Weekly Outlook: Another Year of Rationing for Corn or Soybeans?

Darrel Good
Department of Agricultural and Consumer Economics
University of Illinois

September 3, 2013

farmdoc daily (3):167

The U.S. average corn yield was below trend value for three consecutive years from 2010 through 2012. The U.S. average soybean yield was below trend value in both 2011 and 2012.

The shortfall in corn yields resulted in declining year-ending stocks and higher prices in both the 2010-11 and 2011-12 marketing years. The small crop of 2012 required rationing of consumption and resulted in record high prices for the 2012-13 marketing year. Consumption during that marketing year is currently estimated at 719 million bushels, only 6.4 percent of consumption during the year.

For soybeans, the shortfall in yields in 2011 resulted in higher prices and smaller year-ending stocks for the 2011-12 marketing year than those of the previous year. The small crop of 2012 resulted in sharply higher prices, rationing of consumption, and a further draw down in year ending stocks. Consumption for the year just ended is estimated at 719 million bushels, only 6.4 percent of consumption during the year.

While the 2013 production season got off to a rocky start due to late planting in many areas, expectations into early August were for larger crops than in 2012, increased consumption during the 2013-14 marketing year, a build-up in stocks by the end of the year, and much lower prices than during the previous year. In the August 12 WASDE report, the USDA forecast a record corn crop of 13.763 billion bushels, a 1.46 billion bushel increase in consumption, and year ending stocks of 1.837 billion bushels (14.5 percent of projected consumption). The 2013-14 marketing year average farm price was projected in a range of $4.50 to $5.30 per bushel, compared to an average near $7.00 for the previous year. For soybeans, production was forecast at 3.255 billion bushels, 240 million larger than the 2012 crop. Consumption was forecast to increase by 82 million bushels and year ending stocks were projected at 220 million bushels (6.9 percent of projected consumption). The 2013-14 marketing year average farm price was projected in a range of $10.35 to $12.35 per bushel, compared to an average of $14.40 during the previous year.

Expectations began to change in early August as hot, dry weather conditions developed across a broad
swath of the production area. It appears that average precipitation across Indiana, Illinois, and Iowa in August, for example, was the lowest since records began in 1895. The average for July and August in those three states may have been the third lowest since 1895. The adverse weather conditions have resulted in lower yield and production expectations for both crops, raising concerns that consumption may need to be rationed again in 2013-14. Rationing, however, does not appear likely for corn. Assuming that the size of the market is near the USDA projection of 12.675 billion bushels and that year-ending stocks can be reduced to about six percent of consumption, the crop would have to be less than 12.7 billion bushels to require rationing. If harvested area is near the forecast of 89.1 million acres, the U.S. average yield would need to be less than 142.5 bushels to produce a crop less than 12.7 billion bushels. Some believe that the FSA estimate of prevent planted acres points to less harvested area. If harvested area is only 88 million acres, for example, the yield would need to be less than 144.3 bushels to require rationing. The USDA’s August forecast was for a yield of 154.4 bushels.

For soybeans, assuming that the size of the market is near the USDA projection of 3.176 billion bushels and that year-ending stocks can be reduced to about four percent of consumption, the crop would only have to be less than 3.16 billion bushels to require rationing. With harvested area of 76.4 million acres, the U.S. average yield would need to be less than 41.4 bushels per acres to produce a crop less than 3.16 billion bushels. That compares to the USDA August forecast of 42.6 bushels and the 2012 average of 39.6 bushels. Last year, August and early September rainfall was generally plentiful and the average yield of 39.6 bushels was 4.3 bushels above the September forecast.

At this juncture, the 2013 corn crop is expected to be large enough that rationing of consumption during the year ahead will not be required. The average farm price will likely be higher than expected a month ago, but a sharp increase in prices from current levels to discourage consumption is probably not needed. Prices during the first half of the marketing year may be relatively flat.

There is more concern about the size of the soybean crop and prices have risen sharply over the past month. Unlike corn prices, soybean prices are expected to unfold in more of a short-crop pattern like that of last year. Under such a pattern, prices would be expected to peak very early in the marketing year in order to discourage consumption and decline as the year progresses, particularly if the South American crop is large again in 2014.