
Appendix A.

Statistical Methodology

THE SURVEY POPULATION

The target population for the 2008 Organic Production Survey (OPS) was all farms and ranches meeting the standards of the National Organic Program (NOP) administrated by the USDA's Agricultural Marketing Service (AMS). The standards set by the NOP provide certifying agencies with guidelines to certify farms to use the officially trademarked "USDA Organic" seal. The 2008 OPS defined three organic operation groups – certified, exempt, and transitioning. A certified farm meets NOP standards to market under the "USDA Organic" seal. An exempt farm also meets the criteria for marketing as organic but, because of annual sales less than \$5,000, is exempt from fees associated with certification. A transitioning farm produces organic products by the NOP standards but has not met the three year organic practices requirement. (NOP standards are available on the Internet at www.ams.usda.gov/nop.)

The 2008 OPS mail list was built from several sources. An important source was all farms in the U.S. that indicated they were certified, exempt, or transitioning (converting) to organic production, or showed potential, in the 2007 Census of Agriculture. Another source came from list building activities that NASS conducted prior to mail out. For example, the mail list was enhanced by including names from the 2008 AMS list of certified organic farmers. Also, names on a list of organic wheat farmers obtained from USDA Economic Research Service (ERS) were included. Some records on the OPS mail list were neither respondents from the 2007 census nor recent additions based on 2008 list building, but had pre-existing indicators of organic activity or organic acres on NASS's list frame.

The final mail list included 28,938 farms that met the above criteria. Table A provides the counts by State of the final mail list, the number of returned OPS

forms, and the number of qualifying organic farms. The response rate is an indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small. Table A shows the response rate for the 2008 OPS was 87 percent.

DATA COLLECTION

Method of Enumeration

The 2008 Organic Production Survey was conducted primarily by mail. It was supplemented with Electronic Data Reporting (EDR) via the Internet, telephone calls, and personal enumeration.

Report Form

An eight-page 2008 Organic Production Survey report form was designed to collect data from certified, exempt, and transitioning farms as defined by the NOP. Since this was the first national organic production survey, NASS solicited input from the organic industry, AMS and ERS, and conducted cognitive testing of the form with farms in the target population. The report form collected information about organic acreage and production of field crops, hay, vegetables, fruits, nuts, and horticulture. The report form also had sections devoted to capturing data that included livestock and livestock products, production expenses, production and marketing practices including value-added sales, and other information about a farm's characteristics. See Appendix B for facsimiles of the report form and instruction sheet.

Report Form Mailings and Respondent Follow-up

The initial mailout took place in May 2009. The initial mail packets included a labeled report form,

an instruction sheet, a letter requesting a prompt response with electronic data reporting instructions, and a return envelope. Mailout packet preparation, initial mailout, and one follow-up mailing to non-respondents were handled by the Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. Telephone follow-up of mail non-respondents was made from a NASS Data Collection Center beginning in June 2009.

Data were collected for a select group of farms by the NASS field offices. To minimize the number of agency contacts, farms were included in this group if they were scheduled for contact by NASS for other agricultural surveys. Report forms were labeled at NPC and sent to the field offices in May 2009. Field office staff collected data by personal enumeration or by phone from May 2009 through August 2009.

REPORT FORM PROCESSING

Data Capture

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

Data Editing and Analysis

Data from each report form were processed through a computer edit which flagged inconsistent entries. Each report with a flagged entry was reviewed by staff. Action was required for any record with reported data that were obviously incorrect. In some cases, respondents may have failed to provide all of the information requested, only indicating the presence of an item but not the amount. These items were tagged for machine imputation.

After the initial edit, an automated imputation program supplied missing data based on similar organic farming data from a respondent in close geographic proximity. A post-imputation computer edit was performed to ensure imputation actions provided acceptable results. Instances where imputed data failed edit checks were referred to analysts for corrective action.

The computer edit ensured the data on a report form were internally consistent. An analysis tool was provided to examine the data across records to check for distributional irregularities and data outliers. Analysts corrected suspect data when necessary and re-edited the record.

ESTIMATION

The estimates produced from the OPS were obtained by multiplying each farm's data by a weight. Each farm on the OPS mail list represented itself only and received an initial weight of one. The initial weights were adjusted to account for farms that did not respond and farms that were not on the mail list. The final weight is a whole number factor that adjusts for nonresponse and list incompleteness and accounts for the entire target population. The weighted data were summed to obtain estimates at the State and U.S. levels.

Nonresponse Weights

Not every organic farm that was contacted provided the requested data. Nonrespondents must be accounted for in final estimates. This was accomplished by increasing the survey weights of the respondents in proportion to the number of nonrespondents. List frame control data were used to define weighting cells comprised of farms of similar size. The counts of survey respondents and nonrespondents were used to compute the adjustment factor for the weighting cell. The methodology assumed nonresponse was random. For example, a weighting cell has 100 farms of which 80 responded and 20 did not. Every respondent would have its original weight of 1 increased to 1.25 (100/80) to represent the farms not responding.

Coverage Weights

Despite the intense effort to build a list of farms and ranches meeting the standards of the National Organic Program, the final OPS mail list was incomplete. Coverage adjustment weights were derived and applied to the data to represent these missing operations in the final estimates. This was accomplished by obtaining a measure of the number of organic and potentially organic farms represented in the fully adjusted 2007 Census of Agriculture based on the same criteria used to develop the OPS mail list. List coverage was not uniform across economic size categories. Coverage for larger farms tends to be very high while coverage for smaller farms tends to be lower. Therefore, coverage adjustment cells were created based on economic size. The coverage weight for each coverage adjustment cell is obtained by taking the cell's target number of potential organic farms obtained from the 2007 Census of Agriculture and dividing by the sum of the nonresponse weights of the responding farms in the cell. This approach assumed that the number of farms meeting the OPS mail list criteria was stable from 2007 to 2008 and that coverage was uniform for different types of records within coverage adjustment cells. The nonresponse adjusted weight of each OPS respondent in each adjustment cell was multiplied by the coverage weight to account for missing farms. The resulting weight is referred to as the fully adjusted weight and is used to calculate the farm counts and totals shown in this publication.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be closely estimated or derived is suppressed and coded with a 'D'. In some special cases, required suppressions may be revealed with the informed written consent of the producer at risk. The number of farms reporting an item is not considered confidential information and is provided even though other information may be withheld.

DATA COMPARABILITY

The 2008 Organic Production Survey (OPS) results reflect the industry as of the time the list was built and the 2008 production year. Comparisons to data from the 2007 Census of Agriculture or other non-NASS sources must allow for differences in reference periods and organic definitions. Transitioning farms in 2007 may have been certified in 2008. Farms producing in 2007 may have not produced in 2008. Farms indicating they were organic on the 2007 census may have been found not certified, exempt, or transitioning and ineligible for the target population in 2008. Table B shows fully adjusted OPS farm counts and total organic acres by State for farms that indicated organic on the 2007 Census of Agriculture, comparable data from the 2008 OPS, and a count of farms that did not qualify for the 2008 OPS.

Table C provides a summary of transitioning acres by State. The count of transitioning farms is given with the fully adjusted total acres of cropland and pasture. These totals are further divided into those farms with other acres certified, farms that are exempt, and those with only transitioning acres.

There were 6,439 respondents who reported they intended to become certified but were exempt or not certified in 2008. Twenty-six percent of those operations reported they intended to become certified organic in the next 3 years. Acreage data are not included in this report as these operations may not accurately represent the population of producers intending to become certified organic.

MEASURES OF SURVEY QUALITY

Results of the 2008 OPS are subject to nonsampling errors including nonsampling errors carried forward from the 2007 Census of Agriculture. Sources of nonsampling errors include respondent reporting errors, recording errors, errors in data capture, or errors in the actions taken during editing and imputation.

Nonsampling error due to mail list incompleteness and duplication, as well as misclassification of records on the mail list, is referred to as coverage

error. Undercoverage existed in the frame population to the extent that there were farms that either failed to indicate they were organic in the 2007 census or became organic in 2008. Overcoverage existed in the frame because some operations were misclassified as USDA organic and did not qualify for the 2008 OPS or had stopped organic farming in 2008. Farms in these groups that were included in the OPS were identified during survey data collection and treated as out-of-scope.

MEASURES OF PRECISION

The sampling error associated with an estimate provides a measure of how precise the estimates are given different samples will yield different results.

Since the OPS is a census of all known organic producers, no sampling error is introduced as a result of sampling. However, sampling error is generated by the nonresponse and coverage adjustments. The statistical precision estimates for selected survey items are presented in Table D. The estimated precision is presented as the estimated relative standard error. The relative standard error is computed as the ratio of the estimated standard error of the estimated total for the survey item to the estimated item total and is expressed as a percent referred to as coefficient of variation. The smaller the value of the relative standard error, the more precise the estimate of the associated survey item total is likely to be.

Table A. Mailed and Returned Organic Production Survey Report Forms and Qualifying Organic Farms: 2008

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Report forms mailed	Returned	Qualifying organic farms
United States	28,939	25,277	12,631
Alabama	147	144	33
Alaska	51	41	16
Arizona	136	127	61
Arkansas	190	168	34
California	4,734	4,032	2,220
Colorado	549	482	195
Connecticut	289	235	86
Delaware	23	20	8
Florida	408	361	139
Georgia	363	318	97
Hawaii	508	469	239
Idaho	507	453	220
Illinois	407	382	205
Indiana	445	377	161
Iowa	982	769	456
Kansas	289	247	92
Kentucky	343	325	94
Louisiana	108	98	24
Maine	667	552	318
Maryland	219	189	95
Massachusetts	400	332	142
Michigan	923	808	416
Minnesota	1,106	922	509
Mississippi	124	102	23
Missouri	515	461	181
Montana	371	330	170
Nebraska	362	321	162
Nevada	52	47	25
New Hampshire	235	195	85
New Jersey	276	219	111
New Mexico	372	330	139
New York	1,577	1,412	740
North Carolina	594	541	195
North Dakota	227	198	110
Ohio	949	843	497
Oklahoma	273	232	73
Oregon	1,224	1,149	628
Pennsylvania	1,138	978	511
Rhode Island	50	43	27
South Carolina	155	137	30
South Dakota	210	185	93
Tennessee	306	271	78
Texas	1,352	1,277	359
Utah	232	214	81
Vermont	717	590	372
Virginia	438	383	143
Washington	1,414	1,188	768
West Virginia	150	142	45
Wisconsin	1,698	1,516	1,067
Wyoming	134	122	58

Table B. Land Used for Organic Production: 2007 Census of Agriculture and 2008 Organic Production Survey

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007 Census of Agriculture organic production		2008 Organic Production Survey					
			Certified organic farms		Exempt organic farms		Other farms (see text) ¹	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	20,437	2,577,418	10,903	4,004,160	3,637	73,177	5,963	541,008
Alabama	63	1,766	4	365	30	717	46	1,961
Alaska	35	320	6	323	10	118	19	71
Arizona	129	16,907	38	20,566	25	432	48	5,735
Arkansas	83	5,865	25	6,261	11	46	43	2,347
California	3,515	368,934	2,286	461,567	428	9,336	831	65,644
Colorado	425	102,936	163	148,974	57	5,007	208	42,915
Connecticut	186	1,485	37	477	45	645	52	482
Delaware	14	97	4	239	4	20	1	(D)
Florida	280	9,301	99	7,453	73	626	108	996
Georgia	157	2,015	58	3,708	45	827	49	652
Hawaii	594	9,934	180	9,814	158	740	188	1,024
Idaho	299	111,781	219	148,147	35	278	86	12,763
Illinois	280	18,514	162	29,885	67	777	67	901
Indiana	287	14,143	108	12,579	40	440	89	2,328
Iowa	566	72,394	476	93,462	42	1,106	102	4,861
Kansas	161	37,845	87	52,848	22	292	55	4,982
Kentucky	193	9,280	52	5,377	51	1,391	82	3,546
Louisiana	43	1,822	16	2,102	7	49	21	741
Maine	582	38,767	276	26,336	103	1,929	129	4,083
Maryland	161	6,678	95	8,765	34	387	44	721
Massachusetts	319	7,326	80	3,680	94	723	97	2,184
Michigan	632	50,208	309	66,273	152	1,894	194	4,491
Minnesota	718	96,342	462	120,039	88	2,389	162	8,555
Mississippi	83	2,256	10	(D)	21	(D)	40	973
Missouri	273	21,738	115	27,458	82	2,737	102	6,181
Montana	229	195,204	133	284,031	40	451	74	35,660
Nebraska	190	82,407	146	145,973	16	215	43	5,942
Nevada	41	6,237	20	4,021	6	132	13	2,362
New Hampshire	173	6,177	79	8,210	23	237	51	1,137
New Jersey	211	3,449	62	2,697	60	632	66	600
New Mexico	321	71,607	139	116,975	60	701	121	43,471
New York	1,137	131,796	684	164,281	143	4,147	300	13,020
North Carolina	418	7,711	134	8,612	112	1,006	185	2,440
North Dakota	129	102,204	124	152,723	3	5	27	15,319
Ohio	687	55,086	420	59,700	127	2,296	181	5,548
Oklahoma	158	22,888	58	27,515	30	2,076	85	11,136
Oregon	933	92,405	433	100,154	224	5,451	282	28,661
Pennsylvania	775	45,181	466	51,731	120	1,893	232	8,446
Rhode Island	51	216	22	(D)	6	(D)	20	(D)
South Carolina	89	993	16	561	18	464	38	638
South Dakota	107	105,299	94	131,924	9	123	24	9,224
Tennessee	159	2,020	19	1,216	64	784	65	726
Texas	660	169,638	185	308,673	187	5,606	312	98,776
Utah	154	86,084	54	143,154	41	1,074	56	18,349
Vermont	619	67,315	410	75,834	57	1,675	135	6,159
Virginia	311	13,502	85	10,643	95	1,665	109	3,492
Washington	1,207	64,830	707	80,305	180	1,911	335	10,400
West Virginia	84	2,158	5	139	50	1,814	48	1,101
Wisconsin	1,443	147,120	994	190,674	228	4,929	275	12,484
Wyoming	73	87,237	47	676,518	14	629	23	26,708

¹ Data include farms that reported organic acreage in the 2007 census but are not certified organic or exempt organic in the 2008 survey.

Table C. Farms with Land Transitioning to Organic Production: 2008

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total			Certified organic farms		Exempt organic farms		Other farms ¹	
	Farms	Transitioning cropland acres	Transitioning pasture acres	Farms	Transitioning acres	Farms	Transitioning acres	Farms	Transitioning acres
United States	3,837	187,330	204,966	1,397	185,796	376	8,588	2,064	197,912
Alabama	27	274	724	1	(D)	2	(D)	24	943
Alaska	5	(D)	(D)	2	(D)	1	(D)	2	(D)
Arizona	34	(D)	(D)	3	(D)	6	(D)	25	(D)
Arkansas	19	264	362	5	(D)	2	(D)	12	332
California	506	23,447	35,611	189	47,644	26	192	291	11,222
Colorado	82	6,860	10,691	28	5,580	5	606	49	11,365
Connecticut	28	92	113	1	(D)	4	(D)	23	125
Delaware	2	(D)	-	2	(D)	-	-	-	-
Florida	35	(D)	(D)	9	(D)	2	(D)	24	862
Georgia	52	1,833	1,352	5	(D)	11	(D)	36	1,990
Hawaii	96	480	44	13	198	12	24	71	302
Idaho	76	13,303	219	57	(D)	1	(D)	18	(D)
Illinois	77	4,342	395	36	3,660	12	59	29	1,018
Indiana	73	2,908	1,998	21	1,602	7	30	45	3,274
Iowa	130	8,175	2,463	90	(D)	3	(D)	37	(D)
Kansas	32	2,776	1,189	15	2,482	5	15	12	1,468
Kentucky	66	1,436	1,773	17	782	10	159	39	2,268
Louisiana	15	35	766	1	(D)	2	(D)	12	501
Maine	48	484	297	10	103	6	46	32	632
Maryland	39	1,422	307	16	1,314	6	39	17	376
Massachusetts	57	1,514	734	9	270	9	299	39	1,679
Michigan	150	8,406	2,953	57	5,234	20	546	73	5,579
Minnesota	149	7,460	3,444	80	5,771	12	209	57	4,924
Mississippi	22	147	714	-	-	5	104	17	757
Missouri	62	3,518	7,661	16	1,779	8	392	38	9,008
Montana	38	14,215	2,042	21	12,905	5	97	12	3,255
Nebraska	71	12,184	2,826	50	12,255	-	-	21	2,755
Nevada	3	(D)	(D)	1	(D)	-	-	2	(D)
New Hampshire	26	492	260	11	(D)	1	(D)	14	402
New Jersey	24	352	123	4	(D)	4	(D)	16	218
New Mexico	45	1,153	13,267	8	(D)	2	(D)	35	13,524
New York	158	6,911	2,505	62	2,726	7	80	89	6,610
North Carolina	135	2,609	1,374	31	1,770	7	84	97	2,129
North Dakota	24	3,285	1,366	21	(D)	-	-	3	(D)
Ohio	150	5,614	1,523	69	3,892	18	677	63	2,568
Oklahoma	32	420	5,067	3	(D)	7	(D)	22	(D)
Oregon	149	6,008	11,637	39	4,278	21	251	89	13,116
Pennsylvania	164	3,504	2,519	47	1,193	22	165	95	4,665
Rhode Island	8	(D)	(D)	2	(D)	-	-	6	28
South Carolina	12	(D)	(D)	5	(D)	1	(D)	6	69
South Dakota	21	1,891	2,108	16	3,727	-	-	5	272
Tennessee	25	112	809	1	(D)	10	(D)	14	(D)
Texas	181	4,879	25,898	16	5,847	36	1,386	129	23,544
Utah	24	3,532	170	10	3,343	-	-	14	359
Vermont	65	2,905	1,026	23	833	5	44	37	3,054
Virginia	71	1,013	1,464	15	1,076	12	91	44	1,310
Washington	193	8,223	1,831	93	6,377	11	570	89	3,107
West Virginia	21	478	737	-	-	6	49	15	1,166
Wisconsin	297	11,575	2,801	156	5,670	24	424	117	8,282
Wyoming	18	3,365	14,640	10	11,856	-	-	8	6,149

¹ Data include farms that reported transition acreage but are not certified organic or exempt organic farms.

Table D. Relative Standard Error for Selected Organic Data: 2008

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Organic land											
	Total				Cropland				Pastureland and rangeland			
	Farms		Acres		Farms		Acres		Farms		Acres	
	Number	Relative standard error	Number	Relative standard error	Number	Relative standard error	Number	Relative standard error	Number	Relative standard error	Number	Relative standard error
United States	14,307	0.8	4,077,337	2.0	13,625	0.8	2,229,558	0.8	5,362	0.7	1,847,779	4.3
Alabama	31	7.1	1,082	8.1	29	6.9	693	10.5	15	7.8	389	6.9
Alaska	16	7.5	441	9.3	16	7.5	441	9.3	-	-	-	-
Arizona	60	4.1	20,998	4.0	57	4.0	20,685	4.0	11	10.4	313	9.2
Arkansas	34	5.9	6,307	6.6	31	6.2	4,063	6.6	18	7.7	2,244	7.2
California	2,691	3.1	470,903	3.7	2,600	3.1	275,827	4.5	319	3.7	195,076	5.6
Colorado	220	3.5	153,981	4.7	204	3.4	123,455	5.1	73	4.8	30,526	9.0
Connecticut	82	4.1	1,122	11.8	79	4.1	644	10.3	22	9.7	478	23.5
Delaware	8	6.0	259	2.8	7	6.0	102	2.8	3	3.3	157	2.8
Florida	172	5.2	8,079	7.9	164	5.2	6,956	8.6	20	10.2	1,123	18.4
Georgia	100	5.3	4,535	18.5	97	5.2	3,767	22.0	30	8.5	768	12.9
Hawaii	330	5.2	10,554	4.3	323	5.2	2,417	4.0	46	6.6	8,137	5.2
Idaho	254	2.4	148,425	3.3	251	2.4	111,091	3.6	79	3.5	37,334	7.5
Illinois	226	3.3	30,662	2.5	216	3.2	25,623	2.8	81	4.3	5,039	3.8
Indiana	142	3.2	13,019	2.6	131	3.2	9,137	2.6	81	3.0	3,882	3.3
Iowa	513	1.3	94,568	2.5	502	1.4	77,491	2.5	229	2.5	17,077	5.3
Kansas	108	4.2	53,140	4.4	101	4.2	44,821	4.4	43	5.4	8,319	7.1
Kentucky	101	4.8	6,768	3.5	92	4.7	3,390	3.8	46	5.3	3,378	4.0
Louisiana	23	7.6	2,151	5.1	19	8.4	1,232	7.0	11	10.4	919	6.4
Maine	376	4.3	28,265	3.4	366	4.3	20,488	3.5	153	4.2	7,777	4.7
Maryland	128	4.4	9,152	5.1	120	4.6	5,883	5.7	47	6.7	3,269	6.8
Massachusetts ...	169	5.3	4,403	5.4	164	5.2	2,925	5.4	60	7.0	1,478	7.0
Michigan	446	3.6	68,167	2.2	430	3.5	61,478	2.1	158	4.3	6,689	6.6
Minnesota	543	2.7	122,428	2.5	526	2.6	106,066	2.6	268	3.1	16,362	6.1
Mississippi	31	11.6	1,348	14.8	27	12.3	516	9.6	16	14.1	832	18.5
Missouri	191	4.7	30,195	3.5	180	4.7	21,611	3.8	78	5.4	8,584	4.9
Montana	173	3.2	284,482	3.6	164	3.1	167,800	2.6	71	4.1	116,682	7.0
Nebraska	162	2.2	146,188	12.0	156	2.2	76,322	3.6	68	4.0	69,866	25.1
Nevada	26	4.8	4,153	3.5	22	4.6	3,967	3.5	7	8.8	186	19.3
New Hampshire .	99	4.9	8,447	2.9	93	5.2	6,868	2.5	42	6.8	1,579	7.0
New Jersey	122	2.9	3,329	8.7	117	3.0	2,725	8.6	37	6.3	604	11.6
New Mexico	199	4.9	117,676	9.7	185	5.0	31,562	5.0	55	6.8	86,114	13.0
New York	819	2.8	168,428	1.7	791	2.8	128,884	1.9	475	2.4	39,544	1.8
North Carolina ...	219	4.7	9,618	4.8	200	4.7	7,388	5.8	63	6.2	2,230	5.5
North Dakota	127	2.2	152,728	3.1	126	2.2	108,536	2.7	61	4.1	44,192	6.0
Ohio	535	3.2	61,996	2.1	501	3.1	50,220	2.2	284	3.0	11,776	2.8
Oklahoma	88	5.5	29,591	4.0	75	5.5	19,057	5.2	42	7.7	10,534	3.3
Oregon	657	3.7	105,605	1.4	597	3.6	70,946	1.5	238	3.8	34,659	2.0
Pennsylvania	556	2.6	53,624	2.1	521	2.6	39,526	2.3	336	2.6	14,098	2.5
Rhode Island	28	6.1	205	5.2	28	6.1	174	4.1	7	13.4	31	16.8
South Carolina ...	34	7.4	1,025	6.1	33	7.4	712	3.7	15	11.4	313	12.9
South Dakota	103	2.5	132,047	8.7	99	2.5	61,063	2.9	62	3.3	70,984	16.0
Tennessee	83	3.1	2,000	4.3	68	3.6	836	5.0	37	5.0	1,164	5.4
Texas	355	4.3	314,279	16.2	297	4.1	71,543	2.7	139	6.0	242,736	21.0
Utah	93	4.3	144,228	2.9	85	4.1	111,663	3.3	40	6.0	32,565	3.2
Vermont	463	2.7	77,509	2.5	446	2.7	56,462	2.8	286	2.9	21,047	3.0
Virginia	169	5.4	12,308	5.7	158	5.4	7,144	5.7	67	6.5	5,164	6.7
Washington	886	3.2	82,216	1.6	858	3.1	65,937	1.6	228	4.3	16,279	3.1
West Virginia	53	6.8	1,953	5.9	49	6.8	1,476	5.8	23	8.3	477	8.6
Wisconsin	1,202	3.0	195,603	1.5	1,167	2.9	148,150	1.5	751	2.4	47,453	1.8
Wyoming	61	3.9	677,147	8.2	57	3.7	59,795	4.0	21	6.7	617,352	8.9

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Table D. **Relative Standard Error for Selected Organic Data: 2008** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Organic sales											
	Total				Crops				Livestock and poultry			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error	\$1,000	Relative standard error	Number	Relative standard error	\$1,000	Relative standard error	Number	Relative standard error	\$1,000	Relative standard error
United States	13,776	0.8	3,164,995	1.0	11,891	0.8	1,942,317	1.3	3,353	0.7	316,470	4.6
Alabama	26	7.9	(D)	(D)	23	7.8	40	9.7	5	7.4	(D)	(D)
Alaska	16	7.5	472	8.7	15	7.5	(D)	(D)	1	54.8	(D)	(D)
Arizona	59	4.2	42,077	2.4	50	3.8	(D)	(D)	8	10.8	273	3.1
Arkansas	35	6.0	12,848	23.0	20	8.2	1,406	8.1	21	7.4	411	9.3
California	2,580	3.0	1,148,650	2.3	2,438	3.1	839,033	2.6	191	3.3	145,749	7.2
Colorado	206	3.3	70,231	4.7	188	3.4	37,953	5.0	23	7.2	(D)	(D)
Connecticut	80	4.1	5,163	11.9	75	4.1	5,138	12.0	7	17.4	11	14.8
Delaware	8	6.0	(D)	(D)	7	6.0	(D)	(D)	1	8.0	(D)	(D)
Florida	168	5.1	43,400	14.0	160	5.2	(D)	(D)	13	11.2	(D)	(D)
Georgia	96	5.3	5,846	5.5	91	5.3	5,822	5.5	11	13.6	17	16.4
Hawaii	314	5.1	10,078	4.2	300	5.2	9,482	4.4	25	6.8	(D)	(D)
Idaho	250	2.4	71,250	2.8	229	2.5	33,627	2.6	49	4.7	5,180	9.6
Illinois	215	3.2	23,571	3.3	207	3.2	17,868	3.4	37	5.7	1,088	17.4
Indiana	134	3.1	13,877	3.0	102	3.7	3,960	3.0	65	2.9	650	3.5
Iowa	494	1.4	71,545	3.8	439	1.6	36,306	2.8	150	3.2	14,679	12.4
Kansas	91	4.3	14,466	15.5	86	4.2	10,585	5.6	13	10.0	(D)	(D)
Kentucky	101	4.7	2,445	5.5	86	4.8	1,200	7.9	24	5.4	479	5.1
Louisiana	16	8.8	2,081	1.3	13	10.7	142	14.4	3	10.2	(D)	(D)
Maine	368	4.2	30,675	2.6	345	4.3	15,626	3.9	97	4.1	1,171	7.4
Maryland	114	4.4	10,403	12.1	105	4.5	4,934	6.3	26	7.9	400	19.7
Massachusetts	170	5.2	15,082	5.0	162	5.2	10,332	4.6	28	8.5	407	11.0
Michigan	442	3.6	71,111	6.5	397	3.4	40,385	2.4	112	4.0	5,261	7.7
Minnesota	539	2.6	69,053	1.9	454	2.8	41,180	2.7	166	3.4	3,113	5.1
Mississippi	25	13.3	(D)	(D)	21	14.6	118	10.5	8	18.2	(D)	(D)
Missouri	185	4.7	9,324	5.4	163	4.7	6,214	7.4	43	5.4	1,207	6.8
Montana	165	3.1	25,383	4.2	158	3.0	24,005	4.4	26	4.4	1,223	7.8
Nebraska	157	2.2	48,636	19.0	151	2.3	26,492	4.2	29	7.0	21,549	43.5
Nevada	25	4.7	2,801	1.5	22	4.6	2,749	1.5	5	8.3	(D)	(D)
New Hampshire	99	5.0	10,721	4.5	92	5.3	2,987	3.3	23	9.4	1,115	17.2
New Jersey	118	3.0	2,602	5.0	111	3.2	2,389	5.1	13	8.9	188	8.7
New Mexico	183	4.9	33,465	5.0	168	5.1	8,203	3.6	27	6.5	(D)	(D)
New York	788	2.7	105,133	1.3	599	3.2	40,401	2.2	298	2.0	4,130	4.4
North Carolina	244	4.3	52,796	4.8	187	4.8	13,370	7.3	68	4.6	28,362	6.3
North Dakota	118	2.1	19,671	3.1	116	2.1	18,564	3.1	20	7.6	1,107	9.1
Ohio	507	3.1	42,765	1.8	398	3.5	17,742	2.7	169	2.8	1,804	3.7
Oklahoma	71	5.5	5,604	6.0	63	5.7	3,004	2.7	16	9.7	1,193	27.3
Oregon	637	3.6	155,613	1.6	547	3.7	81,641	1.1	123	3.4	4,911	5.3
Pennsylvania	551	2.4	212,739	3.7	388	3.1	126,558	5.3	291	2.0	20,790	9.3
Rhode Island	26	6.0	1,117	4.6	26	6.0	1,117	4.6	-	-	-	-
South Carolina	32	7.4	1,714	1.7	32	7.4	1,704	1.6	4	33.0	6	18.6
South Dakota	97	2.6	15,148	6.4	85	3.0	11,486	4.0	29	5.1	(D)	(D)
Tennessee	77	3.3	1,226	5.3	62	3.7	1,105	5.8	21	6.8	114	7.4
Texas	333	4.2	149,328	3.3	257	3.8	43,276	3.9	91	6.1	14,983	8.8
Utah	88	4.2	12,757	2.1	73	4.1	11,136	2.3	20	7.9	(D)	(D)
Vermont	451	2.6	72,857	2.2	390	2.8	25,006	3.3	202	2.8	3,814	3.8
Virginia	156	5.4	19,191	4.8	138	5.8	5,367	7.1	36	6.9	1,068	13.2
Washington	862	3.1	281,970	2.2	803	3.2	230,008	2.6	103	4.0	4,449	3.6
West Virginia	46	7.1	409	5.6	42	6.9	385	5.7	13	9.1	20	8.7
Wisconsin	1,152	2.9	132,764	1.0	751	3.6	30,128	2.0	578	1.9	9,782	2.0
Wyoming	61	3.9	13,523	3.2	56	3.8	11,153	3.1	21	6.6	(D)	(D)