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Corn Belt Corn Crop Conditions and September Yield Forecasts—2013

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Corn Belt Corn Crop Conditions and September Yield Forecasts—2013

Abstract

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Corn Belt Corn Crop Conditions and September Yield Forecasts – 2013

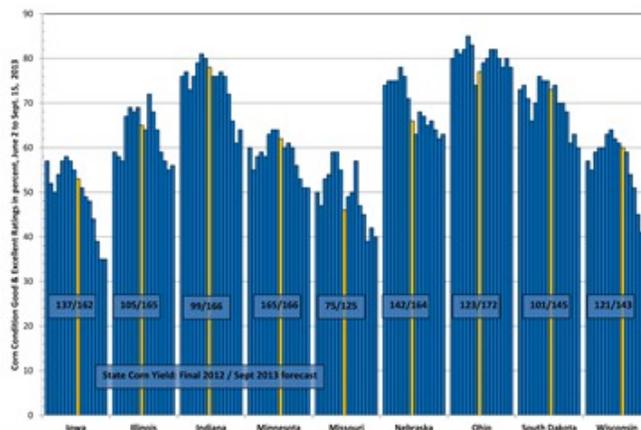
By Roger Elmore, Department of Agronomy

Crop conditions across the U.S. Corn Belt varied dramatically in 2013. Iowa was no exception and this year sits in a rare position in terms of yield potential: lower than several other Corn Belt states.

Iowa – 2013 growing conditions

Iowa conditions were dry in January 2013 - drier, in fact, than in January 2012. Several ICM articles addressed our concerns and management suggestions dealing with dry soils: for example, [plant population changes](#); [hybrid changes](#); [soil management](#); and [planter adjustments](#). March and April rains and snow relieved our concerns about drought. In late April, a few days of good planting conditions encouraged Iowa farmers to plant 2 percent of their acres in late April. Early May snows hampered planting for some time and conditions continued to be wet and cool. [Only half of Iowa's corn was planted by mid-May](#) in dramatic contrast to 2010 when half of our corn was planted by April 18th.

Half of our state's 2013 corn was silked by July 28th (Figure 1), in contrast to 89 percent for the five-year average and 99 percent in 2012. Although conditions around silking were reasonable and likely resulted in good kernel set, hot, dry conditions occurred after that and continued into mid-September. [Heat unit accumulations ranged above normal](#) during a several week period, [hastening crop development and likely reducing yields](#).



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Yellow columns represent the first week within each state at which 50% or more of the crop was silked.

Figure 1. Percent of corn rated good and excellent across the Corn Belt during the 2013 growing season. Columns starting from the left for each state are for reports issued weekly from June 2 through Sept. 15, 2013, respectively. Crop condition data were compiled and adapted from [USDA-NASS Quick Stats](#). The single yellow column among the blue columns for

each state represents the first week at which 50 percent or more of the crop was silked based on [USDA Crop Progress data](#). The first number in the rectangles overlaid over the columns for each state indicates that state's final 2012 USDA yield. The number to the right in each box is the September 2013 yield forecast for that state. Yield data are derived from the USDA-NASS [September 2013 Crop Production report](#). [Full-size image](#)

USDA-NASS crop condition reports

The USDA-NASS publishes crop condition reports for major corn-producing states weekly in [Crops & Weather](#). The crop condition segment of these reports derives from subjective data. Subjective data are based on opinions of volunteers who survey crop conditions weekly and report their findings. Subjective data are more open to interpretation and may possibly be influenced by emotions. On the other hand, objective data, like that which the USDA-NASS yield forecasts are based upon, are in large part fact-based, measurable, quantifiable and repeatable. With this understanding, USDA-NASS uses the following criteria to rate crop conditions subjectively during the growing season.

- Very Poor - Extreme degree of loss to yield potential, complete or near crop failure. Pastures provide very little or no feed considering the time of year. Supplemental feeding is required to maintain livestock condition.
- Poor - Heavy degree of loss to yield potential that can be caused by excess soil moisture, drought, disease, etc. Pastures are providing only marginal feed for the current time of year. Some supplemental feeding is required to maintain livestock condition.
- Fair - Less than normal crop condition. Yield loss is a possibility but the extent is unknown. Pastures are providing generally adequate feed but still less than normal for the time of year.
- Good - Yield prospects are normal. Moisture levels are adequate and disease, insect damage and weed pressures are minor. Pastures are providing adequate feed supplies for the current time of year.
- Excellent - Yield prospects are above normal. Crops are experiencing little or no stress. Disease, insect damage and weed pressures are insignificant. Pastures are supplying feed in excess of what is normally expected at the current time of year.

http://www.nass.usda.gov/Publications/National_Crop_Progress/Terms_and_Definitions/index.asp#condi

Iowa Corn Conditions: Correlated with reduced yield forecasts - 2013

For most of us in Iowa, it was no surprise to see our corn crop conditions slide weekly for 10 weeks from early July through mid-September (Figure 1). By mid-September, only 35 percent of our crop rated in either the 'Good' or 'Excellent' categories. That suggests that only 35 percent of our crop was expected to yield normally or greater than normal. On the other end of the scale, 28 percent of the crop rated 'Poor' or 'Very Poor;' expectations for these crops are for "heavy" or "extreme" losses in yield potential.

September's USDA-NASS corn yield forecast of 162 bushels per acre for Iowa is nearly 17 bushels below the 30-year trend line – a 9.4 percent reduction from my 2013 trend line yield estimate of 178.9 bushels per acre. That still sounds better than last year's yield of 137 bushels per acre for Iowa! Be aware though that these crop condition data are summarized as state averages. Obviously, conditions range widely in Iowa as reflected by September's [USDA-NASS yield forecast](#).

Corn Belt corn conditions and yield forecasts - 2013

Corn growing conditions also varied widely across the Corn Belt during the 2013 growing season (Figure 1). While Iowa's corn conditions fell for 10 straight weeks, Missouri's fell for five weeks and Wisconsin's nine weeks. These three states all have less than half of their acreage in good and

excellent condition and thus should expect below trend line yields based on subjective data from the crop condition reports. Iowa's September forecast yield as mentioned is 9.4 percent below trend line. September yield forecasts for Missouri, 125 bushels/acre, and Wisconsin, 143 bushels/acre, are the lowest among the state's shown in Figure 1.

On the other hand, Illinois and Minnesota ratings currently lie between 50 and 60 percent good and excellent. They might expect normal yields. Although ratings fell for several weeks in Indiana, Nebraska and South Dakota, their good and excellent ratings remain at or above 60 percent. Corn conditions in Ohio hovered above 70 percent good and excellent all season. Expect to see very good yields from Ohio! September 2013 yield forecasts across the Corn Belt seem to correlate with crop condition reports after silking (Figure 1).

Considering the kind of year Iowa corn experienced, we are fortunate to have a forecast yield as high as it is at this time. Modern hybrids, improved management systems and Iowa's excellent soils certainly pay off in a stressful year like 2013.

Roger Elmore is a professor of agronomy with research and extension responsibilities in corn production. He can be contacted by e-mail at relmore@iastate.edu or (515) 294-6655.

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