

New England Data

Specialty Products
Part 6

AC-02-SP-6

2002 CENSUS OF AGRICULTURE

Issued June 2005

U.S. Department of Agriculture
Mike Johanns, Secretary
Dr. Joseph J. Jen, Under Secretary for
Research, Education, and Economics
NATIONAL AGRICULTURAL STATISTICS SERVICE
R. Ronald Bosecker, Administrator

Acknowledgments

This report was prepared under the direction of the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). Many people participated in the various activities of the 2002 Census of Agriculture and deserve recognition for their contributions to the program.

NASS pays special tribute to the two million farm and ranch operators who furnished the information requested. Their cooperation and support made it possible to collect and publish the data in this report. Other USDA agencies and representatives from State departments of agriculture offered significant advice during the planning, data collection, and processing phases of the census. They provided invaluable assistance at the local level to farmers and ranchers completing census report forms. Also, NASS acknowledges our partnership with the U.S. Department of Commerce, National Processing Center in Jeffersonville, IN and the services they provided to collect and capture data.

Members of the Advisory Committee on Agriculture Statistics and representatives of both public and private organizations made significant recommendations that helped establish data content. NASS appreciates their strong and consistent support for census programs.

NASS expresses gratitude to the press, farm magazines, radio and television stations, farm organizations, State departments of agriculture, and enumerators from the National Association of State Departments of Agriculture for their help in publicizing the census and encouraging cooperation of farmers and ranchers.

If you would like to learn more about the statistics available from NASS or have questions concerning this report, visit our Web site at www.usda.gov/nass/, send e-mail to nass@nass.usda.gov, or call the Agricultural Statistics Hotline at 800.727.9540.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, S.W., Washington, DC 20250-9410, or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Contents

	Page
Introduction	VII
Data Changes and Comparability	X
New England States Map	1

FIGURES

1. Farms by Size: 2002	2
2. Farms by Type of Organization: 2002	2
3. Percent of Farms and of Market Value of Agricultural Products Sold: 2002	3
4. Land Use: 2002	3
5. Cropland Use: 2002	3
6. Value of Crops Sold: 2002	4
7. Value of Livestock, Poultry, and Their Products Sold: 2002	4
8. Farm Production Expenses: 2002	5
9. Diversity of Operators: 2002	5

TABLES

CHAPTER 1. New England Data

1. Historical Highlights: 2002 and Earlier Census Years	6
2. Market Value of Agricultural Products Sold Including Landlord's Share, Direct, and Organic: 2002 and 1997	8
3. Economic Class of Farms by Market Value of Agricultural Products Sold and Government Payments: 2002	9
4. Farm Production Expenses: 2002 and 1997	10
5. Net Cash Farm Income of the Operations and Operators: 2002	13
6. Government Payments and Commodity Credit Corporation Loans: 2002 and 1997	14
7. Income From Farm-Related Sources: 2002 and 1997	14
8. Land: 2002 and 1997	15
9. Land in Farms, Harvested Cropland, and Irrigated Land, by Size of Farm: 2002 and 1997 ..	16
10. Irrigation: 2002 and 1997	16
11. Selected Characteristics of Irrigated and Nonirrigated Farms: 2002 and 1997	17
12. Cattle and Calves—Inventory: 2002 and 1997	18
13. Cattle and Calves—Sales: 2002 and 1997	18
14. Cattle and Calves Herd Size by Inventory and Sales: 2002	19
15. Cow Herd Size by Inventory and Sales: 2002	19
16. Beef Cow Herd Size by Inventory and Sales: 2002	19
17. Milk Cow Herd Size by Inventory and Sales: 2002	20
18. Cattle and Calves—Number Sold Per Farm by Sales: 2002	20

19. Hogs and Pigs—Inventory: 2002 and 1997	20
20. Hogs and Pigs—Sales: 2002 and 1997	21
21. Hogs and Pigs Herd Size by Inventory and Sales: 2002	21
22. Hogs and Pigs—Inventory and Sales by Number Sold Per Farm: 2002	21
23. Hogs and Pigs—Inventory by Type of Producer: 2002	22
24. Hogs and Pigs—Number Sold by Type of Producer: 2002	22
25. Hogs and Pigs—Inventory by Type of Operation: 2002	22
26. Hogs and Pigs—Number Sold by Type of Operation: 2002	22
27. Poultry—Inventory and Number Sold: 2002 and 1997	23
28. Layers and Pullets—Number Sold: 2002 and 1997	23
29. Sheep and Lambs—Inventory, Wool Production, and Number Sold: 2002 and 1997	23
30. Sheep and Lambs—Inventory, Wool Production, and Number Sold by Size of Flock: 2002 ..	24
31. Ewes 1 Year Old or Older—Inventory, Wool Production, and Number Sold by Size of Ewe Flock: 2002	24
32. Other Animals and Animal Products—Inventory and Number Sold: 2002 and 1997	24
33. Specified Crops Harvested—Yield per Acre Irrigated and Nonirrigated: 2002	25
34. Specified Crops by Acres Harvested: 2002 and 1997	26
35. Vegetables and Melons Harvested for Sale: 2002 and 1997	28
36. Specified Fruits and Nuts by Acres: 2002 and 1997	29
37. Berries Harvested for Sale: 2002 and 1997	29
38. Nursery, Greenhouse, Floriculture, Mushrooms, Sod, and Vegetable Seeds Grown for Sale: 2002 and 1997	30
39. Woodland Crops: 2002 and 1997	30
40. Grain Storage Capacity: 2002 and 1997	31
41. Farms by Concentration of Market Value of Agricultural Products Sold: 2002	32
42. Commodities Raised and Delivered Under Production Contracts: 2002 and 1997	33
43. Value of Land and Buildings: 2002 and 1997	33
44. Value of Machinery and Equipment on Operation: 2002 and 1997	33
45. Selected Machinery and Equipment on Operation: 2002 and 1997	34
46. Fertilizers and Chemicals: 2002 and 1997	34
47. Selected Farm Characteristics by Race of Principal Operator: 2002	35
48. Women Principal Operators—Selected Farm Characteristics: 2002 and 1997	37
49. Spanish, Hispanic, or Latino Origin Principal Operators—Selected Farm Characteristics: 2002 and 1997	38
50. Selected Characteristics of Farms by North American Industry Classification System: 2002	39
51. Institutional, Research, Experimental, and American Indian Reservation Farms: 2002 and 1997	40
52. Selected Operator Characteristics by Race: 2002	41
53. Women Operators—Selected Operator Characteristics: 2002 and 1997	43
54. Spanish, Hispanic, or Latino Origin Operators—Selected Operator Characteristics: 2002 and 1997	43
55. Summary by Size of Farm: 2002	44
56. Summary by Market Value of Agricultural Products Sold: 2002	68
57. Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2002	92
58. Summary by Type of Organization: 2002	116
59. Summary by North American Industry Classification System: 2002	140
60. Summary by Age and Primary Occupation of Principal Operator: 2002	164
61. Summary by Tenure of Principal Operator and by Operators on Farm: 2002	188

CHAPTER 2. State Data

1. State Summary Highlights: 2002	200
2. Market Value of Agricultural Products Sold Including Direct and Organic: 2002 and 1997	202
3. Farm Production Expenses: 2002 and 1997	204
4. Net Cash Farm Income of the Operations and Operators: 2002	205
5. Government Payments and Commodity Credit Corporation Loans: 2002 and 1997	205
6. Income From Farm-Related Sources: 2002 and 1997	206
7. Hired Farm Labor—Workers and Payroll: 2002	207
8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2002 and 1997	208
9. Harvested Cropland by Size of Farm and Acres Harvested: 2002 and 1997	210
10. Irrigation: 2002 and 1997	211
11. Cattle and Calves—Inventory and Sales: 2002 and 1997	212
12. Hogs and Pigs—Inventory and Sales: 2002 and 1997	215
13. Poultry—Inventory and Sales: 2002 and 1997	216
14. Miscellaneous Poultry—Inventory and Number Sold: 2002 and 1997	217
15. Horses and Ponies—Inventory and Number Sold: 2002 and 1997	218
16. Sheep and Lambs—Inventory, Wool Production, and Number Sold: 2002 and 1997	219
17. Milk Goats—Inventory and Number Sold: 2002 and 1997	220
18. Angora Goats—Inventory, Number Sold, and Mohair Production: 2002 and 1997	220
19. Colonies of Bees and Honey—Inventory and Number Sold: 2002 and 1997	220
20. Mink and Their Pelts—Inventory and Number Sold: 2002 and 1997	220
21. Aquaculture Sold: 2002 and 1997	221
22. Miscellaneous Livestock and Animal Specialties—Inventory and Number Sold: 2002 and 1997	223
23. Selected Crops Harvested: 2002	225
24. Grains—Corn, Sorghum, Wheat, and Other Field Crops: 2002 and 1997	227
25. Cotton, Tobacco, Soybeans, Dry Beans and Peas, Potatoes, Sugar Crops, and Peanuts: 2002 and 1997	229
26. Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2002 and 1997	230
27. Other Field and Forage Crops: 2002 and 1997	232
28. Land Used for Vegetables and Vegetables Harvested for Sale: 2002 and 1997	233
29. Vegetables and Melons Harvested for Sale: 2002 and 1997	234
30. Land in Orchards: 2002 and 1997	241
31. Fruits and Nuts: 2002 and 1997	242
32. Berries—Harvested for Sale and Irrigated: 2002 and 1997	244
33. Berries Harvested for Sale: 2002 and 1997	245
34. Nursery, Greenhouse, Floriculture, Mushrooms, Sod, and Vegetable Seeds Grown for Sale: 2002 and 1997	247
35. Woodland Crops: 2002 and 1997	249
36. Grain Storage Capacity: 2002	250
37. Commodities Raised and Delivered Under Production Contracts: 2002	250
38. Machinery and Equipment on Operation: 2002 and 1997	251
39. Fertilizers and Chemicals Applied: 2002 and 1997	252
40. Tenure, Number of Operators, Type of Organization, and Principal Operator Characteristics: 2002 and 1997	253
41. White Operators: 2002	255
42. Black or African American Operators: 2002	255
43. American Indian or Alaska Native Operators: 2002	255
44. Native Hawaiian or Other Pacific Islander Operators: 2002	255

45. Asian Operators: 2002	256
46. Operators Reporting More Than One Race: 2002	256
47. Women Principal Operators–Selected Farm Characteristics: 2002	256
48. Women Operators: 2002	256
49. Women Principal Operators–Tenure: 2002	257
50. Spanish, Hispanic, or Latino Origin Operators: 2002	257
51. Farms by North American Industry Classification System: 2002	257

APPENDICES

A. General Explanation	A-1
B. American Indian and Alaska Native Farm Operators	B-1
C. Statistical Methodology	C-1
D. Report Forms and Instruction Sheets	D-1

Index	Index 1
Publication Program	Inside back cover

Introduction

OVERVIEW

The 2002 Census of Agriculture was taken to obtain agricultural statistics for each county or county equivalent, state, and the Nation. The organization, content, and format of this publication are similar to previous Volume 1, Geographic Area Series publications. Program and policy decisions created several changes to the data published for 2002. These changes affected data comparability for some items. A new section, Data Changes and Comparability, on page X provides detail about the more noteworthy changes.

HISTORY

For 156 years (1840 - 1996), the U.S. Department of Commerce, Bureau of the Census was responsible for collecting census of agriculture data. The 1997 Appropriations Act contained a provision that transferred the responsibility for the census of agriculture from the Bureau of the Census to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). The 2002 Census of Agriculture is the 26th Federal census of agriculture and the second conducted by NASS.

The first agriculture census was taken in 1840 as part of the sixth decennial census of population. The agriculture census continued to be taken as part of the decennial census through 1950. A separate mid-decade census of agriculture was conducted in 1925, 1935, and 1945. From 1954 to 1974, the census was taken for the years ending in 4 and 9. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year so that it coincided with other economic censuses. This adjustment in timing established the agriculture census on a 5-year cycle collecting data for years ending in 2 and 7.

USES OF CENSUS DATA

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

Agriculture census data are routinely used by farm organizations, businesses, State departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, and colleges and universities. Agriculture census data are used to:

- Evaluate, change, promote, and formulate farm and rural policies and programs that help agricultural producers;
- Study historical trends, assess current conditions, and plan for the future;
- Formulate market strategies, provide more efficient production and distribution systems, and locate facilities for agricultural communities;
- Make energy projections and forecast needs for agricultural producers and their communities;
- Develop new and improved methods to increase agricultural production and profitability;
- Allocate local and national funds for farm programs, e.g. extension service projects, agricultural research, soil conservation programs, and land-grant colleges and universities;
- Plan for operations during drought and emergency outbreaks of diseases or infestations of pests.

In addition agricultural news media and agricultural associations use census data as background material for stories and articles on U.S. agriculture and the foods we produce.

AUTHORITY

The 2002 Census of Agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture in 1998 and in every fifth year after, covering the prior year. The census of agriculture includes each state, Puerto Rico, Guam, the U.S. Virgin Islands, and the Commonwealth of Northern Mariana Islands.

FARM DEFINITION

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

REFERENCE PERIOD

Reference periods for the 2002 Census of Agriculture were similar to those used in the 1997 Census of Agriculture. Reference periods used were:

- Crop production is measured for the calendar year, except for a few crops such as avocados, citrus, and olives for which the production year overlaps the calendar year. See Appendix A, General Explanation for details.
- Livestock, poultry, and machinery and equipment inventories, market value of land and buildings, and grain storage capacity are measured as of December 31, of the census year.
- Crop and livestock sales, farm expenses, income from federal farm programs, irrigation, Commodity Credit Corporation loans, Conservation Reserve and Wetlands Reserve

Program participation, direct sales income, chemical and fertilizer use, farm-related income, and hired farm labor data are measured for the calendar year

TABLES AND APPENDICES

Chapter 1. Table 1 shows New England States-level historical data through the 1974 census and tables 2 through 54 show detailed New England States-level data usually accompanied by historical data from the 1997 census. Tables 55 through 61 show detailed New England States-level data cross-tabulated by several categories for the 2002 census only.

Chapter 2. State-level data are presented in 51 tables in 2 different table formats - state and state summary. Most tables include 1997 historical data. State tables include general data for all states within the New England States. The state names are listed in alphabetical order in the column headings. State summary tables provide comprehensive data for all states reporting a data item. This is a change from the reporting practices of past censuses when data for states with a limited number of farms reporting an item were combined and reported as "all other states."

Appendix A. Provides information about data collection and data processing activities. It also includes definitions of specific terms and phrases used in this publication, including items in the publication tables that carry the note "see text."

Appendix B. Describes supplemental activities conducted to improve coverage of American Indian and Alaska Native farm operators. Table A shows the total number of American Indian or Alaska Native farm operators both on and off reservations by state. Table B compares selected farm characteristics for farms operated by American Indian and Alaska Native farm operators and all farms. Table C provides selected operator characteristics of American Indian and Alaska Native farm operators.

Appendix C. Discusses the statistical methodology used in conducting and evaluating the census. Table A summarizes nonresponse and coverage adjustment for selected items for the New England States. Table B provides reliability estimates of New England States totals for selected items. Table C summarizes

nonresponse and coverage adjustment for selected items at the state level.

Appendix D. Provides facsimiles of the report forms and instruction sheets used to collect data.

RESPONDENT CONFIDENTIALITY

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

SPECIAL EFFORTS DIRECTED AT MINORITIES

NASS implemented several activities to improve coverage of minority farm operators. These activities included, but were not limited to:

- Obtaining mail lists from organizations likely to contain names and addresses of minority farm operators; and
- Conducting pre-census promotion activities that targeted women, American Indian and Alaska Native, Black and African American, and Spanish, Hispanic, or Latino origin farm operators.

SPECIAL STUDIES AND CUSTOM TABULATIONS

Special studies such as the 2003 Farm and Ranch Irrigation Survey and 2005 Census of Aquaculture are part of the census program and provide supplemental information to the 2002 Census of Agriculture in the respective subject area. Results are published in print and on the internet.

Custom-designed tabulations may be developed when

data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. The census Volume 1 on CD-ROM is an alternative data source that should be investigated before requesting a custom tabulation.

All special studies and custom tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations can be submitted via the internet from the NASS home page, by mail, or by e-mail to:

Associate Administrator
National Agricultural Statistics Service
1400 Independence Avenue, S.W.
Washington, D.C. 20250
or
HQ AA@nass.usda.gov

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual farms.
- (H) Standard error or relative standard error of estimate is greater than or equal to 99.95 percent.
- (IC) Independent city
- (L) Standard error or relative standard error of estimate is less than .05 percent.
- (NA) Not available or not published. Some historic data are not published because they are not comparable, electronic files are unavailable, or re-summarizing could compromise respondent confidentiality.
- (X) Not applicable
- (Z) Less than half of the unit shown
- cwt Hundredweight
- sq ft Square feet

Data Changes and Comparability

Several changes were made to the 2002 census program. Report form content and wording were improved, several publication tables were redesigned, and tabulated data were adjusted for coverage. In some instances, comparability with previous censuses was effected.

REPORT FORM CHANGES

Report form changes involved eliminating items that were no longer necessary or duplicated data collected on surveys, and adding new items that were included to cover emerging agricultural products and practices. Several production-related items were deleted, including production of fruits, nuts, and berries; number of bearing and nonbearing age trees or vines; litters of hogs farrowed; number of hogs sold for slaughter; number of sheep and lambs shorn; and pounds of wool shorn. Deleted sales items were gross value of sales for cattle fattened on grain or concentrates, feeder pigs sold, and value of individual nursery items and individual grain and bean commodities. The farm-related injuries and deaths section was also eliminated.

New economic data were collected to provide a more complete picture of farm income and expenses. Questions relating to net cash income of the operator and the operation, and landlord share of income and expenses were added. Information about production contracts, grain storage, and organic farming were also collected.

For the first time, information was collected for up to three operators on each farm. For those operators who would self-identify as being of multiple races (i.e., selected more than one race code on the report form), a “more than one race” category was added to the

publication to better represent those individuals. Questions relating to computer use and Internet access on the farm were included. Principal operators were asked to report whether they worked as the hired manager on the operation, the number of households receiving income, and percent of income from farming.

Other changes involved splitting items from the 1997 census into multiple parts to provide more detailed data, and in some cases items from the 1997 census were combined which helped reduce respondent burden. Several questions were reworded to improve respondent comprehension.

PUBLICATION TABLE CHANGES

In previous censuses, States and counties with a minimal number of operations reporting an item were collapsed and published in the “all other states” and “all other counties” categories. For 2002, States and counties with at least one operation reported were published. This change provides more detailed information at the state/county level.

COMPARABILITY

The 2002 Census of Agriculture introduced new methodology to account for all farms in the United States. Incompleteness in the census mail list was measured by matching list names against all qualifying operations found through canvassing sample land areas throughout the Nation. All published 2002 census items (except in Hawaii and Alaska) were reweighted for undercoverage. To provide comparable data, comparable 1997 data published in 2002 were also reweighted for undercoverage. An explanation of the methodology is included in Appendix C.