Late Planting and Tools in FAST

Little planting so far this spring and the continued prospects of rain bring on the potential for farmers to shift from corn to soybeans. The Planting Decision Model, a part of FAST Microsoft Excel spreadsheet series, includes a “Returns by Planting Date” module which calculates projected returns from corn and soybeans by planting date in northern, central, and southern Illinois. There also is an online version of this tool. According to projections in this tool, corn will be the more profitable to plant in all areas until late May. In central Illinois, corn is projected more profitable than soybeans into June.

Accessing the “Returns by Planting Date” Module

The “Returns by Planting Date” is a module in the Planting Decision Tool. The Planting Decision Tool is a Microsoft Excel spreadsheet that is available for download from the FAST section of farmdoc (click here for the download). Besides the “Returns by Planting Date”, the Planting Decision Module has modules that examine returns from rotations, compare prevented planting crop insurance payments to planting, and help evaluate replant decisions.

An online version of the “Returns by Planting Date” module has been made as well. It can be accessed here. The online version of the tool does not include all modules that are included in the Planting Decision Module.

Yield Projections and Corn-Minus-Soybean Returns

The “Returns by Planting Date” module contains defaults for northern, central, and southern Illinois. Central Illinois is further broken down into high and low productivity farmland. Regional defaults give yields by planting date based on agronomic research conducted in the Department of Crop Sciences at the University of Illinois.

Panel A of Table 1 shows corn and soybeans yields for the four default areas. For northern Illinois, the highest yield of 195 bushels per acre is projected for April 15. Yield then decline to 182 bushel by May 6th and 116 bushels by June 10. The highest soybean yields of 55 bushels per acre are projected to occur on April 22 and 29. Yields then decline to 42 bushels by June 10.

Note that these yields are expectations and actual yields can vary a great deal from these expectations. Actual yields will depend on weather during the growing season. As illustrated by yields in 2011, favorable weather can result in good yields even with late planting.
Projected yields are combined with commodity prices and costs to arrive at corn-minus-soybean returns. Positive corn-minus-soybean returns mean that corn is more profitable than soybeans and vice versa. Panel B of Table 1 shows corn-minus-soybean returns for the four regions of Illinois. These returns are based on a $5.30 per bushel corn price, a $12.00 per bushel soybean price, and costs contained in the 2013 Illinois Crop Enterprise Budgets.

For northern Illinois, corn-minus-soybean returns are positive until the end of May (see Table 1). On May 27th, corn-minus-soybean returns are -$42, indicating that planting soybeans is projected to be the more...
profitable alternative. Corn-minus-soybean returns are always positive in central Illinois. In southern Illinois, corn-minus-soybean returns become negative on May 13.

Summary

It will be late May before switching to soybeans will be projected to be more profitable than planting corn. The “Returns by Planting Date” module aids in accessing returns. This tool is available online [here](#) and as a FAST spreadsheet [here](#).

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