



Honey Bee Colony Loss Methodology and Quality Measures

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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 Regional Field Offices (RFO) use the same standardized questionnaire for data collection. For consistency across modes, the paper version is considered the master questionnaire and the Computer Assisted Self Interview (CASI), mobile

Computer Assisted Telephone Interview (mCATI), and Computer Assisted Telephone Interview (CATI) instruments are built to model the paper questionnaire. The questionnaire content and format are evaluated annually through a specification process where requests for changes are evaluated and approved or disapproved. Input may vary from question wording or formatting to a program change involving the deletion or modification of current questions or addition of new ones. If there are significant changes to either the content or format proposed, a NASS survey methodologist will pre-test the changes for usability. Prior to the start of data collection, all modes of instruments are reviewed, and CASI, mCATI, and CATI instruments are thoroughly tested.

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 2020 and 2021 are displayed.

Quality Metrics for Quarterly Colony Loss Survey - States and United States: January 1, 2020 and January 1, 2021

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2020	2021	2020	2021	2020	2021	2020	2021
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	50	67	64.0	50.7	54.5	37.6	8.9	6.1
Arizona	32	28	59.4	64.3	75.9	33.1	4.6	4.7
Arkansas	47	44	80.9	77.3	85.5	76.8	1.1	9.8
California	250	233	50.8	53.2	41.5	40.5	3.4	2.0
Colorado	49	53	63.3	28.3	68.8	23.5	1.4	2.6
Connecticut	19	26	52.6	61.5	37.7	42.9	8.6	7.9
Florida	188	225	53.2	54.7	42.7	46.2	10.7	4.2
Georgia	109	119	64.2	61.3	79.4	70.0	1.1	3.6
Hawaii	28	35	35.7	42.9	62.4	61.3	1.9	6.1
Idaho	57	62	68.4	66.1	83.2	58.6	0.9	1.1
Illinois	75	105	78.7	72.4	70.8	73.3	8.4	7.5
Indiana	68	70	69.1	60.0	67.7	64.5	6.7	4.5
Iowa	46	83	73.9	61.4	44.9	28.5	1.6	2.5
Kansas	30	37	63.3	70.3	58.5	87.7	2.1	10.2
Kentucky	86	94	62.8	61.7	56.9	57.9	20.3	9.2
Louisiana	41	44	70.7	72.7	94.2	42.6	7.0	4.4
Maine	23	22	78.3	68.2	85.7	82.1	5.8	3.9
Maryland	41	33	65.9	60.6	45.1	42.2	2.9	8.6
Massachusetts	24	30	50.0	70.0	73.0	65.4	3.0	1.1
Michigan	96	99	57.3	47.5	31.3	21.0	3.3	4.6
Minnesota	96	96	57.3	47.9	52.3	39.6	3.1	0.9
Mississippi	43	43	81.4	55.8	83.7	69.0	4.8	11.6
Missouri	65	54	73.8	64.8	77.7	61.3	5.7	11.9
Montana	39	38	56.4	55.3	48.5	52.5	0.4	0.3
Nebraska	39	40	46.2	62.5	45.9	64.7	7.8	5.1
New Jersey	42	35	50.0	48.6	8.1	8.0	1.1	2.5
New Mexico	15	19	66.7	68.4	44.2	73.3	1.5	2.3
New York	72	103	58.3	56.3	29.7	38.0	7.1	3.7
North Carolina	126	76	60.3	80.3	52.0	92.0	3.7	5.8
North Dakota	91	88	52.7	47.7	44.8	42.8	0.4	0.7
Ohio	114	90	57.9	66.7	51.2	66.0	11.5	19.1
Oklahoma	36	41	66.7	48.8	45.4	33.4	8.5	8.9
Oregon	78	74	57.7	63.5	46.2	43.8	0.7	1.1
Pennsylvania	108	106	69.4	67.0	74.4	34.6	6.4	5.4
South Carolina	65	58	61.5	74.1	50.4	47.4	7.4	3.2
South Dakota	61	63	67.2	58.7	41.2	41.9	0.7	0.1
Tennessee	91	81	70.3	56.8	79.0	50.6	4.5	6.8
Texas	114	116	58.8	50.0	56.8	49.2	1.3	2.7
Utah	48	40	85.4	70.0	70.0	62.4	1.0	0.6
Vermont	20	27	80.0	51.9	19.2	16.4	3.0	7.2
Virginia	90	67	72.2	62.7	61.4	57.0	6.6	14.1
Washington	82	80	63.4	43.8	50.6	50.2	1.6	4.5
West Virginia	66	54	75.8	74.1	69.2	82.3	4.6	3.6
Wisconsin	76	88	64.5	52.3	60.1	36.2	1.6	7.1
Wyoming	24	24	87.5	66.7	83.0	78.2	(Z)	(Z)
Other States ¹	36	35	55.6	60.0	38.2	33.1	3.9	5.8
United States	3,096	3,145	62.7	58.7	49.9	45.8	1.2	0.7

(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, 2020 and April 1, 2021

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2020	2021	2020	2021	2020	2021	2020	2021
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	45	64	80.0	65.6	88.1	55.9	10.2	14.1
Arizona	32	28	46.9	46.4	74.7	56.3	5.6	7.3
Arkansas	46	44	65.2	56.8	56.0	57.7	1.1	15.0
California	238	224	47.1	44.6	32.7	25.9	4.2	2.3
Colorado	46	51	76.1	47.1	75.9	45.4	2.1	4.0
Connecticut	17	26	82.4	53.8	60.7	47.9	10.0	8.0
Florida	181	214	56.4	49.1	51.3	39.1	8.9	4.0
Georgia	102	118	56.9	61.9	55.4	51.7	2.9	2.5
Hawaii	29	34	48.3	44.1	69.0	72.0	0.8	2.7
Idaho	57	58	63.2	56.9	66.2	41.6	1.3	0.7
Illinois	71	100	73.2	66.0	58.7	67.5	7.9	7.5
Indiana	66	68	56.1	51.5	52.8	50.2	5.9	5.1
Iowa	44	80	77.3	70.0	39.6	22.5	1.5	1.3
Kansas	29	38	82.8	81.6	65.9	90.6	5.5	10.7
Kentucky	83	88	69.9	59.1	74.1	51.7	19.3	10.2
Louisiana	40	44	67.5	68.2	77.2	65.2	5.3	4.2
Maine	20	22	55.0	54.5	77.8	73.4	3.3	1.7
Maryland	42	32	45.2	68.8	28.1	44.0	2.7	6.7
Massachusetts	23	29	43.5	58.6	14.9	18.7	2.7	2.3
Michigan	94	94	46.8	53.2	33.5	26.2	4.7	2.5
Minnesota	75	92	73.3	59.8	37.7	37.6	0.5	2.0
Mississippi	43	42	76.7	54.8	79.5	58.5	4.6	10.6
Missouri	63	53	63.5	66.0	75.9	72.0	6.0	14.9
Montana	40	37	57.5	51.4	53.4	51.0	0.4	0.3
Nebraska	38	37	60.5	64.9	51.1	37.5	7.7	5.3
New Jersey	40	32	45.0	46.9	8.6	49.3	1.3	2.1
New Mexico	15	18	40.0	55.6	5.1	14.2	1.5	4.0
New York	72	100	55.6	46.0	53.4	14.9	7.1	2.2
North Carolina	127	72	55.9	56.9	81.6	47.7	3.9	10.6
North Dakota	89	88	50.6	42.0	56.4	32.8	0.5	1.0
Ohio	116	87	60.3	67.8	50.3	56.0	14.2	14.8
Oklahoma	36	41	58.3	51.2	45.7	33.0	8.0	14.9
Oregon	70	68	55.7	52.9	42.2	29.2	0.7	1.1
Pennsylvania	99	103	61.6	57.3	58.2	30.3	7.0	3.3
South Carolina	60	57	80.0	66.7	57.1	40.7	5.0	4.4
South Dakota	61	61	62.3	55.7	44.6	37.5	0.2	0.5
Tennessee	90	80	46.7	38.8	40.5	47.9	6.3	8.6
Texas	110	115	68.2	55.7	70.1	48.6	1.8	2.8
Utah	43	37	69.8	67.6	83.3	66.9	1.7	0.5
Vermont	17	27	82.4	63.0	13.8	27.2	2.9	4.4
Virginia	88	65	46.6	52.3	52.2	64.4	6.8	17.3
Washington	75	76	57.3	43.4	32.7	48.3	1.9	10.3
West Virginia	64	53	84.4	47.2	88.4	45.3	3.5	5.0
Wisconsin	65	81	76.9	54.3	51.9	48.4	5.7	5.0
Wyoming	24	21	83.3	61.9	71.5	46.4	(Z)	0.1
Other States ¹	34	31	55.9	58.1	32.1	33.8	5.2	4.5
United States	2,959	3,030	60.4	55.1	47.0	37.0	1.4	0.8

(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, 2020 and July 1, 2021

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2020	2021	2020	2021	2020	2021	2020	2021
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	70	67	72.9	67.2	62.2	70.3	9.6	7.3
Arizona	29	26	65.5	73.1	51.8	88.0	6.9	2.1
Arkansas	48	53	60.4	77.4	58.2	73.9	0.7	3.0
California	249	246	49.0	49.6	37.4	41.8	1.7	0.8
Colorado	55	46	52.7	52.2	32.7	51.8	5.1	1.4
Connecticut	26	30	76.9	66.7	46.8	61.2	7.8	1.8
Florida	237	237	44.3	53.6	34.8	44.0	5.2	2.4
Georgia	124	133	52.4	58.6	53.5	53.0	3.6	2.9
Hawaii	35	22	34.3	45.5	65.9	64.5	2.3	2.4
Idaho	63	59	54.0	66.1	42.0	63.0	1.6	1.8
Illinois	111	110	73.9	76.4	57.4	50.7	8.2	7.8
Indiana	77	68	59.7	63.2	53.2	64.7	3.5	3.8
Iowa	86	67	72.1	58.2	29.4	24.9	1.1	1.1
Kansas	38	38	78.9	71.1	70.4	79.8	7.0	34.5
Kentucky	100	114	77.0	49.1	62.7	48.3	5.1	6.0
Louisiana	46	47	67.4	78.7	40.6	67.4	5.2	7.9
Maine	22	23	72.7	95.7	81.9	93.0	2.2	1.8
Maryland	33	37	69.7	86.5	43.9	56.9	5.9	6.7
Massachusetts	32	36	53.1	61.1	22.6	62.3	1.0	1.1
Michigan	106	101	62.3	55.4	28.9	38.1	4.6	1.5
Minnesota	105	93	59.0	59.1	45.3	33.8	2.3	2.2
Mississippi	43	46	72.1	69.6	52.8	72.7	11.8	6.0
Missouri	59	50	64.4	86.0	57.3	80.2	12.7	19.1
Montana	40	40	67.5	62.5	69.5	46.9	0.1	1.0
Nebraska	41	40	56.1	77.5	43.7	65.2	12.3	5.3
New Jersey	34	35	61.8	60.0	20.7	23.2	1.8	1.7
New Mexico	20	17	65.0	76.5	10.8	71.5	2.4	1.7
New York	108	113	55.6	69.9	19.2	44.1	3.7	4.9
North Carolina	80	118	81.3	76.3	64.5	62.9	9.1	4.8
North Dakota	89	90	48.3	51.1	43.1	51.6	1.2	(Z)
Ohio	93	104	69.9	73.1	66.3	74.7	10.3	9.9
Oklahoma	45	33	64.4	63.6	45.9	27.6	5.2	25.5
Oregon	79	68	67.1	69.1	42.5	47.4	1.5	1.1
Pennsylvania	109	148	63.3	53.4	28.3	20.0	4.5	1.7
South Carolina	63	60	65.1	65.0	51.2	40.6	5.3	4.5
South Dakota	64	59	56.3	57.6	73.2	42.8	0.1	0.9
Tennessee	84	87	78.6	47.1	87.7	34.1	8.7	7.5
Texas	120	96	66.7	62.5	54.4	35.3	2.3	21.0
Utah	42	51	76.2	84.3	84.0	91.2	0.5	4.2
Vermont	25	27	56.0	63.0	28.6	19.1	3.4	0.7
Virginia	72	87	77.8	65.5	76.0	52.9	7.8	7.2
Washington	85	74	51.8	45.9	7.5	17.9	0.9	0.8
West Virginia	58	60	79.3	66.7	70.7	23.9	3.6	3.5
Wisconsin	95	96	63.2	56.3	53.8	47.5	2.6	5.3
Wyoming	24	21	79.2	71.4	73.6	84.6	0.1	(Z)
Other States ¹	39	36	56.4	55.6	23.1	23.1	7.2	3.6
United States	3,303	3,309	62.1	62.1	44.2	45.9	0.7	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: October 1, 2020 and October 1, 2021

State	First of quarter inventory							
	Sample size		Response rate		Weighted item response rate		Coefficient of variation	
	2020	2021	2020	2021	2020	2021	2020	2021
	(number)	(number)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	68	65	57.4	73.8	49.5	73.0	10.5	7.4
Arizona	29	26	72.4	69.2	86.1	87.9	5.2	1.7
Arkansas	45	50	73.3	68.0	62.8	47.0	1.6	2.2
California	241	244	42.3	40.6	29.9	34.0	1.8	1.0
Colorado	54	43	61.1	44.2	52.7	15.1	2.5	2.4
Connecticut	26	28	57.7	60.7	48.0	50.9	7.9	5.0
Florida	230	236	45.2	48.3	34.1	33.9	3.6	2.7
Georgia	121	126	53.7	60.3	57.5	67.3	4.5	3.0
Hawaii	35	22	51.4	54.5	72.2	72.4	2.0	7.4
Idaho	63	61	61.9	57.4	70.3	55.6	1.1	2.0
Illinois	109	108	64.2	64.8	55.8	52.1	7.2	9.5
Indiana	74	66	51.4	59.1	53.9	59.3	5.0	5.1
Iowa	85	67	61.2	68.7	28.2	23.0	1.4	1.0
Kansas	38	37	84.2	64.9	94.7	60.7	7.8	18.2
Kentucky	97	106	67.0	66.0	72.3	70.5	5.9	4.5
Louisiana	45	47	62.2	63.8	58.3	61.2	7.8	6.8
Maine	22	22	63.6	68.2	76.0	79.9	3.5	4.8
Maryland	33	35	57.6	54.3	38.6	41.0	7.7	6.0
Massachusetts	32	35	53.1	57.1	25.9	56.2	1.5	2.2
Michigan	102	96	54.9	45.8	44.6	34.5	4.8	4.6
Minnesota	102	93	53.9	66.7	34.9	51.2	2.0	1.5
Mississippi	42	44	73.8	65.9	76.8	50.7	6.8	6.3
Missouri	56	49	64.3	81.6	61.8	82.9	10.3	12.2
Montana	39	39	56.4	59.0	43.0	63.7	0.1	0.9
Nebraska	40	40	60.0	60.0	40.5	55.2	6.1	4.8
New Jersey	35	35	54.3	45.7	18.9	5.9	1.7	2.1
New Mexico	19	15	68.4	33.3	35.6	5.0	2.9	3.4
New York	105	114	53.3	57.9	17.4	37.1	4.2	5.2
North Carolina	78	116	84.6	83.6	92.9	72.5	6.5	4.1
North Dakota	86	87	52.3	44.8	43.5	32.5	1.7	0.2
Ohio	91	97	59.3	71.1	51.6	76.2	15.7	11.3
Oklahoma	44	30	68.2	76.7	53.6	40.9	7.5	22.9
Oregon	75	69	64.0	73.9	47.6	60.6	1.2	1.4
Pennsylvania	105	148	63.8	59.5	55.9	23.9	6.2	1.8
South Carolina	61	58	60.7	60.3	39.6	38.6	3.8	3.0
South Dakota	63	55	54.0	63.6	35.3	51.8	0.1	0.8
Tennessee	83	82	66.3	68.3	78.7	72.0	6.2	6.8
Texas	118	94	64.4	63.8	55.2	75.2	2.2	36.1
Utah	40	49	82.5	77.6	77.4	74.1	0.7	4.8
Vermont	27	24	55.6	54.2	18.3	9.3	4.4	0.6
Virginia	68	82	64.7	78.0	68.0	77.4	10.6	8.2
Washington	84	72	48.8	36.1	31.2	34.1	3.7	1.0
West Virginia	56	55	80.4	74.5	74.1	42.3	3.5	4.7
Wisconsin	92	94	73.9	55.3	52.8	40.1	3.1	5.7
Wyoming	24	20	75.0	60.0	74.0	74.9	(Z)	(Z)
Other States ¹	40	35	52.5	40.0	30.8	35.9	6.6	3.9
United States	3,222	3,216	59.4	59.9	42.7	45.7	0.7	2.2

(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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