Weekly Outlook: Anticipating the June 1 Corn Stocks Estimate

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The USDA’s quarterly Grain Stocks report to be released on June 30 will reveal the estimated inventories of the major crops as of June 1. The most interest is in the estimate of corn stocks.

The location of corn stocks, on-farm or off-farm, is of some interest since location provides some information about ownership. However, the location of stocks does not completely reveal the ownership of those stocks since some off-farm stocks are owned by producers and some on-farm stocks have already been priced for later delivery. It is the magnitude of total stocks that is of most importance as those stocks will reveal the magnitude of feed and residual use of corn during the previous quarter. The likely use of corn in other categories has been more clearly revealed by weekly and monthly estimates of exports, grain crushings, and ethanol production.

The market reaction to the corn stocks estimate will depend on how the revealed rate of feed and residual use compares to both the rate needed to meet the USDA’s projection of use for the year and the rate anticipated by the market. However, a wide range of expectations by market participants is likely. A wide range of expectations reflects, in part, the inconsistent pattern of quarterly feed and residual use of corn from year to year. In the previous four years, for example, use during the third quarter of the marketing year, as revealed by the June 1 stocks estimate, was in a 200 million bushel range. Expectations also differ due to different interpretations of the impact of the changing magnitude of livestock and poultry production. Feed use during the quarter should have been supported at higher levels by expanding numbers of hogs, broilers, and dairy cows. On the other hand, the loss of a large number of layers due to bird flu reduced feed demand to some extent. Here, the range of June 1 corn stocks that is consistent with the USDA’s projection of feed and residual use for the year is estimated.

The supply of corn available for use during the third quarter of the marketing year consisted of March 1 stocks, previously estimated at 7.745 billion bushels, plus imports of about 10 million bushels. The Census Bureau provides the official estimates of corn exports, but those estimates are available only through April. Weekly USDA export inspection estimates, however, are available through June 18. As of the end of April, cumulative marketing year Census Bureau estimates of exports exceeded USDA export inspections by 66 million bushels. If that margin persisted through May, export inspection estimates point to third quarter exports of about 523 million bushels.
The USDA’s monthly *Grain Crushings and Co-Products Production* report estimated that 848 million bushels of corn were used for ethanol production in March and April. Based on ethanol production estimates for those two months, 2.85 gallons of ethanol were produced for each bushel of corn processed. Some small quantities of feed stocks other than corn were used to produce ethanol and the ratio of ethanol production to corn crushings varies a bit from month to month. In addition, monthly estimates of ethanol production are not yet available for April and May. Based on weekly ethanol production estimates for April and May and the ethanol-to-corn ratio in March and April, it is estimated that about 440 million bushels of corn were used for ethanol production in May. The quarterly total, then, is estimated at 1.288 billion bushels.

Corn consumed for seed and other food and industrial products during the third quarter of the marketing year is estimated at 354 million bushels. That estimate is based on the USDA’s projection of use for the year and the magnitude of use in each of first two quarters of the year. Corn used for all domestic food, seed, and industrial purposes during the quarter is estimated at 1.642 billion bushels.

For the entire 2014-15 marketing year, the USDA has projected feed and residual use of corn at 5.25 billion bushels. Based on the estimates of December 1, 2014 and March 1, 2015 corn stocks, feed and residual use during the first half of the year totaled 3.668 billion bushels. Use during the last half of the year needs to be 1.582 billion bushels in order for the marketing year total to reach 5.25 billion bushels. That is 312 million bushels more than use during the last half of the 2013-14 marketing year and the most since the 2009-10 marketing year.

So what level of use during the third quarter is consistent with use of 1.582 billion bushels for the last half of the year? The answer is approached by examining the quarterly pattern of use since 2010-11, when a marked change in the seasonal pattern of feed and residual use emerged. However, 2012-13 is omitted from the analysis due to the uniqueness associated with the very small crop of 2012 and the resulting high corn prices. The pattern of use in the remaining three years was highly variable so that a range of use during the third quarter this year could still be consistent with the USDA’s projection. The center of that range is about one billion bushels. Use at that level would point to total third quarter corn consumption of 3.165 billion bushels and June 1 stocks of 4.59 billion bushels. A stocks estimate 50 million bushels smaller or 100 million bushels larger, however, would not constitute a surprise.

The June 1 stocks estimates have occasionally provided a market surprise, most recently in 2010 and 2011 when the estimates were more than 300 million bushels different than the average trade guess. A deviation of 100 million bushels or less this year probably should not be considered a surprise.