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Weekly Outlook: Questions About Corn Acreage

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The pace of consumption of U.S. corn has been slowing, as evidenced by small weekly exports and export sales, smaller weekly estimates of ethanol production, declining cattle feedlot placements, and increased slaughter of dairy cows and the hog breeding herd. The extent of rationing required in the current marketing year that has just begun, however, is still not clear since the size of the 2012 crop is not yet known.

The average U.S. corn yield will obviously be the most important factor in determining crop size, but the magnitude of acreage harvested for grain will also influence crop size. The likely magnitude of harvested acreage starts with the magnitude of planted acres. The USDA's National Agricultural Statistics Service (NASS) June Acreage report estimated corn acreage planted for all purposes this year at 96.4 million acres. History suggests that the final acreage estimate will deviate, at least slightly, from this estimate. In the previous 10 years, for example, the final estimate of planted acres deviated by as little as 37,000 to as much as 1.345 million acres from the June estimate. The positive deviations (4) averaged 293,000 acres and the negative deviations (6) averaged 650,000 acres. The recently released USDA Farm Service Agency (FSA) report of planted acreage of corn in 2012 by those participating in government programs has been used to judge the potential change in the NASS estimate of planted acreage this year. That report showed planted acreage by program participants at 93 million, or 96.5 percent of the NASS June estimate. Some have suggested that this report points to an increase in the NASS estimate of planted acreage. However, in the previous five years, the ratio of FSA acreage to the NASS final estimate averaged 97 percent, in a range of 96.7 to 97.5 percent. The ratio based on the June estimate this year is slightly smaller than that of the final ratio of the previous five years. If anything, then, the lower ratio points to the potential for a slight reduction in the NASS final estimate of planted acreage rather than an increase.

Acreage harvested of corn for grain in a given year is equal to planted acreage minus acreage harvested for silage minus non-harvested acreage. Acreage harvested for silage has declined over time (see the [farmdoc Daily post](#) by Carl Zulauf). Acreage harvested for silage averaged about 9.2 million acres in the 1970s and about 7.6 million acres in the 1980s. That acreage has been relatively stable since 1990, averaging just under 6.1 million acres and in a range of 5.3 to 7.1 million acres. Acreage harvested for silage, however, tends to spike in years of dry weather like that of 2012. Compared to the previous year, for example, silage acreage increased by 1.3 million acres in 1980, 2.3 million acres in 1988, and just

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over one million acres in 2002. This “spike” pattern was not observed in 1983 or 1995, however, when harvested acreage of silage was less than in the previous year.

In the case of non-harvested acreage, an increase from the previous year of 780,000 acres occurred in 1980, 460,000 in 1988, 258,000 in 1995, and 1.65 million in 2002. The outlier in the pattern of an increase in acreage not harvested for grain in recent dry years was 1983. The pattern that year may have been influenced by the 21.6 million acre year-over-year decline in planted acreage in response to government programs aimed at reducing the corn surplus.

So what about harvested acreage of corn in 2012? We are anticipating that due to the severity of this year’s drought the difference between planted acreage and acreage harvested for grain will be at least as large as in 1980, 1988, and 2002. Differences in those years averaged 10 million acres, in a range of 9.47 to 11.1 million acres. If planted acreage was also slightly less than the NASS June estimate, that experience points to acreage harvested for grain of about 86 million, nearly 1.4 million less than the June NASS estimate.

Under this acreage scenario, a national average corn yield near the August forecast of 123.4 bushels would result in a crop near 10.6 billion bushels. If the average yield is also four to five bushels lower than the August forecast, as we suspect, the crop may be near 10.2 billion bushels, almost 600 million bushels less than the NASS August forecast. A crop of that size would require a year-over-year decline in consumption of U.S. corn of nearly 1.8 billion bushels, or about 14 percent. Corn prices would likely have to remain high for an extended period in order to motivate such a large decline in consumption. The USDA’s September 12 Crop Production report will provide an important update on the likely magnitude of harvested acreage, yield, and production and bring the rationing question into clearer focus.