

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.

AUGUST 8, 2005

WILL CORN AND SOYBEAN USE HAVE TO BE REDUCED?

The 2005 corn and soybean crops will be small enough that year ending stocks will likely be reduced significantly during the year ahead. Will the crops be large enough to allow consumption to continue at the current record pace, or will production be small enough to require a reduction in use?

The prospects of reduced inventories should result in higher corn and soybean prices during the 2005-06 marketing year than the prices experienced during the current year. However, the increase may be modest unless the crops are small enough to require "rationing". In the case of corn, a modest decline in use of U.S. crops was required in the 2002-03 marketing year due to a crop of just under 9 billion bushels. Prior to that year, the most recent year of a significant shortfall in U.S. production was in 1995, resulting in a record low ending stocks-to-use ratio and record high prices.

For the 2005-06 U.S. corn marketing year, the USDA projects total use of corn at 10.67 billion bushels about equal to use during the current year. That projection includes a 7 percent increase in exports and a 6 percent increase in the domestic processing use of corn. Feed and residual use is expected to decline by nearly 5 percent (300 million bushels). That decline implies that residual use during the current year is significantly inflated, likely due to an over-estimate of the size of the 2004 crop. What size crop, then, would be required to force a reduction in use during the year ahead? Start by assuming that the year ending stocks-to-use ration cannot practically be reduced below about 750 million bushels and that stocks at the beginning of the year will be near the current USDA projection of 2.115 billion bushels. In that case a crop of about 9.3 billion bushels would be required to maintain corn use at the current level. Using the USDA's June projection of harvested acreage, a crop of that size would require an average yield of 125 bushels. That yield is well below current private estimates that are in the mid to upper 130 bushel range. It appears that a reduction in the use of U.S. corn will not be required during the year ahead. But how much will stocks be reduced? At the close of trade on August 5, the futures market prices for the 2005-06 marketing year projected a marketing year average farm price of about \$2.25. That price implies that the market expects year ending stocks near 1.5 billion bushels.

In the case of soybeans, 2003-04 was the most recent year in which the consumption of U.S. soybeans had to be reduced because of a shortfall in production. The small U.S. crop was also accompanied by a smaller-than-expected South American crop so that crush prices above \$10 were required to ration supplies.

Currently, annual consumption of U.S. soybeans is near 2.97 billion bushels. Stocks at the beginning of the 2005-06 marketing year are currently projected at 290 million bushels. Assuming that year ending stocks cannot practically be reduced below 125 million bushels, the 2005 harvest needs to be near 2.805 billion bushels to maintain consumption at the current level. Using the USDA's June projection of harvested acreage, a crop of that size would require an average yield of about 38.8 bushels. That is very close to current private estimates of crop size. There is a significant probability, then, that the 2005 crop will be small enough to require a reduction in use. At the close of trade on August 5, the futures market prices for the 2005-06 marketing year projected to an average farm price near \$6.35. That price implies that the market is expecting year ending stocks only 15 to 20 million bushels above the minimum level of 125 million bushels.

The price implication of a small U.S. crop and the potential need to reduce consumption, will depend in part on the size of the 2006 South American crop. That is, a large harvest there could result in a reduction in U.S. soybean exports without prices going to extremely high levels. Conversely, a third consecutive shortfall in production would magnify the implications of a small U.S. crop, much like two years ago.

Currently, the USDA projects a modest 1.3 percent increase in South American soybean acreage, a 21 percent increase in the average yield, and 21.6 percent (400 million bushels) increase in production in 2006. A crop at the projected level would more than offset the shortfall in U.S. production and keep world soybean stocks at a relatively high level.

New crop corn and soybean prices have declined sharply from the June highs. With continued crop stress in August, the market will expect production to be below the USDA forecast. Unless those August projections are higher than currently expected, prices will likely make at least moderate recovery from the recent sharp declines.

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