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1998 CORN AND SOYBEAN PRODUCTION -- HOW MUCH IS ENOUGH?

The focus in the corn and soybean markets has shifted form concerns about surplus production in 1998 to concerns about production shortfalls. During periods of weather and crop concerns, it is important to keep crop size in perspective. That perspective is the likely size of the market (domestic and export) during the 1998-99 marketing year. The difficulty, of course, is that market size is not known nor is it fixed. Consumption of corn and soybeans in the year ahead will reflect shifts in demand, but will also respond to the size of the crops and the level of prices. That is, there may be change in demand (up or down) as well as movement along the demand curve.

One place to start is to project the level of consumption if supplies are adequate and prices in a "normal" range. For the current marketing year, the USDA projects total corn consumption at 9 billion bushels. Year ending stocks are projected at 1.26 billion bushels, representing a "surplus" of about 500 million bushels. If market size were unchanged in 1998-99, production would need to total about 8.5 billion bushels to avoid significant price rationing. Based on March planting intentions, corn acreage harvested for grain is estimated at 74.4 million acres. A national average yield of 114 bushels per acre would be required to produce a crop of 8.5 billion bushels. In the projections released earlier this month, the USDA projected 1998-99 market size at 9.3 billion bushels, requiring a crop of 8.8 billion bushels and a national average yield of 118.3 bushels per acre.

An updated corn acreage estimate will be released on June 30. The market is likely expecting a slight increase over the March planting intentions figure of 80.78 million acres. Acreage harvested for grain may be reduced, however, by losses due to excessive moisture. Depending on final harvested acreage and market size, it appears that a 1998 yield between 112 and 122 bushels per acre would be required to keep prices in a normal range. The trend yield for 1998 (calculated over the period 1960 to 1997) is 129.6 bushels per acre. The national average yield over the past five years has ranged from 100.7 bushels (1993) to 138.6 bushels (1994).

For soybeans, market size in the current marketing year is projected at 2.625 billion bushels, although that projection includes an unusually large "residual" use. Actual market size may be near 2.6 billion bushels. Carryover stocks are projected at 240 million bushels, representing a "surplus" of about 40 million bushels. With no change in market size, a 1998 crop of 2.56 billion bushels would be required to keep soybean prices in a normal range. Based on March planting intentions, harvested acreage of soybeans is expected to be near 70.9 million acres in 1998.

Under this scenario, an average yield of 36.1 bushels per acre would be required in 1998. With a more typical residual use next year, the USDA is projecting market size at 2.62 billion bushels, requiring a crop of 2.58 billion bushels and an average yield of 36.4 bushels per acre.

As is the case with corn, the estimate of planted and harvested acreage of soybeans may change on June 30. In addition, market size depends on the size of crops in other areas and any other shifts in demand that may occur. It now appears that a 1998 yield between 36 and 37.5 bushels per acre is required to avoid significant price rationing or a significant accumulation of stocks during the year ahead. The 1998 trend yield (calculated over the past 12 years) is 39.5 bushels per acre. Over the past 5 years, the U.S. average yield has ranged from 32.6 bushels (1993) to 41.4 bushels (1994).

Yield and production prospects will continue to drive the corn and soybean markets. With the extremely wet spring in parts of the corn belt, uncertainty about the potential impacts of El Nino/La Nina, and shifting acreage expectations, prices may be very volatile over the next several weeks. Good pricing opportunities for the 1998 crop will likely become available. The time line for pricing 1998 crops, however, extends for about another year. Market fundamentals and prices can shift significantly over that time period. The challenge is to price enough of the 1998 crop on weather rallies to be able to wait for the next period of higher prices.

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