Corn prices have declined sharply so far in September. After reaching a high of $7.79 on August 29, December 2011 corn futures traded to $6.76 early in the trading session on September 19. The lower prices have occurred even as USDA lowered the 2011 production forecast by more than 400 million bushels, suggesting that consumption during the 2011-12 marketing year will be restricted and that year ending stocks will be minimal.

The price weakness reportedly reflects two basic fundamental factors. First, early corn harvest results in some Midwestern locations have uncovered “better than expected” yields. These results suggest that the USDA may not reduce the 2011 yield forecast below the current forecast of 148.1 bushels, or perhaps could even increase the yield forecast in October or November. Expectations of an unchanged or higher yield forecast along with expectations of September 1, 2011 inventories of old crop corn larger than the current USDA forecast of 920 million bushels implies that corn consumption will have to be reduced less than currently forecast. The second factor is the generally held view that corn demand has weakened. Weaker demand implies that prices will not have to be as high as forecast in order to reduce consumption.

There is certainly precedent for a larger yield forecast in October following a lower yield forecast in September. From 1975 through 2010 (36 years) the USDA’s September forecast of the U.S. average corn yield was below the August forecast in 18 years, as it was this year. The decline ranged from 0.1 bushels to 14.8 bushels (1983). Excluding 1983, the largest decline was 4.5 bushels (3.6 percent) in 1995. The largest percentage decline, other than in 1983, was the 4.5 percent reduction in 1976. The August to September reduction this year was 4.9 bushels, or 3.2 percent. Of the 18 years when the September yield forecast was below the August forecast, the October forecast was above the September forecast in 7 years. Those 7 years were between 1989 and 2008. In 4 of those 7 years, the January yield estimate was above the October forecast.

The difficulty in evaluating observations that corn yields exceed expectations is the issue of whose expectations? The USDA recognizes that producer responses to its Agricultural Yield Survey, which is one component of the monthly yield forecast, tend to be conservative (biased down), particularly under drought conditions. The interpretation phase of the USDA’s yield forecasting process recognizes this tendency and factors it into the final deliberations of the yield forecast. [See page 17 of “The Yield Forecasting Program of NASS”, SMB Staff Report November SMB 06-01, May 2006]. This methodology
suggests that the September corn yield forecast may have captured a portion of the yields that exceed producer expectations.

Another complicating factor for anticipating the October corn production forecast is the uncertainty about the magnitude of harvested acreage. Planted acreage data released by the USDA’s Farm Service Agency (FSA) reflects a larger difference between FSA certified acreage and the survey-based planted acreage estimate of NASS than was the case in 2009 and 2010. This larger difference, along with the possibility that more than the normal amount of acreage was harvested for silage or abandoned, suggests that the NASS forecast of acreage harvested for grain will be reduced in October.

While considerable uncertainty persists on the issue of corn supply, the market seems to be more focused on the demand side of the balance sheet. The perception is that even with a slightly smaller crop forecast, prices are high enough to limit consumption to the available supply due to a downward shift in the demand for corn. Factors that have or may contribute to this shift include the availability of lower priced wheat for the livestock sector, corn export competition, the end of the ethanol blenders’ tax credit scheduled for the end of the year, and the general economic weakness that may reduce the overall demand for agricultural commodities.

The October corn production forecast along with the estimate of September 1 inventories of old crop corn will solidify supply estimates and quantify the magnitude of rationing required by the corn market. After that, the pace of consumption will be monitored to determine if the necessary reduction in consumption is occurring. Some evidence that consumption is progressing too rapidly may be required to change the recent trend in prices. Weekly export data, which currently show a slow pace of shipments but a reasonable pace of new sales, provide the most visible information. Weekly ethanol production data provide the most frequent information on the pace of domestic consumption. Ethanol production in the first week of the marketing year, for example, was about 1 percent larger than in the same week last year. The pace of domestic feed use is the least transparent. USDA reports of livestock and poultry inventories will provide some basis for judging overall feed demand. The magnitude of feed and residual use of corn, however, will only be revealed with the quarterly Grain Stocks reports.