



Weekly Outlook: Corn Acreage in 2019

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Corn prices, since the release of the February USDA reports, remain relatively flat. The potential for increased corn production in 2019 via higher planted acreage appears to be a significant component to corn price performance relative to soybeans. This analysis looks at the current acreage priced into the market and possible implications for corn prices moving forward.

Despite a projection of the current market year stock-to-use ratio near 11.7 percent, corn prices continue to underperform soybean prices. The relative strength of soybean prices persists even with stock projections at record high levels for the 2018-19 marketing year. Since 2006, a harvest price soybean-to-corn ratio above 2.4 in January and February sent a clear signal of reduced corn acreage. A ratio below 2.3 indicated an increase in corn acreage. Since the start of January, the 2019 harvest soybean to corn price ratio averaged 2.37 for daily closing prices on December corn and November soybeans. This year, through February 14, the ratio does not send a clear indication of expanded corn acreage during 2019.

Speculation surrounding the potential trade issues with China may help to explain the relative strength of soybean prices. The potential benefit to corn prices via exports of grain, ethanol, and distiller's grains seems no less bullish with a trade resolution. A few fundamental factors may be weighing on corn prices. The recent weakness in ethanol production combined with lower feed and residual use projections for this marketing year provide some concern. Possible large corn crops in Argentina and Brazil may impact the level of U.S. corn exports in 2019. The relative weakness of corn prices reflects many of these issues, but the potential size of the 2019 crop may be the most substantial factor. A general expectation of increased acreage exists in the market. It may be useful to determine the size of the 2019 corn crop currently being priced in the market.

In determining the acreage priced in the market for the 2019-20 marketing year, a calculation of the seasonal average farm price for the U.S. is necessary. The USDA estimates the average cash prices received and the average closing futures price for each month during the marketing year. Using the difference over the last five years as a basis for the calculation, the closing futures prices on February 14 indicated a marketing year farm price of \$3.81 per bushel. The relationship between the average farm price and the stocks-to-use ratio provides a method to determine potential supply and demand of corn

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during the marketing year. For this analysis, a \$3.81 average farm price indicates a stocks-to-use ratio of 11 percent for the 2019-20 marketing year. The estimated relationship between price and the stocks-to-use ratio uses data from the last five marketing years.

A projection of consumption levels in the 2019-20 marketing year is required to estimate the crop size from the calculated stocks-to-use ratio. Total corn use over the last three marketing years, including the current marketing year projection, averaged 14.77 billion bushels. The current marketing year projection for corn use sits at 14.865 billion bushels. The prospect of continued corn use at current levels seems reasonable given the low corn prices in place. By assuming the same total use next marketing year, a stocks-to-use ratio of 11 percent infers ending stocks for the 2019-20 marketing year at 1.635 billion bushels. If the current projection for this year's ending stocks of 1.735 billion bushels is correct and imports total 40 million bushels during 2019-20, the corn crop implied by the current market price equals 14.725 billion bushels, 305 million bushels larger than the 2018 crop.

Assuming the 2019 U.S. corn yield come in near a linear trend value of 174.6 bushels, a crop size of 14.725 implies harvested acreage for corn at 84.33 million acres. Planted acreage averaged 7.4 million acres above harvested acreage over the last five years. Using the average difference of 7.4 million acres, the projection for corn planted acreage in 2019 sits at 91.7 million acres, up 2.6 million acres over 2018. If one boosted corn yield to 176 bushels per acre, planted acreage of corn falls to 91.1 million acres.

The March Prospective Plantings report, due for release on March 29, provides the first indication of 2019 spring crop acreage. This analysis indicates that market prices place corn acreage in the range put forth by various government and industry analysts. Issues with fall field work in many areas of the Corn Belt combined with increased input costs, particularly with fertilizer, may work to lower corn acreage this year give the current price scenario. The potential upside for corn prices given lower than expected planted acreage, a short crop in 2019, or a resolution to the trade dispute sparking increased consumption seems strong given current prices.

YouTube Video: Discussion and graphs associated with this article available at https://youtu.be/zoqfUC_Sh6A