Crop markets have two primary functions. One is to allocate available supplies so that stocks are neither depleted nor in surplus by the end of the marketing year. The second is to direct planted acreage so that supplies result in “reasonable” prices for producers and users of the crop in the upcoming marketing year.

In the case of the second function, the dynamics of the market are most transparent in the new crop corn and soybean markets leading up to and during the U.S. spring planting season. Since a majority of U.S. corn and soybeans are produced in the same geographic areas, the role of the market is to allocate that acreage so that reasonable prices are generated for both crops. That allocation process occurs in an environment of extreme uncertainty. The nature of growing season weather that determines yields is not known, the magnitude of production of corn and soybeans and competing crops in the rest of the world is not known, and the strength of world demand for corn and soybeans during the upcoming marketing year is not known. In addition, weather conditions during the planting season may prevent producers from completely responding to market signals and extreme summer weather conditions may result in unexpected production levels. As a result, the magnitude of U.S. corn and soybean production does not always result in price levels that could be judged as reasonable for both producers and users. Acreage decisions, however, should reflect reasonable expectations about yields and demand.

Leading up to the 2014 planting season, prices for the 2014 corn and soybean crops were generally encouraging the planting of more soybean and fewer corn acres in the U.S. When surveyed in March, producers indicated that they would respond to the market signals by increasing soybean plantings by 4.96 million acres (6.5 percent) and reducing corn plantings by 3.674 million acres (3.9 percent) compared to plantings in 2013. The price of new crop corn and soybean futures both increased following the release of those planting intention estimates on the last day of March, but the ratio of those prices remained generally constant through about mid-May. December 2014 corn futures began to decline on May 12 and are now about $0.30 lower than the close on May 11. On the other hand, November 2014 soybean futures increased by $0.50 in the
third week of May. The ratio of November soybean futures to December corn futures moved sharply higher during that period and remains at the elevated level.

The behavior of new crop corn and soybean prices late in the planting season reflected how the market interpreted planting progress estimates and provided new signals for late season planting decisions. After a slow start to the planting season, the USDA’s Crop Progress report released on May 12 indicated that planting progress had accelerated during the previous week and had reached an average level of progress. This report seemed to signal that more timely planting would result in planted acreage reaching intended levels and also kept expectations for a trend yield in place. The Crop Progress report of May 19 indicated that soybean planting progress had fallen behind the average pace. Almost all of the planting delays were in northern growing areas so that corn was no longer competing with soybeans for the unplanted acres. The run-up in new crop soybean prices may have been an attempt to encourage producers to continue to plant soybeans rather than considering prevented planting provisions of crop insurance.

The impact of spring price and weather conditions on producer planting decisions will be revealed in the USDA’s Acreage report to be released on June 30. While that report will still reflect some planting intentions, history suggests that final acreage numbers will be close to those reflected in the June survey, except in areas of very delayed planting. The main concern with the way new crop prices have unfolded is that the markets may not have provided enough incentive for corn acreage. While overall corn planting progress remained near the 5-year average pace through May 18, there were significant geographical differences in planting progress. Progress was 25 to 37 percentage points behind the 5-year average in Michigan, Minnesota, North Dakota, and Wisconsin. Those four states accounted for 20 percent of the intended corn acreage this year. It may be that some of those acres will not be planted to corn. Perhaps reductions in corn acreage in those states were partially offset by acreage that exceeded intentions in states where planting occurred rapidly even though prices did not encourage more corn acres.

Ultimately, the question is not if planted acreage was near intentions revealed in March, but if planted acreage results in a level of production that yields reasonable prices for both crops in the 2014-15 marketing year. That answer will not be known for some time. For producers with a high level of crop revenue insurance coverage, the risk associated with lower prices is greater for soybeans than for corn since November soybean futures are about $1.00 above the spring price and December corn futures are only $0.05 above the spring price.

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