

# Crossroads Resource Center

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## ***Tools for Community Self-determination***

### **Southern Arizona Local Farm & Food Economy**

*Highlights of a data compilation*  
by Ken Meter, Crossroads Resource Center (Minneapolis) for

### **Community Food Bank of Southern Arizona**

December 30, 2011

*Covers Cochise, Graham, Greenlee, Pima, & Santa Cruz Counties of Arizona*

#### **Southern Arizona Region (Bureau of Economic Analysis, 2009)**

1.2 million residents receive \$41 billion of income annually. Personal income increased 367% from 1969 – 2009, after dollars were adjusted for inflation. Population increases played a significant role in this increase [*see below*].

The largest source of personal income for residents of the region is transfer payments (from government programs such as pensions), which account for \$9.6 billion of personal income [*see below*]. Capital income (earned from interest, rent or dividends) brings in \$ 8.8 billion of personal income. Government jobs rank third, with \$7.4 billion. Health care workers earn \$3.4 billion. Note that income from public sources makes up 41% of all personal income in the region.

Income earned from transfer payments includes \$2.9 billion of retirement and disability insurance benefits, \$1.9 billion of medical benefits, \$834 million of income maintenance benefits, \$236 million of unemployment insurance, and \$320 million of veteran's benefits.

Government income includes \$1.9 billion of income earned by federal workers, and \$4 billion earned by state and local government staff. Military personnel earn \$1.3 billion of personal income.

Although population has increased 178% since 1969 (from 445,000 to 1.2 million), there has been only limited public planning to assure a secure and stable food supply.

#### **Issues affecting low-income residents of Southern Arizona:**

Nearly 396,000 residents (34%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents spend \$800 million each year buying food, including \$292 million of SNAP benefits (formerly known as food stamps) and additional WIC coupons. The region's 2,350 farmers receive an annual combined total of \$12 million in subsidies (2009), mostly to raise crops such as cotton, wheat, or rice

that are sold as commodities, not to feed Southern Arizona residents. *Data from Federal Census of 2000, Bureau of Labor Statistics, & Bureau of Economic Analysis.*

8% of the region's households (nearly 82,000 residents) earn less than \$10,000 per year. *Source: Federal Census of 2000.*

17% of all Metro Tucson adults aged 18-64 in carry no health insurance. *Source: Centers for Disease Control, 2010. Note: this data is only compiled in metro areas or on a statewide basis.*

### **Food-related health conditions:**

26% of Arizona residents reported in 2009 that they eat five or more servings of fruit or vegetables each day. 74% do not. This is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes. *Source: Centers for Disease Control.*

52% of Arizona adults reported in 2009 they have at least 30 minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20 or more minutes three or more days per week. *Source: Centers for Disease Control.*

8% of Metro Tucson residents have been diagnosed with diabetes. *Source: Centers for Disease Control, 2010.* Medical costs for treating diabetes and related conditions in the Southern Arizona region are estimated at \$716 million per year. Costs for the state of Arizona as a whole total \$3.8 billion. *Source: American Diabetes Association cost calculator.*

58% of Arizona residents are overweight (32%) or obese (26%). *Source: Centers for Disease Control, 2010.*

### **Southern Arizona farms (Agricultural Census, 2007)**

*Agricultural Census data for 2007 were released February 4, 2009*

*The Census of Agriculture defines a "farm" as "an operation that produces, or would normally produce and sell, \$1,000 or more of agricultural products per year."*

#### *Land:*

- 2,350 farms. This is 15% of Arizona farms.
- The Southern Arizona region had 16% more farms in 2007 than in 2002. Some of this may be due to census takers making better contact with small farms.
- 297 (13%) of these are 1,000 acres or more in size.
- 1,178 (50%) farms are less than 50 acres.
- Average farm size is 1,351 acres, less than the state average of 1,670 acres. *Note that data for land in farms for Pima County were suppressed by the USDA in an effort to protect confidentiality, so this average is only calculated using data on Cochise, Graham, Greenlee, and Santa Cruz Counties.*
- The region has at least 2.3 million acres of land in farms. *Note that data for land in farms in Pima County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete. Note that the data on Limited Resource Farms (below) shows a total of 2.5 million acres including Pima County.*
- This amounts to at least 9% of the state's farmland.
- The Southern Arizona region holds 122,000 acres of harvested cropland.

- 139,000 acres are irrigated.
- Average value of land and buildings per farm was \$1.7 million. This was more than the 2007 state average of \$1.2 million.

*Sales:*

*With the exception of foods sold directly to consumers (see below), farmers typically sell commodities to wholesalers, brokers or manufacturers that require further processing or handling to become consumer items. The word “commodities” is used in this report to mean the crops and livestock sold by farmers through these wholesale channels. The term “products” encompasses commodity sales, direct sales, and any other sales.*

- The region’s farmers sold at least \$195 million of crops and livestock in 2007. *Note that data for sales of agricultural products in Graham County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete. Bureau of Economic Analysis data shows that \$386 million of farm products were marketed by the region’s farmers in 2007, including \$185 million from Graham County.*
- Farm product sales increased by 24% from 2002 to 2007. *Note that this is only for Cochise, Greenlee, Pima, and Santa Cruz counties. Sales in Graham County were suppressed by the USDA in an effort to protect confidentiality, so this county was not included in this calculation.*
- At least \$122 million of crops were sold. *Note that data for crop sales in Graham County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete. From Bureau of Economics data it can be inferred that Graham County crop farmers sold \$181 million of products in 2007. Note that the Census of Agriculture lists crop sales of \$126 million for the counties for which data were reported; this data was adjusted to make it conform to total sales reported.*
- \$73 million of livestock and products were sold.
- 1,591 (68%) of the region’s farms sold less than \$10,000 of products in 2007.
- Total sales from these small farms were at least \$2.7 million. *Note that sales data for farms selling less than \$10,000 of products in Greenlee and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- 229 (10%) of the region’s farms sold more than \$100,000 of products.
- Total sales from these larger farms were over \$177 million. *Note that sales data for farms selling more than \$100,000 in Graham, Greenlee, and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- 72% of the region’s farms (1,697 of 2,350) reported net losses in 2007. This is less than the Arizona state average of 78%.
- 336 (14%) of Southern Arizona’s farmers collected a combined total of \$11 million of federal subsidies in 2007.

**Top farm products of Southern Arizona (2007)**

*Note: \*\*denotes sales data have been suppressed.*

<b>Product</b>	<b>\$ millions</b>
Fruits, tree nuts, and berries	**25
Forage crops (hay, etc.)	**24
Corn	**17
Cattle and calves	**14
Cotton and cottonseed	**13
Ornamentals	**6

*Production Expenses:*

- Feed purchases and depreciation expenses ranked as the largest expenses for Southern Arizona farmers in 2007, at \$34 million (10% of production expenses) each.
- Gasoline, fuels, and oil costs totaled \$33 million (10%).
- Utilities cost Southern Arizona farmers \$22 million (7%).
- Supplies, repairs, and maintenance cost farmers \$21 million (6%).
- Seed costs also totaled \$21 million (6%).
- Fertilizer, lime, and soil conditioner expenses were \$20 million (6%).
- Labor costs totaled \$13 million (4%).
- Interest payments totaled \$12 million (4%).

*Cattle & Dairy:*

- 1,108 farms hold an inventory of 113,000 cattle.
- 62,000 cattle were sold by farmers in 2007 for total sales of at least \$14 million. *Note that data for sales of cattle and calves in Cochise and Greenlee counties were suppressed by the USDA in an effort to protect confidentiality.*
- 870 farms raise beef cows.
- 46 farms raise milk cows.
- 17 farms produced corn for silage.
- 224 farms produced 212,000 tons of forage crops (hay, etc.) on 31,000 acres.
- 163 farms sold at least \$24 million of forage. *Note that data for sales of forage in Greenlee and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*

*Other Livestock & Animal Products:*

- 89 farms hold an inventory of at least 1,586 hogs and pigs. *Note that data for inventory of hogs and pigs in Graham and Greenlee counties were suppressed by the USDA in an effort to protect confidentiality.*
- 75 farms sold at least 1,844 hogs and pigs in 2007, worth over \$120,000. *Note that data for sales of hogs and pigs in Graham, Greenlee, and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality, so these total is incomplete.*
- 86 farms hold an inventory of 2,532 sheep and lambs.
- 131 farms sold \$421,000 worth of sheep, goats, and lambs in 2007.
- 310 farms hold an inventory of 7,597 laying hens.
- 15 farms raise broiler chickens.
- 2 farms engage in aquaculture.
- 236 farms raise horses and ponies.

*Grains, Oil Seeds, & Edible Beans:*

- 84 farms produced at least \$26 million of grains, oil seeds, and edible beans. *Note that data for sales of grains, oil seeds, and edible beans in Santa Cruz County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- 50 farms produced at least 3.6 million bushels of corn for grain on over 20,000 acres, worth at least \$17 million. *Note that data for bushels and acreage of corn in Pima and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality, so these totals are incomplete.*

- 27 farms produced at least 564,000 bushels of wheat on over 5,639 acres, worth at least \$2.9 million. *Note that data for bushels, acreage, and sales of wheat in Graham County were suppressed by the USDA in an effort to protect confidentiality, so these totals are incomplete.*

*Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):*

- 64 farms worked at least 3,336 acres to produce vegetables. *Note that data for acreage of vegetables in Graham, Greenlee, and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality.*
- This represents a 15% decrease in the number of farms (from 78) since 2002 levels.
- 7 farms raised potatoes, all in Cochise County.

*Fruits (some farmers state that Ag Census data does not fully represent fruit production):*

- 210 farms in the region hold at least 6,252 acres of orchards. *Note that data for acreage of orchards in Graham and Pima counties were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- 195 farms sold at least \$25 million of fruits, nuts, and berries. *Note that data for sales of fruits, nuts, and berries in Greenlee and Pima counties were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- Pecans and pistachios are important nut crops that would be included in these totals.

*Nursery & Greenhouse Plants:*

- 67 farms in sold ornamentals in 2007. In Cochise County, sales were \$5.6 million. *Note that data for sales of ornamentals in Graham, Greenlee, Pima, and Santa Cruz counties were suppressed by the USDA in an effort to protect confidentiality.*
- This represents a decrease of 29% in the number of farms (from 95) since 2002.
- 3 farms sold Christmas trees.

*Direct & Organic Sales:*

- 177 farms sell at least \$2.2 million of food products directly to consumers. This is a 9% decrease of number of farms (195 in 2002) selling direct since 2002. *Note that data for direct sales in Greenlee County were suppressed by the USDA in an effort to protect confidentiality, so this sales total is incomplete.*
- This amounts to 42% of Arizona's direct sales.
- Direct sales appear to make up about 0.1% of farm product sales for the region.
- The national average for direct sales is 0.4%.
- Cochise County leads the region in direct sales, with \$1.3 million. *Note that this ranking is subject to error, since data for direct sales in Greenlee County were suppressed.*
- 33 farms in the region sold at least \$3.4 million of organic products, accounting for 7% of Arizona's organic sales. *Note that data for organic sales in Pima County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- For comparison, 112 farms in Arizona sold \$48 million of organic food products.
- 21 farms market through community supported agriculture (CSA).
- 93 farms produce and sell value-added products.

*Conservation Practices:*

- 311 farms use conservation methods such as no-till, limited tilling, filtering field runoff to remove chemicals, fencing animals to prevent them from entering streams, etc.
- 515 farms practice rotational or management intensive grazing.
- 142 farms generate energy or electricity on the farm.

*Other Crops:*

- 67 farms produced at least 95,000 bales of cotton on over 33,000 acres, worth at least \$13 million. *Note that data for acreage and bales of cotton in Cochise County, and sales of cotton in Cochise, and Pima counties were suppressed by the USDA in an effort to protect confidentiality, so these totals are incomplete.*
- 23 farms produced 496,000 bushels of sorghum for grain on 5,165 acres, worth at least \$2.5 million. *Note that data for sales of sorghum in Graham County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*
- 17 farms produced 440,000 bushels of barley for grain on 3,958 acres, worth at least \$1.5 million. *Note that data for sales of barley in Graham County were suppressed by the USDA in an effort to protect confidentiality, so this total is incomplete.*

**Limited-resource farms and others in Southern Arizona (Census of Agriculture, 2007)**

Note \*\*denotes that certain data were suppressed, so totals are incomplete

<b>Small family farms:</b>	<b>Farms</b>	<b>Percent</b>	<b>Acres</b>	<b>Percent</b>
Limited-resource	384	16%	80,098	3%
Retirement	596	25%	234,105	10%
Residential/lifestyle	728	31%	177,272	8%
Farming occupation/lower sales	271	12%	312,723	13%
Farming occupation/higher sales	39	2%	**31,161	1%
<b>Large family farms</b>	37	2%	**55,232	2%
<b>Very large family farms</b>	72	3%	**169,385	7%
<b>Nonfamily farms</b>	223	9%	**1,432,891	61%
<b>Total</b>	2,350		**2,492,867	

Definition of terms (Agricultural Census 2007):

**Limited-resource farms** have market value of agricultural products sold gross sales of less than \$100,000, and total principal operator household income of less than \$20,000.

**Retirement farms** have market value of agricultural products sold of less than \$250,000, and a principal operator who reports being retired.

**Residential/lifestyle farms** have market value of agricultural products sold of less than \$250,000, and a principal operator who reports his/her primary occupation as other than farming.

**Farming occupation/lower-sales farms** have market value of agricultural products sold of less than \$100,000, and a principal operator who reports farming as his/her primary occupation.

**Farming occupation/higher-sales farms** have market value of agricultural products sold of between \$100,000 and \$249,999, and a principal operator who reports farming as his/her primary occupation.

**Large family farms** have market value of agricultural products sold between \$250,000 and \$499,999.

**Very large family farms** have market value of agricultural products sold of \$500,000 or more.

**Nonfamily farms are farms** organized as nonfamily corporations, as well as farms operated by hired manager.

## County and State Highlights

### **Cochise County highlights (Agriculture Census 2007):**

- 1,065 farms, 12% more than in 2002.
- Cochise County has 824,000 acres of land in farms.
- Farmers sold \$117 million of products in 2007.
- \$74 million (63%) of these sales were crops.
- \$43 million (37%) of these sales were livestock.
- The most prevalent farm size is 50 to 179 acres, with 285 farms (27%) in this category.
- The next most prevalent is 10 to 49 acres, with 252 (24%) farms.
- 181 farms (17%) are 1,000 acres or more.
- 374 farms (35%) are less than 50 acres.
- 700 farms (66%) sold less than \$10,000 in farm products.
- 108 farms (10%) sold more than \$100,000 in farm products.
- Cochise County ranks first in Arizona for acreage of corn for grain, with 17,000.
- The county ranks 2<sup>nd</sup> in the state for sales of fruits, tree nuts, and berries, with \$20 million.
- Cochise County ranks 2<sup>nd</sup> in the state for acreage of pecans, with 4,632.
- The county ranks second in the state for inventory of laying hens, with 4,628.
- Cochise County ranks 3<sup>rd</sup> in Arizona for acreage of corn for silage, with 3,429.
- The county ranks 3<sup>rd</sup> in the state for sales of poultry and eggs, with \$108,000.
- Cochise County ranks third in the state for sales of milk, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks 4<sup>th</sup> in Arizona for sales of hogs and pigs, with \$67,000.
- Cochise County ranks 4<sup>th</sup> in the state for sales of cattle and calves, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks fourth in the state for livestock and poultry sales.
- Cochise County ranks 4<sup>th</sup> in the state for sales of grains, oilseeds, and dry beans and peas, with \$17 million.
- The county ranks 4<sup>th</sup> in Arizona for inventory of cattle and calves, with 59,000.
- Cochise County ranks fifth in the state for sales of forage crops (hay, etc.), with \$21 million.
- The county ranks 5<sup>th</sup> in the state for sales of vegetables, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Cochise County ranks 5<sup>th</sup> in the state for acreage of forage (hay, etc.), with 24,000.
- The county ranks fifth in Arizona for inventory of goats, with 1,498.
- Cochise County ranks 6<sup>th</sup> in Arizona for sales of agricultural products.
- The county ranks 6<sup>th</sup> in the state for inventory of bee colonies, with 1,421.
- Cochise County ranks sixth in the state for acreage of vegetables, with 3,253.
- The county ranks 6<sup>th</sup> in Arizona for crop sales.
- Cochise County ranks 6<sup>th</sup> in the state for sales of horses and ponies, with \$590,000.
- The county ranks seventh in the state for sales of sheep and goats, with \$238,000.
- Cochise County ranks 7<sup>th</sup> in the state for sales of ornamentals, with \$5.6 million.
- The county ranks 8<sup>th</sup> in Arizona for sales of cotton, *but sales figures for cotton were not released by the USDA in an effort to protect confidentiality.*
- 93 farms sold \$1.3 million of food directly to consumers. This is a 21% decrease in the number of farms selling direct (117 in 2002), and a 36% increase in direct sales over 2002 sales of \$959,000.
- Direct sales were 1.1% of farm product sales, nearly three times the national average of 0.4%.

**Graham County highlights (Agriculture Census 2007):**

- 343 farms, 24% more than in 2002.
- Graham County has 1.3 million acres of land in farms.
- *Data for total agricultural sales were not released by the USDA in an effort to protect confidentiality. For reference, 2002 sales were \$82 million. Bureau of Economic Analysis data shows that Graham County farmers marketed \$185 million of farm products in 2007.*
- *Data for crop sales were not released by the USDA in an effort to protect confidentiality.*
- \$3.7 million of livestock and related products were sold.
- The most prevalent farm size is 1 to 9 acres, with 142 farms (41%) in this category.
- The next most prevalent is 10 to 49 acres, with 64 (19%) farms.
- 37 farms (11%) are 1,000 acres or more.
- 206 farms (60%) are less than 50 acres.
- 227 farms (66%) sold less than \$10,000 in farm products.
- 42 farms (12%) sold more than \$100,000 in farm products.
- Graham County ranks 1<sup>st</sup> in Arizona for acreage of apples, with 904.
- The county ranks 2<sup>nd</sup> in the state for sales of ornamentals, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Graham County ranks second in the state for sales of Christmas trees, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks 2<sup>nd</sup> in the state for acreage of corn for grain, with 2,894.
- Graham County ranks 3<sup>rd</sup> in Arizona for sales of hogs and pigs, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks fourth in the state for sales of agricultural products.
- Graham County ranks 4<sup>th</sup> in the state for sales of crops, *but sales figures were suppressed by USDA in an effort to protect confidentiality.*
- The county ranks 4<sup>th</sup> in the state for acreage of cotton, with 17,000.
- Graham County fifth in Arizona for sales of cotton, with \$13 million.
- The county ranks 5<sup>th</sup> in the state for inventory of hogs and pigs, *but inventory figures were not released by the USDA in an effort to protect confidentiality.*
- Graham County ranks 6<sup>th</sup> in the state for sales of grains, oilseeds, and dry beans and peas, with \$4.5 million.
- The county rank sixth in the state for sales of fruits, tree nuts, and berries, with \$5 million.
- Graham County ranks 7<sup>th</sup> in Arizona for sales of forage crops (hay, etc.) with \$2 million.
- The county ranks 7<sup>th</sup> in the state for acreage of wheat, *but acreage figures were not released by the USDA in an effort to protect confidentiality.*
- Graham County ranks eighth in the state for sales of poultry and eggs, with \$29,000.
- The county ranks 8<sup>th</sup> in the state for inventory of laying hens, with 1,162.
- Graham County ranks 8<sup>th</sup> in Arizona for inventory of bee colonies, *but inventory figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks ninth in the state for sales of vegetables, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Graham County ranks 9<sup>th</sup> in the state for sales of horses and ponies, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- 21 farms sold \$535,000 of food directly to consumers. This is a 31% increase in the number of farms selling direct (16 in 2002), and a 723% increase in direct sales over 2002 sales of \$65,000.

**Greenlee County highlights (Agriculture Census 2007):**

- 127 farms, 2% more than in 2002.
- Greenlee County has 35,000 acres of land in farms.
- Farmers sold \$6.2 million of products in 2007.
- \$1.5 million (24%) of these sales were crops.
- \$4.7 million (76%) of these sales were livestock.
- The most prevalent farm size is 10 to 49 acres, with 39 farms (31%) in this category.
- The next most prevalent is 50 to 179 acres, with 34 (27%) farms.
- 6 farms (5%) are 1,000 acres or more.
- 51 farms (40%) are less than 50 acres.
- 78 farms (61%) sold less than \$10,000 in farm products.
- 10 farms (8%) sold more than \$100,000 in farm products.
- Greenlee County ranks 3<sup>rd</sup> in Arizona for sales of Christmas trees, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks 5<sup>th</sup> in the state for aquaculture sales, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Greenlee County ranks seventh in the state for acreage of corn for grain, with 324.
- The county ranks 7<sup>th</sup> in the state for sales of milk, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Greenlee County ranks 8<sup>th</sup> in Arizona for acreage of corn for silage, *but acreage figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks eighth in the state for acreage of sorghum for silage, *but acreage figures were not released by the USDA in an effort to protect confidentiality.*
- Greenlee County ranks 9<sup>th</sup> in the state for sales of forage crops (hay, etc.), *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks 10<sup>th</sup> in the state for sales of cotton, with \$143,000.
- Greenlee County ranks tenth in Arizona for acreage of cotton, with 294.
- The county ranks 10<sup>th</sup> in the state for inventory of goats, with 454.
- 5 farms sold food directly to consumers. This is a slight decrease in the number of farms selling direct (7 in 2002).
- *Data for dollars of direct sales were not released by the USDA in an effort to protect confidentiality.*

**Pima County highlights (Agriculture Census 2007):**

- 622 farms, 20% more than in 2002.
- *Data for land in farms was not released by the USDA in an effort to protect confidentiality.*
- Farmers sold \$67.5 million of products in 2007.
- \$49 million (73%) of these sales were crops.
- \$18 million (27%) of these sales were livestock.
- The most prevalent farm size is 1 to 9 acres, with 273 farms (44%) in this category.
- The next most prevalent is 10 to 49 acres, with 187 (30%) farms.
- 53 farms (9%) are 1,000 acres or more.
- 460 farms (74%) are less than 50 acres.
- 453 farms (73%) sold less than \$10,000 in farm products.
- 61 farms (10%) sold more than \$100,000 in farm products.
- Pima County ranks 2<sup>nd</sup> in Arizona for acreage of sorghum for grain, with 2,842.
- The county ranks 2<sup>nd</sup> in the state for sales of horses and ponies, *but sales figures were not released by the USDA in an effort to protect confidentiality.*

- Pima County ranks second in the state for inventory of hogs and pigs, with 900.
- The county ranks 3<sup>rd</sup> in the state for sales of fruits, tree nuts, and berries, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Pima County ranks 4<sup>th</sup> in Arizona for sales of nursery and ornamental crops, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks fifth in the state for sales of hogs and pigs, with \$53,000.
- Pima County ranks 5<sup>th</sup> in the state for acreage of cotton, with 16,000.
- The county ranks 5<sup>th</sup> in the state for acreage of wheat, with 3,644.
- Pima County ranks fifth in Arizona for inventory of bee colonies, with 1,990.
- The county ranks 6<sup>th</sup> in the state for sales of cotton, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- Pima County ranks 6<sup>th</sup> in the state for sales of milk, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks sixth in the state for sales of poultry and eggs, with \$44,000.
- Pima County ranks 6<sup>th</sup> in Arizona for inventory of horses and ponies, with 4,521.
- The county ranks 7<sup>th</sup> in the state for sales of agricultural products.
- Pima County ranks seventh in the state for crop sales.
- The county ranks 7<sup>th</sup> in the state for sales of grains, oilseeds, and dry beans and peas, with \$4.2 million.
- Pima County ranks 7<sup>th</sup> in the state for sales of cattle and calves, with \$7.5 million.
- The county ranks eighth in Arizona for sales of forage crops (hay, etc.), with \$1.4 million.
- Pima County ranks 8<sup>th</sup> in the state for livestock and poultry sales.
- The county ranks 8<sup>th</sup> in the state for sales of sheep and goats, with \$111,000.
- Pima County ranks eighth in the state for aquaculture sales, *but sales figures were not released by the USDA in an effort to protect confidentiality.*
- The county ranks 9<sup>th</sup> in the state for inventory of laying hens, with 1,139.
- Pima County ranks 9<sup>th</sup> in the state for inventory of cattle and calves, with 20,000.
- The county ranks tenth in the state for sales of vegetables, with \$328,000.
- Pima County ranks 10<sup>th</sup> in the state for acreage of forage (hay, etc.), with 2,517.
- 45 farms sold \$312,000 of food directly to consumers. This is a slight decrease in the number of farms selling direct (49 in 2002), and a 206% increase in direct sales over 2002 sales of \$102,000.
- Direct sales were 0.5% of farm product sales, more than the national average of 0.4%.

**Santa Cruz County highlights (Agriculture Census 2007):**

- 193 farms, 27% more than in 2002.
- Santa Cruz County has 130,000 acres of land in farms.
- Farmers sold \$4.3 million of products in 2007.
- \$456,000 (11%) of these sales were crops.
- \$3.82 million (89%) of these sales were livestock.
- The most prevalent farm size is 10 to 49 acres, with 58 farms (30%) in this category.
- The next most prevalent is 50 to 179 acres, with 48 (25%) farms.
- 20 farms (10%) are 1,000 acres or more.
- 87 farms (45%) are less than 50 acres.
- 133 farms (69%) sold less than \$10,000 in farm products.
- 8 farms (4%) sold more than \$100,000 in farm products.
- Santa Cruz County ranks 3<sup>rd</sup> in Arizona for acreage of grapes, with 70.

- The county ranks 5<sup>th</sup> in the state for acreage of pistachios, *but acreage figures were not released by the USDA in an effort to protect confidentiality.*
- The County ranks 9<sup>th</sup> in the state for acreage of apples, with 11.
- 13 farms sold \$43,000 of food directly to consumers. This is more than double the number of farms selling direct (6 in 2002).
- Direct sales were 1% of farm product sales, more than double the national average of 0.4%.

**State of Arizona highlights (Agriculture Census 2007):**

- 15,637 farms, 114% more than in 2002.
- Arizona has 26 million acres of land in farms.
- Farmers sold \$3.2 billion of products in 2007.
- \$1.9 billion (59%) of these sales were crops.
- \$1.3 billion (41%) of these sales was livestock.
- The most prevalent farm size is 1 to 9 acres, with 9,873 farms (63%) in this category.
- The next most prevalent is 10 to 49 acres, with 2,657 (17%) farms.
- 824 farms (5%) are 1,000 acres or more.
- 12,530 farms (80%) are less than 50 acres.
- 12,730 farms (81%) sold less than \$10,000 in farm products.
- 1,053 farms (7%) sold more than \$100,000 in farm products.
- Arizona ranks 2<sup>nd</sup> in the country for acreage of lettuce, with 67,000.
- The state ranks 3<sup>rd</sup> in the country for sales of vegetables, with \$865 million.
- Arizona ranks ninth in the country for sales of cotton, with \$148 million.
- The state ranks 10<sup>th</sup> in the country for acreage of vegetables, with 138,000.
- 863 farms sold \$5.2 million of food directly to consumers. This is a 21% increase in the number of farms selling direct (711 in 2002), and a 34% increase in direct sales over 2002 sales of \$3.9 million.
- Direct sales were 0.2% of farm product sales, half the national average of 0.4%.
- Statewide vegetable sales totaled \$865 million.
- If direct food sales made up a single commodity, the value of these sales would outrank the state's 24<sup>th</sup>-most important product, tangerines.
- 129 farms farm organically, with a total of 12,000 acres of harvested cropland, and 3,570 acres of pastureland.
- 8,047 acres on 73 farms are undergoing organic conversion.
- 112 farms in Arizona sold \$48 million of organic food products.
- *Note that specific data for sales of organic crops, livestock and poultry, and livestock and poultry products, were not released by the USDA in an effort to protect confidentiality.*
- 63 farms market through community supported agriculture (CSA).
- 326 farms produce value-added products.
- 1,080 farms use conservation methods such as no-till, limited tilling, filtering field runoff to remove chemicals, fencing animals to prevent them from entering streams, etc.
- 1,281 farms practice rotational management of intensive grazing.
- 479 farms generate energy or electricity on the farms.

**Arizona's top farm products in 2010 (Economic Research Service)**

*See chart on next page.*

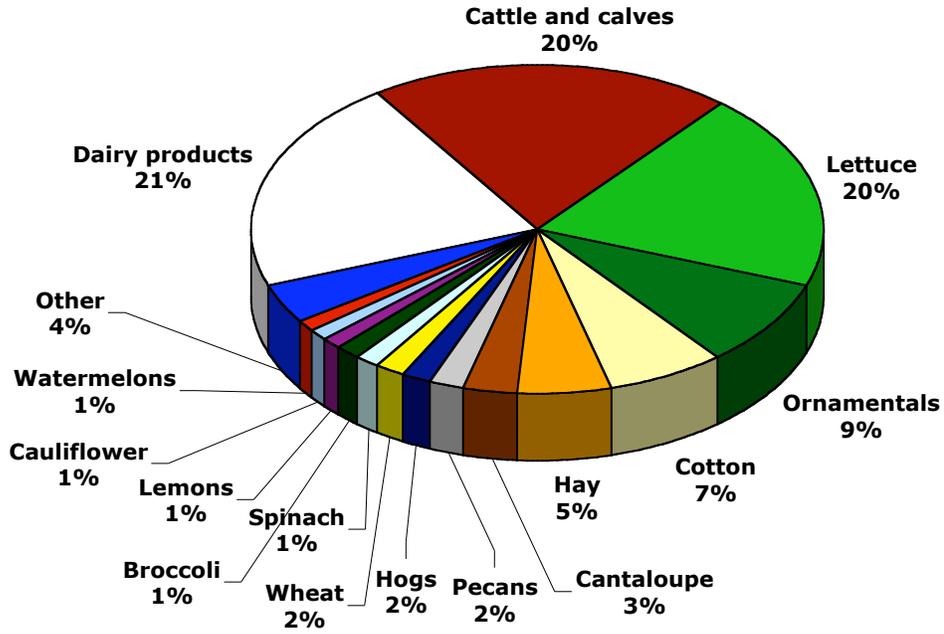
	<b>\$ millions</b>
1 Dairy products	657.6
2 Cattle and calves	637.9
3 Lettuce	607.7
4 Greenhouse/nursery	266.9
5 Cotton	206.1
6 Hay	168.3
7 Cantaloupe	97.3
8 Pecans	61.6
9 Hogs	53.1
10 Wheat	50.1
11 Spinach	45.0
12 Broccoli	42.8
13 Lemons	34.4
14 Cauliflower	33.4
15 Watermelons	28.9
16 Cabbage	23.0
17 Barley	21.7
18 Potatoes	16.6
19 Corn	15.9
20 Honeydews	12.6
21 Dry beans	11.9
22 Peppers, chile	10.4
23 Sheep and lambs	5.8
24 Tangerines	4.3
25 Apples	3.0

Note that at \$5.2 million, direct sales from farmers to consumers amount to more than the value of the 24<sup>th</sup>-ranking product, tangerines.

**Arizona's top farm products in 2010 (Economic Research Service)**

See table on previous page

**Top 25 farm products in Arizona, 2010**



Source: USDA Economic Research Service

**Balance of Cash Receipts and Production Costs (BEA):**

Southern Arizona ranchers and farmers sell \$300 million of food commodities per year (1999-2009 average), spending \$320 million to raise them, for an average loss of \$20 million per year. Since 1999, there has been only one year (2004) in which farmers in Southern Arizona earned more than they spent on production costs. Net farm income trends have been negative since 1989. Farmers in the region lost \$106 million in 2009, a loss of 39% of sales. *Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Census of Agriculture (see above).*

Moreover, 72% of the region's farms and ranches reported net losses to the Census of Agriculture in 2007. Southern Arizona farmers and ranchers earned \$85 million less by selling commodities in 2009 than they earned in 1969 (in 2009 dollars).

Farmers and ranchers earn another \$21 million per year of farm-related income — primarily custom work, and rental income (21-year average for 1989-2009). Federal farm support payments are relatively small, totaling \$12 million for the entire region in 2009.

**The region's consumers:**

*See also information covering low-income food consumption and food-related health conditions, page 1-2 above.*

Southern Arizona consumers spend \$3.3 billion buying food each year, including \$1.9 billion for home use. Most of this food (\$3 billion) is sourced outside the region. At least \$2 million of food products (about 0.1% of farm cash receipts and 0.06% of the region's consumer market) are sold by farmers directly to consumers. *Note that data suppression in for farm sales in Pima County makes the above percentages inexact.*

Estimated change in net assets (that is, assets minus liabilities) for all households in the region combined was a loss of \$6.5 billion in 2009 alone (BLS). This places additional pressure on Southern Arizona consumers trying to buy food.

**Farm and food economy summary:**

Farmers lose \$20 million each year producing food products, while spending \$200 million buying inputs sourced outside of the region. From the standpoint of the region as a whole, these external input purchases take money away from the local economy. This is a total loss of \$220 million to the region.

Meanwhile, consumers spend \$3 billion buying food from outside. Thus, total loss to the region is \$3.2 billion of potential wealth *each year*. This loss amounts to *ten times* the value of all food products raised in the region.

**Southern Arizona: markets for food eaten at home (2009):**

Southern Arizona residents purchase \$3.3 billion of food each year, including \$1.9 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$417
Fruits & vegetables	353
Cereals and bakery products	246
Dairy products	206
“Other,” incl. Sweets, fats, & oils	696

If the region’s residents purchased 15% of their food for home use directly from Southern Arizona farmers, this would generate \$287 million of new farm income. This would require an expenditure of less than \$5.00 per person per week. This is not new spending, but rather a shift in where dollars are spent.

**Cochise County: markets for food eaten at home (2009):**

Cochise County residents purchase \$344 million of food each year, including \$200 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 44
Fruits & vegetables	37
Cereals and bakery products	26
Dairy products	22
“Other,” incl. Sweets, fats, & oils	73

**Graham County: markets for food eaten at home (2009):**

Graham County residents purchase \$98 million of food each year, including \$57 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 12
Fruits & vegetables	11
Cereals and bakery products	7
Dairy products	6
“Other,” incl. Sweets, fats, & oils	21

**Greenlee County: markets for food eaten at home (2009):**

Greenlee County residents purchase \$21 million of food each year, including \$12 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 3
Fruits & vegetables	2
Cereals and bakery products	2
Dairy products	1
“Other,” incl. Sweets, fats, & oils	5

**Pima County: markets for food eaten at home (2009):**

Pima County residents purchase \$2.7 billion of food each year, including \$1.6 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 343
Fruits & vegetables	290
Cereals and bakery products	202
Dairy products	170
“Other,” incl. Sweets, fats, & oils	573

**Santa Cruz County: markets for food eaten at home (2009):**

Santa Cruz County residents purchase \$116 million of food each year, including \$68 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 15
Fruits & vegetables	12
Cereals and bakery products	9
Dairy products	7
“Other,” incl. Sweets, fats, & oils	25

**Metro Tucson: markets for food eaten at home (2009):**

Metro Tucson residents purchase \$3.1 billion of food each year, including \$1.8 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 402
Fruits & vegetables	340
Cereals and bakery products	237
Dairy products	198
“Other,” incl. Sweets, fats, & oils	671

**Metro Phoenix: markets for food eaten at home (2009):**

Metro Phoenix residents purchase \$13.1 billion of food each year, including \$7.6 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$1,662
Fruits & vegetables	1,406
Cereals and bakery products	980
Dairy products	821
“Other,” incl. Sweets, fats, & oils	2,776

**Arizona: markets for food eaten at home (2009):**

Arizona residents purchase \$17.5 billion of food each year, including \$10 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$2,220
Fruits & vegetables	1,877
Cereals and bakery products	1,309
Dairy products	1,096
“Other,” incl. Sweets, fats, & oils	3,706

**Key data sources:**

**Bureau of Economic Analysis data on farm production balance**

<http://www.bea.doc.gov/bea/regional/reis/>

**Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey**

<http://www.bls.gov/cex/home.htm>

**U.S. Census of Agriculture**

<http://www.nass.usda.gov/census/>

**USDA/Economic Research Service food consumption data:**

<http://www.ers.usda.gov/data/foodconsumption/>

**USDA/ Economic Research Service farm income data:**

<http://ers.usda.gov/Data/FarmIncome/finfidmu.htm>

**For more information:**

To see results from *Finding Food in Farm Country* studies in other regions of the U.S.:

<http://www.crcworks.org/locales.html>

To read the original *Finding Food in Farm Country* study from Southeast Minnesota (written for the Experiment in Rural Cooperation): <http://www.crcworks.org/ff.pdf>

To view a PowerPoint presented in March, 2008, by Ken Meter at Rep. Collin Peterson's (D-MN) Minnesota agricultural forum, called the "Home Grown Economy":

<http://www.crcworks.org/crcppts/petersonkm08.pdf>

To get a brief list of essential food facts, many of which are cited in the presentation above,

<http://www.crcworks.org/foodmarkets.pdf>

To link to further analysis of farm and food economies in the U.S.:

<http://www.crcworks.org/econ.html>

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