



Honey Bee Colonies Methodology and Quality Measures

ISSN:

Released October 28, 2021, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

Scope and Purpose: The Quarterly Colony Loss Survey that provides the data necessary to produce the Honey Bee Colonies report is conducted in all 50 States. The target population consists of all known producers with five or more honey bee colonies. Data are collected on the beginning of quarter and end of quarter inventories and which State the colonies are located in. If honey bee colonies were present in more than one State during the quarterly period, then the colonies are included in the total for each State. The number of colonies lost, requeened, received nucleus colonies or package bees, added, or sold or given away is also collected. In addition, respondents are asked to report the number of colonies affected by Colony Collapse Disorder symptoms, Varroa mites, other pests and parasites, diseases, pesticides, other stressors, and unknown stressors.

Estimates are published for 45 States, Other States (which includes five States with low levels of inventory), and the United States for beginning of quarter inventory and during the quarter estimates for maximum number of colonies, colonies lost, colonies added, and colonies renovated. The percent of colonies affected by various health stressors are estimated and published for the same 45 States, Other States, and the U.S. including Varroa mites, other pests and parasites, diseases, pesticides, other stressors, and unknown stressors. Finally, the number of colonies lost with Colony Collapse Disorder symptoms is published at the U.S. level only.

Survey Timeline: For the Quarterly Colony Loss Survey, data collection begins at the beginning of each quarter for the following months: January, April, July, and October using the current year as the reference period. Questionnaires are mailed around the first of the referenced month. Telephone follow-up is conducted for nonresponse records beginning approximately a week later. Enumerators at National Agricultural Statistics Service (NASS) data collection centers collect data for a period of approximately two weeks. Assigned Regional Field Offices (RFOs) have approximately two weeks from the end of data collection each quarter to complete editing and analysis, execute the summary, interpret the survey results, and submit recommendations for estimates. A National review is then completed, and National estimates are established. Estimates are released to the public in early August for the preceding six quarters as specified by the Agricultural Statistics Board (ASB) on its annual publications calendar.

Sampling: The target population for the Quarterly Colony Loss Survey is all operations with five or more honey bee colonies. It is a follow-on survey to the [Bee and Honey Inquiry](#) as the sample is drawn from those that respond to that survey with 5 or more honey bee colonies. All records from the higher strata (i.e. operations with large number of colonies and/or operating in multiple states) are included in the Quarterly Colony Loss sample while a simple random sample is drawn from records from the lower strata (i.e. operations with fewer colonies). Strata boundaries vary by State, depending on the distribution and size of operations.

Data Collection: All federal data collections require approval by the Office of Management and Budget (OMB). NASS must document the public need for the data, apply sound statistical practice, prove the data does not already exist elsewhere, and ensure the public is not excessively burdened. The questionnaire must display an active OMB number that gives NASS the authority to conduct the survey, a statement of the purpose of the survey and the use of the data being collected, a response burden statement that gives an estimate of the time required to complete the form, a confidentiality statement that the respondent's information will only be used for statistical purposes in combination with other producers, and a statement saying that response to the survey is voluntary and not required by law.

All RFOs use the same, standardized questionnaire for data collection. For consistency across modes, the paper version is considered the master questionnaire and the web and Computer Assisted Telephone Interview (CATI) instruments are

built to model the paper instrument. Questionnaire content and format are evaluated annually through a specifications process where requests for changes are evaluated and approved or disapproved.

Sampled operations receive a pre-survey letter explaining the purpose and importance of the survey and that they are being contacted for survey purposes only. Attached to the letter is a complete copy of the paper questionnaire and a pass code, which can be used to complete the survey securely online. RFOs are responsible for their data collection strategy, but RFOs must include provisions for respondents to report securely online. If response is not received by mail or online, respondents are contacted by CATI. Limited personal interviewing may be conducted, generally for large operations or those with special handling arrangements.

Survey Edit: As survey data are collected and captured, they are edited for consistency and reasonableness using automated systems. Relationships between data items on the current survey are verified and in certain situations those items may be compared to data from earlier surveys to make sure certain relationships are logical. The edit will determine the status of each record to be either “dirty” or “clean”. Dirty records must be updated and reedited or certified by an analyst to be clean. If updates are needed, they are reedited interactively. Only clean records are eligible for analysis and summary.

Analysis Tools: Edited data are processed through an interactive analysis tool which displays data for all reports by item. The tool provides scatterplots, tables, charts, and special tabulations that allow the analyst to compare an individual record to similar records. Outliers and unusual data relationships become evident and assigned RFO staff review them to determine if they are correct. The tool allows comparison to an operation’s previously reported data to detect large changes in the operation. Data found to be in error are corrected, while data found to be correct are retained.

Nonsampling Errors: Nonsampling errors are present in every survey process. These errors include reporting, recording, and editing errors. Steps are taken to minimize these errors, such as comprehensive interviewer training, validation, and verification of processing systems, application of detailed computer edits, and evaluation of the data via the analysis tools.

Nonresponse Adjustment: Response to the survey is voluntary. Some producers refuse to participate in the survey. Others cannot be located during the data collection period and some submit incomplete reports. The nonrespondents are accounted for in the estimation process.

Estimators: Each operation in the sample has an initial weight based on the final nonresponse adjusted weights from the Bee and Honey Inquiry and any additional sampling. In the Quarterly Colony Loss Survey, nonresponse is accounted for in one of two ways. For operations in strata made up of large and often unique operations, some data items must be manually imputed. Nonrespondents in all other strata are accounted for by adjusting the weights of the complete responses to account for responses that are not complete. The adjustment occurs at the stratum level and is performed for each individual item because sometimes only a partial report is obtained.

Point estimates, called direct expansions, are calculated by multiplying the reported value by the combined nonresponse weight and sampling weight and summing to a stratum total. A variance estimate is also computed at the stratum level. Totals and variances are additive across strata to form a State estimate, and State estimates are additive to a National estimate.

Ratio estimates are also computed for many items. Ratio estimates use the reweighted estimator described above for the numerator and denominator direct expansions. Both the numerator and denominator must be complete for that record to be included in the ratio estimate.

Estimation: When all samples are accounted for, all responses fully edited, and the analysis material is reviewed, each assigned RFO executes a summary to evaluate and analyze the data under its responsibility. When all assigned RFOs have run summaries, Headquarters receives all State files and pools the data. Since identical surveys are conducted in each State, the samples can be pooled, and National survey results computed. The summary results provide multiple indications and their standard errors. It also provides information to assess the performance of the current survey and evaluate the quality of survey indications, such as response rates and strata level expansions. RFOs are responsible for performing a detailed review of their survey results. Any irregularities revealed by the summary must be investigated and, if necessary,

resolved. Assigned RFOs interpret the survey results and submit a recommended estimate to Headquarters for beginning of quarter inventory and during the quarter estimates for maximum number of colonies, colonies lost, colonies added, colonies renovated, the percent of colonies affected by Varroa mites, other pests and parasites, diseases, pesticides, other stressors and unknown stressors and the number of colonies lost with Colony Collapse Disorder symptoms. The survey indications used in State summaries are produced by the National summary. All these estimates are set at the State level and the U.S. estimates are a sum of the States.

The Quarterly Colony Loss survey and estimation periods are conducted quarterly. The estimates are published in an annual report which includes the four quarters of the previous year and the first two quarters of the current year. Prior to the annual report, the previous six quarters are subject to revision. Revisions are the result of late reports or corrected data. Every five years, NASS conducts the Census of Agriculture, which is an exhaustive data collection effort for all known farm operations across the United States. Estimates are thoroughly reviewed for possible revision after data from the Census of Agriculture are available. The information gathered from the Census of Agriculture is used to establish benchmark levels by which the survey estimates can be compared and bias determined.

Quality Metrics for Honey Bee Colonies

Purpose and Definitions: Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the United States Department of Agriculture's National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The metrics table below describe the performance data for all surveys contributing to the publication. The accuracy of data products may be evaluated through sampling and non-sampling error. The CVs measure the error due to sampling as well as some nonsampling error. Nonsampling error is also evaluated by examining response rates and the weighted item response rates.

Sample size is the number of observations selected from the population to represent a characteristic of the population. Operations that did not have the item of interest or were out of business at the time of data collection have been excluded.

Response rate is the proportion of the above sample that responds to the survey.

Weighted item response rate is a ratio of reported survey data expanded by the original sampling weight compared to final nonresponse adjusted summary totals.

Coefficient of variation provides a measure of the size for the standard error relative to the point estimate and is used to measure the precision of the results of a survey estimator.

Quarterly Colony Loss Survey Sample Size and Response Rates: To assist in evaluating the performance of the estimates in the Honey Bee Colonies report, the sample size and response rates are displayed. Response rates overall for 2019 and 2020 are displayed.

Quality Metrics for Quarterly Colony Loss Survey - States and United States: January 1, 2019 and January 1, 2020

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2019	2020	2019	2020	2019	2020	2019	2020
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	49	50	77.6	64.0	91.1	54.5	4.8	8.9
Arizona	34	32	50.0	59.4	50.4	75.9	5.7	4.6
Arkansas	39	47	66.7	80.9	54.9	85.5	9.0	1.1
California	307	250	45.3	50.8	37.5	41.5	1.5	3.4
Colorado	42	49	54.8	63.3	56.5	68.8	0.8	1.4
Connecticut	26	19	53.8	52.6	37.1	37.7	5.7	8.6
Florida	242	188	53.3	53.2	44.2	42.7	2.6	10.7
Georgia	143	109	72.7	64.2	73.3	79.4	2.7	1.1
Hawaii	23	28	43.5	35.7	66.2	62.4	1.6	1.9
Idaho	51	57	56.9	68.4	44.3	83.2	0.9	0.9
Illinois	101	75	62.4	78.7	51.8	70.8	5.3	8.4
Indiana	44	68	52.3	69.1	65.2	67.7	13.2	6.7
Iowa	64	46	67.2	73.9	31.4	44.9	0.9	1.6
Kansas	30	30	66.7	63.3	80.7	58.5	6.0	2.1
Kentucky	68	86	70.6	62.8	75.4	56.9	7.5	20.3
Louisiana	57	41	71.9	70.7	43.0	94.2	5.7	7.0
Maine	21	23	61.9	78.3	28.6	85.7	2.6	5.8
Maryland	38	41	68.4	65.9	51.4	45.1	5.4	2.9
Massachusetts	26	24	53.8	50.0	77.0	73.0	2.0	3.0
Michigan	113	96	60.2	57.3	55.1	31.3	2.3	3.3
Minnesota	98	96	56.1	57.3	59.9	52.3	0.8	3.1
Mississippi	45	43	71.1	81.4	75.6	83.7	3.7	4.8
Missouri	57	65	71.9	73.8	81.6	77.7	8.1	5.7
Montana	45	39	60.0	56.4	55.7	48.5	0.4	0.4
Nebraska	36	39	66.7	46.2	69.6	45.9	7.9	7.8
New Jersey	49	42	51.0	50.0	10.4	8.1	1.4	1.1
New Mexico	15	15	66.7	66.7	95.1	44.2	3.2	1.5
New York	102	72	62.7	58.3	24.8	29.7	6.2	7.1
North Carolina	84	126	61.9	60.3	80.2	52.0	11.1	3.7
North Dakota	83	91	56.6	52.7	46.2	44.8	1.6	0.4
Ohio	91	114	57.1	57.9	60.9	51.2	14.6	11.5
Oklahoma	18	36	72.2	66.7	48.5	45.4	14.1	8.5
Oregon	71	78	66.2	57.7	55.0	46.2	0.4	0.7
Pennsylvania	98	108	70.4	69.4	78.3	74.4	2.2	6.4
South Carolina	41	65	58.5	61.5	48.1	50.4	5.6	7.4
South Dakota	61	61	67.2	67.2	79.6	41.2	1.5	0.7
Tennessee	85	91	70.6	70.3	82.2	79.0	4.0	4.5
Texas	65	114	75.4	58.8	41.4	56.8	20.3	1.3
Utah	43	48	60.5	85.4	75.2	70.0	0.4	1.0
Vermont	20	20	60.0	80.0	9.6	19.2	1.5	3.0
Virginia	71	90	64.8	72.2	70.4	61.4	14.3	6.6
Washington	77	82	62.3	63.4	54.3	50.6	3.5	1.6
West Virginia	51	66	70.6	75.8	54.8	69.2	6.6	4.6
Wisconsin	96	76	61.5	64.5	56.3	60.1	5.9	1.6
Wyoming	25	24	72.0	87.5	72.2	83.0	0.5	(Z)
Other States ¹	44	36	59.1	55.6	29.0	38.2	2.9	3.9
United States	3,089	3,096	61.2	62.7	51.0	49.9	0.8	1.2

(Z) Less than half of the unit shown.

¹ Includes data for States not published in this table.

Quality Metrics for Quarterly Colony Loss Survey - States and United States: April 1, 2019 and April 1, 2020

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2019	2020	2019	2020	2019	2020	2019	2020
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	47	45	61.7	80.0	49.2	88.1	5.5	10.2
Arizona	32	32	53.1	46.9	65.4	74.7	7.1	5.6
Arkansas	35	46	71.4	65.2	48.8	56.0	10.1	1.1
California	300	238	44.7	47.1	34.2	32.7	1.4	4.2
Colorado	41	46	53.7	76.1	63.8	75.9	1.0	2.1
Connecticut	30	17	63.3	82.4	51.9	60.7	4.5	10.0
Florida	227	181	46.7	56.4	34.4	51.3	3.1	8.9
Georgia	138	102	55.8	56.9	50.7	55.4	4.0	2.9
Hawaii	25	29	56.0	48.3	69.0	69.0	1.4	0.8
Idaho	51	57	52.9	63.2	32.0	66.2	0.9	1.3
Illinois	94	71	68.1	73.2	57.3	58.7	6.8	7.9
Indiana	42	66	45.2	56.1	28.2	52.8	28.2	5.9
Iowa	67	44	61.2	77.3	84.6	39.6	0.7	1.5
Kansas	29	29	75.9	82.8	87.5	65.9	9.2	5.5
Kentucky	62	83	62.9	69.9	51.4	74.1	9.1	19.3
Louisiana	55	40	72.7	67.5	38.9	77.2	4.3	5.3
Maine	19	20	73.7	55.0	80.7	77.8	2.6	3.3
Maryland	38	42	63.2	45.2	74.0	28.1	6.7	2.7
Massachusetts	25	23	44.0	43.5	22.6	14.9	2.7	2.7
Michigan	109	94	50.5	46.8	54.5	33.5	3.0	4.7
Minnesota	90	75	46.7	73.3	34.9	37.7	0.8	0.5
Mississippi	41	43	75.6	76.7	89.3	79.5	3.3	4.6
Missouri	54	63	64.8	63.5	29.2	75.9	7.0	6.0
Montana	40	40	62.5	57.5	61.9	53.4	0.3	0.4
Nebraska	37	38	70.3	60.5	60.6	51.1	8.0	7.7
New Jersey	43	40	44.2	45.0	9.1	8.6	1.9	1.3
New Mexico	14	15	64.3	40.0	13.0	5.1	3.8	1.5
New York	98	72	58.2	55.6	23.5	53.4	7.3	7.1
North Carolina	82	127	59.8	55.9	36.4	81.6	8.2	3.9
North Dakota	86	89	37.2	50.6	34.3	56.4	1.7	0.5
Ohio	90	116	56.7	60.3	66.2	50.3	11.0	14.2
Oklahoma	17	36	47.1	58.3	59.1	45.7	17.0	8.0
Oregon	72	70	55.6	55.7	44.3	42.2	0.4	0.7
Pennsylvania	94	99	52.1	61.6	59.0	58.2	2.2	7.0
South Carolina	40	60	55.0	80.0	46.2	57.1	5.1	5.0
South Dakota	60	61	63.3	62.3	42.7	44.6	1.4	0.2
Tennessee	83	90	72.3	46.7	84.8	40.5	4.2	6.3
Texas	66	110	66.7	68.2	58.5	70.1	23.4	1.8
Utah	38	43	63.2	69.8	67.4	83.3	0.2	1.7
Vermont	24	17	33.3	82.4	5.2	13.8	1.6	2.9
Virginia	67	88	70.1	46.6	62.1	52.2	7.1	6.8
Washington	77	75	53.2	57.3	52.6	32.7	4.9	1.9
West Virginia	50	64	62.0	84.4	59.2	88.4	9.0	3.5
Wisconsin	93	65	60.2	76.9	43.3	51.9	4.8	5.7
Wyoming	23	24	73.9	83.3	55.2	71.5	0.1	(Z)
Other States ¹	43	34	58.1	55.9	32.9	32.1	2.4	5.2
United States	2,988	2,959	56.4	60.4	42.5	47.0	0.9	1.4

(Z) Less than half of the unit shown.

¹ Includes data for States not published in this table.

Quality Metrics for Quarterly Colony Loss Survey - States and United States: July 1, 2019 and July 1, 2020

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2019 ¹	2020	2019 ¹	2020	2019 ¹	2020	2019 ¹	2020
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	(NA)	70	(NA)	72.9	(NA)	62.2	(NA)	9.6
Arizona	(NA)	29	(NA)	65.5	(NA)	51.8	(NA)	6.9
Arkansas	(NA)	48	(NA)	60.4	(NA)	58.2	(NA)	0.7
California	(NA)	249	(NA)	49.0	(NA)	37.4	(NA)	1.7
Colorado	(NA)	55	(NA)	52.7	(NA)	32.7	(NA)	5.1
Connecticut	(NA)	26	(NA)	76.9	(NA)	46.8	(NA)	7.8
Florida	(NA)	237	(NA)	44.3	(NA)	34.8	(NA)	5.2
Georgia	(NA)	124	(NA)	52.4	(NA)	53.5	(NA)	3.6
Hawaii	(NA)	35	(NA)	34.3	(NA)	65.9	(NA)	2.3
Idaho	(NA)	63	(NA)	54.0	(NA)	42.0	(NA)	1.6
Illinois	(NA)	111	(NA)	73.9	(NA)	57.4	(NA)	8.2
Indiana	(NA)	77	(NA)	59.7	(NA)	53.2	(NA)	3.5
Iowa	(NA)	86	(NA)	72.1	(NA)	29.4	(NA)	1.1
Kansas	(NA)	38	(NA)	78.9	(NA)	70.4	(NA)	7.0
Kentucky	(NA)	100	(NA)	77.0	(NA)	62.7	(NA)	5.1
Louisiana	(NA)	46	(NA)	67.4	(NA)	40.6	(NA)	5.2
Maine	(NA)	22	(NA)	72.7	(NA)	81.9	(NA)	2.2
Maryland	(NA)	33	(NA)	69.7	(NA)	43.9	(NA)	5.9
Massachusetts	(NA)	32	(NA)	53.1	(NA)	22.6	(NA)	1.0
Michigan	(NA)	106	(NA)	62.3	(NA)	28.9	(NA)	4.6
Minnesota	(NA)	105	(NA)	59.0	(NA)	45.3	(NA)	2.3
Mississippi	(NA)	43	(NA)	72.1	(NA)	52.8	(NA)	11.8
Missouri	(NA)	59	(NA)	64.4	(NA)	57.3	(NA)	12.7
Montana	(NA)	40	(NA)	67.5	(NA)	69.5	(NA)	0.1
Nebraska	(NA)	41	(NA)	56.1	(NA)	43.7	(NA)	12.3
New Jersey	(NA)	34	(NA)	61.8	(NA)	20.7	(NA)	1.8
New Mexico	(NA)	20	(NA)	65.0	(NA)	10.8	(NA)	2.4
New York	(NA)	108	(NA)	55.6	(NA)	19.2	(NA)	3.7
North Carolina	(NA)	80	(NA)	81.3	(NA)	64.5	(NA)	9.1
North Dakota	(NA)	89	(NA)	48.3	(NA)	43.1	(NA)	1.2
Ohio	(NA)	93	(NA)	69.9	(NA)	66.3	(NA)	10.3
Oklahoma	(NA)	45	(NA)	64.4	(NA)	45.9	(NA)	5.2
Oregon	(NA)	79	(NA)	67.1	(NA)	42.5	(NA)	1.5
Pennsylvania	(NA)	109	(NA)	63.3	(NA)	28.3	(NA)	4.5
South Carolina	(NA)	63	(NA)	65.1	(NA)	51.2	(NA)	5.3
South Dakota	(NA)	64	(NA)	56.3	(NA)	73.2	(NA)	0.1
Tennessee	(NA)	84	(NA)	78.6	(NA)	87.7	(NA)	8.7
Texas	(NA)	120	(NA)	66.7	(NA)	54.4	(NA)	2.3
Utah	(NA)	42	(NA)	76.2	(NA)	84.0	(NA)	0.5
Vermont	(NA)	25	(NA)	56.0	(NA)	28.6	(NA)	3.4
Virginia	(NA)	72	(NA)	77.8	(NA)	76.0	(NA)	7.8
Washington	(NA)	85	(NA)	51.8	(NA)	7.5	(NA)	0.9
West Virginia	(NA)	58	(NA)	79.3	(NA)	70.7	(NA)	3.6
Wisconsin	(NA)	95	(NA)	63.2	(NA)	53.8	(NA)	2.6
Wyoming	(NA)	24	(NA)	79.2	(NA)	73.6	(NA)	0.1
Other States ²	(NA)	39	(NA)	56.4	(NA)	23.1	(NA)	7.2
United States	(NA)	3,303	(NA)	62.1	(NA)	44.2	(NA)	0.7

(NA) Not available.

¹ July 2019 survey was not conducted.

² Includes data for States not published in this table.

Quality Metrics for Quarterly Colony Loss Survey - States and United States: October 1, 2019 and October 1, 2020

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2019	2020	2019	2020	2019	2020	2019	2020
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	50	68	78.0	57.4	83.9	49.5	8.4	10.5
Arizona	33	29	60.6	72.4	75.5	86.1	2.2	5.2
Arkansas	50	45	76.0	73.3	64.8	62.8	1.0	1.6
California	255	241	53.3	42.3	50.8	29.9	3.9	1.8
Colorado	52	54	69.2	61.1	66.4	52.7	0.7	2.5
Connecticut	19	26	73.7	57.7	61.4	48.0	14.5	7.9
Florida	190	230	54.7	45.2	42.9	34.1	8.4	3.6
Georgia	111	121	53.2	53.7	64.5	57.5	1.1	4.5
Hawaii	30	35	50.0	51.4	67.7	72.2	0.9	2.0
Idaho	56	63	64.3	61.9	61.1	70.3	1.2	1.1
Illinois	78	109	67.9	64.2	63.9	55.8	8.2	7.2
Indiana	75	74	58.7	51.4	63.0	53.9	6.3	5.0
Iowa	46	85	76.1	61.2	90.7	28.2	1.4	1.4
Kansas	31	38	80.6	84.2	92.5	94.7	3.8	7.8
Kentucky	89	97	69.7	67.0	61.5	72.3	4.9	5.9
Louisiana	44	45	70.5	62.2	85.7	58.3	8.7	7.8
Maine	23	22	56.5	63.6	80.8	76.0	4.9	3.5
Maryland	44	33	70.5	57.6	53.7	38.6	2.9	7.7
Massachusetts	25	32	52.0	53.1	84.4	25.9	3.0	1.5
Michigan	95	102	58.9	54.9	36.0	44.6	3.7	4.8
Minnesota	86	102	61.6	53.9	39.7	34.9	2.3	2.0
Mississippi	48	42	58.3	73.8	76.7	76.8	7.6	6.8
Missouri	66	56	69.7	64.3	39.5	61.8	5.4	10.3
Montana	41	39	58.5	56.4	55.2	43.0	0.5	0.1
Nebraska	39	40	56.4	60.0	41.7	40.5	7.3	6.1
New Jersey	44	35	54.5	54.3	45.4	18.9	1.0	1.7
New Mexico	15	19	73.3	68.4	37.7	35.6	1.6	2.9
New York	75	105	64.0	53.3	64.7	17.4	4.8	4.2
North Carolina	133	78	60.2	84.6	67.2	92.9	4.4	6.5
North Dakota	97	86	43.3	52.3	48.0	43.5	0.9	1.7
Ohio	114	91	62.3	59.3	64.7	51.6	8.1	15.7
Oklahoma	35	44	71.4	68.2	66.6	53.6	9.2	7.5
Oregon	81	75	56.8	64.0	48.7	47.6	0.8	1.2
Pennsylvania	111	105	74.8	63.8	63.2	55.9	6.3	6.2
South Carolina	66	61	72.7	60.7	79.5	39.6	4.8	3.8
South Dakota	65	63	61.5	54.0	76.2	35.3	0.9	0.1
Tennessee	93	83	73.1	66.3	77.7	78.7	4.4	6.2
Texas	114	118	56.1	64.4	61.8	55.2	1.6	2.2
Utah	51	40	88.2	82.5	85.9	77.4	1.1	0.7
Vermont	19	27	84.2	55.6	34.5	18.3	3.1	4.4
Virginia	94	68	66.0	64.7	54.8	68.0	7.0	10.6
Washington	82	84	64.6	48.8	79.5	31.2	2.3	3.7
West Virginia	69	56	66.7	80.4	67.9	74.1	4.5	3.5
Wisconsin	74	92	60.8	73.9	33.1	52.8	3.7	3.1
Wyoming	24	24	83.3	75.0	64.0	74.0	(Z)	(Z)
Other States ¹	36	40	63.9	52.5	37.8	30.8	5.1	6.6
United States	3,168	3,222	62.9	59.4	56.4	42.7	1.2	0.7

(Z) Less than half of the unit shown.

¹ Includes data for States not published in this table.

Information Contacts

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Estimation	Livestock Branch	(202) 720-3570	HQ_SD_LB@usda.gov
Data Collection	Survey Administration Branch	(202) 720-3895	HQ_CSD_SAB@usda.gov
Questionnaires	Data Collection Branch	(202) 720-6201	HQ_CSD_DCB@usda.gov
Sampling and Editing	Sampling Editing and Imputation Methodology Branch	(202) 690-8141	HQ_CSD_SB@usda.gov
Summary and Estimators	Summary Estimation and Disclosure Methodology Branch	(202) 690-8141	HQ_SD_SMB@usda.gov
Dissemination	Data Dissemination Office	(202) 720-3869	HQSDOD@usda.gov
Media Contact and Webmaster	Public Affairs Office	(202) 720-2639	HQOAPAO@usda.gov

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