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Weekly Outlook: Understanding the Surprise in the USDA Corn Stocks Estimate

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The corn market was surprised by the USDA's final 2011 corn production estimate and the estimate of December 1, 2011 corn stocks. The March 2012 futures price declined by $0.52 per bushel in the two sessions following the release of the reports.

At 9.642 billion bushels, December 1 corn stocks were 425 million bushels smaller than those of a year ago and the smallest in 5 years, but were about 240 million bushels larger than the average of the reported trade guesses. Those guesses were in an extremely wide range of 500 million bushels. Three of the 15 analyst guesses reported by Dow Jones were 9.55 billion bushels or larger, so not everyone was surprised by the USDA estimate.

Part of the surprise in the magnitude of December 1 stocks came as a result of the average expectation of a smaller 2011 crop estimate. With the absence of any supporting evidence, it is not clear why, on average, analysts expected a 30 million bushel reduction in the estimated size of the crop. The USDA estimate was a very modest 48 million bushels (0.4 percent) larger than the November 2011 forecast. The 78 million bushel difference between expected and actual production accounts for about one third of the surprise in the stocks estimate. The remainder of the surprise is the result of incorrect expectations about the level of feed and residual use of corn during the first quarter of the 2011-12 marketing year.

The market anticipated a high level of use to be revealed, perhaps partly to correct what was perceived as an under-estimate of feed and residual use in the previous quarter. The surprisingly large estimate of September 1, 2011 stocks implied a very low level of feed and residual use during the final quarter of the 2010-11 marketing year and for the entire marketing year. Some believed that the low (and incorrect) estimate of feed and residual use last year had resulted in an unrealistically low forecast of use for the current year. It was thought that the December 1 stocks estimate would "correct" the past errors and show a high level of use during the September-December quarter, resulting in a larger projection of use for the year. That did not happen. Instead, implied use during the quarter was consistent with the USDA forecast of 4.6 billion bushels so the forecast was not changed. Calculated feed and residual use of 1.838 billion bushels during the quarter represents 40 percent of the projected total for the year. The percentage of total use during the first quarter last year was an unusually large 43.2 percent. In the previous 4 years, use during the first quarter averaged 39.3 percent of the marketing year total, in a range of 38.2 to 40.7 percent.

The seasonal pattern and the total implied feed and residual use of corn during the 2010-11 marketing year is still troublesome. Explanations for the low level of use center on the potential for over-estimating the amount of corn used to produce ethanol, increased feeding of distiller's grains, and/or an underestimate of the size of the 2010 crop. None of those explanations, however, addresses the inconsistent seasonal pattern of implied use. In addition, the implied sharp decline in feed and residual use of corn, all grains, and all feeds (including an estimate of distillers grain) per animal unit during the last half of the marketing year is without explanation.

With year-ending stocks of U.S. corn still expected to be a relatively low 6.7 percent of projected use, a lot of price uncertainty remains. The immediate focus may be on the size of the South American corn crop and the implications for U.S. corn exports. The USDA lowered the projected size of the Argentine crop from 1.14 to 1.02 billion bushels in last week's report. Recent and upcoming precipitation will help stabilize that crop, but the extent of damage may exceed that reflected in the current forecast. The forecast of the Brazilian crop was unchanged at 2.4 billion bushels. The USDA now expects U.S. corn exports to reach 1.65 billion bushels during the current marketing year. Nineteen weeks into the year, export inspections have averaged 32.7 million bushels per week (adjusted for Census export estimates through November). Inspections need to average 30.9 million per week from now through August in order for the total to reach the projection. A further reduction in the size of the South American crop, as occurred in the drought of 2008-09, could boost U.S. exports above the current projection, particularly if China continues the current pattern of small weekly purchases.

Beyond the South American crop, corn prices will be influenced by 2012 U.S production prospects. In general, analysts are anticipating more acres, higher yields, and a much larger crop than in 2011. Such a large crop has not yet been priced into the market. Potential crop size will be gradually reflected from spring through harvest, beginning with the USDA's February baseline projections and including the March 30 Prospective Plantings report. Oh, and don't forget the March Grain Stocks report to be released on the same day.