Weekly Outlook: Soybean Acreage in 2018

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As harvest continues throughout the Corn Belt, we enter the time of year for speculation about the number of acres to be planted in the U.S. during the next crop year. Planting decisions begin with fall seeded crops, like winter wheat, and continue into the spring months. The market is currently sending a signal of maintaining the record high soybean acreage of 2017, but the necessity for that level of soybean acreage in 2018 could deteriorate quickly under evolving market conditions.

Current projections by industry analysts and academics place 2018 soybean planted acreage in a range from 86 to 90.5 million acres. Anticipating the direction of soybean planted acreage requires an understanding of the pace of consumption during the current marketing year and the level of inventory projected to be available for the next marketing year. In the October 12 WASDE report, the USDA projected soybean stocks at the start of the 2018-19 marketing year at 430 million bushels despite the forecast of a record level of consumption of 4.214 billion bushels. At 49.5 bushels, the October forecast for U.S. average soybean yield came in lower than the September forecast and provided an indication of possibly of lower estimates to come. If the final 2017 soybean production estimate is smaller than the present forecast and consumption is near the current forecast level, year ending stocks for the 2017-18 marketing year may be close to 400 million bushels. The large 2017 soybean production totals and the continued buildup of soybean stocks point toward a 2017-18 marketing year price in the low to mid $9.00 range for soybeans, well below the cost of production for many producers.

Rather than project the planted acreage of soybeans, it could be informative to think about the number of soybean acres necessary in 2018 to produce a 2018-19 marketing year average farm price for soybeans near the cost of production, which is estimated at around $9.50. In 2016-17, the marketing year average farm price was $9.47 with an ending stocks to use ratio currently estimated at 7.1 percent. If we assume a marketing year average price in the mid-$9.00 range requires an ending stocks to use near 7 percent and consumption during the 2018-19 marketing year maintains the pace of consumption currently forecast at 4.256 billion bushels, year ending stocks for 2018-19 would come in at approximately 300 million bushels. A beginning stocks for 2018-19 near 400 million bushels combined with 25 million bushels of imports and 4.256 billion bushels of consumption would require a U.S. soybean crop near 4.131 billion bushels to generate 300 million bushels of ending stocks in 2018-19.
Recent years have seen soybean yields well above the trend yield in the U.S. For this analysis, a linear trend yield of 46.8 bushels in 2018 will be used for soybean national average yield. At this level of yield, 88.4 million harvested acres of soybeans are necessary to produce 4.131 billion bushels. Given this level of harvested acreage, approximately 89.2 million planted acres would be required. This level of planted acreage is one million fewer acres than the current USDA estimate for 2017. As one would expect, a higher trend yield changes the analysis. For example, a trend yield of 48.4 bushels, provided in the USDA's long-term projections, lowers 2018 soybean planted acreage necessary, under the assumed consumption scenario, to 86.2 million acres. A continuation of above-trend soybean yields in 2018 would diminish the need for current acreage projections.

The information used in making the planting decision for soybean acreage in 2018 will likely not reflect market conditions assumed in this analysis and those conditions will fluctuate between now and planting time. Current prices for the 2018 soybean crop suggest that the market is inclined to maintain the soybean acres planted in 2017. Based on this analysis, soybean acreage may need to decline in 2018 to generate a 2018-19 marketing year average farm price in the mid-$9.00 range to cover the projected cost of production. While a decrease may be needed for soybean acreage, current prices and ending stocks projections for corn and wheat do not provide any strong indication for substantial expansion of acreage in those two crops.

At this point, it seems that soybean acreage may not decline sufficiently in 2018 to generate a 2018-19 marketing year average price in the mid-$9.00 range. When considering the planting decision for 2018, careful monitoring of the pace of soybean exports and crush in the 2017-18 marketing year, and the development of the South American crop can provide information on the evolving conditions of the soybean market in 2018. The first indicator of producer acreage decisions arrives with the release of the USDA’s Winter Wheat Seedings report in early January 2018.