must be received in Headquarters.

**Date, Reference**

The date used as a reference point for asking respondents survey questions.

**Date, Release**

The date survey results are published and released. See the NASS Webpage for a calendar of report release dates.

**DCP Program (Direct and Counter cyclical Program)**

There are two types of DCP payments: direct payments and counter cyclical payments. Both are computed using the base acres and payment yields established for the farm.

**Dealer**

A person or firm buying commodities for speculative purposes. The commodities are for immediate resale and usually held for only a short time. Dealer takes title to the commodity.

**Delayed Pricing (Priced Later or Deferred Price) Contracts**

A delayed price contract usually requires delivery at harvest time. The purchase price, however, is not determined until the farmer is ready to sell, which could occur several months later. This is different from storing grain at the elevator for sale at a later date, because the farmer gives up title/ownership when a delayed price contract is entered into. For this option, the producer is normally assessed a monthly per bushel fee by the elevator until the sale price is determined. Some producer risk is involved should the firm go into bankruptcy, since the grain is now titled in the name of the elevator.

## Direct Expansion

An estimator obtained by multiplying the sample data by the reciprocal of the probability of selecting the sample unit. The summation of expanded data for all selected sampling units is the direct expansion of the population.

## Direct Payments

The 2008 Farm Bill provides direct payments for the following eligible commodities:

Barley	\$0.24 per bushel
Corn	\$0.28 per bushel
Oats	\$0.024 per bushel
Other Oilseeds	\$0.80 per Cwt.
Peanuts	\$36 per ton
Rice	\$2.35 per Cwt.
Grain Sorghum	\$0.35 per bushel
Soybeans	\$0.44
Upland Cotton	\$0.0667 per pound
Wheat	\$0.52 per bushel

For each commodity, the direct payment for each crop year equals 85 percent of the farm's base acreage *times* the farm's direct payment yield *times* the direct payment rate. Direct payments are subject to change with each Farm Bill.

## Discount

[Buyer] A deduction from an original price or debt, allowed for paying promptly or in cash.

[Seller] A deduction from the market price for poor quality or less than market standard commodities. Price adjustments (to posted elevator board prices) may be made for grain of high or low quality. Deductions are often made for moldy, sprouted or light test weight grain.

## Dockage

Foreign material in marketable grain which is easily removed by normal cleaning methods.

## Dressed Weight

The weight of an animal carcass after slaughter but before cutting into retail cuts.

## Dressing Percent

The percentage which the dressed weight is of the live weight.

Dressed weight / Liveweight = Dressing Percent

### **Dry Cow**

A cow which has ceased to give milk from one lactation and is probably within 60 days of calving and beginning another lactation.

### **Economic Research Service (ERS)**

A USDA agency that is an important user of NASS data. ERS studies various topics related to agriculture and issues research publications and commodity outlook and situation reports.

### **Editing**

Reviewing entries for reasonableness. Unusual but correct responses should be flagged and explained with notes indicating it was verified with the respondent. With impossible data relationships, probe for the correct responses.

### **Effective Price**

The higher of the loan rate or the Market Year Average (MYA) price.

### **Elevator**

A business which buys grain from the farmers, and has facilities for the handling and storage of grains, dried beans, and other seed crops.

### **Enumerator**

A person trained to conduct interviews or make field counts and record the information gathered in the interviews or counts.

### **Equivalent Liveweight Price**

The equivalent liveweight price is derived from the whole bird, ready to cook (RTC) price.

### **Equivalent Return**

Adjustment made in actual data reported to generate an equal value for another item or commodity or to shift to a point of sale different from the reported one. An example is FOB shipping point to packing-house door.

### **Estimate**

An approximate measure of the value of an item, usually derived from sample data or administrative data.

### **Eurostat**

Eurostat is the statistical office of the European Union situated in Luxembourg. Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions.

**Extra Long Staple Cotton (ELS)**

Cottons having a staple length of 1½ inches or more, according to the classification used by the International Cotton Advisory Committee (ICAC). Also characterized by fineness and high fiber strength, contributing to finer and stronger yarns, needed for certain end uses such as thread and higher valued fabrics. United States types include American Pima and, formerly, Sea Island cotton.

**Farm Price**

The price a farmer receives for products sold at the point of first sale.

**Farm Service Agency (FSA)**

An Agency of the USDA which administers farm commodity and conservation programs for farmers and makes loans. FSA programs are primarily directed at agricultural producers or, in the case of loans, at those with farming experience.

**Farmer**

See "Operator."

**Farmer Owned Reserve**

Government program designed to provide protection against wheat and feed grain production shortfalls and provide a buffer against unusually sharp price movements. Farmers place their grain in storage and receive extended nonrecourse loans for 3 years, with extensions as warranted by market conditions. Interest on the loan may be waived, and farmers may receive annual storage payments from the Government. Grain cannot be taken out of storage without penalty unless the market price reaches a specified release price. When the release price is reached, grain may be removed from the reserve but it is not required.

**Federal Crop Insurance**

A voluntary risk management tool for farmers to protect them from the economic effects of unavoidable adverse natural events. Administrative costs are appropriated by the Congress and a portion of the insurance costs are federally subsidized.

**Federal Crop Insurance Corporation (FCIC)**

A wholly owned Federal corporation within USDA that administers the Federal Crop Insurance Program.

**Federal Grain Inspection Service (FGIS)**

A USDA agency that establishes official United States standards for grain and other assigned commodities and administers a nationwide inspection system to certify those grades.

**Feed Grain**

Any of several grains commonly used for livestock or poultry feed, such as corn, sorghum, oats and barley.

**Fire Cured**

A method of curing tobacco leaves by using open fires in the tobacco barn. The leaves are exposed to the fire's smoke while drying.

**Fixed Weight Aggregative Index**

This index concentrates on measuring price changes from a base year. It is called a base weighted index due to the use of quantities purchased in the base year (1990) to weight the unit prices in both years. By keeping the quantities constant, the change in the calculated expenditure is due solely to price change.

**Flue Cured**

A method of curing tobacco leaves in which tobacco barns are heated through ducts or flues. The tobacco leaves are not exposed to smoke while drying.

**Flat Price Contract**

An agreement where all parts of the pricing contract have been settled.

**FOB (Free On Board)**

Used in quoting prices of goods at a certain location. Prices do not include transportation costs.

**FOB Destination**

A business agreement where the seller retains title of the goods until they are delivered. The seller selects the carrier and is responsible for the risk of transportation.

**FOB Origin**

A business agreement where the producer or handler is responsible for assembling and loading the cargo onto transportation that has been arranged and paid for by the receiver. The receiver takes title to the goods at the point of origin as they are loaded for transport.

**Fluid Milk**

The fluid product of a dairy farm or factory in contrast with the more solid products, such as cream, cheese, and butter.

**FDA**

Acronym for Food and Drug Administration.

**Food Grain**

Cereal seeds most commonly used for human food, chiefly wheat and rice.

**Forward Contract**

Selling and pricing procedure where the price received by the farmer is determined at the time the contract is made, with delivery to be made at a specified later date.

**Forward Pricing**

Contracting or agreeing with an input provider to purchase a given quantity of supplies at a given price.

**Free of charge**

An arrangement where a producer may use a resource owned by someone else and not have to pay for its use.

**Fresh Vegetable**

A vegetable is considered fresh if it is sold to the consumer in an unaltered state. However, lettuce that is picked, shredded, and bagged in the field is considered fresh.

**Full Price**

This includes all current and any future payments resulting from the grain sale.

**Futures Contract**

An agreement between two people, one who sells and agrees to deliver and one who buys and agrees to receive specific kinds and amounts of a particular commodity at a specific time, place and price.

**Futures Market**

The formal marketing system that lets farmers promise to deliver or purchase commodities at a set price.

**Grade**

[Livestock] An animal not eligible for registration; however, one or both of its parents may be purebred.

[Marketing] Various methods of classifying commodities as defined by industry standards; examples, according to type, use, fineness of fiber, amount of fat, etc.

**Gross Value**

Value of a commodity after adjusting for discounts and premiums, not including deductions for handling, cleaning (except dry edible beans), storage, grading, drying, etc.

**Harmonized index of consumer prices**

The harmonized index of consumer prices (HICP) is an economic indicator constructed to measure the changes over time in the prices of consumer goods and services acquired by households. The HICP gives comparable measures of inflation in the euro-zone, the EU, the European Economic Area and for other countries including accession and candidate countries. The HICP is calculated according to a harmonized approach and a single set of definitions. The HICP provides the official measure of consumer price inflation in the euro-zone for the purposes of monetary policy in the euro area and assessing inflation convergence as required under the euro convergence criteria (also known as Maastricht criteria).

## Hay

A crop which has been cut and cured by drying for storage; principally legumes, grasses, or grain crops.

## Headquarters

The National Agricultural Statistics Service (NASS) HQ is located in Washington D.C. NASS HQ coordinates the operations for collecting data and publishing estimates for agriculture.

## Hedging

In the futures market, the execution of opposite sales or purchases of contracts to offset purchases or sales of commodities. This practice gives some protection to sellers and buyers of grain against uncertainties that are the result of unstable grain prices.

## Heifer

Female bovine that has never given birth.

## Honeydew Melons

Total crop is classified as fresh. Honeydew is one of the botanical varieties of muskmelons. Estimates do not include Casaba, Honeyball, Persian or Santa Claus production. Cantaloups are estimated separately.

## Identical Ratio (or Current / Current Ratio)

A survey indication which measures change from the previous survey period. It is obtained by dividing the currently reported data by data reported for the same reporting unit in the preceding survey.

## Index Formulas

### Elementary price index Formula

Specially, an elementary price index is a price index for an elementary aggregate. As such, it is calculated from individual price observations and usually without using weights. Three examples of elementary index number formulas are the Carli, the Dutot, and the Jevons.

Carli (1804) suggested price index as an arithmetic mean of the price relative

$$P_{CA}(p_0, p_t) = \frac{1}{n} \sum_i^n \frac{p_{i,t}}{p_{i,0}}$$

Dutot (1738) suggested price index as a ratio of average prices

$$P_{DU}(p_0, p_t) = \frac{\sum_i p_{i,t} / n}{\sum_i p_{i,0} / n}$$

Jevons (1865) proposed a simple geometric mean index

$$P_{JE}(p_0, p_t) = \prod_i^n \left( \frac{p_{i,t}}{p_{i,0}} \right)^{1/n}$$

### Laspeyres price index

A price index defined as a fixed-weight, or fixed-basket, index that uses a basket of goods and services for the base period. The base period serves as both the weight reference period and the price reference period. It is identical with a weighted arithmetic average of the current to base period price relatives using the value shares of the base period as weights, also called a “base-weighted index.” It is defined as

$$P_L(p_t, p_0) = \frac{\sum_i p_t^i q_0^i}{\sum_i p_0^i q_0^i} = \sum_i \left( \frac{p_t^i}{p_0^i} \right) w_0^i, \text{ where } w_0^i = \frac{p_0^i q_0^i}{\sum_i p_0^i q_0^i}$$

### Lowe price index

A basket-type family of price indices that compares the prices of period  $t$  with those an earlier period 0, using a certain specified quantity basket  $q_n$ , where  $q_n$  is between period  $t$  and period 0.

$$P_{LO} = \frac{\sum p^t q_n}{\sum p^0 q_n}$$

The family of Lowe indices includes, for example, the Laspeyres index ( $q_n = q^0$ ) and Paasche index ( $q_n = q^t$ ).

### Paasche price index

A price index defined as a fixed-weight, or fixed-basket, index that uses a basket of goods and services for the current period. The current period serves as the weight reference period and the base period as the price reference period. It is identical with a weighted harmonic average of the current to base period price relatives using the value shares of the current period as weights, also called a “current weighted index.” It is defined as

$$P_P(p_t, p_0) = \frac{\sum_i p_t^i q_t^i}{\sum_i p_0^i q_t^i} = \left[ \sum_i \left( \frac{p_t^i}{p_0^i} \right)^{-1} w_t^i \right]^{-1}, \text{ where } w_t^i = \frac{p_t^i q_t^i}{\sum_i p_t^i q_t^i}$$

## Rothwell Formula

The formula for constructing the seasonal baskets in NASS prices received index is a variant of the Rothwell formula. Doris Rothwell, an economist with the U.S. Bureau of Labor Statistics, proposed it in a 1958 paper for the U.S. consumer price index (CPI). However, the formula was originally proposed in 1924 by two economists with USDA, Louis H. Bean and O. C. Stine, as an index number for farm prices. Thus the formula adopted for constructing seasonal baskets was originally designed as an indicator of farm price movements.

The Rothwell formula is defined as:

$$P_{y,m/0} = \frac{\sum p_{y,m}^j q_{c,m}^j}{\sum p_0^j q_{c,m}^j}$$

$$\text{where } p_0^j = \frac{\sum_{m=1}^{12} p_{0,m}^j q_{c,m}^j}{\sum_{m=1}^{12} q_{c,m}^j}$$

In the above formula,  $p_{y,m}^j$  is the price of the  $j$ th commodity for the  $m$ th month of year  $y$ ,  $p_0^j$  is its price in base year 0, and  $q_{c,m}^j$  is its quantity sold in the  $m$ th month of the basket reference period  $c$ .

## Index Numbers

A computed number measuring the relative change in the price of items included in the specific index from some base period. As an example, a price index for feed items of 250 (based on 1967=100) implies the current aggregated price for the items included in this feed index cost 2.5 times as much now, than the same or comparable items did in 1967.

## Indication

Results from a survey or administrative sources that serve to suggest, hint, or lead to the value of a statistic.

## Lamb

A young sheep, usually less than 1 year old.

## Layer

Hens (including those being molted) or pullets producing eggs. They are usually at least 20 weeks of age.

## **Lettuce, Head**

The most commonly cultivated kinds of lettuce are derived from the species *Lactuca sativa*, an annual originally from Eurasia and a member of the daisy family. Estimates include production from numerous varieties of heading type lettuce, sometimes called crisphead or iceberg. The butterhead varieties, mostly Bibb and Boston, are also included. Looseleaf, cos, and stem varieties are excluded. Total crop is classified as fresh market. Exclude greenhouse production. Bagged lettuce is included. Varieties/Types: Crisphead(Iceberg); Great Lakes Regular, Permier Great Lakes, Imperial 101, Imperial 615. Butterhead; Big Boston, White Boston, Bibb, May King.

## **Lettuce, Leaf**

Also a member of the daisy family. The looseleaf or bunching varieties do not form heads. The leaves cluster together but the young leaves at the center of the plant overlap to any extent. They are not adapted to long distance travel and have a short shelf life. The entire crop is classified as fresh market. Exclude greenhouse production. Bagged lettuce is included. Varieties/Types: (Red Leaf/Green Leaf) Black seeded Simpson, Prize Head, Grand Rapids, Salad Bowl.

## **Lettuce, Romaine**

Romaine is identified by an upright, cylindrical or torpedo-shaped head that is firmly wrapped at maturity. The entire crop is classified as fresh market. Exclude greenhouse production. Varieties/Types: Parris Island, Valmaine, Ballon.

## **List Sample**

A sample of potential farm operators or agribusinesses selected from a list sampling frame.

## **List Sampling Frame (LSF)**

A list of agricultural operators in a State. Each classified operator or operation name becomes a sampling unit. The name may be an individual, manager, farm or ranch, corporation, institution, etc.

## **Live Weight**

The gross weight of a live animal as compared to the slaughtered dressed weight.

## **Livestock**

Any domestic animal produced or kept primarily for farm, ranch, or market purposes, including beef and dairy cattle, hogs, sheep, goats, and horses.

## **Loan deficiency payments**

If the peanut marketing assistance loan rate exceeds the loan repayment rate, peanut producers can forego obtaining a loan and receive a Loan Deficiency Payment (LDP) equal to the difference.

## **Loan, Marketing**

A nonrecourse price support loan which may be repaid at less than the announced loan rate whenever the world market price or posted county price is less than the commodity loan rate.

**Loan, Marketing Assistance**

A loan received from the CCC at a designated rate per unit of production. A quantity of commodity is pledged and stored as collateral. Most loan rates continue to be based on 85 percent of the preceding 5 year average of farm prices, excluding the high and the low. Maximum loan rates are specified for some crops.

**Loan, Nonrecourse**

Eligible producers may obtain a loan from the CCC by pledging crops in storage as collateral. Farmers redeem their loans by paying them off with interest, or if a farmer cannot sell the commodity and repay the loan when it matures, turn the stored commodity over to the government. The government has no choice but to accept the pledged commodity as complete settlement for the loan.

**Loan Rate**

The price per unit (bushel, bale, pound, or cwt.) at which the Commodity Credit Corporation (CCC) will provide loans to farmers to hold their crops for later sale.

**Loan Repayment Rate**

The level at which producers may repay their loans to FSA.

**Long Staple Cotton**

Refers to cotton fibers whose length ranges from 1 <sup>1</sup>/<sub>8</sub> inches to 1 <sup>3</sup>/<sub>8</sub> inches. Fibers whose length is 1 <sup>3</sup>/<sub>8</sub> inches or more are known as extra long staple (ELS).

**Manufacturing Milk**

Raw milk produced or used for the manufacture of dairy products, such as cheese, butter, powdered milk, etc. It may or may not be of lower quality than milk used for bottled milk and may sell for less.

**Marketing Contract**

An agreement between a producer and a firm or agent to market or purchase a commodity, usually for delivery or payment in the future. The terms of marketing contracts are generally determined by the producer (contractee) with the primary responsibility of the agent being to provide the market for the commodity. The producer may exercise a high degree of control over the production of the commodity and receives a payment close to the market value of the product. The buyer does not control the production of the commodity. The contract establishes for delivery and payment which may allow the buyer to take control of the commodity before the final price or payment is made.

## **Marketing Assistance Loans**

Loans for determined crops where the farmers decide how much of their current year's production they want a loan on and pledge that amount as collateral. Farmers can use funds for immediate needs and enables them to wait until prices have improved to settle their loans and market their commodities. They have a 9 month maturity and accrue interest. These loans are nonrecourse, meaning that the government must accept the collateral as full payment of the loan at loan maturity if a producer so chooses. Some commodities have a national loan rate while others have a county loan rate. Farmers can receive benefits from marketing assistance loans in four ways, two of which are now subject to payment limits: 1) Marketing Loan Gains (MLGs) 2) Loan Deficiency Payments (LDPs) 3) Gains from the certificate exchange process and 4) Forfeiture gains.

1) Marketing Loan Gains (MLGs) are when producers repay a marketing assistance loan anytime before loan maturity at the alternative loan repayment rate announced by USDA, if the alternative rate is less than the loan rate plus accrued interest. The alternative repayment rate for Upland cotton and rice are announced weekly and are commonly called adjusted world prices (AWPs). For most other crop, the alternative repayment rates are announce daily and are commonly called posted county prices (PCPs).

2) Loan Deficiency Payments (LDPs) are similar to MLGs except that farmers receive LDPs on current production not placed under loan.

3) Gains from the certificate exchange process. Another way for farmers to reestablish unencumbered control of their loan collateral. There are three steps 1) The producer takes out a marketing assistance loan 2) The producer turns the collateral over to the CCC. The certificate's unit price is the alternative loan repayment rate for the commodity (PCP or AWP) at the time of the certificate purchase. 3) The producer exchanges the certificates for the quantity of the commodity that was previously under loan and regains control of the collateral.

4) Forfeiture gains A gain when the market value of collateral forfeited is less than the loan balance. The producer forfeits ownership of the loan collateral to the government when the loan reaches maturity.

## **Market News Service (MNS)**

A branch of Agricultural Marketing Service. Its function is to provide market reports depicting current conditions on supply, demand, prices, trends, movement, and other pertinent information affecting the trade in livestock, meat, and wool.

## **Market Value**

The price real estate, other property or a commodity would receive in the current market.

## **Market Year Average**

Weighted average prices for crops, livestock, and poultry commodities sold during the market year.

## **Market Year or Marketing Year**

A one year period, beginning at the start of the new harvest for a commodity and extending to the same time in the following year. The beginning of harvest has been averaged to establish a standard U.S. marketing year for each commodity. For example, the U.S. cotton marketing year begins on August 1 and ends on July 31 of the following year.

June 1 - May 31	Rye, Wheat, Barley, Flaxseed, and Oats
September 1 - August 31	Corn, Sorghum, Soybeans, Sunflowers, and Dry Edible Beans
August 1 - July 31	Rice, Peanuts, and Cotton

## **Marketing Assessment**

Require producers to repay nonrecourse price support loans at less than the announced loan rates whenever the world market price or posted county price for the commodity is less than the commodity loan rate.

## **Marketing Order**

Federal authorization for agricultural producers to promote orderly marketing by influencing such factors as supply and quality, and to pool funds for promotion and research. Marketing orders are initiated by the industry, and are approved by the Secretary of Agriculture and by a vote among its members (usually a two thirds majority). Once approved, a marketing order is mandatory.

## **Metric Ton or Long Ton**

A measure of weight equal to 1,000 kilograms, or about 2,200 pounds.

## **Milk**

[Livestock] The natural food produced by female mammals to nurse their young.

## **Milk Cow**

Cow, excluding a nurse cow, regardless of breed kept primarily to produce milk for home use or for sale.

## **Milk: Grade A**

Raw milk produced on dairy farms in which the average bacterial plate count does not exceed Grade A standards. This milk is primarily for the fluid market, although it may be diverted to manufacturing use.

## **Milk: Grade B**

Raw milk which violates the bacterial standard for Grade A raw milk, but conforms with all other requirements for Grade A raw milk. Primarily, a manufacturing milk.

## **National Cotton Council of America (NCC)**

The central organization representing all seven sectors, or interests, of the raw cotton industry of the U.S.: producers, ginner, warehouses, merchants, seed crushers, cooperatives, and manufacturers (spinners). NCC is a voluntary private industry association established in 1939. NCC programs include technical services, foreign operations, communication services, economic services, and government liaison. Headquartered in Memphis, TN.

## **NAWG**

Acronym for National Association of Wheat Growers, an organization of wheat producers.

## **NCGA**

Acronym for National Corn Growers Association, an organization of corn producers.

## **National Turkey Federation (NTF)**

An organization of turkey producers.

## **NMPF**

Acronym for The National Milk Producers Federation, an organization of milk producers.

## **Nonresponse**

Failure of a respondent to reply to a survey questionnaire; may be item nonresponse (refuse to answer one or more questions), survey nonresponse (refuse to answer any or most of the questions), or inability of enumerator to locate respondent during the survey period.

## **NWG**

Acronym for the National Wool Growers, an organization of sheep and wool producers.

## **Oilseed Crops**

Primarily soybeans, cottonseed peanuts, sunflower seeds, and flaxseed used for the production of oils and high protein meals. Lesser oil crops are canola, safflower, rapeseed, mustard seed, castor beans, and sesame.

## **Onions**

Green onions, shallots and leeks are excluded. Estimates include only dry bulk for fresh market and processed dry onions. The majority of processed onions are for dehydration with only a small percentage being used for onion rings or other lightly processed products, such as, sliced, diced, and peeled. The dehydrator onion is a completely different onion with a much lower water content and cannot be used as a fresh market onion. Onions come in numerous shapes and colors (white, yellow, brown, or purple red). The color has little effect on the flavor, which depends more on whether the variety was developed for long storage. Short day onion varieties produce bulbs on short days during winter and early spring. Long day onion varieties bulb when days are longer, during summer. Onions are half hardy perennials grown as long season annuals. There are three ways to grow them: 1) from sets (small dry onion bulbs whose growth has been interrupted), 2) from transplanted seedlings, and 3) by direct seeding.

## **Open Fire Cure**

A method of curing tobacco by hanging it on scaffolds in a tobacco barn and building fires under it.

## **Operation**

Establishments primarily engaged in the production of crops or plants, vines and trees (excluding forestry operation) and/or the keeping, grazing or feeding of livestock or poultry for animal products, for animal increase or value increase.

## **Operator**

The person responsible for all or most of the day-to-day decisions such as planting, harvesting, feeding, or marketing for the tract or total land operated. The operator could be the owner, hired manager, cash tenant, share tenant or a partner. If land is rented or worked on shares, the tenant or renter is the operator.

## **Other Hay**

The Other Hay category should only be used if the harvested hay does not fit the other categories (i.e., alfalfa and alfalfa mixtures, wild hay, small grain hay) that may be identified on a questionnaire. Examples of Other Hay crops include bluegrass, timothy, fescue, bermuda, and sudan grasses and clover (if it is not part of an alfalfa mixture).

## **Packer**

[Livestock] A slaughter and meat processing business.

[Crops] Pertaining to the business of packing fresh or processed fruits and vegetables or meats.

## **Packinghouse**

An establishment where food products are prepared and packaged for market.

## **Packinghouse Door (PHD)**

Equivalent on tree prices including picking and hauling charges.

## **Parity for Economics**

A relationship which defines a level of purchasing power for farmers equal to an earlier base period. Some farmers, rather than using the technical definition above, think of parity as simply "a fair price plus a reasonable profit."

## **Parity Price**

The price giving a unit of a farm commodity the same purchasing power or exchange value in terms of goods and services bought by farmers, as farm commodities had in the base period, 1910 to 1914.

**Parity Ratio**

The ratio of the Prices Received index over the prices paid index, using 1910 to 1914 as the base period. It measures the relative purchasing power of products sold by farmers.

**Payment, Advanced**

A provision in the farm program where a program participant receiving payments may choose to receive a portion of the projected final payment early in the year. However, at the end of the program year, if the final payment is less than the advance amount, producers must refund the excess portion.

**Payment, Cost share**

Payments made under a program where a participant in the farm program receives partial cash assistance from the government when the participant pays for the cost of a service or good.

**Payment, Final**

This term is used in conjunction with deficiency payments and transition payments. Advanced payments are made to participants on the basis of projected payments. The final payment is the actual payment level that the participant is authorized under the terms of the program which is determined at the end of the year.

**Payment Limitations**

Limitations set by law on the amount of money any one person may receive in farm program payments each year under the feed grain, wheat, cotton, rice and other farm programs.

**Payment, Loan Deficiency**

Payments made to a producer who, although eligible to obtain a marketing assistance loan, agrees to forgo the loan in return for the payment. A loan deficiency payment is available only when the adjusted world price is below the loan rate.

**Payment Quantity**

The payment quantity of a contract commodity for each fiscal year equals 85 percent of the contract acreage multiplied by the farm program payment yield.

**Payment Yield**

The farm commodity yield of record (per acre), determined by a procedure outlined in the farm bill legislation. Payment yields can be based on a 4 year farm historic yield or a county average yield or a combination of both.

**Peas, Green**

Also called English Peas. Available January through June. Classifications are tall and dwarf, early and late, small pod and large pod, and smooth seeded and wrinkle seeded. All varieties are included in production estimates. No estimates of fresh market production are made.

## **Peppers, Bell**

Also known as sweet peppers. Bell peppers are a Nightshade vegetable. The fruit is mild or sweet fleshed and is dark green when immature. At maturity the color may be red, yellow, black or purple. Separate estimates of fresh market and processing are required but only the total is published. Greenhouse production, pimento, paprika, and chile type peppers are excluded. Varieties/Types: Most common variety is California Wonder. Others are Early Cal Wonder, Burlington, Yolo Wonder, Enterprise, Neopolitan, Chinese Giant, and Harris Early Giant. Available year round in large volume, but peaks May through August.

## **Peppers, Chile**

Include all peppers other than bell peppers. Also members of the capsicum family. Varieties/Types: Fresh Anaheim, Fresno Chili, Habanero, Habanero (Red Savina), Jalapeno Chili, Peperoni, Poblano Chili, Serrano Chili, Scotch Bonet, Yellow (Banana, Yellow Wax, Hungarian Wax). Dried Anaheim Red Chili, Ancho Chili, Chili De Arbola. Exclude ornamentals. Separate estimates are made for fresh market and processing. Data will be published at the "all" level.

## **Pfund Scale**

A scale expressed in millimeters used in the honey industry to describe the color of honey.

## **Pima Cotton/American Pima Cotton**

Grown in Southwest U.S. and Peru, this superior quality, long staple cotton is named for the Pima Indians who helped to raise it in Arizona test fields in the early 1900s. Its longer length makes Pima cotton softer, smoother, and stronger than other cotton fibers which become even more comfortable with age. Its fewer imperfections in the yarn, allow for creating finer finished lustrous garments and bedding.

## **Point of First Sale**

The point in the marketing channel where the firm selling the product gives up the ownership of the product.

## **Pooled Grain**

Grain in this category has usually been delivered to a cooperative. Farmers will receive partial payment at the time of delivery and final payment at some later date after the cooperative markets the grain.

## **Poult**

A young turkey before its sex can be determined. Sometimes applied to the young of other fowl.

## **Poultry**

Any or all domesticated fowls raised primarily for their meat, eggs, or feathers, such as chickens, turkeys, ducks, and geese.

## **Premiums**

Premiums are often paid for #1 (classing standard) grain or those with specified milling qualities or protein content. A premium is an additional payment based on the high quality of the grain or the producer providing an additional service such as delivering the grain to a location more convenient for the buyer. Some ethanol plants pay farmers an annual “premium” for their delivered corn. Do not include “premium” payments which are a shareholder’s dividend based on the ethanol plant’s profits.

## **Price, Mill**

The price of a commodity delivered to a buyer at the mill. These prices, including landing and brokerage costs, are quoted for commodities at given grades and commodity descriptions.

## **Price Received by Farmers**

The price farmers receive for commodities they sell in their local market or at the point where they deliver their product. The farmer delivers the product to market, so transportation discounts should not be subtracted from the price received.

## **Prices Received Index**

An index to measure changes in average prices received by producers for agricultural commodities they sell, relative to a base period.

## **Price Relative**

A price relative is the ratio of the price of a specific commodity, such as Corn, in one period to the price of the same commodity in some other period. The prices NASS uses to compute price relatives are the commodity average prices at US level. The base period is 1990-1992.

## **Price, Spot**

A spot or cash market price is the price a commodity of various qualities was sold in different areas. These exchanges provide a means of establishing premiums and discounts to producers and for settling futures contracts.

## **Probability Sample**

A method of sampling that utilizes some form of random selection. A random selection method uses a process that assures that the members in the population have a probability of being chosen.

## **Processed Vegetable**

A vegetable is considered processed if it is sold to the consumer after it has been altered by heat, pressure, or freezing temperatures.

## **Processing Plant**

Business and corresponding buildings designed to carry out the operations, such as pasteurizing milk, curing meats, canning and preserving fruits, etc., required to prepare agricultural products for sale and consumption.

**Processor**

One who processes or prepares agricultural products by cooking, curing, etc.

**Program Crop (FSA)**

A crop that FSA is allowed to distribute program payments.

**Pumpkins**

Small 'mini' pumpkins, gourds, and other pumpkins (such as Jack O'Lanterns) normally used for decoration should be considered for ornamental use and not included in the estimate. The pumpkin estimate will be primarily processing and should include pumpkins intended to be sold to processors. Varieties/Types: Fresh Market/Pie Jack o' lantern Spirit (AAS), Cinderella Bush, Jack O'Lantern, Jackpot, Howden, Connecticut Field. Small Pie, Small Sugar, New England Pie, Spookie. Other pie Mammoth. Processing: These varieties are widely used for commercially canned pumpkin, and have tan skin color Buckskin(hybrid), Chelsey(hybrid), Dickinson Field, Kentucky Field.

**Questionnaire**

A form used to ask specific questions and to record the responses given to the survey questions by selected sample units. The questionnaire may be on paper or on a computer screen using Computer Assisted Telephone Interview (CATI) or Computer Assisted Personal Interview (CAPI).

**Rancher**

Ranch operator.

**Ratio to Base**

A ratio estimator whose divisor or "base" is known in advance and is part of the sampling frame.

**Referendum**

The referral of a question to voters to be resolved by balloting; for example, marketing quotas, acreage reduction, or marketing agreements.

**Refusal**

A person representing a sample unit who will not cooperate in the survey and who refuses to provide sufficient information to satisfactorily complete the questionnaire, or who will not give an enumerator permission to complete the field counts or measurements.

**Relative Importance**

The relative importance (relative weight) of an item represents its basic value weight, including any imputations, multiplied by the relative price change from the weight date to the date of the relative importance calculation, expressed as a percentage of the total value weight for all commodity categories. When the total value is fixed, the relative importance remains constant. However, NASS uses a five-year moving average method to compute the weights for price indexes. Thus, the relative importance changes each year. The relative importance of Feed, for example, changes from 11.4 for 2009 to 11.9 for 2010.

**Release Date**

The date the survey results are published and released.

**Respondent**

The person who provides the information necessary to complete a survey interview.

**Revisions**

A change made by the Agricultural Statistics Board to an earlier published USDA estimate. Revisions are made as a result of more current information or additional information learned about the commodity since the original estimate was published.

**Rice, Long Grain**

The predominant rice type grown in the United States. The length of the grain is about four to five times the width of the grain. Long grain is dominant in the 5 State Delta region.

**Rice, Medium Grain**

Medium grain rice is shorter and thicker than long grain rice. California produces the majority of the medium grain rice in the United States

**Rice, Short Grain**

This type is sometimes referred to as round rice. Almost all short rice production in the United States is in California.

**Rough Rice**

Rice as it comes from the field before milling. Also, known as paddy rice.

**Sample**

Sampling units selected from a sampling frame.

**Sampling Unit**

An identifiable unit of a sampling frame that may be selected when drawing a sample.

**Shade Tobacco**

See "Cigar Wrapper."

**Shrink**

An industry term used to denote the loss in grain weight when grain is dried to a standard moisture or grain loss when it is moved or handled by a facility.

**Small Grain**

Any of the cereal crops, such as wheat, oats, barley, rye, and rice.

## **Small Grain Hay**

Includes small grains such as wheat, oats, and rye harvested as hay instead of grain. Small grains harvested for hay are a source of feed for a feedlot. Sometimes a small grain is intended to be harvested for grain, but if grain quality and quantity has poor potential, grain prices are low, or a second crop will need to be planted before the grain is ripe, then harvesting for hay is an alternative.

## **Sow**

Female pig that has farrowed at least once.

## **Speculation**

Trading in futures contracts in which traders take the risk of price change, hoping for a financial gain.

## **Speculative Commodities**

Commodities designated by USDA regulations because they are traded on organized commodity exchanges. Forecasts and estimates for these commodities are prepared under special precautions.

## **Speculator**

People who underwrite the risk for the hedging process. Speculators usually have no commodity to deliver or do not intend to take delivery on any contracts. They will try to offset their market position before the contract is due.

## **Spinach**

A green leafy annual of the goosefoot family. Spinach is a quick maturing cool season crop. Varieties are classified according to leaf type which also helps identify usage. The savoy (crimped leaf) type is generally used for fresh market. The flat or smooth leaf types are generally canning types. New Zealand spinach is not a true spinach and is not included in estimates. Separate estimates are made for fresh market and processing.

## **Squash**

Member of the cucumber family and is generally divided into 2 classes. 1) Summer squash with soft skins are eaten at immature stages; 2) winter squash are more suitable for winter storage because of their hard shells.

**Types/varieties:** Soft shelled summer zucchini, cizelle, choyote, scallopini, yellow crookneck, yellow straightneck, cucuzza, sunburst, marrow, patty pan (all available late spring, peak late spring and early summer). Hard mature winter, small white, green and gold table queen (acorn), carnival, turban, delicata (sweet potato), butternut, sweet dumpling, kabocha, golden nugget, butternut (Aug Mar, peak Oct Dec; some are available year round). Hard shelled mature winter, large spaghetti, orange marrow, hubbard, banana, Australian blue, sweet meet, Mediterranean, calabaza (Aug Mar, peak Oct Dec; some are available year round).

## Standard weight/moisture

The 'dry' standard measure of grain quantity comes from two factors by which grain volume is determined. One is moisture content (% water of total weight) and the other is weight per volume. The following are guidelines and may vary by individual firm.

<b>CROP</b>	<b>Standard MOISTURE%</b>	<b>Weight POUNDS</b>	<b>UNIT</b>
Corn	15.5	56	bushel
Barley	14.5	48	bushel
Flaxseed	8.0	56	bushel
Oats	14.0	32	bushel
Sorghum	14.0	100	cwt
Soybeans	14.0	60	bushel
Sunflowers	8.0	100	cwt
Wheat	13.5	60	bushel

## State Field Office

Coordinate all the field activities for the National Agricultural Statistics Service (NASS). NASS maintains a network of 46 State field offices, serving all 50 States and Puerto Rico through cooperative agreements with State departments of agriculture and universities.

## Statistically Defensible Survey

A survey whose procedures and specifications can with stand court challenge or other investigation. The survey should have an adequate sample size, randomly selected respondents, carefully worded questions, professional interviewing, reasonable editing, correct summarization, and appropriate publication.

## Statistics

Totals, averages, percentages, and other numbers computed from population or sample data.

## Statistics Canada

Statistics Canada (French: *Statistique Canada*) is the Canadian Federal government agency commissioned with producing statistics. Its headquarters is in Ottawa.

## Steer

Castrated male cattle.

**Stock Sheep**

Sheep in the breeding flock, including ewes and rams used for breeding, wethers one year old and older, ewe lambs and ram lambs.

**Strata or Stratification**

The classification of sampling units in a population into homogeneous groups. An area frame is stratified based on land use, such as intensity of cropland, rangeland, wasteland, urban areas, etc. A list frame is stratified based on operation control data, such as number of livestock, grain storage capacity, cropland, and total acres operated.

**Strawberries**

A perennial member of the rose family that produces large red fruit. Most varieties produce seasonally or during a short period. However, everbearing varieties are included in total production. Strawberries reach peak supply May through July but are available year round. Supplies are at a low point November through January. About 70 varieties are produced in the United States, among the popular varieties are: Camarosa, Selva, Diamante, Sweet Charlie, and proprietary varieties.

**Survey**

The collection of data pertaining to specific sample units. A sample is selected and information collected from individual sampling units. Data reported by the selected sampling units, when summarized, provides an indication of what the total would be if all the sample units within the population of interest had reported.

**Survey Period**

The time period during which survey data collection can occur. Primarily determined by the survey's reference date and due date.

**Sweet Corn**

A variety of corn with kernels high in sugar that is eaten by humans as fresh or processed corn.

**Swine**

A hog or a pig.

**Target Price**

The 2002 Act establishes target prices for eligible commodities.

**Terminal Market**

A city or market into which large amounts of produce are brought for sale and distribution.

**Tobacco, Shade**

See Cigar Wrapper.

**Tomatoes**

Generally, different varieties and cultural practices have been developed for fresh market and processing. Fresh market includes, ripe, mature greens, and pinks sold for immediate consumption. Tomatoes grown organically and heirloom varieties (those varieties that are more than 50 years old) may be included. Tomatoes originally grown for fresh market may be processed, usually as whole peeled tomatoes. Plant breeding for more uniform ripening and size has developed a fruit grown for processing that can be mechanically harvested. These terminal growth type tomatoes are not normally used for fresh market production. Cherry tomatoes, grape tomatoes, tomatillos and greenhouse production are not included. Special processing varieties are specifically suited for mechanical harvesting. Fresh market tomatoes are hand-picked, with a field being picked about three times before harvest is complete.

**Truck Farm**

A farm producing one or several kinds of vegetables which are shipped to and sold at markets.

**Turkey Market Year**

The average price received by farmers from January through December of the current year.

**Turkey Prices**

Price reflects the mid month price for both preliminary and revised estimates. Price represents a liveweight or equivalent liveweight basis for all turkeys sold.

**Unexpanded Average**

Simple average of sample responses.

**United Egg Producers (UEP)**

A national egg producer organization.

**United States Department of Agriculture (USDA)**

A Department within the Federal government having a cabinet level Secretary reporting to the President. It functions to propose legislation and establish regulations in the best interest of agriculture.

**Upland Cotton**

The predominant type of cotton grown in the U.S. and most of the world. The fiber staple length ranges from 13/16 inch to 1.3 inches, averaging nearly 1 3/32 inches.

**Variety**

A group of related plants or animals that differ from similar groups by characteristics too trivial to be recognized as a species.

## **Value / Expenditure Weights**

Value weights are the measures of the relative importance of commodities in the price index. The weights reference period values of the various components covered by the price index. Being commensurate and additive across different commodities, value weights can be used at aggregation levels above the detailed commodity level. NASS uses farm expenditures and cash receipts to compute the value weights for price paid and price received indexes respectively.

## **Watermelons**

A member of the gourd family. The plant is a training annual with long running stems and branched tendrils. The fruit differ in size, shape, and color of rind and flesh. Most varieties have seed but some are seedless. the crop is entirely for fresh market. Varieties/Types: Picnic Jubilee, Crimson Sweet, Allsweet, Peacock/Klondike; Seedless Triplod Hybrid, Icebox. Watermelons are considered a dryland crop which can withstand dry soil conditions since the roots are able to grow down, up to 20 feet, to reach the water table underground.

## **Weights**

A set of numbers between zero and one that sum to unity are used when calculating price indexes. Value shares sum to unity by definition are used to weight price relatives, or elementary price indexes, to obtain higher-level index. Although quantities are frequently described as weights, they cannot serve as weights for the prices of different types of commodities whose quantity are not commensurate and use different units of quantity that are not additive. The term “quantity weights” generally is used loosely to refer to the quantities that make up the basket of goods and services covered by an index and included in the value weights.

## **White Corn**

A variety of corn with white kernels used for making white corn meal.

## **Wild Hay**

Hay made from native or wild, uncultivated grasses and plants. Prices included with “other hay”.

## Common Abbreviations

ACRE	Average Crop Revenue Election
AMS	Agricultural Marketing Service
ASB	Agricultural Statistics Board
Bbl	Barrels
Bu	Bushels
CAPI	Computer Assisted Personal Interviewing
CATI	Computer Assisted Telephone Interviewing
CBOT	Chicago Board of Trade
CCC	Commodity Credit Corporation
CCI	Cotton Council International
CFA	Catfish Farmers of America
CFTC	Commodity Futures Tradings Commission
CIF	Cost, Insurance, Freight
CV	Coefficient of Variation
DCC	Data Collection Centers
DCP	Direct and Counter cyclical Program
DHIA	Dairy Herd Improvement Association
EC	Estimation Centers
EDR	Electronic Data Reporting
ELS	Extra Long Staple cotton
ERS	Economic Research Service
FO	Field Office
FOB	Free On Board
FSA	Farm Service Agency
HQ	Headquarters
LDP	Loan Deficiency Payments
LSF	List Sampling Frame
MNS	Market News Service
MYA	Market Year Average
NASS	National Agricultural Statistics Service
NAWG	National Association of Wheat Growers
NCC	National Cotton Council for America
NWG	National Wool Growers
OMB	Office of Management and Budget
PHD	Packing house Door
POFS	Point of First Sale
NMPF	National Milk Producers Federation
NPPC	National Pork Producers Council
NTF	National Turkey Federation
UEP	United Egg Producers
USDA	United States Department of Agriculture

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