



Weekly Outlook: How Many Soybean Acres Do We Need in 2019?

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We have reached the time of the year where speculation about acreage for the 2019 crops begins in earnest. While the number of acres planted to soybeans appears set to decrease, current projections indicate an intention to plant significantly more acres than necessary to reach breakeven prices in Illinois under current consumption and stock level forecasts.

Projections by industry analysts place 2019 soybean planted acreage in a range from 84.5 to 86.5 million acres. A reduction in soybean acreage from the 89.1 million acres planted in 2018 seems probable. We currently project soybean planted acreage at 85.7 million acres. An analysis of the number of soybean acres necessary in 2019 to produce a 2019-20 marketing year price for soybeans near the cost of production may be revealing. This analysis uses a 2019 crop budget on high productivity farmland for soybeans following corn in central Illinois. A land cost of \$260 per acre and \$363 per acre non-land costs brings total costs to \$623 per acre. Assuming a 63-bushel per acre yield, the breakeven price under this cost structure comes in at \$9.80 per bushel. The seasonal average price for soybeans in Illinois averaged near 27 cents per bushel higher than the national farm price over the last three years. Assuming this holds next marketing year, a national average farm price near \$9.53 per bushel is necessary during the 2019-20 marketing year to reach breakeven in central Illinois.

In 2016-17, the seasonal average farm price was \$9.47 at an ending stocks-to-use ratio of 7.1 percent. We assume an ending stocks-to-use ratio near 7.1 percent creates the scenario necessary to reach soybean prices in the mid-\$9.00 range for 2019-20. In the latest WASDE report, the USDA projected soybean stocks at the start of the 2019-20 marketing year at 955 million bushels. At 52.1 bushels, the current 2018 forecast for U.S. average soybean yield is widely expected to move lower in the final USDA production estimate. By assuming a 2018 final yield of 51.8 bushels per acre, ending stocks of 929 million bushels result from the consumption level at the current forecast of 4.107 billion bushels.

Soybean use projections for the 2019-20 marketing year suffer from uncertainty regarding trade negotiations with China. While a wide variety of scenarios are plausible, this analysis focuses on two scenarios. The optimistic scenario projects soybean use next marketing year at 4.359 billion bushels on

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a resolution to the trade impasse and expanded exports during the marketing year. The other scenario assumes consumption at 4.109 billion bushels on a continuation of trade disruptions and flat consumption growth. At a 7.1 percent stock-to-use level, the optimistic scenario requires ending stocks for 2019-20 marketing year of 310 million bushels. The low consumption scenario requires ending stocks at 292 million bushels. By using a beginning stock level of 929 million bushels and 20 million bushels of imports, the optimistic and low consumption scenarios call for a U.S. soybean crop near 3.7 and 3.4 billion bushels respectively.

For this analysis, a soybean yield of 49.2 bushels per acre in 2019 is used for national average yield. At this yield, the optimistic use scenario requires 75.6 million harvested acres of soybeans to produce 3.7 billion bushels. Given this level of harvested acreage, planted acreage comes in at approximately 76.3 million acres. The low consumption scenario results in 70.2 million harvested acres to produce 3.4 billion bushels. Planted acreage comes to 70.9 million acres under this scenario. Under either scenario, planted acreage results in substantially lower acreage than currently expected by analysts. As one would expect, a higher yield assumption changes the analysis. For example, a trend yield of 50 bushels per acre provided in the USDA's long-term projections lowers 2019 soybean planted acreage necessary, under the hypothetical consumption scenarios, to 75.1 and 69.8 million acres under the stocks-to-use ratio assumption.

Soybean acreage seems destined to be well above levels necessary to produce an average price in the mid-\$9.00 range and meet the cost of production in Illinois. The potential for lower ending stocks in the current marketing year still exists due to strong crush levels and a potential trade resolution. A substantial reduction in 2018-19 ending stocks appears unlikely at this time. The large ending stocks of soybeans built up over the last few years require a sharp increase in consumption or a significant shortfall in production to get back to breakeven prices over the next marketing year if planted acreage comes in close to current projections.

YouTube Video: Discussion and graphs associated with this article available at https://youtu.be/mz_3S63lsFo

Reference

Schnitkey, G. "Crop Budgets, Illinois, 2019." Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 2018.