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Weekly Outlook: U.S. Corn and Soybean Yield Prospects

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Market attention continues to focus on the potential size of the U.S. corn and soybean crops. Acreage totals look to remain uncertain for the rest of the year and any adjustments in the next WASDE report may not reflect the changes facing both crops this year. U.S. average yields appear set to move lower in the upcoming WASDE report as severe delays in planting indicate reduced yield potential.

Expectations for the U.S. average corn and soybean yields this year continue to deteriorate over recent weeks as planting delays dragged on over much of the Corn Belt. In particular, states in the eastern Corn Belt dealt with extremes moisture and massive delays this year. Yield potential falls for corn planted after the second or third weeks of May, all other conditions equal. Even though progress accelerated last week on drier weather, corn planting after May 25 came in at a higher than average percentage. Based on the USDA's weekly Crop Progress report, an estimated 51 percent of the corn acreage in the 18 major corn-producing states went in the ground after May 25, compared to the average of 16.8 percent from 1986 through 2018. Typically, late-planted acres remain isolated in specific areas of the country. While most of the very late planting this year occurred in eastern corn-producing states, a substantial amount of late-planted acreage occurred in almost every Corn Belt state (see *farmdoc daily* May 1, 2019 for more details).

The USDA's weekly ratings of corn conditions due out this week in the *Crop Conditions* report should provide an initial indication of the 2019 crop. This conditions report is setting up to be one of the worst on record. Data available since 1986 indicate that as of the 23rd week of the year (June 9 this year), an average of 67 percent of the crop rated in good or excellent condition at the end of the 23rd week (excluding 1995 when ratings were not yet available due to extremely late planting). The five worst years for good and excellent ratings (excluding 1995) were 1992 (42 percent), 1988 (47 percent), 1996 (50 percent), 1990 (52 percent), and 1993 (57 percent). Late-planted corn acreage including 1995 came in well-above average in each of these years except for 1992 and 1988.

Crop condition ratings usually fall as the growing season progresses. Early season ratings do not supply an unbiased indication of the final U.S. average yield. Even so, the upcoming rating, along with severe

planting conditions, should keep yield expectations low. If one includes 1995 with the five years mentioned above with the worst good and excellent ratings, the U.S. average corn yield came in above trend in only 1992 (+11 bushels) and 1990 (+2 bushels). The average yield over all six years totaled nine bushels below trend. While the upcoming WASDE report may not fade the corn yield very much, an expectation this year for corn yield at or below trend appears reasonable.

Soybean planting lagged well behind average pace this year as well. As of the June 3 *Crop Progress* report, 39 percent of the crop in the 18 major soybean producing states was planted. An expectation of substantial planting progress over the next few weeks is in place. Based on the USDA's weekly Crop Progress report, an estimated 72 percent of the soybean acreage in the 18 major soybean-producing states went in the ground after May 25. This amount sits well above the average from 1986 through 2018 of 39.2 percent. Field trials in Illinois indicate yield losses higher than ten percent after May 20 with increasing levels as planting moves into June. Planting after June 10 led to almost a twenty percent loss expectation for soybean yields. While this seems drastic, actual national data on soybean yields rarely falls outside a range of 3 bushels from trend (see *farmdoc daily* June 6, 2019 for more details). Due to the later planting of soybeans this year, the first crop condition ratings for soybeans looks to be out in the next two weeks depending on the percentage of the crop emerged. Crop condition ratings for soybeans tend to decline more than corn as the growing season advances. Like corn, early season ratings do not provide a reliable indicator of the final U.S. average yield.

Lower yield expectations for corn and soybeans seem plausible. By factoring in late planting, a conservative yield estimate for corn near 170 bushels per acre, 4.5 bushels below the current USDA projection, appears reasonable. Uncertainty regarding acreage levels for corn will linger, but acreage reduction in the 7-12 million acres range produces a corn crop 1.7 - 2.2 billion bushels smaller than currently projected by the USDA. For soybeans, an average yield of 47.8 bushels, which sits 1.7 bushels lower than the current USDA projection, fits current conditions. If one assumes 2 million additional soybean acres due to switching, soybean production comes in 150 million bushels less than forecast by the USDA. The June 11 WASDE report should provide the first indication from USDA about the size of both crops this year. The June 28 Acreage report will be the next major indicator.

References

Irwin, S. and T. Hubbs. "Late Planting and Projections of the 2019 U.S. Soybean Yield." *farmdoc daily* (9):104, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 6, 2019.

Irwin, S. and T. Hubbs. "Late Planting and Projections of the 2019 U.S. Corn Yield." *farmdoc daily* (9):79, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, May 1, 2019.