# Agriculture

## Colorado Agriculture Will Post Record Estimated Net Farm Income in 2011

Colorado's agricultural producers benefited from unexpectedly strong market prices for livestock and crops in 2011, leading to estimated record net farm income of $1.7 billion. Gross farm revenue for 2011 is expected to increase by nearly $1.5 billion, to $8.6 billion, topping the previous high of just under $7.5 billion recorded in 2007. Estimated 2011 cash receipts for most of Colorado's major crops are far above the levels forecast a year ago, with hay up 32%, potatoes up 51%, and corn up a remarkable 62%. Total livestock cash receipts are estimated to surge to a new record of $4.6 billion in 2011, eclipsing the previous record of $4.3 billion in 2007. A strong recovery and growth in Colorado's dairy industry, along with record cash receipts for producers of sheep, lambs, and specialty livestock, contributed importantly. Estimated total farm production expenses are up 14% in 2011 from 2010 due mainly to increased feed costs for livestock and dairy industries. Despite considerable operating cost increases, the estimated 21% jump in gross value of farm revenue is enough to reward Colorado farmers and ranchers with an additional $625 million in estimated net income in 2011 compared to 2010.

Looking ahead to 2012, Colorado net farm income is projected to remain healthy at more than double the 2009 recession level. Production expenses are expected to continue to trend higher, limiting growth in net farm income. Export demand, especially to Asia, Canada, and Mexico, should remain strong and be a leading factor in determining prices and revenue received by Colorado's agricultural producers next year. However, some key factors, such as the value of the U.S. dollar, may slow the rate of increase for Colorado's agricultural product export sales. The severity and impact of the 2011 drought in Texas, Oklahoma, Kansas, and southern Colorado was not foreseen and may again be a production and market "game changer" for Colorado crops and livestock in 2012. On balance, a modest decline of $61 million in net farm income, to $1.6 billion, is forecast for Colorado in 2012, assuming the absence of sharp price increases that drove advances in gross farm revenue the past two years.

**COLORADO FARM INCOME AND PRODUCTION EXPENSES 2003–2012 (In Millions of Dollars)**

| Year | Gross Value of Farm Revenue | Total Farm Production Expenses | Net Farm Income |
|---|---|---|---|
| 2003 | $5,711.5 | $4,828.5 | $883.0 |
| 2004 | 6,447.9 | 5,119.9 | 1,328.0 |
| 2005 | 6,755.7 | 5,379.8 | 1,375.9 |
| 2006 | 6,761.5 | 5,843.9 | 917.6 |
| 2007 | 7,478.2 | 6,203.1 | 1,275.1 |
| 2008 | 7,269.3 | 6,161.6 | 1,107.7 |
| 2009 | 6,800.4 | 6,092.8 | 707.6 |
| 2010 | 7,065.7 | 6,030.7 | 1,035.0 |
| 2011[a] | 8,559.8 | 6,900.0 | 1,659.8 |
| 2012[b] | 8,563.2 | 7,000.0 | 1,563.2 |

[a]Estimated.

[b]Forecast.

Source: Colorado Business Economic Outlook Agriculture Committee.

Historically, as goes the livestock industry, so goes Colorado's Agriculture Sector economy because livestock, predominantly cattle, traditionally accounts for at least 60% of total farm gate cash receipts. **Colorado's livestock industry** revenues were not expected to improve in 2011, but they grew substantially. For fed cattle, the 2011 projected average price of $96 for steers and heifers turned out to be far below the current estimated average price of $120 per hundredweight actually received. Colorado also bucked the national trend of a shrinking cattle herd and instead added cattle on feed coming from drought-stricken states. Fed cattle marketed in 2011 in Colorado are now estimated to be 10% above the number of head marketed in 2010. As a result of unexpectedly high prices and increased numbers on feed, cash receipts for **cattle and calves** reached an estimated record level of just over $3.5 billion. Cash receipts for cattle and calves are anticipated to grow marginally, to $3.6 billion, in 2012, with a projected average annual price of around $125 per hundredweight. Export demand for cattle and beef is likely to continue to grow and benefit Colorado more than perhaps any other state due to the state's high efficiency feedlots and processing facilities that can respond to demand for increased export shipments. Colorado is attracting and developing more high efficiency cattle feeding, while smaller, less efficient feedlots in the Midwest are reducing volume substantially. This long-term structural shift in geography provides an opportunity for Colorado's cattle and beef industry. Cow-calf operations could prosper with record nominal net returns on a per cow basis in 2012, if Mother Nature cooperates.

Colorado's **dairy** industry revenues rebounded strongly in 2011 as cash receipts soared to an estimated record $600 million. In the middle of the recession, just two years earlier, cash receipts for dairy products were only $359 million. Colorado's relatively high efficiency milk output per cow continues to support the industry. Strong exports are expected to continue in 2012, but not at the double-digit growth levels of 2011.

The highly anticipated new state-of-the-art Leprino Foods plant in Greeley began adding to local milk demand early in November 2011, with

full capacity expected to be reached in 2013. At final build-out, it is estimated that the facility will consume up to 7 million pounds of milk daily, producing cheese, nonfat dry milk, and other dairy products. With both foreign and domestic demand growing, Colorado's dairy cow herd expanded by an average of 1,000 head per month in 2011 and will continue to add cows next year. Dairy cash receipts are not expected to increase in 2012 as higher cow numbers will be offset by tighter operating margins due to higher feed costs.

**Sheep and lamb** prices climbed to unprecedented levels in 2011 for the second year in a row, leading to record cash receipts for Colorado producers. Many positive elements are converging in this sector, in which Colorado is a national production leader. Lamb appears to be gaining greater interest among chefs and locavores, with overall consumer

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demand improving, led by growing ethnic populations nationwide. Retailers Walmart and Kroger are notably featuring lamb in meat promotions. Northwest Colorado has the greatest concentration of sheep and lamb producers and that part of the state enjoyed good pastures in 2011. Encouraged and supported by strong prices, producers are expected to raise slightly larger flocks of sheep and goats in 2012. This sector should continue to contribute historically large cash receipts to the state's agricultural economy in 2012, with prices expected to continue the upward trend, though more moderately.

**Hog** production in Colorado has been steadily declining in Colorado for the past decade. From 2000 to 2010, state hog production fell by 50%, with annual cash receipts for producers falling between $100 million and $150 million by 2008-2009. Responding to strong prices in 2010, the hog inventory in Colorado and sow productivity increased, allowing producers to benefit from the 18% rise in prices nationally in 2011. Cash receipts were up 15% for the state's hog producers in 2011 as a result. Export demand from Asia, fueled by the weak dollar, should continue to support prices, and the newly approved U.S.-Korea Free Trade Agreement could mean more sales of U.S. pork (and beef) to that growing market in 2012 and beyond. While 2012 cash receipts for hogs are forecast to be in the $225 million range for the second-straight year, this is 25% below the peak recorded in 2000.

Colorado's declining **poultry** industry followed the national trend of substantial net losses per bird in

### VALUE ADDED BY COLORADO AGRICULTURAL SECTOR 2003–2012 (In Millions of Dollars)

| Year | Livestock | Crops | Total Value of Production | Value of Services and Forestry[a] | Government Payments[b] | Gross Value of Farm Revenue |
|---|---|---|---|---|---|---|
| 2003 | $3,525.9 | $1,293.0 | $4,818.9 | $572.7 | $319.9 | $5,711.5 |
| 2004 | 4,187.4 | 1,395.9 | 5,583.3 | 643.4 | 221.2 | 6,447.9 |
| 2005 | 4,129.6 | 1,511.4 | 5,641.0 | 732.7 | 382.0 | 6,755.7 |
| 2006 | 4,168.7 | 1,574.7 | 5,743.4 | 773.4 | 244.7 | 6,761.5 |
| 2007 | 4,324.0 | 2,111.6 | 6,435.6 | 845.2 | 197.4 | 7,478.2 |
| 2008 | 3,892.1 | 2,231.2 | 6,123.3 | 885.0 | 261.0 | 7,269.3 |
| 2009 | 3,338.1 | 2,329.6 | 5,667.7 | 940.9 | 191.8 | 6,800.4 |
| 2010 | 3,807.0 | 2,320.1 | 6,127.1 | 667.0 | 271.6 | 7,065.7 |
| 2011[c] | 4,639.3 | 2,993.5 | 7,632.8 | 700.0 | 227.0 | 8,559.8 |
| 2012[d] | 4,721.3 | 2,946.9 | 7,668.2 | 700.0 | 195.0 | 8,563.2 |

[a]Includes sales of forest products, custom feeding fees, custom harvest fees, and other farm income.

[b]Includes farm program payments directly to producers.

[c]Estimated.

[d]Forecast.

Source: Colorado Business Economic Outlook Agricultural Committee.

2011. While figures for Colorado specifically are not available, U.S. poultry producers are now estimated to be losing 10 cents per pound of production on average. High feed input costs continued to undermine poultry industry profitability in 2011. Cash receipts may improve slightly, to $85 million, in 2012, but they did not gain significantly in 2011 from the 20-year low of $77 million in 2010. In contrast, the pre-recession record net income received by Colorado poultry producers in 2007 was $207 million. The closure of the Butterball processing plant in Longmont continues the disappearance of turkey production and processing in Colorado, but egg and chicken production are stable.

Despite the severe drought in southern Colorado, a devastating late freeze on the Western Slope orchards, and the lingering negative impact of the poor housing market on the nursery and greenhouse industry, record net income for **Colorado crops** is estimated for 2011. Grain prices were projected to remain firm in 2011, but season average prices for many crops far exceeded even optimistic expectations, with wheat, corn, hay, potatoes, and sunflowers all bringing record average market prices to Colorado producers. Average annual total cash receipts for all Colorado crops for the 10-year period from 1993 through 2002 were $1.3 billion. The average annual total for the current 10-year period projects to an eye-opening 48% higher, at $2 billion (including estimated 2012 numbers). Modestly higher crop production input costs in 2011 were compensated by even higher revenues for many producers.

Colorado **wheat** cash receipts are estimated at a record $572 million for 2011 as producers were able to market a record 2010 wheat crop at a record average marketing year price. While production in 2011 declined, overall average yields were better than many expected, due to timely rains in northeastern Colorado. Even in drier areas, wheat varieties bred at Colorado State University resisted and tolerated the drought well.

The recently seeded 2012 wheat crop is emerging with promise as planting and early post-planting conditions improved from the previous year. Cash receipts for wheat in 2012 should nearly match 2011, with prices remaining far above long-term historical averages and production prospects favorable. Corn prices, however, will likely have as much impact on wheat prices next year as any single factor.

Cash receipts for **corn** in Colorado are estimated at $976 million in 2011 and are forecast to reach the milestone of $1 billion in 2012. To put these figures into perspective, the state's corn producers garnered in excess of $400 million for the first time in 2008 and achieved $604 million in 2010. Corn has suddenly become the leading revenue generating crop in the state, responsible for a dominant 33% of cash receipt totals for all Colorado crops. If dry land corn yields improve in 2012, Colorado corn

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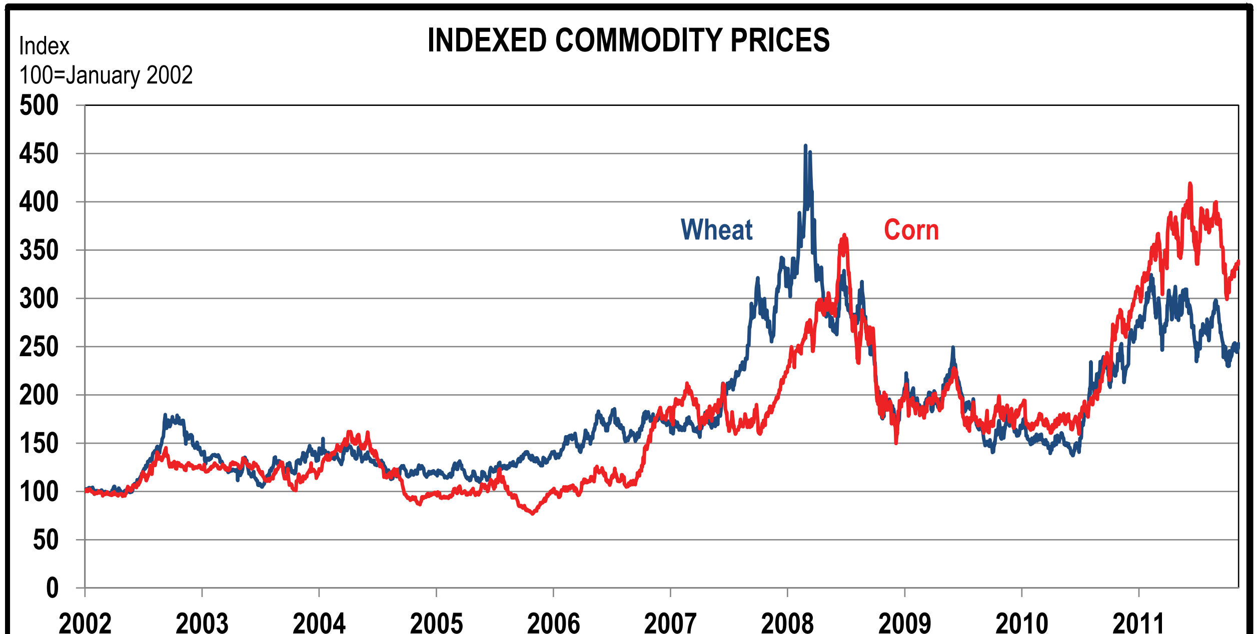

Source: Bloomberg (No. 1 hard red winter – ordinary protein, Kansas City, MO and USDA Toledo No. 2 Yellow Corn Not on the River Spot Price), through November 8, 2011.

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production is projected to be very near the record 2010 crop output.

Corn prices have proven to be among the most volatile of any crop in recent years. Colorado's five ethanol plants have capacity to utilize 55 to 60 million bushels of corn annually, and produce 140 million gallons of ethanol every year. At maximum capacity, these plants could use nearly half of all corn produced in the state. Corn prices will continue to have a major impact on Colorado's livestock industry profitability and animal numbers.

Colorado **hay** prices soared in 2011 in response to supply shortages in drought-stricken states and a reflection of sharply higher prices for corn and other livestock feedstuffs. As a result, cash receipts reached a record estimated $397 million in 2011. Hay cash receipts had been projected to fall to $300 million in 2011, but surprisingly robust feed demand from Colorado's strengthening livestock and dairy industries added to the short national supply, putting upward pressure on prices. Fortunately, hay production in the state, while down slightly from 2010, was not a disaster in 2011. Hay prices for 2012 could fall substantially, but only if the Texas-centered drought is broken.

**Barley** production in Colorado has fluctuated dramatically in recent years, with production under 5 million bushels in 2007 and more than 10 million bushels in 2010. Production in 2011 and 2012 is projected at around 8 million bushels. Cash receipts for barley have moved into a higher range, between $30 million and $45 million, in the past five years. While 2012 is anticipated to be another year at the low end of the range, recognize that total cash receipts for Colorado barley producers exceeded $30 million only once between 1994 and 2007. Preliminary indications are that 2012 contract prices offered to growers are about 25% above the previous year.

Total cash receipts for **sunflowers** reached an estimated record $40 million in 2011 and are projected to maintain that level in 2012. In contrast, total cash receipts of $16 million in 2011 for **dry beans** were at their lowest level in more than 20 years. Annual aggregate cash receipts for dry bean producers in the early 1990s averaged three times the current amount. Cash receipts for **sorghum** in 2011 are estimated to equal the record of $26.3 million seen in 1996, but are expected to decline sharply in 2012, to $15.4 million. Cash receipts for millet are projected at $22 million in both 2011 and 2012. Millet has potential to grow in its contribution and in the past has added as much as $30 million annually in cash receipts to the agricultural sector.

While acreage of **sugar beets** has declined in recent years, production has been steady the past few years, mirrored by relatively stable prices, around the $44 per ton level. As 2011 began, great uncertainty existed regarding the legality of planting transgenic herbicide-tolerant sugar beets and questions were made about the availability of non-genetically modified (GMO) seed. Colorado growers were permitted to plant a crop of mostly Roundup Ready sugar beet acreage while an environmental impact study was undertaken by the USDA. Assuming growers will be able to do the same in 2012, production is expected to increase slightly, with total cash receipts declining marginally as prices soften somewhat.

**The total cash receipts for Colorado's potato crop in 2011 are projected to be the highest on record, at almost $324 million.**

The total cash receipts for Colorado's **potato** crop in 2011 are projected to be the highest on record, at almost $324 million, reflecting an estimated record average seasonal price of $17.53 per hundredweight. This is an increase of $160 million in cash receipts compared to 2006. Concerns about the decreasing aquifer levels in Colorado's main potato producing area, the San Luis Valley, heightened in 2011 due, in part, to poor valley and surrounding mountain snowpack in the 2010-11 winter. The industry continues to increase acreage of newer varieties less susceptible to disease, and is working to expand production of specialty potatoes in response to demand. However, growers are limited in substantially expanding production by insufficient water. Even though trade of fresh potatoes to Mexico remains restricted to deliveries just 26 kilometers inside its border, Mexico continues to be a significant and growing market for Colorado potatoes. More than 2,000 truckloads are exported annually, with an estimated value of $15 million. Progress was made in 2011 toward opening up the market for Colorado potato exports to Mexico. Colorado potato production and prices are both expected to be somewhat lower in 2012, but total cash receipts are projected to remain above $300 million for the second-consecutive year and much above the 10-year average.

The most important trend in the Colorado **onion** crop has been the decline in production since the last half of the 1990s. Average prices have not increased sufficiently in the past decade to offset lower production with respect to total grower cash receipts. Total cash receipts for onions in 2010 were $42 million, with similar expectations for 2011 and 2012.

**Fruit** crop production was damaged by a late spring frost on the Western Slope that particularly harmed cherries and apples, but also reduced the output of peaches and pears, as well as grapes. Tree fruit growers in Colorado have continued to increase peach orchard planting at the expense of apples in the past several years, and 2011 may have seen an acceleration in that trend. During the first half of the 1990s, the value contributed by apples to the Colorado fruit sector was regularly greater than peaches. By the late 1990s, peaches had overtaken apples in total value, and the value of peaches now averages about 75% of the total value of the Colorado tree fruit crop annually. Given the popularity of Colorado peaches, the 2012 cash receipts for the fruit sector will be carried by peach production and are projected to rise near the record 2010 level of $32 million after an estimated $28 million in 2011. A big question in the Colorado fruit and produce industry for 2012 will be how cantaloupe growers, consumers, and regulators will respond to the listeria crisis of 2011. While cantaloupe represents a relatively small and regional component of fruits and vegetables in Colorado—approximately 1,500 acres on more than 60 farms mostly in Otero County—confidence will be slow to recover, and some producers will switch to nonhorticultural crops (e.g., corn) in 2012.

The continuing weakness in the housing market has led to fewer housing starts, resulting in far fewer new lawns and landscaping in 2011 than in the boom years prior to the recession. The **floriculture** and **greenhouse** industry, including **sod** production, will depend largely on the recovery of new home construction to drive growth as the economy stabilizes. Greenhouses are experiencing strong growth in demand for vegetables, and nurseries are finding double-digit growth in demand for fruit trees as existing homeowners invest in productive landscaping improvements. Cash receipts for this sector are estimated at $255 million in 2011 and are projected to remain at that level in 2012. With four years of decline beginning in 2006 and a weak housing market, the stability of the past two years may be reason for optimism. This sector continues to be under-recognized for its contribution to the Colorado agricultural economy.

Volatile energy and fertilizer markets, as well as prices, will continue to be "wild cards" for Colorado's agricultural economy, which will challenge business planning, risk management, and economic forecasting. Colorado's Agriculture Sector is among the most diverse in the nation, and Colorado farmers and ranchers have proven to be quite resilient and innovative. Many farmers and ranchers continue diversifying operations and seeking additional sources of revenue to strengthen their businesses. Agritourism continues to expand in the state, with producers inviting the public onto their lands to experience pumpkin patches, corn mazes, bird watching, hunting, fishing, and other rural agriculture-related activities. Specialty crops continue to add great value and diversity to our agricultural economy. Colorado wineries, numbered at nearly 100, are making award-winning wines from grapes grown in the state, and new crops, like hops and millet, are emerging and finding markets. Moreover, Colorado has one of the 10-fastest growth rates among all states for new farmer's markets.

The total value of sales of forestry products, services, and fees received by Colorado farmers exceeds $700 million annually. Government payments for commodity programs, conservation, and disaster assistance also bolster farm income, totaling $227 million in 2011. Reduced government payments of $195 million are forecast for 2012 in Colorado. Landowners are also capturing increased lease payments associated with the development of wind farms, predominantly on Colorado's Eastern Plains.

The record contribution of Colorado's farmers and ranchers in 2011 to the state's economic recovery is projected to continue. The Agricultural Sector has reduced debt substantially over the past few years, which improves farmers' and ranchers' profitability and sets the stage for future prosperity and capital investment needed for Agriculture to continue to lead the Colorado economy out of recession.