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HOW ACCURATE ARE THE SEPTEMBER CORN AND SOYBEAN YIELD FORECASTS?

The USDA's September *Crop Production* report will be released on September 12. A number of private forecasts have been released and numerous yield estimates based on weekly crop condition reports are cranked out every week. All of these forecasts and estimates make for interesting reading, but it is the USDA forecast that the market will react to. That is as it should be. The USDA's methodology is the most objective and comprehensive, by far, than that of any other source of crop yield forecasts. Even so, the "final" yield estimate in January after harvest often deviates from the September forecasts because it reflects more information, including the impact of late season weather, actual harvest results, and estimates of field loss.

Since 1979 (22 observations), the September corn yield forecast has been within 0.1 bushel of the August forecast 5 times, below the August forecast by more than 0.1 bushels 10 times, and above the August forecast by more than 0.1 bushels 7 times. The August to September decline in the yield forecast exceeded 3 bushels on only 2 occasions – 1983 (14.8 bushels) and 1995 (4.5 bushels). The average decline for the other 8 years was about 1.6 bushels. The August to September increase in the corn yield forecast ranged from 0.6 to 4 bushels per acre, averaging 2.3 bushels. This year, the September yield forecast is generally expected to be smaller than the August forecast. History would suggest that the decline will be relatively small. Based on the August forecast of acres harvested for grain, the yield forecast would have to decline by more than 3.8 bushels per acre to put the production forecast under 9 billion bushels.

The corn yield estimate in January after harvest has differed form the September forecast every year for the past 22 years. The January estimate was above the September forecast 14 times and below the September forecast 8 times. The differences tended to be slightly larger than the August to September changes. The yield reductions ranged from 0.4 bushels to 12.4 bushels (1993) and averaged about 4 bushels. Excluding the extreme years of 1993 and 1995, the average decline was 2.2 bushels. The yield increases ranged from 0.3 to 10 bushels and averaged 4.2 bushels. For all 22 years, the January yield estimate was within 1 bushel of the September forecast 5 times; within 2 bushels, 6 times; and within 3 bushels, 9 times. It is also interesting to note that in the 10 years that the September yield forecast was below the August forecast by more than 0.1 bushel, the January estimate was below the September forecast 6 times and above 4 times.

For soybeans, the September yield forecast has been very close tot he August forecast in most years. The difference was one bushel or more in only 6 of the 22 years. Three of those 6 occurred in 1998, 1999, and 2000. The largest difference was a 4.8 bushel decline in 1983. The largest increase was 1.7 bushels in 1985. The September forecast was below the August forecast in 12 of the 22 years. Opinions are mixed for the expected change in the yield forecast in September this year. Based on the August estimate of harvested acreage, the September yield forecast will have to be a bushel or more below the August forecast to result in a production forecast below 2.8 billion bushels.

The January yield estimate was below the September forecast in 11 of the past 22 years, 6 of the past 8 years, and each of the past 4 years. The drop in the yield estimate in those 11 years ranged from 0.3 bushels to 2.1 bushels and averaged 1.2 bushels. The decline were relatively large (1.4 to 1.7 bushels) in each of the past 3 years.

In the 11 years of an increase in the yield estimate in January, the increase ranged from 0.4 to 3.7 bushels per acre and averaged 1.6 bushels per acre. Increases in yield estimates from September to January have tended to be larger than declines in yield estimates.

For the most part, changes in yield forecasts from August to September tend to be relatively small. The changes also tend to be smaller than reflected by many private forecasts. In particular, reductions in yield estimates tend not to be as large as advertised by the private sector. This year is not likely to be an exception. Changes from September to January tend to be somewhat larger than changes from August to September, but a large change is rare. Given the maturity of this year's crops, particularly corn, the September yield forecast should be a good predictor of the final yield estimate.

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