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Prospects for the 2014 Indiana Corn Crop

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pros·pect
/'präs,pekt/
noun (plural: prospects)
1. The possibility or likelihood of some future event occurring.

Seems like everywhere you turn, the "word in the street" is that the *prospects* for the 2014 Indiana corn crop are nothing short of the moon. Coffee shops and farm shops are abuzz with talk of the *prospects* of high yields. Farm magazine Web sites, chat rooms, blogs, Twitter feeds, and Facebook pages are alive with the *prospects* of the 2014 corn crop throughout the Midwest, not just in Indiana. The Chicago Board of Trade and the grain marketing trade obviously believe in the *prospects* for a bumper crop nationwide.

The immortal Yogi Berra once said, "You can observe a lot by just watching." I agree that many fields I have walked in recent weeks around the state look as good as I have seen in a long time..... at least since this time last year. It is also true that I have seen fields in recent weeks that look as bad as I have seen in a long time..... at least since this time last year. As an agronomist, I certainly agree with Yogi Berra who also said, "It ain't over till it's over."

The "upside" for some of the 2014 Indiana corn crop is that stand establishment was pretty good, there has been no shortage of rainfall to date (for most of us), temperatures have been moderate to date, disease pressure has been low to date, and the weather forecast for much of the pollination period looks favorable. The "downside" for some of the 2014 Indiana corn crop is that planting was significantly delayed due to frequent spring rainfall, stand establishment was terrible in some fields and required one or more replantings to "get it right", and subsequent rainfall has been excessive causing significant root death/damage, plant mortality, overall stunting of the crop and significant loss of soil nitrate-nitrogen.

It is true that the estimates of crop condition statewide published by USDA-NASS are currently quite good (75% good or excellent as of 13 July). When compared to crop conditions in recent years where statewide yields were significantly above trend (2001, 2004, 2009, and 2013), the *prospects* for a good corn crop in 2014 certainly look promising (Fig. 1)..... **as long as growing conditions for the remainder of the growing season continue to be favorable.**

There are those who

question the accuracy of the weekly USDA-NASS crop condition ratings, but there are in fact reasonably accurate historical relationships between those estimates of crop condition ratings and eventual percent departures from trend yield, especially as the season progresses (i.e., as the "target" gets closer). In fact, **if the current crop condition ratings (75% good to excellent) remain steady through**

September, the historical relationship suggests that this year's Indiana corn crop could yield as much as 8% above the 2014 trend yield or approximately 178 bu/ac.

By comparison, the 2013 Indiana corn crop, in another overall good

growing season, yielded 177 bu/ac or 7.7% above the 2013 trend yield estimate AND had a higher crop condition rating (80% good or excellent) at this same time in July last year.

Ifs, ands, and buts...

Yes, the corn crop in Indiana looks good at this point in time. Yes, the *prospects* for good yields this year are promising. But..... the crop has only "rounded second base" on its way to "home plate". By this I mean that almost half of the growing season remains ahead of this crop.

If Mother Nature's "spigot" would turn off and soils rapidly dry to excessively low levels, much of this crop that is likely shallow-rooted due to the early wet season would suffer quickly. Conditions recently have been conducive for the development of foliar diseases, but time will tell whether they will "explode" or not over the coming weeks. The absence of wide-spread nitrogen (N) deficiency symptoms is curious given the excess of rainfall in many areas, but the question lingers whether N deficiency may yet appear during the grain fill period and limit kernel weight. Any severe stress during the grain fill period that limits photosynthesis will encourage corn plants to remobilize stored carbohydrates from the lower stalk tissue to the developing kernels. Such "cannibalization" of lower stalk tissue predisposes the plant to root or stalk rot disease development, leading to weaker stalks and higher risks of stalk breakage or lodging prior to harvest. Such severe photosynthetic stresses include foliar disease, nutrient deficiency, hail damage, and drought stress.

Another old saying seems appropriate at this point in the 2014 growing season, "The opera ain't over until the fat lady sings." (journalist Ralph Carpenter, 1976).

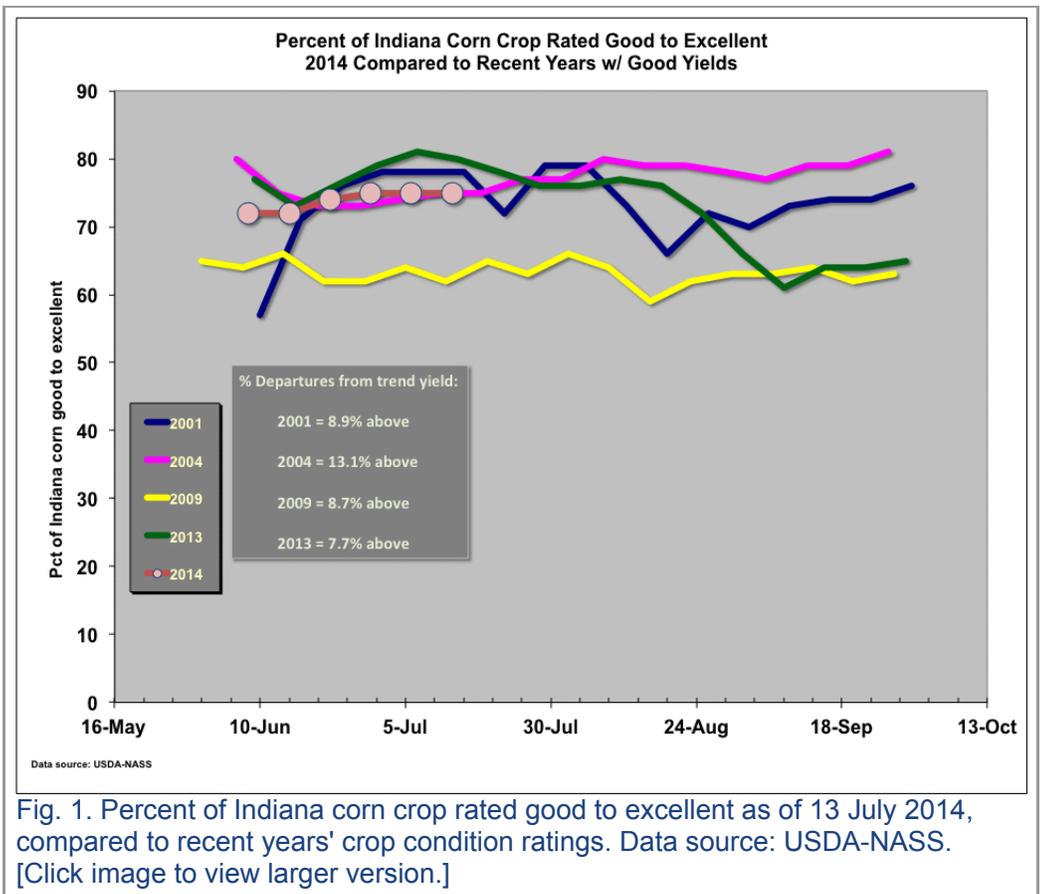


Fig. 1. Percent of Indiana corn crop rated good to excellent as of 13 July 2014, compared to recent years' crop condition ratings. Data source: USDA-NASS. [Click image to view larger version.]

Related reading

USDA-NASS. 2014. Crop Progress (14 July). USDA, National Ag. Statistics Service.

<http://usda.mannlib.cornell.edu/usda/nass/CropProg//2010s/2014/CropProg-07-14-2014.pdf> [URL accessed 15 July 2014].

USDA-NASS. 2014. Index to Crop Progress Reports. USDA, National Ag. Statistics Service.

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1048> [URL accessed 15 July 2014].

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