

A joint publication of the Department of Agricultural Economics, College of Agriculture, Purdue University, West Lafayette, Indiana, and the Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign.

JANUARY 20, 2009

ANY MORE CORN OR SOYBEAN ACREAGE NEEDED IN 2009?

There continues to be a lot of discussion about likely acreage decisions of U.S. corn and soybean producers in 2009. For a significant number of acres, the planting decisions have not yet been finalized. Producers continue to wait on additional information about the cost of spring applied fertilizer, crop revenue insurance prices, and the likely prices of corn and soybeans during the 2009-10 marketing year.

The core question is How many acres of corn and soybeans are needed in 2009? The answer depends on three factors: the level of consumption next year, the magnitude of stocks at the end of the current marketing year, and U.S. average yields in 2009. Acreage decision, however, will be made before consumption prospects, stocks, and yield are known. The market must assess those factors and direct the appropriate acreage decisions based on those expectations. The difficulty, of course, is that not all market participants have the same expectations and expectations continue to change.

One useful exercise is to calculate how large consumption would have to be in 2009-10 to require more corn or soybean acres than were planted in 2008 under the assumption of trend yields in 2009 and 2008-09 year ending stocks at the level currently projected by the USDA. This exercise does not directly address the question of how many acres of each crop are needed, but may shed light on whether planted acres of either crop needs to increase.

For corn, the USDA estimates that 85.982 million acres were planted and 78.64 million acres were harvested for grain in 2008. The difference of 7.342 million is marginally larger than the previous 5-year average of 7.263 million due to slightly more abandonment in 2008. If 85.982 million acres are planted in 2009, harvested acreage might be near 78.7 million acres. The U.S. average yield expectation for 2009 is likely based on a trend yield calculation. There is no evidence that average yields have increased at a faster rate in recent years so the trend yield for 2009 is near 153 bushels per acre. With unchanged acreage and trend yield, the 2009 crop would be near 12.04 billion bushels, slightly smaller than the 2008 crop.

The USDA projects 2008-09 marketing year ending stocks of corn at 1.79 billion bushels. That level of inventory reflects some surplus that could be used in the 2009-10 marketing year. Recently, year ending stocks have been as low as 1.3 billion bushels, so the current projection for this year represents a surplus of at least 490 million bushels. Under the scenario outlined here, consumption during the 2009-10 marketing year would have to exceed 12.53 billion bushels in order to require an increase in planted acreage in 2009. That level of consumption is 580 million bushels (4.9 percent) larger than the USDA's current projection for the 2008-09 marketing year. If the market believes that trend yield is larger than 153 bushels, an even larger increase in use would be needed to require an increase in corn acreage. An expected yield of 155 bushels, for example, would mean that consumption next year would have to exceed 12.689 billion bushels to require an increase in planted acreage. If the Renewable Fuels Standards are binding, a large increase in ethanol use of corn will occur in the 2009-10 marketing year. If world wheat production declines from the record level of 2008, U.S. corn exports will also increase. Even with softer feed demand, an increase in use of 600 to 700 million bushels next year is likely.

For soybeans, the USDA estimates that 75.718 million acres of soybeans were planted and 74.641 million acres were harvested in 2008. The difference of 1.077 million acres is slightly larger than the 5-year average of 895 thousand. If 75.718 million acres are planted in 2009, about 74.8 million acres would be expected to be harvested. The calculated trend yield for 2009 is 42.3 bushels per acre. No change in acreage and a trend yield in 2009 would point to a crop of 3.164 billion bushels.

The USDA projects 2008-09 year ending stocks of 225 million bushels, representing a surplus of about 40 million bushels. Use during the 2009-10 marketing year would have to exceed 3.204 billion bushels to suggest a need for increased acreage in 2009. That level of use is 256 million bushels (8.7 percent) larger than the USDA's current projection of use during the 2008-09 marketing year. Use is unlikely to exceed 3.2 billion bushels next year. At least, the market should not expect use to be at that level.

The analysis presented here suggests that corn acreage in 2009 needs to be maintained at least at the level of 2008. A small increase may be warranted, depending on yield and consumption expectations. There appears to be no need for increased soybean acreage and a small decline may be warranted, depending on yield expectations. With winter wheat seedings down by 4.2 million acres, there does not appear to be a looming battle for acreage of spring planted crops in 2009.

Issued by Darrel Good Extension Economist University of Illinois