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Weekly Outlook: Implications of Corn and Soybean Planting Progress

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Each spring the corn and soybean markets react to the pace of planting, reflecting expectations that an unusually fast or slow pace of planting may impact acreage decisions and/or yields. Recent and current large rainfall totals in the Delta and Plains states and forecasts for a stormier pattern in the Corn Belt have triggered the annual discussion of the production implications of corn and soybean planting progress.

The definition of what constitutes early or late planting varies by geographic region and has likely changed over time. Characterizing planting progress on a national basis, then, is somewhat complicated. We have previously argued (here and here) that for the period from 1986 forward, planting in the major producing states that occurs after May 20 for corn and after May 30 for soybeans should be considered late in terms of the potential impact on national average yields. Using our definition, the portion of the crops planted late over the past 30 years ranged from four percent (2012) to 47 percent (1995) for corn and nine percent (2012) to 65 percent (1990) for soybeans. The historical record might provide some indication of the potential impact on acreage and yields in subsequent years of unusually small or large percentages of the crops being planted late. For the 10 years since 1986 with the smallest and largest percentages of the crops planted late, we examine how the final estimate of planted acreage differed from intentions reported in the USDA's March *Prospective Plantings* report and how the national average yield differed from the trend yield calculation for that year. [For corn, the 11 years when the smallest portion of the crop was planted late are considered since there is a tie for 10th place].

Not surprisingly, deviations in planted acreage from intentions in years of extreme planting progress demonstrated a mixed pattern. In years when the smallest percentage of the crop was planted late, corn planted acreage exceeded intentions in eight years and was less than intentions in only three years. Deviations from planting intentions ranged from -1.9 million to 3.1 million acres and averaged 513,000 acres. In three of the eight years that corn acreage exceeded intentions, soybean acreage also exceeded intentions. In the 10 years when the smallest percentage of the soybean crop was planted late, planted acreage exceeded intentions in five years and was less than intentions in five years. The deviation from intentions ranged from -2.4 million acres to 3.3 million acres and averaged 114,000 acres.

In the 10 years when the largest percentage of the corn acreage was planted late, planted acreage was less than intentions in eight years and exceeded intentions in two years. Deviations from planting intentions

ranged from -3.8 million to 1.9 million acres and averaged 513,000 acres. In the 10 years when the largest percentage of the soybean acreage was planted late, planted acreage was less than intentions in five years and exceeded intentions in five years. Deviations from planting intentions ranged from -1.6 million to 2.1 million acres and averaged 65,000 acres.

In years when the smallest percentage of the crops were planted late, the national average yield exceeded trend value in 7 of 11 years for corn and 7 of 10 years for soybeans. Yields ranged from 33.8 bushels below trend to 18 bushels above trend for corn and 6.6 bushels below trend to 5.4 bushels above trend for soybeans Overall, average yields were 1.4 bushels below trend for corn and 0.6 bushels above trend for soybeans. In years when the largest percentage of the crops were planted late, the national average yield fell below trend value in 6 of 10 years for corn and in 7 of 10 years for soybeans. Yields ranged from 21.6 bushels below trend to 12.9 bushels above trend for corn, and 3.0 bushels below trend to 0.8 bushels above trend for soybeans. For the 10 years, the average yields were 2.4 bushels below trend for corn and 0.7 bushels below trend for soybeans.

It is not yet known whether a relatively large or small percentage of the 2016 corn and soybean crops will be planted late. The USDA's *Crop Progress* report indicated that four percent of the corn acreage had been planted as of April 10, equal to the previous five year average pace. Producers still have more than a month to plant corn and six weeks to plant soybeans before planting would be considered late by our definition. The current concern is about the potential delay in corn planting. If planting becomes unusually late, the corn market will likely begin to reflect expectations for fewer acres than intended and a risk of the average yield falling below trend.

Observations since 1986 suggest that there is a tendency for corn acreage to exceed intentions in years when a small percentage of the crop is planted late and for acreage to fall short of intentions when a large percentage of the crop is planted late. However, the large variation in the direction and magnitude of acreage deviations from intentions makes it difficult to form expectations for 2016. Deviations in planted acreage of soybeans from intentions have shown no clear pattern based on the lateness of planting. There has also been a tendency for the national average corn and soybean yields to fall below trend value in years when a large percentage of the crop was planted late. The variation in the direction and magnitude of deviation, however, is an indication that the effect of planting date on yield is dominated by the yield impact of summer weather. Markets should be more focused on growing season weather prospects than on planting progress.

Reference

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