

1992

Census of Agriculture



AC92-A-3

Volume 1
GEOGRAPHIC AREA SERIES

Part 3

Arizona

State and County Data



U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

Acknowledgments

This report was prepared under the direction of the Agriculture Division. Many divisions contributed to the preparation: Economic Statistical Methods and Programming, Data Preparation, Administrative and Publications Services, Computer Services, Systems Support, Field, and Economic Planning and Coordination.

Members of the Census Advisory Committee on Agriculture Statistics and representatives of both public and private organizations made significant recommendations which helped establish data content.

Members of various agencies of the U.S. Department of Agriculture provided valuable advice in the planning, publicizing, and processing phases of the census, and in helping farmers and ranchers complete the report forms.

The press, farm magazines, radio and television stations, and farm organizations were most helpful in publicizing the census and encouraging cooperation of farm and ranch operators.

Special tribute is paid to the millions of farm and ranch operators who furnished the information requested. Only through their cooperation was it possible to collect and publish the data in this report.

If you have any questions concerning the statistics in this report, call:

301-763-8555 Division Chief

800-523-3215 General Information

301-763-8567 Crops Branch

301-763-8569 Livestock Branch

301-763-8514 Farm Economics Branch

301-763-8571 Statistical Methodology



1992

Census of Agriculture

AC92-A-3

Volume 1
GEOGRAPHIC AREA SERIES

Part 3

Arizona

State and County Data

+



+



U.S. Department of Commerce
Ronald H. Brown, Secretary
David J. Barram, Deputy Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director



**Economics and Statistics
Administration**
Everett M. Ehrlich, Under Secretary
for Economic Affairs



BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director

Paula J. Schneider, Principal Associate
Director for Programs
Charles A. Waite, Associate Director for
Economic Programs
Thomas L. Mesenbourg, Assistant Director for
Economic Programs

ECONOMIC PLANNING AND COORDINATION DIVISION
Carole A. Ambler, Chief

AGRICULTURE DIVISION
Ewen M. Wilson, Chief

Contents

	Page
Introduction	VII
A. Highlights of the State's Agriculture: 1992 and 1987	1
B. Highlights of the State's Agriculture: 1992 and 1987 (Metric Measurement)	2
State Map	3

FIGURES

1. Profile of the State's Agriculture: 1992	4
2. Percent of Farms and of Market Value of Agricultural Products Sold: 1992	5
3. Farms by Market Value of Agricultural Products Sold: 1964 to 1992	5
4. Land Use: 1992	6
5. Selected Crops Harvested: 1992	6
6. Value of Livestock and Poultry Sold: 1992	7
7. Production Expenses: 1992	7

TABLES

CHAPTER 1. State Data

1. Historical Highlights: 1992 and Earlier Census Years	8
2. Market Value of Agricultural Products Sold and Direct Sales: 1992, 1987, and 1982	10
3. Farm Production Expenses: 1992, 1987, and 1982	11
4. Net Cash Return From Agricultural Sales: 1992 and 1987	14
5. Government Payments and Other Farm-Related Income: 1992 and 1987	14
6. Commodity Credit Corporation Loans: 1992 and 1987	16
7. Land Use and Acres Diverted: 1992, 1987, and 1982	17
8. Land in Farms, Harvested Cropland, and Irrigated Land, by Size of Farm: 1992 and 1987	18
9. Irrigation: 1992, 1987, and 1982	18
10. Selected Characteristics of Irrigated and Nonirrigated Farms: 1992 and 1987	19
11. Value of Land and Buildings: 1992, 1987, and 1982	20
12. Value of Machinery and Equipment on Place: 1992 and 1987	20
13. Selected Machinery and Equipment on Place: 1992 and 1987	20
14. Petroleum Products Expenses: 1992, 1987, and 1982	21
15. Agricultural Chemicals Used, Including Fertilizer: 1992, 1987, and 1982	21
16. Tenure and Characteristics of Operator and Type of Organization for All Farms and Farms Operated by Black and Other Races: 1992, 1987, and 1982	22
17. Selected Characteristics of Farms by Specified Racial Groups, Sex of Operators, and Persons of Spanish Origin: 1992 and 1987	23
18. Selected Characteristics of Farms by Standard Industrial Classification: 1992	25
19. Selected Characteristics of Abnormal Farms: 1992 and 1987	26
20. Poultry—Inventory and Sales: 1992 and 1987	26
21. Hens and Pullets—Number Sold: 1992 and 1987	27
22. Poultry—Inventory and Sales by Farms With Chickens 3 Months Old or Older: 1992	27
23. Turkeys—Number Sold: 1992	28
24. Cattle and Calves—Inventory: 1992 and 1987	28
25. Cattle and Calves—Sales: 1992 and 1987	29
26. Cattle and Calves Herd Size by Inventory and Sales: 1992	29
27. Cow Herd Size by Inventory and Sales: 1992	30
28. Beef Cow Herd Size by Inventory and Sales: 1992	30
29. Milk Cow Herd Size by Inventory and Sales: 1992	31
30. Cattle and Calves—Number Sold Per Farm by Sales: 1992	31
31. Hogs and Pigs—Inventory: 1992 and 1987	32
32. Hogs and Pigs—Sales: 1992 and 1987	32

	Page
33. Hogs and Pigs —Litters Farrowed: 1992 and 1987	33
34. Hogs and Pigs Herd Size by Inventory and Sales: 1992	33
35. Hogs and Pigs —Inventory and Sales by Number Sold Per Farm: 1992	33
36. Hogs and Pigs —Inventory, Sales, and Litters by Total Litters Farrowed: 1992	34
37. Sheep and Lambs —Inventory, Shorn, and Sales: 1992 and 1987	34
38. Sheep and Lambs —Inventory, Shorn, and Sales by Size of Flock: 1992	34
39. Ewes 1 Year Old or Older —Inventory, Shorn, and Sales by Size of Ewe Flock: 1992	35
40. Other Livestock and Livestock Products —Inventory and Sales: 1992 and 1987 ...	35
41. Specified Crops Harvested —Yield Per Acre Irrigated and Nonirrigated: 1992	36
42. Specified Crops by Acres Harvested: 1992 and 1987	37
43. Specified Fruits and Nuts by Acres: 1992 and 1987	38
44. Nursery and Greenhouse Crops, Mushrooms, and Sod Grown for Sale by Value of Sales: 1992 and 1987	40
45. Farms by Concentration of Market Value of Agricultural Products Sold: 1992	41
46. Summary by Tenure of Operator: 1992	42
47. Summary by Type of Organization: 1992	51
48. Summary by Age and Principal Occupation of Operator: 1992	60
49. Summary by Size of Farm: 1992	78
50. Summary by Market Value of Agricultural Products Sold: 1992	96
51. Summary by Standard Industrial Classification of Farm: 1992	114
52. Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 1992	132

CHAPTER 2. County Data

1. County Summary Highlights: 1992	150
2. Market Value of Agricultural Products Sold and Farms by Standard Industrial Classification: 1992 and 1987	152
3. Farm Production Expenses: 1992 and 1987	156
4. Net Cash Return From Agricultural Sales, Government Payments, Other Farm- Related Income, Direct Sales, and Commodity Credit Corporation Loans: 1992 and 1987	158
5. Hired Farm Labor —Workers and Payroll: 1992	161
6. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 1992 and 1987	163
7. Harvested Cropland by Size of Farm and Acres Harvested: 1992 and 1987	167
8. Irrigation: 1992 and 1987	169
9. Machinery and Equipment on Place: 1992 and 1987	171
10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987	173
11. Tenure and Characteristics of Operator and Type of Organization: 1992 and 1987	174
12. Farms With Sales of \$10,000 or More: 1992 and 1987	178
13. Selected Crops: 1992 and 1987	188
14. Cattle and Calves —Inventory and Sales: 1992 and 1987	190
15. Hogs and Pigs —Inventory, Litters, and Sales: 1992 and 1987	195
16. Poultry—Inventory and Sales: 1992 and 1987	197
17. Sheep and Lambs —Inventory, Shorn, and Sales: 1992 and 1987	199
18. Horses and Ponies —Inventory and Sales: 1992 and 1987	200
19. Milk Goats —Inventory and Sales: 1992 and 1987	200
20. Angora Goats —Inventory and Sales: 1992 and 1987	200
21. Mink and Their Pelts —Inventory and Sales: 1992 and 1987	200
22. Colonies of Bees and Honey —Inventory and Sales: 1992 and 1987	201
23. Fish Sales: 1992 and 1987	201
24. Miscellaneous Poultry —Inventory and Sales: 1992 and 1987	201
25. Miscellaneous Livestock and Animal Specialties —Inventory and Sales: 1992 and 1987	203
26. Grains—Corn, Sorghum, Wheat, and Other Small Grains: 1992 and 1987	204
27. Cotton, Tobacco, Soybeans, Dry Beans and Peas, Potatoes, Sugar Crops, and Peanuts: 1992 and 1987	206
28. Field Seeds, Grass Seeds, Hay, Forage, and Silage: 1992 and 1987	207
29. Vegetables, Sweet Corn, and Melons Harvested for Sale: 1992 and 1987	209
30. Land in Orchards: 1992 and 1987	215
31. Fruits and Nuts: 1992 and 1987	215
32. Berries Harvested for Sale: 1992 and 1987	219

	Page
33. Nursery and Greenhouse Crops, Mushrooms, and Sod Grown for Sale: 1992 and 1987	220
34. Other Crops: 1992 and 1987	222
35. Farms Operated by Black and Other Races by Value of Sales and Occupation: 1992 and 1987	223
36. Farms Operated by Black and Other Races by Tenure: 1992 and 1987	223
37. Operators by Selected Racial Groups: 1992 and 1987	223
38. Operators of Spanish Origin: 1992 and 1987	225
39. Farms With Grazing Permits: 1992 and 1987	225

APPENDIXES

A. General Explanation	A-1
B. Places With All Cropland in the Conservation Reserve Programs or Wetlands Reserve Programs	B-1
C. Statistical Methodology	C-1
D. Report Form and Information Sheet	D-1
E. Units of Weights, Measures, and Metric Conversion Factors	E-1

Index	Index 1
Publication Program	Inside back cover

Introduction

HISTORY

The 1992 Census of Agriculture is the 24th taken by the U.S. Department of Commerce, Bureau of the Census. The first agriculture census was taken in 1840 as part of the sixth decennial census of population. From 1840 to 1950, an agriculture census was taken as part of the decennial census. A separate mid-decade census of agriculture was conducted in 1925, 1935, and 1945. From 1954 to 1974, a census of agriculture 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 the economic censuses covering manufacturing, mining, construction, retail trade, wholesale trade, service industries, and selected transportation activities. This adjustment in timing established the agriculture census on a 5-year cycle collecting data for years ending in 2 and 7.

USES OF THE CENSUS

The census of agriculture is the leading source of statistics about the Nation's agricultural production and the only source of consistent, comparable data at the county, State, and national levels. Census statistics are used by Congress in developing and changing farm programs and for determining the effects of these programs. Many national and State programs are designed or allocated on the basis of census data, such as funds for extension services, research, and soil conservation projects. Private industry uses census statistics to provide a more effective production and distribution system for the agricultural community.

AUTHORITY AND AREA COVERED

The census of agriculture is required by law under Title 13, United States Code, sections 142(a) and 191, which directs that a census be taken in 1979, 1983, and in every fifth year after 1983, covering the prior year. The 1992 census includes each State, Puerto Rico, Guam, and the Virgin Islands of the United States.

FARM DEFINITION

Since 1850, when minimum criteria defining a farm for census purposes first were established, the farm definition has been changed nine times. The current definition, first

used for the 1974 census, 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 farm definition used for the outlying areas varies according to area. The report for each area includes a discussion of its farm definition.

COMPARABILITY OF DATA

Data on acreages and inventories for 1992 and 1987 are generally comparable. Dollar figures shown for expenses and agricultural product sales are expressed in current dollars and have not been adjusted for inflation or deflation. In general, data for censuses since 1974 are not fully comparable with data for 1969 and earlier censuses due to changes in the farm definition.

TABULAR PRESENTATION

State data. Tables 1 through 45 in chapter 1 show detailed State-level data usually accompanied by historical data for one or more past censuses. Tables 46 through 52 provide 1992 State data cross-tabulated by various farm classifications.

County data. Chapter 2 presents selected data items by county. Tables 1 through 17 include general data for all counties. The counties are listed in alphabetical order in the column headings. Tables 18 through 39 include only counties reporting the data item. Counties not having the item, or with a limited number of farms reporting the item, have data combined and presented as "all other counties."

SPECIAL TABULATIONS

Custom designed tabulations can be developed to individual user specifications on a programming cost reimbursable basis. Inquiries about special tabulations should be directed to the Chief, Agriculture Division, Bureau of the Census, Washington, DC 20233.

CENSUS DISCLOSURE RULES

In keeping with the provisions of Title 13, United States Code, no data are published that would disclose the operations of an individual farm. However, the number of farms in a given size category or other classification is not considered a release of confidential information and is provided even though other information is withheld.

INVENTORIES, PRODUCTION, AND SALES DATA

Inventories of livestock, poultry, and machinery and equipment are measured as of December 31 of the census year. Crop and livestock production, sales, and expense data are for the calendar year, except for a few crops (such as citrus) for which the production year overlaps the calendar year.

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.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half of the unit shown.
cwt	Hundredweight.
sq ft	Square feet.

A. Highlights of the State's Agriculture: 1992 and 1987

[Dollar figures are in current dollars with no adjustment for price changes. For meaning of abbreviations and symbols, see introductory text]

Item	All farms		
	1992	1987	Percent change from 1987 to 1992
Farms ----- number	6 773	7 669	-11.7
Land in farms ----- acres	35 037 618	36 287 794	-3.4
Average size of farm ----- acres	5 173	4 732	9.3
Estimated market value of land and buildings ¹ :			
Average per farm ----- dollars	1 621 530	1 317 765	23.1
Average per acre ----- dollars	316	279	13.3
Estimated market value of all machinery and equipment ¹ :			
Average per farm ----- dollars	59 607	55 702	7.0
Farms by size:			
1 to 9 acres -----	1 678	2 158	-22.2
10 to 49 acres -----	1 418	1 510	-6.1
50 to 179 acres -----	1 048	1 133	-7.5
180 to 499 acres -----	741	910	-18.6
500 to 999 acres -----	613	678	-9.6
1,000 to 1,999 acres -----	428	436	-1.8
2,000 acres or more -----	847	844	.4
Total cropland ----- farms	4 356	4 840	-10.0
Harvested cropland ----- acres	1 344 091	1 453 852	-7.5
Irrigated land ----- farms	3 323	3 646	-8.9
----- acres	911 355	865 817	5.3
Irrigated land ----- farms	3 965	4 241	-6.5
----- acres	956 454	913 841	4.7
Market value of agricultural products sold ----- \$1,000	1 515 384	1 628 544	-6.9
Average per farm ----- dollars	223 739	212 354	5.4
Crops, including nursery and greenhouse crops ----- \$1,000	899 242	896 681	.3
Livestock, poultry, and their products ----- \$1,000	616 141	731 863	-15.8
Farms by value of sales:			
Less than \$2,500 -----	2 241	2 494	-10.1
\$2,500 to \$4,999 -----	695	820	-15.2
\$5,000 to \$9,999 -----	648	775	-16.4
\$10,000 to \$24,999 -----	779	757	2.9
\$25,000 to \$49,999 -----	485	583	-16.8
\$50,000 to \$99,999 -----	462	533	-13.3
\$100,000 to \$249,999 -----	554	681	-18.6
\$250,000 to \$499,999 -----	353	471	-25.1
\$500,000 or more -----	556	555	.2
Total farm production expenses ¹ ----- \$1,000	1 239 020	1 301 666	-4.8
Average per farm ----- dollars	182 908	169 642	7.8
Net cash return from agricultural sales for the farm unit (see text) ¹ ----- farms	6 774	7 673	-11.7
----- \$1,000	247 273	306 975	-19.4
Average per farm ----- dollars	36 503	40 007	-8.8
Operators by principal occupation:			
Farming -----	3 613	3 782	-4.5
Other -----	3 160	3 887	-18.7
Operators by days worked off farm:			
Any -----	3 583	4 423	-19.0
200 days or more -----	2 382	2 997	-20.5
Livestock and poultry:			
Cattle and calves inventory ----- farms	3 064	3 521	-13.0
----- number	928 783	1 110 912	-16.4
Beef cows ----- farms	2 288	2 497	-8.4
----- number	292 848	334 851	-12.5
Milk cows ----- farms	305	476	-35.9
----- number	88 582	86 280	2.7
Cattle and calves sold ----- farms	2 777	3 302	-15.9
----- number	744 147	1 009 492	-26.3
Hogs and pigs inventory ----- farms	281	331	-15.1
----- number	83 262	135 414	-38.5
Hogs and pigs sold ----- farms	181	242	-25.2
----- number	150 140	237 623	-36.8
Sheep and lambs inventory ----- farms	427	456	-6.4
----- number	247 068	301 279	-18.0
Chickens 3 months old or older inventory ----- farms	513	741	-30.8
----- number	391 979	331 462	18.3
Broilers and other meat-type chickens sold ----- farms	15	23	-34.8
----- number	(D)	(D)	(D)
Selected crops harvested:			
Corn for grain or seed ----- farms	108	166	-34.9
----- acres	15 547	12 794	21.5
Wheat for grain ----- bushels	2 104 384	1 530 568	37.5
----- farms	310	443	-30.0
----- acres	80 533	97 407	-17.3
Barley for grain ----- bushels	6 823 397	7 991 708	-14.6
----- farms	165	168	-1.8
----- acres	19 984	14 654	36.4
Cotton ----- bushels	1 952 678	1 365 067	43.0
----- farms	887	1 199	-26.0
----- acres	428 637	381 733	12.3
----- bales	895 992	1 005 493	-10.9
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) ----- farms	1 242	1 402	-11.4
----- acres	191 277	181 319	5.5
Vegetables harvested for sale (see text) ----- tons, dry	1 037 443	1 040 321	-3
----- farms	360	328	9.8
----- acres	118 125	98 138	20.4
Land in orchards ----- farms	1 162	1 141	1.8
----- acres	68 465	74 921	-8.6

¹Data are based on a sample of farms.

B. Highlights of the State's Agriculture: 1992 and 1987 (Metric Measurement)

[1 acre = 0.4047 hectare. For further metric conversions, see metric conversion table in appendix E. Dollar figures are in current dollars with no adjustment for price changes. For meaning of abbreviations and symbols, see introductory text]

Item	All farms		
	1992	1987	Percent change from 1987 to 1992
Farms ----- number	6 773	7 669	-11.7
Land in farms ----- hectares	14 179 724	14 685 670	-3.4
Average size of farm ----- hectares	2 094	1 915	9.3
Estimated market value of land and buildings ¹ :			
Average per farm ----- dollars	1 621 530	1 317 765	23.1
Average per hectare ----- dollars	316	279	13.3
Estimated market value of all machinery and equipment ¹ :			
Average per farm ----- dollars	59 607	55 702	7.0
Farms by size:			
.01 to 3.84 hectares -----	1 678	2 158	-22.2
3.85 to 20.04 hectares -----	1 418	1 510	-6.1
20.05 to 72.67 hectares -----	1 048	1 133	-7.5
72.68 to 202.22 hectares -----	741	910	-18.6
202.23 to 404.65 hectares -----	613	678	-9.6
404.66 to 809.51 hectares -----	428	436	-1.8
809.52 hectares or more -----	847	844	.4
Total cropland ----- farms	4 356	4 840	-10.0
Harvested cropland ----- hectares	543 954	588 374	-7.5
Irrigated land ----- farms	3 323	3 646	-8.9
----- hectares	368 825	350 396	5.3
Market value of agricultural products sold ----- \$1,000	1 515 384	1 628 544	-6.9
Average per farm ----- dollars	223 739	212 354	5.4
Crops, including nursery and greenhouse crops ----- \$1,000	899 242	896 681	.3
Livestock, poultry, and their products ----- \$1,000	616 141	731 863	-15.8
Farms by value of sales:			
Less than \$2,500 -----	2 241	2 494	-10.1
\$2,500 to \$4,999 -----	695	820	-15.2
\$5,000 to \$9,999 -----	648	775	-16.4
\$10,000 to \$24,999 -----	779	757	2.9
\$25,000 to \$49,999 -----	485	583	-16.8
\$50,000 to \$99,999 -----	462	533	-13.3
\$100,000 to \$249,999 -----	554	681	-18.6
\$250,000 to \$499,999 -----	353	471	-25.1
\$500,000 or more -----	556	555	.2
Total farm production expenses ¹ ----- \$1,000	1 239 020	1 301 666	-4.8
Average per farm ----- dollars	182 908	169 642	7.8
Net cash return from agricultural sales for the farm unit (see text) ¹ ----- farms	6 774	7 673	-11.7
Average per farm ----- \$1,000	247 273	306 975	-19.4
----- dollars	36 503	40 007	-8.8
Operators by principal occupation:			
Farming -----	3 613	3 782	-4.5
Other -----	3 160	3 887	-18.7
Operators by days worked off farm:			
Any -----	3 583	4 423	-19.0
200 days or more -----	2 382	2 997	-20.5
Livestock and poultry:			
Cattle and calves inventory ----- farms	3 064	3 521	-13.0
number -----	928 783	1 110 912	-16.4
Beef cows ----- farms	2 288	2 497	-8.4
number -----	292 848	334 851	-12.5
Milk cows ----- farms	305	476	-35.9
number -----	88 582	86 280	2.7
Cattle and calves sold ----- farms	2 777	3 302	-15.9
number -----	744 147	1 009 492	-26.3
Hogs and pigs inventory ----- farms	281	331	-15.1
number -----	83 262	135 414	-38.5
Hogs and pigs sold ----- farms	181	242	-25.2
number -----	150 140	237 623	-36.8
Sheep and lambs inventory ----- farms	427	456	-6.4
number -----	247 068	301 279	-18.0
Chickens 3 months old or older inventory ----- farms	513	741	-30.8
number -----	391 979	331 462	18.3
Broilers and other meat-type chickens sold ----- farms	15	23	-34.8
number -----	(D)	(D)	(D)
Selected crops harvested:			
Corn for grain or seed ----- farms	108	166	-34.9
hectares -----	6 292	5 178	21.5
metric tons -----	53 454	38 878	37.5
Wheat for grain ----- farms	310	443	-30.0
hectares -----	32 592	39 421	-17.3
metric tons -----	185 703	217 499	-14.6
Barley for grain ----- farms	165	168	-1.8
hectares -----	8 088	5 930	36.4
metric tons -----	42 515	29 721	43.0
Cotton ----- farms	887	1 199	-26.0
hectares -----	173 469	154 487	12.3
metric tons -----	195 079	218 920	-10.9
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) ----- farms	1 242	1 402	-11.4
hectares -----	77 410	73 380	5.5
metric tons -----	941 153	943 764	-3
Vegetables harvested for sale (see text) ----- farms	360	328	9.8
hectares -----	47 805	39 716	20.4
farms -----	1 162	1 141	1.8
hectares -----	27 708	30 320	-8.6

¹Data are based on a sample of farms.

2 ARIZONA

1992 CENSUS OF AGRICULTURE