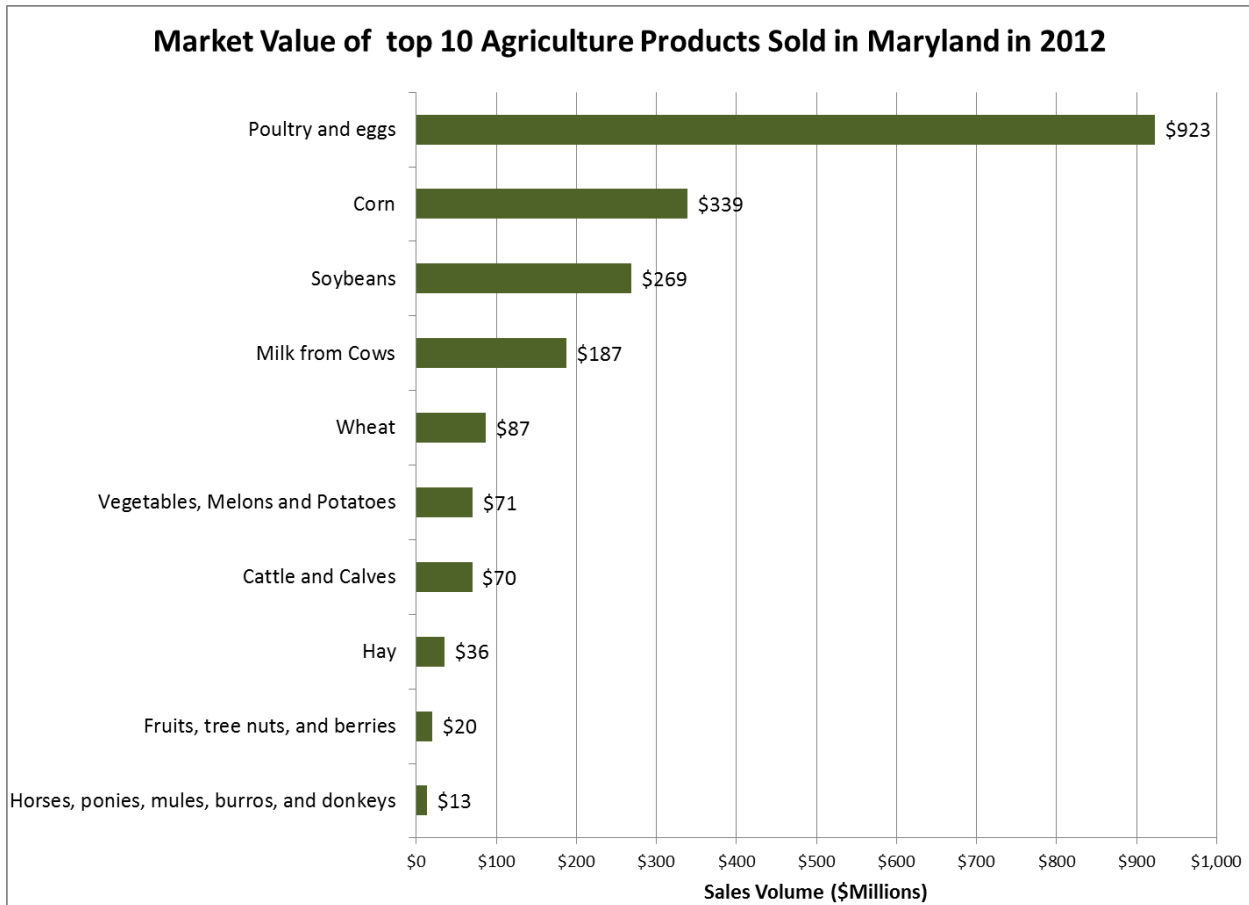


The 2012 Census of Agriculture: Farm Sales and Production in Maryland

Introduction

Sales of crops and livestock from Maryland’s farms increased 13.2 percent between 2007 and 2012, after adjusting for inflation, according to the most recent Census of Agriculture published by the U.S. Department of Agriculture.¹ Maryland’s farmers sold \$2.2 billion in crops and livestock in 2012, \$266.7 million more than in 2007.

Maryland farms are more valuable on a per acre basis than the average U.S. farm. In 2012 Maryland farms generated nearly three times more sales per acre than the national average - \$1,119 per acre for Maryland compared to \$432 per acre nationally. Part of this difference is due to the fact that Maryland farms depend more on livestock sales than the average farm in the U.S. By far, the largest farm product category in Maryland by value is “poultry and eggs,” accounting for \$923 million in sales in 2012, nearly 40.6 percent of all the State’s agricultural sales in 2012 (See [Table 11](#)).

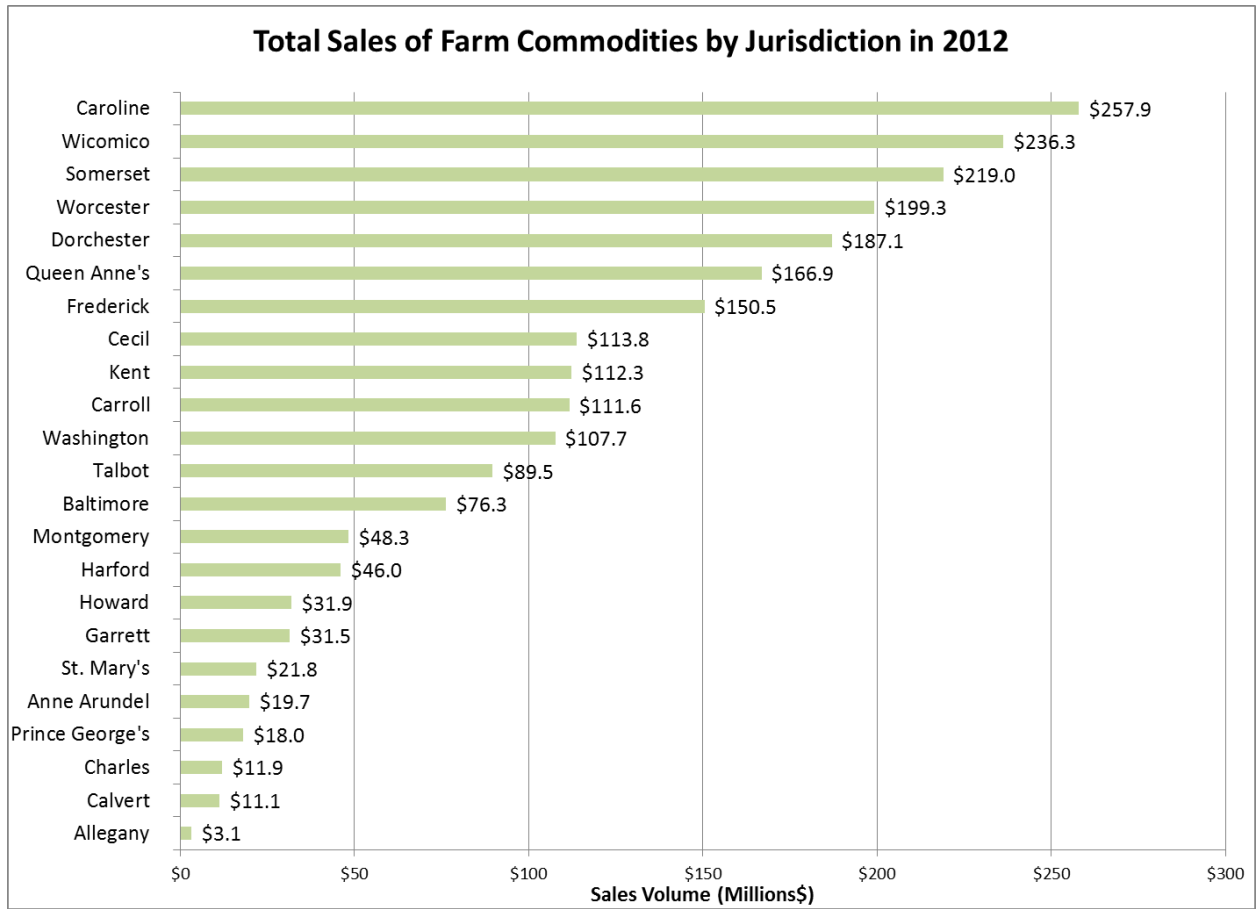


Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

Following poultry, the agricultural products with the highest sales volume were: corn (\$339 million), soybean (\$269 million); milk from cows (\$187 million); wheat (\$87 million); vegetables, melons and

¹ All dollar figures expressed in this report are in inflation-adjusted constant 2012 dollars.

potatoes (\$71 million); cattle and calves (\$70 million); hay (\$36 million); fruits, tree nuts and berries (\$20 million); and horses, ponies, mules, burros, and donkeys (\$13 million) (See [Table 11](#)).



Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

Caroline County’s \$257.9 million in agricultural product sales in 2012 was the highest in Maryland, representing 11.4% of all sales, followed by Wicomico County \$236.3 million, 10.4 percent of Maryland sales and Somerset County \$219 million, 9.6 percent of all sales. Worcester, Dorchester, and Queen Anne’s counties also shared similar sales patterns, each generating about 10 percent of the state’s agricultural sales and each highly dependent on poultry products. Of the top selling counties, only Frederick was not dependent on poultry sales, instead gaining most of its sales from dairy products (35.4%) and corn sales (19.9%).

Farm Sales

There was an increase (266.7 million) in sales from the 2007 to 2012 Census. Livestock sales account for more than half (55.0%) of the total agricultural sales for Maryland.

Compared to the nation as a whole, Maryland’s farmland produces a higher volume of sales per acre, selling 2.6 times more sales per acre in dollars in 2012 (\$432 for the U.S. vs. \$1,119 for Maryland).

Major Farm Products in Maryland

While there are a great variety of agricultural products produced in Maryland, there are some products where the state holds a competitive advantage. The following products are ones where a comparison of state vs. national production shows that Maryland produces more than its relative size would suggest.

Poultry and Poultry Products

Maryland’s major strength in agricultural products is in poultry production. In 2012, Maryland’s farms sold a total of \$922.9 million in poultry products, nearly 41 percent of all the State’s agricultural sales in that year. These sales include all types of poultry products, but Maryland’s greatest strength in this area is in the sale of “broilers,” or chickens intended to be eaten for their meat. Of the 43 states that report poultry production, Maryland ranks 8th in sales of broilers and other meat-type chickens, producing 3.6 percent (304.7 million) of all the broilers sold in the U.S. in 2012.

Within Maryland, poultry production is concentrated on the Lower Eastern Shore. Of the 304.7 million broilers raised, 205.6 million (67.61%) were raised in Dorchester, Somerset, Wicomico, and Worcester counties. An additional 98.5 million (32.38%) were raised on the Upper Eastern Shore (Caroline, Cecil, Kent, Queen Anne's, and Talbot counties). This percentage may actually be higher, as data for Cecil County are suppressed to preserve confidentiality (See [Table 11](#)). All the remaining counties produce less than 0.01 percent of the poultry.

Top Ten States in Sales of Broilers and Other Meat-Type Chickens, 2012

| Rank | State | Number of Broilers and Other Meat-Type Chickens Sold | Percentage of All Sales |
|----------|-----------------|--|-------------------------|
| 1 | Georgia | 1,369,162,943 | 16.2% |
| 2 | Alabama | 1,001,776,907 | 11.8% |
| 3 | Arkansas | 975,950,973 | 11.5% |
| 4 | North Carolina | 801,883,037 | 9.5% |
| 5 | Mississippi | 761,180,486 | 9.0% |
| 6 | Texas | 600,353,797 | 7.1% |
| 7 | Kentucky | 305,383,434 | 3.6% |
| 8 | Maryland | 304,729,435 | 3.6% |
| 9 | California | 273,277,272 | 3.2% |
| 10 | Missouri | 272,389,497 | 3.2% |
| | United States | 8,463,121,882 | 100.0% |

Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

While data on chickens kept for laying eggs (“layers”) suffer from suppression issues, it appears that large farms that produce eggs (those with 10,000 layers or more) are scattered more generally throughout the state, especially in Washington, Frederick, and Harford Counties, though there are some large egg-laying operations on the Eastern Shore as well (See [Table 12](#)).

Milk from Cows

Maryland produced almost \$187.4 million from sales of milk in 2012, ranking it 28th of the 50 states. In 2012, Maryland contained a total of 50,923 milk cows, down significantly from the 57,172 milk cows it contained in 2007 (a 10.9 percent decline). The number of milk cows declined nationally during this time period as well, from 9.3 million to 9.2 million, a much smaller decline of 0.5 percent.

Three counties in Maryland accounted for 63 percent of all dairy product sales in 2012: Frederick County in the Washington Suburban Region (\$53.2 million in sales, 28.4% of the state total), Washington County in the Western Maryland Region (\$43.9 million in sales, 23.4%), and Carroll County in the Baltimore Region (\$21.2 million in sales, 11.3%). However, four of the six regions had significant dairy product sales when all sales in each region were totaled (See [Table 11](#)).

Not surprisingly, in 2012 the same counties that had high dairy product sales also contained high numbers of milk cows. Frederick had the largest number, with 15,726 cows (30.9%), followed by Washington with 12,672 cows (24.9%), then by Carroll with 5,488 cows (10.8%) (See [Table 12](#)).

Horses on Farms

There was a slight decline in number of horses on farms² in Maryland between 2007 and 2012. In 2012, there were 28,662 horses on farms, about 2,085 (6.8%) less than in 2007. However, the number of farms increased from 3,225 in 2007 to 3,257 in 2012 an increase of 32 (1.0%). Compared to 1997, the number of horses increased by 2,916 (11.3%), and the number of farms also increased from 3,078 in 1997 to 3,257 in 2012, an increase of 179 farms (5.8%) that 15 year period (See [Table 12](#)).

Nationally, there were 3,621,348 horses on farms in 2012, a decrease of 407,479 (10.1%) over the 4,028,827 in 2007. Since 1997, the number horses increased by 601,231 (19.9%), also, the number of farms with horses increased by 14,278 (2.9%).

In 2012, Montgomery County had the most horses on farms (3,219 or 11.2%), followed by Carroll (2,932 or 10.2%) and Frederick counties (2,719 or 9.5%). Carroll county had the highest number of farms (363 or 11.1%), followed by Frederick county (344 or 10.6%) and Baltimore County (255 or 7.8%). Overall, Maryland farms sold \$13.2 million worth of horses and other equine animals in 2012, a decline of \$16.3

² Note that the Census of Agriculture only counts the number of horses located on farms that meet the Census definition of a farm. The more comprehensive 2010 Maryland Equine Census counted all horses, no matter their location, and found that there were 16,040 places with equine activities in the state with a total of 79,100 equine animals. These places totaled 587,000 acres, with 188,000 acres used primarily for equine related purposes. See <http://mda.maryland.gov/horseboard/Pages/census.aspx> for more information.

million from 2007.

Nursery, Greenhouse, Floriculture, and Sod Products

“Nursery, greenhouse, floriculture, and sod” products are the fourth-largest agricultural product category by sales in Maryland. In 2012, Maryland produced over \$204.1 million worth of these products. Only 311 farms produced nursery and greenhouse products in 2012, and only 366 acres of farmland were used to grow nursery crops (See [Table 13](#)). While the number of farms involved in nursery and greenhouse production is small, the retail nature of their business produces a high volume of sales.

Baltimore County was the largest producer of nursery, greenhouse, floriculture, and sod products in 2012, selling \$33.28 million in products (16.3% of the total). Cecil and Queen Anne’s Counties were second and third in sales, selling \$31.76 million (15.5%) and \$20.48 million (10.0%), respectively.

Haylage, Grass Silage and Greenchop

Haylage, grass silage and greenchop are crops grown for animal feed. They consist of multiple crop types, such as alfalfa, corn, sorghum, and other types of hay or grass.

In 2012, there was a significant decrease in acreage for Corn for Silage (21,163 or 33.1%) and for Haylage (42,547 acres or 19.0%). The average for, Sorghum on the farms had increased by 3,115 acres or 309.0 percent in 2012.

Acres Used for Selected Crops for Haylage, Silage, and Greenchop in Maryland, 1997-2012

| Selected Crops Harvested | Acres | 2012 | 2007 | 2002 | 1997 |
|---|--------------|-------------|-------------|-------------|-------------|
| Corn for Silage or Greenchop | Acres | 42,816 | 63,979 | 72,988 | 91,568 |
| Sorghum for Silage or Greenchop | Acres | 4,123 | 1,008 | 1,206 | 1,024 |
| Forage-land for Hay and Haylage, | Acres | 180,843 | 223,390 | 227,727 | (NA) |

Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

Most acreage growing silage and greenchop is located in Frederick County, with significant amounts also located in Washington and Carroll Counties (See [Table 13](#)).

Crops for Grain

Crops grown for grain for the five main types of grain (barley, corn, oats, sorghum, and wheat) covered 702,841 acres of Maryland’s 1,280,965 acres of harvested cropland in 2012 (54.9%). Of these, the largest single type was corn grown for grain, covering 435,646 acres (34.0% of all harvested acres). Cropland used to grow grains increased by 34,470 acres or 5.2 percent from 2007 to 2012.

Acres Used for Selected Crops for Grain in Maryland, 1997-2007

| Selected Crops Harvested | Acres | 2012 | 2007 | 2002 | 1997 |
|----------------------------|--------------|----------------|----------------|----------------|----------------|
| Corn for Grain | Acres | 435,646 | 460,137 | 406,841 | 403,242 |
| Wheat for Grain, All Types | Acres | 210,354 | 166,713 | 162,062 | 198,274 |
| Barley for Grain | Acres | 40,133 | 34,288 | 36,241 | 46,770 |
| Sorghum for Grain | Acres | 14,772 | 4,895 | 3,133 | 14,983 |
| Oats for Grain | Acres | 1,936 | 2,338 | 3,684 | 5,601 |
| Total Grains | Acres | 702,841 | 668,371 | 611,961 | 668,870 |

Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

Of crops grown for grain, wheat production acreage increased significantly from 166,713 acres in 2007 to 210,354 acres in 2012, an increase of 43,641 acres of 26.2 percent. Similarly, barley and sorghum production acreages increased by 5,845 (17.0%) and 9,877 (201.8%) acres respectively. The acreages for corn and oats decreased by 24,491 (5.3%) and 402 (17.2%) acres, respectively.

The county with the largest number of acres in production for corn for grain is Queen Anne's County (46,977 acres, 36.3% of harvested cropland in the county) followed by Kent (41,275, 42.0%) and Caroline (39,399, 34.6%) counties. The largest acreage of wheat production is in Caroline County (29,177 acres, 23.6% of the county's harvested cropland, 10.8% of the State total) followed by Queen Anne's (28,439, 23.6% of the county's harvested cropland, 9.5% of the State total) and Talbot (24,026, 25.8% of the county's harvested cropland, 9.0% of the State total) counties (See [Table 13](#)).

Soybeans

Soybeans cover a large proportion of the harvested cropland in Maryland. In 2012, 475,615 acres or 34.1 percent of all harvested cropland was used for soybean production. This is a significant increase from 2007, when 386,604 acres were used for soybean production. This 89,011 acre (23.0%) gain shows the relative importance of soybeans to Maryland's agricultural output (See [Table 13](#)).

Queen Anne's County had the largest number of acres in soybean production in 2012, with 57,748 acres (44.4% of the County's total harvested cropland, 12.2% of the State total), followed closely by Caroline County with 52,495 acres (43.2% of County cropland, 11.1% of State).

Fruits, nuts and Vegetables

There were 29,184 acres of land producing vegetables (including potatoes and sweet potatoes) in 2012, a decrease of 4,263 acres (12.7%) since 2007. Maryland does not have the same strength in fruit and nuts production, though the state did have less than 5,000 acres of land in orchards in 2012. Maryland generated \$70.7 million in sales of vegetables and \$20.5 million in sales in fruits and tree nuts in 2012.

Most land used for vegetable production in Maryland (44.9%) is located in Caroline (23.6%) and Dorchester (21.2%) counties, which together generated 36.8 percent (\$24.9 million) of all vegetable sales, while Washington County generated the most in fruit and nuts sales, \$5.3 million, or about 26.3 percent of statewide sales.

Tobacco

Tobacco merits mention due to the steep decline of growing acreage in Maryland in the last 15 years. In 1997, Maryland grew 11.7 million pounds of tobacco on 727 farms, using 7,814 acres of land. Tobacco production in the state ranked 16th out of 19 states, and Maryland grew 0.7 percent of the nation's tobacco crop. However, in 1998 Maryland instituted the Tobacco Crop Conversion Program to replace tobacco on agricultural land with other crops. This program pays farmers based on previous tobacco production (\$1 per pound) for ten years. The data show the success of this program. By 2012, there were only 256 acres of land that produced tobacco in Maryland which generated about 598,000 pounds of tobacco which yielded \$1.02 million in sales. This trend was seen on the national level as well, as U.S. production fell from 1,744 million pounds of tobacco produced in 1997 to 766 million pounds produced in 2012, a 56.1 percent decrease.

In 2012, St. Mary's County produced the majority of Maryland's tobacco (400,194 pounds, or 66.49%) on the majority of tobacco-producing land (173 acres, or 67.6% of the state total). The only other counties that are reported to have grown tobacco in 2012 where data is not disclosed were Cecil and Charles counties.

Major Agricultural Product by Jurisdiction

Most jurisdictions in Maryland had agricultural product sales in 2012 that were concentrated in one specific product category. Not surprisingly, many jurisdictions have high sales in poultry and egg products, the single largest product category by sales volume in Maryland. See table on the next page.

Largest Single Agricultural Product by Sales Volume by Jurisdiction in Maryland, 2012 *

| Jurisdiction | Agricultural Product | Sales (\$1,000) | Percentage of Juris. Total |
|-----------------|--|-----------------|----------------------------|
| Maryland | Poultry and Eggs | \$922,999 | 40.64% |
| Allegany | Cattle and Calves | \$1,145 | 36.65% |
| Anne Arundel | Nursery, Greenhouse, Floriculture, and Sod | \$9,332 | 47.44% |
| Baltimore | Nursery, Greenhouse, Floriculture, and Sod | \$33,282 | 43.62% |
| Calvert ** | Corn | \$3,132 | 28.11% |
| Caroline | Poultry and Eggs | \$157,834 | 61.20% |
| Carroll | Corn | \$26,883 | 24.08% |
| Cecil*** | Corn | \$14,636 | 12.86% |
| Charles | Corn | \$3,237 | 27.10% |
| Dorchester | Poultry and Eggs | \$111,731 | 59.73% |
| Frederick | Milk and Other Dairy Products from Cows | \$53,201 | 35.36% |
| Garrett | Milk and Other Dairy Products from Cows | \$9,975 | 31.71% |
| Harford | Corn | \$12,962 | 28.18% |
| Howard | Nursery, Greenhouse, Floriculture, and Sod | \$13,349 | 41.87% |
| Kent*** | Poultry and Eggs | \$29,961 | 26.69% |
| Montgomery | Nursery, Greenhouse, Floriculture, and Sod | \$14,107 | 29.18% |
| Prince George's | Nursery, Greenhouse, Floriculture, and Sod | \$8,567 | 47.59% |
| Queen Anne's | Poultry and Eggs | \$56,520 | 33.87% |
| St. Mary's | Soybeans | \$6,397 | 29.34% |
| Somerset | Poultry and Eggs | \$191,990 | 87.69% |
| Talbot | Soybeans | \$27,054 | 30.22% |
| Washington | Milk and Other Dairy Products from Cows | \$43,946 | 40.81% |
| Wicomico | Poultry and Eggs | \$181,265 | 76.70% |
| Worcester | Poultry and Eggs | \$147,206 | 73.87% |

* Non-specific categories of "other" products were excluded from this table

** Some sales categories in Calvert County were suppressed

*** Specific data on poultry and egg production were suppressed for these counties, though the majority of products sold in the "Livestock, Poultry, and Their Products" category were probably poultry products

Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

Some jurisdictions that concentrate in poultry products are highly dependent upon them. For example, almost 88 percent of all agricultural products sold in Somerset County were from the poultry and eggs category. Other jurisdictions have more balanced sales portfolios, such as Carroll County, whose largest single product category, milk and other dairy products from cows, accounts for only 24 percent of all sales. With few exceptions, the highest grossing product in each jurisdiction was one of the three top categories in Maryland: Poultry and eggs; Corn; or Nursery, greenhouse, floriculture, and sod.

About the Census of Agriculture

The Census of Agriculture is conducted every five years by the National Agricultural Statistics Service (NASS), a branch of the United States Department of Agriculture (USDA). NASS has conducted the Census

since 1997. Previously, the Census was conducted by the U.S. Bureau of the Census. In one form or another, there has been an agricultural census conducted periodically in the U.S. since 1840.

According to NASS, the Census of Agriculture “is a complete count of U.S. farms and ranches and the people who operate them. The Census looks at land use and ownership, operator characteristics, production practices, income and expenditures and many other areas.”³ Data are published for the nation, states, certain territories, and all U.S. counties.

Farm Definitions

The USDA defines a farm as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the relevant census year.⁴ This definition has changed nine times since 1840. From 1959 to 1974, the definition included farm size, with different sales volumes based on size. The current definition was adopted after 1974 and has no farm size requirement. Inflation has changed the definition over time, as the table below shows.

| Year | Current Dollars | | | Constant Dollars (\$2012) * | | |
|------|-----------------|--------------------|-----------|-----------------------------|--------------------|-----------|
| | 10 Acres+ | Less than 10 Acres | All Acres | 10 Acres+ | Less than 10 Acres | All Acres |
| 2012 | | | \$1,000 | | | \$1,000 |
| 2007 | | | \$1,000 | | | \$1,092 |
| 2002 | | | \$1,000 | | | \$1,235 |
| 1997 | | | \$1,000 | | | \$1,337 |
| 1992 | | | \$1,000 | | | \$1,484 |
| 1987 | | | \$1,000 | | | \$1,778 |
| 1982 | | | \$1,000 | | | \$2,098 |
| 1978 | | | \$1,000 | | | \$2,907 |
| 1974 | \$50 | \$250 | | \$189 | \$947 | |
| 1969 | \$50 | \$250 | | \$249 | \$1,243 | |
| 1964 | \$50 | \$250 | | \$288 | \$1,440 | |
| 1959 | \$50 | \$250 | | \$307 | \$1,536 | |

* Dollar values adjusted using the Personal Consumption Expenditure (PCE) index from the Bureau of Economic Analysis’ National Income and Products Accounts System (NIPA)

Source: 2002 Census of Agriculture: History, Appendix B

About Coverage Adjustment in the 1997 and later Censuses

In 1997 NASS changed how data were collected for the Census of Agriculture to ensure that farms were properly counted, a process known as *coverage adjustment*. These changes relate to how farm operations that did not show up on the USDA’s official list of farms and ranches were treated. NASS used this list as the initial Census Mailing List (CML) and sent census forms to all addresses on the list. To ensure that the list was complete, NASS used a sampling scheme where selected aerial photography from the June

³ http://www.agcensus.usda.gov/Help/FAQs/General_FAQs/

⁴ <http://www.agcensus.usda.gov/Publications/2012/>

Agricultural Survey (JAS) was used to sample segments of land to search for farmland. These sample segments were then “personally enumerated” to find every operating farm in each land segment. This process was supplemented with the Agricultural Coverage Evaluation Survey (ACES), another sampling scheme that was designed to “provide measures of small and minority owned farms.”⁵ The 2012 JAS sample was increased to improve the farm counts for operations that produced specialty commodities or had socially disadvantaged or minority operators.

The farms found in these processes were compared to the farms on the CML, and farms that were missing from the CML were placed on a separate list, called the “Not on the Mail List” or NML. Farms on the NML were sent a different form than the CML so that those forms could be identified when they were returned. Since the CML farms were intended to be the entire population of farms while the NML farms were a sample of all missing farms, the total undercoverage of farms was estimated on the state level, and weighted estimates were generated for the county level. These estimates also include estimates that adjust the data for errors caused by non-responsive farms.

⁵ <http://www.agcensus.usda.gov/Publications/2012/> see Appendix A