

L. AGRICULTURE

1. Importance of Agriculture to the Economy (Table L-1)

Viewed from a regional perspective, agriculture is the Valley's largest supplier of basic income and the largest source of basic employment. Of the \$525,176,000 base income driving the Valley economy in 2010, agricultural activities contributed an estimated \$162,569,000, or 31 percent. Agricultural jobs estimated at 4,687 comprised 27 percent of all base employment.

Looking at the counties, agriculture income is most important to Rio Grande (47.2 percent), Saguache (42.8 percent), and Costilla (33.7 percent). Nearly half of the Valley's agribusiness (\$78.1 million) is concentrated in Rio Grande, followed by Alamosa (\$33.4 million), and Saguache (\$28.8 million). Jobwise, agriculture ranks as the number one source of base employment in Rio Grande and Saguache counties.

According to data sources used in the model, the production of crops and livestock brings in about \$71.7 million of agriculture's base income (43.3 percent); ag inputs provide 43.2 percent; and 13.4 percent is due to ag processing.

Ag inputs represent the indirect basic suppliers to agriculture including farm services, fertilizers, seeds, chemicals, finance, various types of wholesale distribution, and associated rail and truck transportation. Ag processing includes the manufacturing of food and organic products, and a portion of the packing, shipping, and warehousing operations.

2. Farm Operations (Table L-2)

Table L-2 contains 2011 data on crop and livestock production reported by the National Agricultural Statistics Service, and data reported in the 2007 Census of Agriculture data on farm and ranch operations. The Ag Census is conducted on a five-year cycle with new data expected spring 2014.

In 2007, the table shows that the total farm and ranch land in the region was over 1.3 million acres, or about 25 percent of the total land area. Average size for a total of 1,739 farms and ranches in the region was about 759 acres. Farm averages larger than that were concentrated in Costilla and Saguache counties, and the median-sized farm was usually quite a bit smaller. The average value of land and buildings ranged from \$534,397 in Conejos, to \$1,550,459 in Saguache. Cropland totaling 507,520 acres for the region represented 38.4 percent of all the farm and ranch land, and 483,612 acres (95.2 percent) were irrigated.

The region's total market value of ag products sold was reported at \$326,584,000, consisting of \$284,283,000 in crops, and \$42,173,000 in livestock. This cost farmers \$245,5651,000 in expenses, with a net cash return of \$96,189,000.

3. Crop and Livestock Production (Table L-2)

A total of 48,700 acres of barley was harvested in 2011, which produced 6,581,000 bushels at average yield of 135.1 Bu/acre. Rio Grande and Saguache were the largest barley producers, and had the best yields ranging from 141.6-137.8 Bu/acre. A total of 149,000 acres of alfalfa hay was harvested, with 3.65 tons/acre. The largest alfalfa hay producers were in Rio Grande and Conejos counties. Conejos and Saguache counties as were the largest producers of other hay.

According to the NASS report, 55,200 acres of potatoes were harvested, with an average yield of 3890 cwt. (100 lbs) per acre. Potatoes were concentrated in Rio Grande, Alamosa, and Saguache counties, with total production of 21,528,000 cwt. (or about 2.1 billion pounds).

A regional total of 33,400 acres of wheat was harvested. The average yield was 102 Bu./acre.

The 2011 livestock inventory showed a region total of 86,400 cattle and calves, and 37,500 of these were beef cows and heifers that have calved.

4. Crop Production and Value (Table L-3, Table L-4)

Table L-3 provides a year-by-year comparison of the acres harvested, yield, price, production value by acre, and total production value for the Valley's major crops. This underscores the importance of potatoes as the main cash crop, which exceeded all others in value per acre and production in all years of 2006-2011. For 2011, potatoes generated a total production value of over \$220.8 million, followed by alfalfa hay (\$109.8 million); spring barley (\$34.2 million); other hay (\$25.5 million); and spring wheat (\$20.5 million).

For the six-year period, potato production value for 2010 was the highest at \$275.5 million as reflecting a price of \$12.40/cwt. Due to widespread drought conditions throughout the West and Southwest, alfalfa hay posted its biggest production value for the period at 109,857,7000 and an average per ton price of \$202.

Table L-4 shows typical planting and harvesting dates for field and vegetable crops. The Valley's high altitude confines the crop-growing season to about 100 frost-free days, but farmers have been able to produce some bumper yields and superior quality crops in this short time period. Long-term drought has led to some cut-back in acreage, but has probably helped to sustain higher crop prices. High altitude and extremely cold winters have also helped to reduce many of the plant diseases and pest damage experienced by growers in lower-altitude locations.

5. Potatoes (Table L-5, L-6, L-7, L-8)

Table L-5 compares 2006-2011 fall crop production of the leading potato-growing states. Colorado (with the San Luis Valley as the state's sole fall producer) ranks fifth behind Idaho, Washington, Wisconsin, and Oregon. Because of its limited processing facilities, the Valley ships 95 percent of its crop to fresh markets.

Table L-6 gives a view of the region's potato production by county as reported in the annual

Colorado Potato Administrative Committee's Market Policy Statement for the 2012-2013 crop. In previous years, 2006-2009, Rio Grande County led the Valley in potato production. That changed in 2010 when Alamosa County was the Valley's top producer. For 2010, Alamosa County production was 7,505,000 cwt.; Rio Grande posted 6,640,000 cwt.; followed by Saguache, 5,560,000 cwt.; and combined Conejos and Costilla, 1,823,000 cwt.

Table L-7 shows how the 2011-12 fall crop is utilized. Of a total USDA production estimate of 21,191,000 cwt., 9,426,248 (44.3 percent) is US No. 1 Quality; 3,535,929 cwt. (16.6 percent) is US Commercial Grade; and 1,218,395 cwt. (5.7 percent) US No. 2 Quality. Other breakouts of the crop show 9.0 percent as farm use, shrink, and livestock; 9.1 percent shipped to out-of-area processors; 5.4 percent as seed to plant 55,100 acres; 4.2 percent for local processing; 5.2 percent as Certified Seed to growers outside the Valley; and 0.5 percent as specialty (fingerlings).

Table L-8 looks at the flow of the crop from the beginning, middle, and end of the 2011-2012 growing season. These provide a sample of the content reported in CPAC's monthly newsletter under "Spud Facts," in order to understand the variability of crop shipments, prices, and other information. We see from the table that Russet varieties comprise the vast majority of the crop, and about three quarters of the crop is U.S. No. 1 quality. Only a small portion of the shipments are by rail, and by the end of August, 35,439 total shipments were tallied. All number one Russets were listed at \$7.46 at the start of the shipping season in September, compared with \$11.05/cwt. for bulk Russets.

According to CPAC, potatoes are still the second most popular vegetable in America, but consumption has been on a steady decline for decades. In 1970, the average consumer ate about 60/lbs annually, compared with only 43/lbs in 2006. One reason is that potatoes take longer to cook, and today's consumers want meals prepared in 20 minutes or less. Another reason is the aging of population and increase in two-person households, which typically eat less than those with children and more traditional cooking.

In its 2012-2013 Market Policy Statement, CPAC offers the following observation on potato consumption:

Potatoes gained share of dinners in 2012 (30% from 28% in 2011) among the U.S. sample, but remained stable among our market users or "Lindas" (31%). Only poultry (which grew considerably in 2012) has a higher share of dinners than potatoes.

Mashed potatoes remain the most common preparation but fell in 2012, while baked potatoes and roasted potatoes grew.

Fresh potato usage grew, while other segments declined slightly, however "Linda" appears to be using more frozen potatoes than in 2011. Attitudes towards potatoes improved considerably across all attributes tested.

"Lindas" usage and attitude toward potatoes remain more positive (vs. U.S. sample), but the gap between "Lindas" and the U.S. sample appears to be closing across several measures.

Russets continue to dominate usage frequently followed by white, reds, and yellow types. The research indicates that there is great opportunity in educating consumers about the differences in potato types to increase consumption.

6. Water Management Impacts

All crops in the Valley rely on irrigation from either surface water or ground water, with surface water from surrounding mountains used to recharge the underground aquifer through canals and augmentation pits. The Valley is still experiencing an extended period of drought that has seen streamflows below average in for the last five years. The aquifer used as the ground water source for irrigation has been in steady decline. As the aquifer drops, irrigation systems cannot get enough water fully charge the system, and many growers are using additional wells to supplement their primary well in order to produce enough water to grow their crop. This has already triggered mandatory water metering, with well regulation as the next step.

In order to bring production more in line with water supply, irrigators are making a first-ever attempt at self-regulation through the creation of groundwater management districts. Farmers in the districts would fallow irrigated land, thus reducing pumping of the aquifer. The first district, Subdistrict No. 1, went into operation in 2012. As many as five other districts could be created in the Valley.

For more in-depth information on the region's water situation, please refer to Chapter F of this section.

7. Value-Added Ag Processing

Value-added in any form is important to the economy, but processing in the narrower sense includes only those activities, which change the form of the raw product such as slicing, dehydrating, cooking, or other alteration. In order to support processing activities of this type, we helped in developing a \$2.7 million ag waste treatment facility in Center in 1998 with capacity to serve several processing plants at a time. This enabled three processing plants to be developed, two of which are no longer in service. These included a carrot processing plant, which could not compete with established carrot processors, and a peeled potato operation based on a successful product in Europe, which did not work in the U.S. markets. Both of these ventures were locally initiated. Original owners of the Sunshine Potato Flakes dehydrated potato plant in Center were also unable to maintain a consistent level of operations, and the plant is currently in operation and owned by the Otter Tail Corporation. The company has planned a doubling of the size of its operations, but this is contingent on development of a high-volume natural gas pipeline to the town and plant.

Several potato farmers grow organic produce and meet USDA Certified Organic standards. There is some possibility for a value-added processing operation based on organic potatoes using facilities in the Valley. Canola crushing, primarily for oil used in biodiesel blending is being used in limited quantity in Costilla County.

Byproducts of processing often have more value than the original product, and further study of these opportunities has been a long-standing goal pending full production and consistent levels of operation at the existing processing plants. Production of beta carotene from the byproducts of carrot processing would offer considerable potential along these lines.

8. Barley and Spring Wheat

The Valley's high, dry, cool climate is also ideally suited for barley, which also works well in rotation with potatoes and alfalfa. As noted in tables above, around 50,000 acres are in barley producing around 6.5 million bushels. Malting varieties comprise 75-85% of the crop, and the most popular variety is Moravian 14. Barley is also grown as a cash crop for the beer industry, with two-row barley having higher malt extraction rates.

The Molson-Coors Brewing Company has traditionally purchased most of the Valley crop, and sets high standards for crop quality based on moisture content in the 13 percent range. Prices on the open market are around \$5.20/bu.

In 2008, the Cody family began Colorado Malting Company, producing malting barley, rye, wheat and other grains for breweries and distilleries in Colorado. One of five micro-malting companies in the country, Colorado Malting is now producing about 40,000 pounds of malting product each month.

The estimated 33,400 acres and 3.3 million/bu. of spring wheat shows a marked increase in wheat production in the Valley over that last five years. Wheat averaged \$6.05/bu. in 2011.

9. Alfalfa and Hay

The 149,000 acres and 545,000 tons of alfalfa hay as reported for 2011 is second in value only to potatoes in the Valley, and prices have remained strong. Prices reached over \$200/T in 2011, significantly higher than previous years.

Natural grass and oat hay is grown for beef cattle and horses, and alfalfa is generally reserved for dairy cattle with some also for horse feed. Dairies in northern Colorado and southern New Mexico are some of the best customers, but drought has reduced acreage and it takes more water to grow hay. Valley hay has a widespread reputation for its excellent quality and protein content, attributed in part to high altitude growing conditions and more days of sunshine. Three cuttings in the Valley are the norm, but the second cutting stands a greater risk of rain damage.

Alfalfa and hay quality is measured in terms of moisture and protein content. Hay baled at 15-18 percent moisture is considered good quality, and premium grade alfalfa is 22 percent protein or higher. Grass hay runs from 8-12 percent protein. Protein content is determined by plant maturity, harvesting conditions, plant species, and growing conditions. Hay should also be free of weeds, which lower food value.

10. Carrots and Other Vegetables

Colorado used to be the second highest producer of carrots in the nation, and the Valley is one of the state's best growing regions. However, the USDA's National Agricultural Statistics Service ceased estimating Colorado carrot production in 2004. Grimmway Farms with main location near Bakersfield, California is the Valley's major producer, although organic carrot farming perfected by Harmon Farms is also well known. Another big producer in the Valley is marketed under the

Nature Fresh brand. Carrots grown in the Valley are superior in quality and taste, and believed to contain a relatively higher concentration of nutrients.

11. Canola

The Valley's growing conditions are also perfect for canola, which was promoted by a Canadian cooking oil processor and tested as an alternative crop by a fair number of Valley farmers about a decade ago. This was successful from the standpoint of production, but provided only a small price advantage to farmers, and the company pulled out after a few years after failing to negotiate a contract agreement. Canola seed was also marketed on a small scale as a high-nutrition condiment alternative to bacon bits and poppy seed, but this required a greater marketing effort than was affordable.

More recently, the feasibility of producing large acreages of canola as a blending oil for biodiesel fuel along with a locally-based canola crushing facility was studied, but found not to be viable at this time. Like barley, canola is an excellent rotation crop with potatoes, but it has not been able to compete with barley for price or generate the level of grower interest needed for canola-based operations.

There has been some limited canola production under contract with Costilla County Biodiesel, but not on a significant scale.

12. Alternative Crops

Quinoa, a South American high altitude crop introduced to the Valley over 25 years ago, is extremely high in protein and offers great potential. With the exception of White Mountain Farms in Mosca and a few other growers, very little interest has been shown.

Sunflowers also do very well in the Valley and could be considered at some point. There has been some very limited growing of sunflowers for Costilla County Biodiesel.

13. Local/Organic Foods

Within the last four years, local food producers, most them raising or processing organic products, have coalesced into cooperative community to promote and create a sustainable local foods system. Organized as the San Luis Valley Local Foods Coalition, the group publishes a guide to locally grown and sold meat, poultry, dairy, produce and other food goods. The guide includes information on over 60 local food producers. More information on the San Luis Valley Local Foods Coalition is available at www.sanluisvalleylocalfoods.blogspot.com or www.slvlocalfoods.org.

Local farmers' markets have become a major source of local foods and are now a regular summer-into-fall feature in towns throughout the Valley. Markets with locations and dates include:

- Alamosa Farmers' Market – Downtown; Saturdays, mid-July through early October.
- Crestone Farmers' Market – Downtown; Saturday, Earth Day through mid-October.

- Del Norte Farmers' Market – Spruce & Hwy 160; Thursday afternoon, July through September.
- La Jara Farmers' Market – Town Hall; Friday afternoon, end of July to September.
- Monte Vista Sunshine Market – Fullenwider Park; Fridays, June through August.
- San Luis Farmers' Market – Main Street; Thursdays, July to mid-August.
- Saguache Farmers' Market – Downtown pocket park; Fridays, mid-July to mid-October.
- South Fork Farmers' Market – Intersection of Hwys 160 and 149; Friday, July through August.

As interest in and demand for locally grown, organic food grows, more growers are entering the marketplace. Several producers

Organic food markets offer considerable potential for the Valley. In general, more promotion is needed to expose organic market opportunities, and more assistance from qualified agencies is needed to assist farmers in adapting to the new organic technologies. Grower cooperatives for entering the organic markets provide a number of advantages, but a greater level of assistance is also needed in forming and managing cooperatives.

14. Livestock

The Valley has established a high reputation for the quality of its livestock. In addition, bison have also done well on the Nature Conservancy's Medano/Zapata ranch. A number of ranchers also specialize in raising organic meat with the most notable are Salazar Natural Meats in Conejos County, KW Farms in Alamosa County, Diamond F Beef in Rio Grande County, Gosar Sausage, and Blue Range Ranch in Saguache County.

Table L-2 shows the inventory of all cattle and calves at 86,400 for 2012, with beef cows and heifers that have calved at 37,500 of this total. Conejos County has the largest concentration of cattle at 32,000, followed by Saguache (20,500); Rio Grande (14,200); Alamosa (11,600); and Costilla (7,900).

The total market value of all livestock sold as reported in the 2007 Census of Agriculture, is \$42,173,000, which compares with \$284,283,000 for crops. Cattle prices have generally been high as cattle inventories throughout the West and Southwest have been drastically reduced due to widespread drought conditions.

All attempts at value-added processing based on livestock have been exclusive to Conejos County, and were unsuccessful or unsustainable. The markets selected for these ventures proved to be extremely difficult, but more blame is generally placed on project management than markets. Projects included a meatpacking venture in Sanford focused on Denver Kosher markets initiated by San Luis Valley and northern New Mexico cattle producers. Three slaughtering operations on a small scale currently exist in Conejos County.

Other livestock includes sheep and lambs as the largest herds, and an increasing number of goats for meat. There is limited raising of pigs, and confinement operations generally would not be considered here.

Table L-1
Agriculture - 2010 Economic Base Analysis
 San Luis Valley Total Base Income (\$1,000) - \$585,805
 Agriculture - \$165,569 %Total Basic - 28.3 Rank in Region - 1

	Alamosa	Conejos	Costilla	Mineral	Rio Grande	Saguache	San Luis Valley
Total Basic Income (\$1,000)	\$234,156	\$63,473	\$31,861	\$12,629	\$176,178	\$67,509	\$ 585,805
Agriculture Table	\$33,418	\$14,687	\$10,741	-\$267	\$78,104	\$28,887	\$165,569
Agriculture % of county	14.3	23.1	33.7	-2.1	44.3	42.8	28.3
Rank in county	3	3	2	9	1	1	1
County % of SLV	20.2	8.9	6.5	-0.2	47.2	17.4	100.0
Agricultural inputs	\$3,572	\$1,194	\$664	\$36	\$52,434	\$13,661	\$71,561
% of total agriculture	10.7	8.1	6.2	-13.5	67.1	47.3	43.2
County % of SLV	5.0	1.7	0.9	0.1	73.3	19.1	100.0
Agricultural production	\$25,235	\$11,107	\$7,974	-\$304	\$14,897	\$12,845	\$71,754
% of total agriculture	75.5	75.6	74.2	-113.9	19.1	44.5	43.3
County % of SLV	35.2	15.5	11.1	-0.4	20.8	17.9	100.0
Agricultural processing¹	\$4,610	\$2,386	\$2,102	\$0	\$10,773	\$2,381	\$22,252
% of total agriculture	13.8	16.2	19.6	0.0	13.8	8.2	13.4
County % of SLV	20.7	10.7	9.4	0.0	48.4	10.7	100.0

San Luis Valley Total Base Employment - 17,352
 Agriculture - 4,687 %Total Basic - 27.0 Rank in Region - 1

	Alamosa	Conejos	Costilla	Mineral	Rio Grande	Saguache	San Luis Valley
Total Basic Employment	6,358	2,255	1,138	542	4,791	2,269	17,352
Agriculture Table	961	541	272	14	1,786	1,113	4,687
Agriculture % of county	15.1	24.0	23.9	2.6	37.3	49.1	27.0
Rank in county	3	2	2	4	1	1	1
County % of SLV	20.5	11.5	5.8	0.3	38.1	23.7	100.0
Agricultural inputs	119	67	29	9	1,103	565	1,892
% of total agriculture	12.4	12.4	10.7	64.3	61.8	50.8	40.4
County % of SLV	6.3	3.5	1.5	0.5	58.3	29.9	100.0
Agricultural production	727	404	175	5	491	455	2,257
% of total agriculture	75.7	74.7	64.3	35.7	27.5	40.9	48.2
County % of SLV	32.2	17.9	7.8	0.2	21.8	20.2	100.0
Agricultural processing¹	116	70	68	0	192	94	540
% of total agriculture	12.1	12.9	25.0	0.0	10.8	8.4	11.5
County % of SLV	21.5	13.0	12.6	0.0	35.6	17.4	100.0

Source: Colorado State Demography Office, Base Economic Analysis provided by SDO economist February 2012.

¹ Includes trade & transportation and food & beverage.

**Table L-2
Crop and Livestock Production**

Commodity	Alamosa	Conejos	Costilla	Mineral	Rio Grande	Saguache	Combined Counties*	San Luis Valley
Crops 2011								
Barley -Acres harvested	11,300	6,800	7,400	-	13,300	12,600	-	48,700
-Yield (Bu./acre)	126.8	133.2	132.6	-	141.6	137.8	-	135.1
-Production (Bu.)	1,433,000	906,000	623,000	-	1,883,000	1,736,000	-	6,581,000
Hay, alfalfa -Acres Harvested	24,500	51,000	21,000	-	28,000	24,500	-	149,000
-Yield (tons/acre)	3.90	2.75	4.25	-	4.05	4.35	-	3.65
- Production (tons)	95,000	140,000	89,000	-	114,000	107,000	-	545,000
Hay, other -Acres Harvested	8,700	40,900	-	-	17,500	34,700	-	110,000
- Yield (tons/acre)	1.25	1.50	-	-	2.05	1.10	-	1.45
- Production (tons)	11,000	62,200	-	-	35,500	39,000	-	160,000
Potatoes, all -Acres Harvested (2010)**	19,100	-	-	-	16,900	14,500	4,700	55,200
-Yield (Cwt. /acre)	393	-	-	-	393	383	388	390
-Production (Cwt.)	7,505,000	-	-	-	6,640,000	5,560,000	1,823,000	21,528,000
Wheat, all - Acres harvested (Spring)	-	2,300	2,200	-	-	-	28,900	33,400
-Yield (Bu./acre)	-	99.10	104.50	-	-	-	101.20	102
- Production (Bu.)	-	228,000	230,000	-	-	-	2,932,000	3,339,000
Cattle 2012								
All cattle & calves	11,600	32,000	7,900	200	14,200	20,500	-	86,400
Beef cows/ heifers that have calved	-	20,500	5,200	100	-	11,700	-	37,500

2007 Census of Agriculture								
Number of Farms and Ranches	316	535	241	15	390	242		1,739
Farm & ranch land(acres)	176,629	267,708	401,147	8,866	178,908	287,272		1,320,530
Average size (acres)	559	427	1,665	591	459	1,187		759
Median size(acres)	230	148	100	380	178	400		-
Average value of land & buildings (Dollars)	\$885,117	\$534,397	\$1,356,077	\$1,042,017	\$1,017,332	\$1,550,459		-
Total cropland (acres)	91,098	123,022	59,045	1,756	114,370	118,229		507,520
Irrigated land (acres)	94,030	119,126	63,525	847	102,792	103,292		483,612
Market value of ag products sold (\$1,000)	\$91,413	\$31,569	\$26,660	\$126	\$85,360	\$91,456		\$326,584
All crops (\$1,000)	\$86,046	\$18,804	\$22,840	(D)	\$78,057	\$78,536		\$284,283
All Livestock(\$1,000)	\$5,367	\$12,764	\$3,820	(D)	\$7,302	\$12,920		\$42,173
Farm production Expenses (\$1,000)	\$66,916	\$26,825	\$23,687	\$846	\$57,782	\$69,505		\$245,561
Net cash return (\$1,000)	\$28,617	\$6,827	\$4,559	(D)	\$30,607	\$25,579		\$96,189
Ave. age of farm/ranch operator (yrs.)	56.8	56.8	58.0	60.8	56.6	56.8		-

Sources: U.S. Department of Agriculture, National Agricultural Statistics Service. Colorado Agricultural Statistics 2012.

http://www.nass.usda.gov/Statistics_by_State/Colorado/Publications/Annual_Statistical_Bulletin/bulletin2012.pdf

U.S. Department of Agriculture, National Agricultural Statistics Service. 2007 Census of Agriculture, Table 1. County Summary Highlights: 2007.

<http://www.agcensus.usda.gov/index.php>

* Combined counties include data not published to avoid disclosure of individual operations.

** Fall crop potatoes.

Table L-3
Crop Production and Value, 2006-2011

San Luis Valley Region

Field Crop	Year	Acres Harvested	Yield (Bu/acre) (Ton/acre)	Price* (\$/bu) (\$/ton)	Production Value Per Acre	San Luis Valley Total Production Value
Spring Wheat	2006	13,800	105.0	\$4.88	\$512.40	\$7,071,120
	2007	13,000	106.5	\$9.28	\$988.32	\$12,848,160
	2008	33,800	87.0	\$10.50	\$913.50	\$30,876,300
	2009	22,100	103.5	\$4.19	\$433.67	\$9,583,997
	2010	19,700	108.8	\$5.70	\$620.16	\$12,217,152
	2011	33,400	101.5	\$6.05	\$614.08	\$20,510,105
Barley	2006	25,400	143.5	\$2.48	\$355.88	\$9,039,352
	2007	41,800	135.5	\$3.51	\$475.61	\$19,880,289
	2008	55,500	134.5	\$5.18	\$696.71	\$38,667,405
	2009	55,800	152.0	\$5.27	\$801.04	\$44,698,032
	2010	49,100	145.5	\$3.65	\$531.08	\$26,075,783
	2011	48,700	135.1	\$5.20	\$702.52	\$34,212,724
Alfalfa Hay	2006	158,000	3.40	\$132.00	\$448.80	\$70,910,400
	2007	146,000	3.80	\$139.00	\$528.20	\$77,117,200
	2008	141,000	3.50	\$164.00	\$574.00	\$80,934,000
	2009	150,000	4.20	\$136.00	\$571.20	\$85,680,000
	2010	150,000	3.70	\$126.00	\$466.20	\$69,930,000
	2011	149,000	3.65	\$202.00	\$737.30	\$109,857,700
Other Hay	2006	108,000	2.20	\$125.00	\$275.00	\$29,700,000
	2007	120,000	1.95	\$130.00	\$253.50	\$30,420,000
	2008	116,000	1.60	\$132.00	\$211.20	\$24,499,200
	2009	115,000	1.95	\$119.00	\$232.05	\$26,685,750
	2010	115,000	1.45	\$111.00	\$160.95	\$18,509,250
	2011	110,000	1.45	\$160.00	\$232.00	\$25,520,000
Fall Potatoes	2006	59,700	380	\$7.95	\$3,021.00	\$180,353,700
	2007	59,100	355	\$9.85	\$3,496.75	\$206,657,925
	2008	56,900	385	\$11.60	\$4,466.00	\$254,115,400
	2009	55,200	400	\$6.00	\$2,400.00	\$132,480,000
	2010	55,200	390	\$12.80	\$4,992.00	\$275,558,400
	2011	53,900	395	\$10.70	\$4,226.50	\$227,808,350

Source: U.S. Department of Agriculture, National Agricultural Statistics Service. Colorado Agricultural Statistics 2006, 2007, 2008, 2009, 2010, 2011, 2012.

[http://www.nass.usda.gov/Statistics by State/Colorado/Publications/Annual Statistical Bulletin/](http://www.nass.usda.gov/Statistics_by_State/Colorado/Publications/Annual_Statistical_Bulletin/)

* Marketing year average prices, by commodity, Colorado.

Table L-4
Planting and Harvesting Dates

Crop	Usual planting dates	Usual harvesting dates		
		Begin	Most active	End
Field Crops				
Barley, Spring season	Mar 26 - May 5	Jul-20	Jul 29 - Sep 6	Sep-14
Spring wheat	April 9 - May 16	Jul-23	Aug 3 - Sep 17	Sep-29
Oats	Mar 28 - May 14	Jul-13	Jul 19 - Sep 13	Sep-25
Hay, Alfalfa	Jun-1	May-23	May 30 - Oct 6	Nov-9
Hay, Other	Jul-1	Jun-20	July 5 - Aug 10	Sep-15
Fall Potatoes	May 8 - May 25	Sep-6	Sept 15 - Oct 11	Oct-17
Vegetable Crops				
Carrots	April 15 - June 30	Aug-1	Aug 15 - Oct 10	Oct-31
Lettuce	April 1 - Jul 10	Jun-15	Jun 20 - Sep 20	Oct-15

Source: U.S. Department of Agriculture, National Agricultural Statistics Service. Colorado Agricultural Statistics 2012.
http://www.nass.usda.gov/Statistics_by_State/Colorado/Publications/Annual_Statistical_Bulletin/bulletin2012.pdf

Table L-5
Fall Potato Production - United States, 2006-2011
 (Production = 1,000 Cwt)

	2006	2007	2008	2009	2010	2011	2011 Rank U.S.
Colorado - SLV	22,686	20,981	21,907	22,080	21,528	21,191	5
California	3,870	3,792	3,948	3,960	2,828	4,312	11
Idaho	128,915	130,010	116,475	132,500	112,970	128,760	1
Maine	17,385	16,668	14,769	15,263	15,892	14,310	9
Michigan	14,190	14,700	14,875	15,660	15,660	15,180	8
Minnesota	21,250	21,560	20,400	20,700	17,010	16,685	7
New York	5,700	5,216	5,696	4,950	5,120	4,050	10
North Dakota	25,480	23,660	22,680	19,125	22,000	18,865	6
Oregon	18,533	20,293	18,676	21,460	20,058	23,342	4
Pennsylvania	2,730	2,200	2,518	2,945	2,205	2,028	12
Washington	89,900	100,800	9,300	87,230	88,440	97,600	2
Wisconsin	29,370	28,160	25,730	28,980	24,293	25,938	3

Source: U.S. Department of Agriculture, National Agricultural Statistics Service, Quick Stats.

http://quickstats.nass.usda.gov/?long_desc_LIKE=potatoes&x=34&y=17

Table L-6

Potato Acreage and Production By County, 2006-2010

County	Acres Harvested	Yield Per Acre (Cwt)	Production (Cwt)
2006			
Alamosa	18,500	375	6,920,000
Conejos	600	375	22,500
Costilla	4,500	375	1,687,500
Rio Grande	20,500	385	7,920,000
Saguache	15,600	380	5,930,000
San Luis Valley	59,700		22,680,000
2007			
Alamosa	18,800	365	6,830,000
Conejos	400	370	148,000
Costilla	4,500	370	1,665,000
Rio Grande	20,200	355	7,130,000
Saguache	152,000	345	5,215,000
San Luis Valley	59,100		20,988,000
2008			
Alamosa	18,100	382	6,914,000
Conejos	860	344	295,840
Costilla	4,620	344	1,589,280
Rio Grande	18,000	399	7,182,000
Saguache	14,300	389	5,562,700
San Luis Valley	55,880		21,804,000
2009			
Alamosa	17,500	382	6,690,000
Conejos	860	376	323,400
Costilla	4,620	376	1,730,000
Rio Grande	17,900	407	7,290,000
Saguache	14,300	422	6,030,000
San Luis Valley	55,180		22,080,000
2010			
Alamosa	19,100	393	7,505,000
Conejos/Costilla	4,700	388	1,823,000
Rio Grande	16,900	393	6,640,000
Saguache	14,500	383	5,560,000
San Luis Valley	55,200	390	21,528,000

Source: Colorado Potato Administrative Committee, 2012-2013 Fall Crop Market Policy Statement.

Table L-7

Potato Crop Utilization, 2011-2012 Fall Crop

<u>Grade/ Utilization</u>	<u>Production (Cwt)</u>	<u>Pct %</u>
U.S. No. 1 Quality	9,426,248	44.3
U.S. Commercial Grade	3,535,929	16.6
U.S. No. 2 Quality	1,218,395	5.7
Specialty (Fingerling)	96,353	0.5
Certified Seed (outside SLV)	1,103,004	5.2
Local Processing	895,785	4.2
Out of Area Proc. (C. of P)	1,937,884	9.1
Seed to plant 55,100 acres	1,157,100	5.4
Farm use, Shrink, livestock	<u>1,921,939</u>	9.0
USDA Production Estimate	21,291,000	100.0

Source: Colorado Potato Administrative Committee, 2012-2013 Market Policy Statement.

Table L-8

Potato Shipments and Average F.O.B. Prices for 2011-2012

	September 2011	March 2012	August 2012
Percent of Crop			
Reds	1.5	2.9	0.8
All Russet Varieties	90.6	84.7	96.9
Yellows	7.1	8.7	1.8
Other Varieties	0.7	3.8	0.6
Percent of Crop			
U.S. No. 1	66.4	52	77.3
U.S. No. 2	55.5	7.9	15.6
U.S. Commercial Grade	25.8	24.1	6.6
Percent of Crop			
Seed	2.3	16	0.6
Bulk	43.6	46.1	13
Shipments (480 Cwt equivalent)			
Total rail shipments	2,574	4,102	906
Total truck shipments (fresh)	81	27	-
Total truck shipments (processing)	2,394	3,481	805
Total shipments for the year to date	98	674	101
	2,574	22,754	35,439
Average F.O.B. Prices (per 50 lb. carton or bale unless noted)			
	September 2011	March 2012	July 2012*
Reds U.S. #1 2+3+"	N/A	N/A	N/A
Reds U.S. #1 size B	N/A	N/A	N/A
Yukon Gold #5	N/A	\$13.25	N/A
All Russets U.S. #1, non-size A	\$7.46	\$8.52	\$6.90
All Russets U.S. #2, 10lb packs	\$6.65	\$5.49	\$4.71
Bulk Russets U.S. Comm. Grade 100 lbs	\$11.05	\$10.97	\$9.50

Source: Colorado Potato Administrative Committee, 2012-2013 Fall Crop Market Policy Report.

*Pricing data not available for the month of August which would be the last month of the season. July pricing data used in lieu of August.