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Crop and biofuel outlook for 2012
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Crop agriculture has been on a roll. Corn and soybeans have provided positive returns three of the past four years. The 2011 crop year is shaping up to be the most profitable year on record. And futures prices for 2012 are offering sizable returns over projected production costs. So 2012 is shaping up to be an exciting market year for crop agriculture. The story over the past few years has been of large supplies, but even larger demands. While the 2011 crops are not as large as anticipated and the global economy continues to struggle, crop markets remain relatively strong. Biofuels have been the leading source of crop demand and new production platforms are being explored. Exports have been supportive, especially for soybeans, during the last three years. And livestock feed remains a critical part of the demand picture.

The supply picture for 2011 has been weaker than hoped, but that weakness has supported prices. Corn area increased by 3.7 million acres in 2011. That should have boosted production, but pretty much every weather event that can lower corn yields has hit this corn crop in at least some part of the country. From floods and droughts to wind and hail to heat and frost, we have seen it all. Yields are off, even in comparison with last year. So 2011 corn production is roughly in line with 2010 production. Soybeans suffered through many of the same weather factors. That, combined with a drop in planted acreage, has put 2011 soybean production between 250 and 300 million bushels below last year. Despite the problems, both the corn and soybean crops in 2011 will be in the top 5 crops the U.S. has ever seen.

The demand picture for 2011 has also been weaker than hoped. Global economic concerns press on the markets. The slide in crop prices throughout September was mainly driven by worries about the debt crisis in Europe and the effects a Greek default could have on other economies. These concerns not only hit the crop markets, but impacted stock, currency, and metal markets as well. The economic news through October has soothed the markets and crop prices have rebounded a little.

For corn, the headline over the past year was the passing of the torch as ethanol passed domestic livestock feed as the #1 use of U.S. corn. Corn demand via ethanol topped the 5 billion mark for the 2010 crop. The outlook for the 2011 and 2012 corn crops suggests ethanol will continue to use roughly 5 billion bushels per year. While oil prices have had their ups and downs this year, overall the energy price pattern continues to support biofuel production. Based on ethanol production data, roughly 95 million bushels of corn are converted into ethanol each week.

Figure 1 shows ethanol blending margins from January 2007 through October 2011 and margin projections based on futures prices out through mid-2014. The historical margins show that ethanol blending has been economically worthwhile for the vast majority of time over the past five years. And the projections indicate margins will remain positive even after the ethanol tax credit expires at the end of this year. For 2012, the keys for the ethanol industry will be the response of the industry to the loss of the tax credit and any movement on the introduction of E15 blends in the fuel sector.

Corn feed and residual demand for the 2011 crop is projected at 4.7 billion bushels, as feed demand continues to shift lower. Returns to the livestock industry have been on the mend over the last couple of years. But the pattern has been a few months of profit followed by a few months of loss. Cattle production remains in decline, while hog and poultry production have returned to positive territory. A big issue for 2012 is price competition in feeds. Given corn’s relatively high price in comparison to other feeds, livestock feeders have moved to replace corn in part of the ration with lower cost feed. As Figure 2 shows, at the end of October wheat prices are actually below corn and remain close to corn over the next year. Normally, wheat futures run around $1.50 above corn futures. So wheat may be an attractive feed option for some U.S. livestock producers. We usually do not feed a lot of wheat, but other parts of the world do. So this same feed price competition is also affecting the corn export outlook.
Corn export demand is estimated at 1.6 billion bushels, down significantly from last year. Weakness in the dollar supports the export outlook. But the feed competition and increases in worldwide corn production offset that effect. Figure 3 displays export sales so far this marketing year. Current corn export sales pace is just ahead of last year, as importing countries have taken advantage of the September price dip. Exports remain the big story for soybeans, especially exports to China. With China shifting some purchases to South America, USDA lowered its export estimate to 1.375 billion bushels. This is well below the record from the last couple of years, but is still a strong export amount. The early sales data definitely shows the slowdown in exports. As Figure 3 shows, current soybean exports are significantly lower. As of mid-October, sales were down to all of the top 5 soybean importing countries.

Domestic crush demand is projected at 1.635 billion bushels, down just over 100 million from last year. USDA projections have domestic use of soybean oil on the increase, while export demand is expected to fall. Biodiesel demand for soybean oil will be a key variable to watch in 2012. Biodiesel production has surged in 2011. In fact, the latest monthly figures (for July) from the U.S. Department of Energy show record production in the U.S. USDA expects another surge in biodiesel production in 2012 as the industry ramps up to meet the biodiesel portion of the Renewable Fuels Standard.

From their early October outlook, USDA had projected ending stocks for corn at 866 million bushels, over 250 million bushels less than last year. Soybean ending stocks were estimated at 160 million bushels, down 55 million bushels from last year. So U.S. ending stocks remain tight. Currently, USDA projects 2011/12 season-average prices at $6.70 for corn and $13.15 for soybeans. The futures markets have backed off from those levels though. Current futures prices (as of Oct. 28, 2010) point to 2011/12 season-average prices around $6.40 per bushel for corn and $12 per bushel for soybeans.
Figure 2. Corn vs. wheat futures. (Source: CME, Oct. 28, 2011)

Figure 3. Export Sales through Oct. 20. (Source: USDA-FAS)
With the sustained high prices for both crops, the acreage competition for 2012 should be interesting again. Corn looks to have the upper hand in the competition. Futures (as of Oct. 28) indicate 2012/13 season-average prices in the $6 range for corn and $12 range for soybeans. Crop input costs are headed up again, much like the scenario we saw in 2008 and 2009. With the prevented planting we saw last spring in the Dakotas and the eastern Corn Belt, we could see another sizable shift of land into corn production. Both corn and soybeans continue to offer significant positive returns. And corn is holding a roughly $150 per acre advantage on soybeans, about the same advantage as it had this time last year.

As they stand right now, the 2011 and 2012 crop years look to be profitable ones for Iowa corn and soybeans. That would make it three profitable years in a row. As I wrote last year “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.” That picture still holds. So as you prepare for 2012, analyze your production costs and take advantage of marketing opportunities that cover those costs and offer additional returns.

**Figure 4.** Projections for 2012 season-average prices based on futures.