

## MORE CORN AND FEWER SOYBEANS: DOES IT PAY?

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### Executive Summary

- Since 1996, returns to corn have increased relative to the returns to soybeans. The principal reason for this increase is relatively high corn yields. The corn-soybean yield ratio, equaling the corn yield divided by the soybean yield, has averaged 3.2 for Illinois between 1972 through 2004. Except for 2002, the corn-soybean yield ratio has been above 3.2 in the past several years.
- Whether corn yields continue to be high compared to soybean yields will be a key factor in determining whether farmers find it economical to plant more corn.
- The introduction of soybean rust favors planting more corn; however, the introduction may not induce a large shift in acres. Whether corn continues to have high yields will have a larger impact on the attractiveness of planting more corn than the introduction of soybean rust.
- Short- and long-run considerations should be considered when evaluating the advisability of shifting to more corn. The short-run considers returns in the current year. The long-run considers returns the years following a rotational shift when a stable rotation is obtained.
- Often, planting more corn increases short-run returns while reducing long-run returns. This occurs because planting more corn results in fewer acres of corn-after-soybeans, the corn cropping sequence with the highest returns.
- We evaluate the increase in soybean cost that can occur before planting more corn than is in a 1/2 corn – 1/2 soybeans rotation is economically advisable. We used average 2005 budgets given that corn-after-corn has a 10% yield decrease than corn-after-soybeans and variable costs for corn-after-corn are \$10 per acre higher than variable costs for corn-after-soybeans. Soybean costs can increase by \$43 per acre in northern Illinois, \$43 per acre in central Illinois for farms with high productivity farmland, \$41 per acre for central Illinois for farms with low productivity farmland, and \$55 per acre for southern Illinois. If soybean rust decreases costs less than the above break-evens, it is economically advisable to keep soybean in the rotation.
- Key variables in determining whether planting more corn is profitable are yields and costs. These variables can vary across farms. Farmers should track their own yields and costs.

