

# Crossroads Resource Center

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

### **Montezuma County (Colorado) Local Farm & Food Economy**

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for

#### **LiveWell Montezuma**

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*With supplemental information highlighting agriculture and food consumption in Dolores County*

#### **Montezuma County (Bureau of Economic Analysis, 2010)**

25,442 residents receive \$865 million of income annually. Personal income increased 340% from 1969 to 2011, after dollars were adjusted for inflation. This is in part due to a doubling of population. The largest source of personal income is transfer payments (from government programs such as pensions), with \$193 million. The second most important income source is government jobs, at \$139 million. Health care professions rank third, at \$50 million of personal income. Retail income ranks fourth, at \$47 million. Construction workers earn \$38 million. Mining ranks sixth, with \$16 million, and manufacturing and professional jobs each account for \$15 million of personal income. Note that income from public sources makes up 38% of all personal income in the county.

Income earned from transfer payments includes \$70.1 million of retirement and disability insurance benefits; \$80.3 million of medical benefits; \$19.8 million of income maintenance benefits; \$8.9 million of unemployment insurance; and \$5.8 million of veterans' benefits.

Government income includes \$32 million of income earned by federal workers and \$105 million earned by state and local government workers. Military personnel earn \$3 million of personal income.

Although population has doubled since 1969, there has been only limited public planning to assure a secure and stable food supply.

#### **Issues affecting low-income residents of Montezuma County:**

Nearly 8,600 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 about \$17 million each year buying food, including \$5 million of SNAP benefits (formerly known as food stamps) and additional WIC coupons. The county's 1,123 farmers receive an annual combined total of \$3 million in subsidies (23-year average, 1989-2011), mostly to raise crops such as

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<sup>1</sup> Considerable research assistance provided by Nick Wojciak.

corn or wheat that are sold as commodities, not to feed local residents. *Data from Federal Census of 2006-2010, Bureau of Labor Statistics, & Bureau of Economic Analysis.*

9% percent of the county's households (over 2,200 residents) earn less than \$10,000 per year. *Source: Federal Census of 2006-2010.*

19% of all adults aged 18-64 in Colorado carried no health insurance in 2010, up from 16.5% in 1995. *Source: Centers for Disease Control.*

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

25% of Colorado residents reported in 2009 that they ate five or more servings of fruit or vegetables each day. 75% do not. This level of adequate consumption is slightly lower than the 1996 rate of 26%. 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.*

57% of Colorado adults report 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. This is an improvement over 53% in 2001. *Source: Centers for Disease Control.*

6% of Colorado residents have been diagnosed with diabetes. This is an increase over the 4.3% rate of 2004. *Source: Centers for Disease Control.* Medical costs for treating overweightness, diabetes and related conditions in Montezuma County are estimated at \$14 million per year. Costs for the state of Colorado as a whole total \$3.9 billion. *Source: American Diabetes Association cost calculator.*

57% of Colorado residents are overweight (36%) or obese (21%), up from 45% in 1995. *Source: Centers for Disease Control.*

### **The county's 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:*

- 1,123 farms. This is 3% of Colorado farms.
- The county had 35% more farms in 2007 than in 2002. *Some of this increase may be due to more diligent efforts made by the Census of Agriculture in 2007 to make contact with smaller farms.*
- 54 (5%) of these are 1,000 acres or more in size.
- 533 (47%) farms are less than 50 acres.
- Average farm size is 627 acres, less than the state average of 853 acres.
- The county has 704,000 acres of land in farms.
- This amounts to 2% of the state's farmland.
- Montezuma County holds 52,000 acres of harvested cropland.
- The county holds 57,000 acres of irrigated cropland.
- Average value of land and buildings per farm was \$578,000. This was significantly less than the 2007 state average of \$892,000.

*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 county’s farmers sold \$27 million of crops and livestock in 2007.
- Farm product sales increased by 84% from 2002 to 2007.
- \$17.3 million of crops were sold.
- \$9.4 million of livestock and products were sold.
- 776 (69%) of the county’s farms sold less than \$10,000 of products in 2007.
- Total sales from these small farms were \$1.4 million, 5% of the county’s farm product sales.
- 62 (6%) of the county’s farms sold more than \$100,000 of products.
- Total sales from these larger farms were \$16 million, 60% of the county’s farm product sales.
- 66% of the county’s farms (743 of 1,123) reported net losses in 2007. This is more than the Colorado average of 60%.
- 163 (15%) of Montezuma’s farmers collected a combined total of \$1.3 million of federal subsidies in 2007.

**Top farm products of Montezuma County (2007)**

*Note that data for sales of corn, sorghum, and barley were suppressed by the USDA in an effort to protect confidentiality.*

<b>Product</b>	<b>\$ Millions</b>
Forage crops (hay, etc.)	12
Cattle and calves	8
Ornamentals	2
Grains, oil seeds, edible beans	2

*Production Expenses:*

- Depreciation expenses were the largest single expense for Montezuma County farmers in 2007, totaling \$5.6 million (21%).
- Interest payments ranked as the second most important expense, at \$3.6 million (13%).
- Supplies, repairs, and maintenance cost farmers \$3.6 million (13%).
- Gasoline, fuels, and oil costs totaled \$2.9 million (10%).
- Hired farm labor costs were \$2.7 million (10%).
- Feed purchases cost farmers \$2.5 million (9%).

*Cattle & Dairy:*

- 457 farms hold an inventory of 20,000 cattle.
- 12,851 cattle were sold by farmers in 2007 for total sales of \$8.2 million.
- 400 farms raise beef cattle.
- 11 farms raise milk cows.
- 4 farms produced corn for silage.
- 503 farms produced 122,000 tons of forage crops (hay, etc.) on 39,000 acres.
- 352 farms sold \$12 million of forage crops.

*Other Livestock & Animal Products:*

- 20 farms hold an inventory of 65 hogs and pigs.
- 20 farms sold 138 hogs and pigs in 2007.
- 76 farms hold an inventory of 5,546 sheep and lambs.
- 80 farms sold \$532,000 worth of sheep, goats, and lambs in 2007.
- 84 farms hold an inventory of 1,484 laying hens.
- 7 farms raise broiler chickens.
- 100 farms raise horses and ponies.

*Grains, Oil Seeds, & Edible Beans:*

- 45 farms produced \$1.8 million of grains, oil seeds, and edible beans.
- 2 farms produced corn for grain. *Note that data for bushels of corn for grain, and sales of corn for grain were suppressed by the USDA in an effort to protect confidentiality.*
- 26 farms produced 72,000 bushels of wheat on 4,215 acres, worth \$428,000.
- This amounts to an average price per bushel of wheat of \$5.94. *Note that this price is an approximation, and does not necessarily represent an actual price at which wheat was sold.*

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

- 22 farms worked 29 acres to produce vegetables, worth \$247,000.
- This represents a 367% increase in the number of farms (from 6).
- 7 farms raised potatoes.

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

- 70 farms in the county hold 411 acres of orchards.
- 61 farms sold \$879,000 of fruits, nuts, and berries.

*Nursery & Greenhouse Plants:*

- 19 farms sold \$1.9 million worth of ornamentals in 2007.
- This represents an increase of 73% in the number of farms (from 11) and an increase of 46% in sales over 2002.

*Direct & Organic Sales:*

- 78 farms sell \$311,000 of food products directly to consumers. This is a 26% increase of number of farms (62 in 2002) selling direct, and a 107% increase in direct sales over 2002 sales of \$150,000.
- This amounts to 1.2% of farm product sales, three times the national average of 0.4%.
- 14 farms in the county sold organic products, but *data for organic sales were suppressed by the USDA in an effort to protect confidentiality.*
- 7 farms market through community supported agriculture (CSA).
- 62 farms produce and sell value-added products.

*Conservation Practices:*

- 226 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.
- 289 farms practice rotational or management intensive grazing.
- 38 farms generate energy or electricity on the farm.

**Limited-resource farms and others in Montezuma County**  
**(Census of Agriculture, 2007)** *Note that (D) denotes suppressed data.*

<b>Small family farms:</b>	<b>Farms</b>	<b>Percent</b>	<b>Acres</b>	<b>Percent</b>
Limited-resource	166	15%	22,688	3%
Retirement	251	22%	45,456	6%
Residential/lifestyle	501	45%	81,504	12%
Farming occupation/lower sales	126	11%	(D)	N/A
Farming occupation/higher sales	28	2%	26,757	4%
<b>Large family farms</b>	9	1%	7,549	1%
<b>Very large family farms</b>	6	1%	3,612	1%
<b>Nonfamily farms</b>	36	3%	(D)	N/A
<b>Total</b>	1,123		187,566	

*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**

### **Other Montezuma County highlights (Agriculture Census 2007):**

- The most prevalent farm size is 10 to 49 acres, with 378 farms (34%) in this category.
- The next most prevalent is 50 to 179 acres, with 301 (27%) farms.
- Montezuma County ranks 2<sup>nd</sup> in Colorado for acreage of field and grass seed, but *acreage data were not released by the USDA in an effort to protect confidentiality.*
- The county ranks third in the state for acreage of dry edible beans, with 6,618.
- Montezuma County ranks third in Colorado for sales of fruits, tree nuts, and berries, with \$879,000.
- The county ranks 6<sup>th</sup> in the state for sales of forage crops (hay, etc.), with \$12 million.
- The county ranks ninth in Colorado for inventory of horses, with 4,231.
- 78 farms sold \$311,000 of food directly to consumers. This is a 26% increase in the number of farms selling direct (62 in 2002), and a 107% increase in direct sales over 2002 sales of \$150,000.
- Direct sales were 1.2% of farm product sales, three times the national average of 0.4%.

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

- 37,054 farms, 18% more than in 2002.
- Colorado has 32 million acres of land in farms.
- Farmers sold \$6 billion of products in 2007.
- \$2 billion (33%) of these sales were crops.
- \$4 billion (67%) of these sales was livestock.
- The most prevalent farm size is 10 to 49 acres, with 9,359 farms (25%) in this category.
- The next most prevalent is 50 to 179 acres, with 8,476 (23%) farms.
- 6,257 farms (17%) are 1,000 acres or more.
- 14,000 farms (37%) are less than 50 acres.
- 24,000 farms (64%) sold less than \$10,000 in farm products.
- 5,098 farms (14%) sold more than \$100,000 in farm products.
- Colorado ranks 1<sup>st</sup> in the United States for acreage of proso millet, with 259,000.
- The state ranks second in the country for sales of sheep, goats, and their products, with \$85 million.
- The state ranks 5<sup>th</sup> in the United States for sales of cattle and calves, with \$3.2 billion.
- Colorado ranks 7<sup>th</sup> in the country for acreage of wheat, with 2.4 million.
- The state ranks seventh in the country for acreage of sorghum, with 153,000.
- The state ranks 10<sup>th</sup> in the United States for sales of forage crops (hay, etc.), with \$318 million.
- Colorado ranks 10<sup>th</sup> in the country for inventory of cattle and calves, with 2.7 million.
- 2,777 farms sold \$22.6 million of food directly to consumers. This is a 19% increase in the number of farms selling direct (2,343 in 2002), and a 30% increase in direct sales over 2002 sales of \$17.4 million.
- Direct sales were 0.4% of farm product sales, the same as the national average of 0.4%.
- Statewide vegetable sales totaled \$289 million.
- If direct food sales made up a single commodity, the value of these sales would outrank the state's 18<sup>th</sup> most important product, peaches.
- 425 farms farm organically, with a total of 49,000 acres of harvested cropland, and 42,000 acres of pastureland.
- 20,000 acres on 227 farms are undergoing organic conversion.
- 347 farms in Colorado sold \$51 million of organic food products, including \$19 million of crops (this may include ornamental and greenhouse crops). *Data for sales of organic livestock and poultry, and sales of products from organic livestock and poultry (such as milk and eggs) were not released by the USDA in an effort to protect confidentiality.*
- 214 farms market through community supported agriculture (CSA).
- 1,709 farms produce value-added products.
- 7,043 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.
- 8,511 farms practice rotational or management intensive grazing.
- 969 farms generate energy or electricity on the farms.



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

- 279 farms, 29% more than in 2002.
- Dolores County has 174,000 acres of land in farms.
- Farmers sold \$8.85 million of products in 2007.
- \$6.2 million (70%) of these sales were crops.
- \$2.65 million (30%) of these sales were livestock.
- The most prevalent farm size is 50 to 179 acres, with 77 farms (28%) in this category.
- The next most prevalent is 180 to 500 acres, with 73 (26%) farms.
- 51 farms (18%) are 1,000 acres or more.
- 51 farms (18%) are less than 50 acres.
- 199 farms (71%) sold less than \$10,000 in farm products.
- 26 farms (9%) sold more than \$100,000 in farm products.
- Dolores County ranks first in Colorado for acreage of safflower, but *acreage data were not released by the USDA in an effort to protect confidentiality.*
- The county ranks second in the state for acreage of dry edible beans, with 9,944.
- Dolores County ranks second in the state for inventory of rabbits, but *inventory data were not released by the USDA in order to protect confidentiality.*
- The county ranks 8<sup>th</sup> in Colorado for acreage of sunflower, with 6,602.
- 8 farms sold \$18,000 of food directly to consumers. This is a three-farm decrease in the number of farms selling direct since 2002, and a \$4,000 increase in direct sales over 2002 sales.
- Direct sales were 0.2% of farm product sales, one half the national average of 0.4%.

**Colorado's top farm products in 2011 (Economic Research Service)**

*See chart on next page.*

	<b>\$ mlns</b>
1 Cattle and calves	3,062
2 Corn	911
3 Dairy products	594
4 Wheat	584
5 Hay	380
6 Ornamentals/greenhouse	254
7 Potatoes	249
8 Hogs	233
9 Chicken eggs	85
10 Sugar beets	57
11 Sunflower	41
12 Onions	36
13 Millet, proso	35
14 Barley	34
15 Dry beans	30
16 Sorghum grain	27
17 Corn, sweet	23
18 Peaches	22
19 Cabbage	18
20 Cantaloupe	9

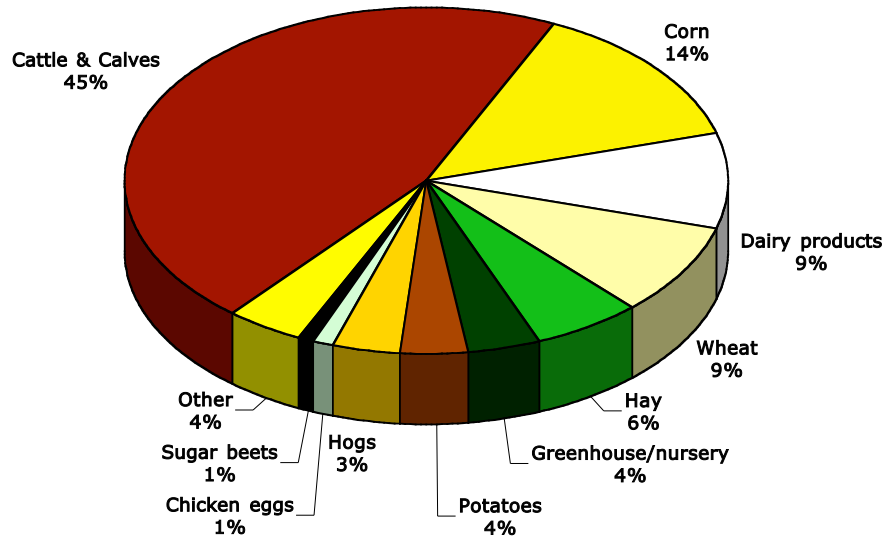
*Note: carrots, mushrooms, spinach, turkeys, and aquaculture were also listed among Colorado's top 25 products, but sales figures for these products were not released by ERS, in an effort to protect confidentiality.*

Note also that at \$22.6 million, direct sales from farmers to consumers in Colorado amount to just a bit more than the value of the 18<sup>th</sup>-ranking product, peaches.

**Colorado's top farm products in 2011 (Economic Research Service)**

See table on previous page

Top Farm Products in Colorado, 2011



Source: USDA Economic Research Service

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

Montezuma County ranchers and farmers sell \$32 million of food products per year (1989-2011 average), spending \$40 million to raise them, for an average loss of \$8 million each year. This is an average net loss of \$7,000 per farm. *Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Agriculture Census (above).*

Overall, farm producers lost \$200 million by selling crops and livestock over the years 1989 to 2011. Partially offsetting this, crop sales have risen since 2003. Net cash income from farming was just barely positive in 2011. Farm production costs exceeded cash receipts for 21 years of the 23-year period. Moreover, 66% of the county's farms reported that they lost money in 2007 (Ag Census). County farmers and ranchers earned about as much by selling commodities in 2011 as they earned in 1969 (in 2011 dollars).

Farmers and ranchers earn another \$4 million per year of farm-related income — primarily custom work, and land rental income (23-year average for 1989-2011). Federal farm support payments have often been a more important source of net income than commodity production, averaging \$3 million per year for the county over the same years.

**The county's consumers:**

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

Montezuma County consumers spend \$67.5 million buying food each year, including \$39.4 million for home use. Most of this food is produced outside the county, so Montezuma County consumers spend at least \$60 million per year buying food sourced elsewhere. Only \$311,000 of food products (1.2% of farm cash receipts and 0.5% of the county's consumer market) are sold by farmers directly to consumers.

Estimated change in net assets (that is, assets minus liabilities) for all county households combined was a loss of \$133 million in 2009 alone (BLS). This places additional pressure on Montezuma County consumers trying to buy food.

**Farm and food economy summary:**

Farmers lose \$8 million each year producing food commodities, and spend \$16 million buying inputs sourced outside of the county. Even when farmers make money, these input purchases result in substantial losses to the county as a whole. Overall, farm production creates an average loss of \$24 million to the county each year.

Meanwhile, consumers spend \$60 million buying produced outside the county. Thus, total loss to the county is \$84 million of potential wealth *each year*. This loss amounts to more than double the value of all food commodities raised in the county.

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

Montezuma County residents purchase \$68 million of food each year, including \$39 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 8.6
Fruits & vegetables	7.2
Cereals and bakery products	5.0
Dairy products	4.2
“Other,” incl. Sweets, fats, & oils	14.3

If Montezuma County residents purchased \$5 of food directly from farmers in the county each week, this would generate \$6.6 million of new farm income for the county.

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

Dolores County residents purchase \$5.5 million of food each year, including \$3.2 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 0.7
Fruits & vegetables	0.6
Cereals and bakery products	0.4
Dairy products	0.3
“Other,” incl. Sweets, fats, & oils	1.2

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

Colorado residents purchase \$13.5 billion of food each year, including \$7.9 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$1,722
Fruits & vegetables	1,456
Cereals and bakery products	1,016
Dairy products	850
“Other,” incl. Sweets, fats, & oils	2,875

**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/?submit=fffc>

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>

For further information: <http://www.crcworks.org/>

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