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Crop marketing in 2011: Outlook and issues
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What a difference a year makes. Last year, we were dealing with snow on the ground in October and late maturing crops. This year, we have barely seen any precipitation during harvest and the crops matured early. Figure 1 shows harvest progress for U.S. corn (as of Oct. 24) and compares this year’s progress with previous years. As the graph shows, the 2010 corn harvest in the U.S. is the one of the fastest of the past 30 years. In comparison, the 2009 harvest was one of the slowest on record. Figure 2 displays the same information for U.S. soybeans, different crop but the same story. Delays in harvest supported crop prices last fall. The quick harvest this fall has put downward pressure on prices, but that impact has been overwhelmed by other factors.

![Figure 1. U.S. corn harvest progress](image-url)

The big story on the production side is the decline in corn production. In August, USDA had estimated national corn yields at 165 bushels per acre, which would have set a record. In October, USDA lowered their estimate to 155.8 bushels per acre. The 9.2 bushel drop pulled 700 million bushels out of production and that has sent the markets significantly higher. In looking at the objective yield data USDA uses to compute their yield estimates, there is a combination of shifts that drove the yield decline. First, USDA found fewer ears per acre in October than they had counted in August. But the bigger shift occurred in grain weights. Based on the early progress of the corn crop this year, USDA crop models had estimated grain weights on the order of 0.35 pounds per ear. That is a little bit higher than last year and significantly above we had from 2005 to 2008. With the warmer night-time temperatures we experienced this year and problems with nitrogen deficiency, the grain fill period for corn was shortened. And
in October, USDA found grain weights near 0.335 pounds per ear. That doesn’t sound like much of a drop, but multiply it over 88 million acres of corn and the impact is 700 million bushels.

Soybeans, on the other hand, are projected to set production records. 2010 acreage was a record 77.7 million acres. National yields are projected at a record 44.4 bushels per acre. So, production is set to top 3.4 billion bushels of soybeans for the 1st time. Record yields are projected for North Dakota, Nebraska, Minnesota, Wisconsin, Illinois, New York, and Louisiana. Sudden death syndrome impacted individual farms, but seems to have had little impact on national soybean production. As it stands in 2010, the U.S. will have produced its’ 3rd largest corn crop and largest soybean crop. But as recent market prices have shown, these big crops aren’t that big in comparison to the demand for them. You know demand is strong when a 12.6 billion bushel corn crop is considered short.

Crop demands are up with global economic recovery. Corn demand via ethanol was raised again for the 2009 crop, to 4.56 billion bushels. The outlook for the 2010 crop is for 4.7 billion bushels to head to ethanol facilities. Crude oil prices have been hovering in the $80 per barrel range and this has helped ethanol margins remain positive over the several few months. Figure 3 shows ethanol blending margins from January 2007 through October 2010. These margins show that ethanol blending has been economically worthwhile for the vast majority of time over the past four years. The only time ethanol blending did not make economic sense was around New Years 2009 when ethanol prices were significantly above gasoline prices. The ethanol tax credit is worth 4.5 cents per gallon of E10. As the graph shows, ethanol blending margins have exceeded the tax credit most of the time. But the recent run-up in corn and ethanol prices has tightened ethanol blending margins and we could see ethanol plants being shuttered again if margins do not improve. The 2011 calendar year holds a couple of wildcards for ethanol demand, as E15 is introduced to the general public and the ethanol tax credit may be allowed to expire. The E15 shift should reduce “blend wall” issues for a while, but the possible loss of the tax credit could put a damper on the industry.

Figure 2. U.S. soybean harvest progress
Corn feed and residual demand for the 2010 crop is projected at 5.4 billion bushels, up sizably from the last couple of years. Feed demand had been in decline with the financial difficulties the livestock industry has faced in 2008 and 2009. But returns to the livestock industry have been on the mend over the last year. Figure 4 shows “crush” margins for livestock. ISU livestock economists John Lawrence and Shane Ellis came up with the concept; it works like the crush margins for soybeans. The margins show the return to the Iowa hog and cattle industries after accounting for feeder animal and feed costs. Breakeven margins are roughly $40 per head for hogs and $150 per head for cattle. As the figure displays, margins have been at or above breakeven for the last several months and are expected to remain around breakeven for a few more. But the outlook for summer 2011 is for the margins to fall below breakeven. So while feed demand is still the largest demand category, it remains the demand category with the weakest outlook.
Corn export demand is estimated at 2 billion bushels, up slightly from last year, continuing a recovery from the recession. Weakness in the dollar supports the export outlook. Figure 5 displays export sales so far this marketing year. Current corn export sales pace is just ahead of last year, but has been slower than the trade has expected. Exports remain the big story for soybeans, especially exports to China. USDA increased its export estimate to 1.52 billion bushels. This would top last year’s record. And the early sales pace supports those projections. As of mid-October, sales to China are up 14%, sales to Mexico are up 34%, and sales to Indonesia are up a whopping 239%. Worldwide demand for Iowa crops remains strong.

Domestic crush demand is projected at 1.665 billion bushels, down nearly 100 million from last year. USDA projections have domestic use of soybean meal and oil on the increase, while export demand is expected to fall. However, given the strong export demand for raw soybeans, I expect export demand for soybean meal and oil to remain strong as well. Biodiesel demand for soybean oil will be a key variable to watch in 2011. The industry is still reeling from the loss of its tax credit. But the Renewable Fuels Standard should provide some support to biodiesel for the next couple of years as the standard calls for increasing amounts of biodiesel. By 2012, one billion gallons of biodiesel is needed to meet the standard.

Figure 4. Livestock margins (Source: Shane Ellis and John Lawrence, ISU Extension)
From their early October outlook, USDA had projected ending stocks for corn at 902 million bushels, over 800 million bushels less than last year. That implies a stocks-to-use ratio of 6.7%, the tightest we have seen since 1995. Soybean ending stocks were estimated at 265 million bushels, up 114 million bushels from last year. The increase in soybean stocks is large, but stocks still remain below historical averages. Season-average prices were projected at $5.00 for corn and $10.75 for soybeans. The futures markets have already raced past those levels though. Current futures prices (as of Oct. 27, 2010) point to season-average prices around $5.45 per bushel for corn and $11.75 per bushel for soybeans. The higher prices we are seeing today will likely be with us for some time.

With the higher prices, the acreage competition for 2011 looks to be a wild one. Futures (as of Oct. 27) indicated 2011 season-average prices in the $5.20 range for corn and $11.25 range for soybeans. Crop input costs have started working their way up again, but early estimates show prices holding above production costs for the 2011 crops. This sets up a scenario like we saw between 2006 and 2007. Overall crop acreage had been on the decline in the early to mid 2000’s. With the crop price run-up that began in September 2006, crop plantings jumped by nearly 5 million acres in 2007 and again in 2008. Acreage has fallen in 2009 and 2010, but today’s prices will lead to a recovery in acres. A 5 million increase is not out of the question, with corn and soybeans capturing the lion’s share of those new acres.

As they stand right now, the 2010 and 2011 crop years look to be profitable ones for Iowa corn and soybeans. With cash prices above $5 per bushel for corn and $11 per bushel for soybeans, there are strong marketing opportunities currently. And futures are showing strong marketing opportunities for both crops in the future as well. As producers prepare for the 2011 growing season, they should take a little time, analyze their production costs, and take advantage of marketing opportunities that cover those costs and offer additional returns. Pre-harvest marketing of some (not all) of your expected crop usually pays off and this looks to be the case for 2011.