

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.





Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Projected 2015 Corn Revenue with Comparisons to Revenues from 2010 to 2014

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

April 21, 2015

farmdoc daily (5):73

Recommended citation format: Schnitkey, G. "Projected 2015 Corn Revenue with Comparisons to Revenues from 2010 to 2014." *farmdoc daily* (5):73, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 21, 2015.

Permalink http://farmdocdaily.illinois.edu/2015/04/projected-2015-corn-revenue-with-comparisons.html

In Illinois, 2015 gross revenues for corn are projected to be lower than 2014 gross revenues. In 2015 for corn, gross revenues are projected in the mid to high \$800 per acre range for farms in Northern and Central Illinois with high-productivity farmland. Gross revenues in the low \$800 per acre range are projected for farms with lower-productivity farmland in Central Illinois. Gross revenues in the low \$700 range are projected for Southern Illinois farms. These 2015 levels are about \$200 per acre below average gross revenue levels for 2010-13. As long as prices are below \$4.50, gross revenues in the above ranges are to be expected.

Actual and 2015 Projected Corn Revenues

Panels A through D in Table 1 show gross revenues for four regions of Illinois: Northern, Central – High, Central – Low and Southern Illinois. Central Illinois is divided into two categories based on land productivity: Central – High has an expected corn yield of 196 bushels per acre in 2015 while Central – Low has a 182 expected yield. Table 1 shows actual results from 2010 to 2014. These actuals come from summaries of farms enrolled in Illinois Farm Business Farm Management (FBFM), supplemented with data from the Risk Management Agency on crop insurance payments and estimates of ARC/PLC payments for 2014.

Gross revenue includes four components:

- 1. Crop revenue equals yield times price. Projections for 2015 are based on trend yields. A \$4.25 price is used to value production in 2015.
- 2. ARC/PLC payments. These are estimates of Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) payments for corn. Note that 2014 payments are not known with certainty. Moreover, the 2014 ARC/PLC payment will be made after September 2015. The ARC/PLC payment is estimated based on National Agricultural Statistical Service estimates of 2014 county yields and a \$3.70 Market Year Average price. It is assumed that the majority of acres are enrolled

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from farmdoc daily. Guidelines are available here. The farmdoc daily website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies here.

in ARC with the county option (ARC-CO). Given these assumptions, ARC-CO will make payments in most counties in northern Illinois, but few counties in central and southern Illinois. At a \$3.70 price, PLC payments will not occur (see *farmdoc daily* February 24, 2015 for more detail).

- 3. Direct payments. Direct payments occurred under the 2008 Farm Bill. There will be no direct payments in 2014 and years after.
- 4. Crop insurance proceeds. These are revenue from crop insurance programs.

Table 1. Gross Revenue for Corn in Four Regions of Illinois, Actual for 2009 through 2014 and Projected for 2015.

	•	•				
	Year ²			Year ²		
	2010-13	2014	2015P	2010-13	2014	2015F
Panel A. Northern Illinois				Panel B. Central Illinois High		
Yield per acre (bu/acre)	175	208	192	166	231	196
Price per bushel	\$5.62	\$3.80	\$4.25	\$5.69	\$3.75	\$4.25
	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre
Crop revenue	\$965	\$790	\$816	\$925	\$866	\$833
ARC/PLC payment	0	50	30	0	2	30
Direct payments	23	0	0	24	0	(
Crop insurance proceeds	<u>62</u>	<u>46</u>	<u>0</u>	<u>103</u>	<u>10</u>	<u>(</u>
Gross Revenue	\$1,049	\$886	\$846	\$1,052	\$878	\$863
Panel C. Central Illinois Low				Panel D. Southern Illinois		
Yield per acre (bu/acre)	153	215	182	132	194	160
Price per bushel	\$5.63	\$3.76	\$4.20	\$5.79	\$3.75	\$4.25
	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre
Crop revenue	\$844	\$808	\$764	\$729	\$728	\$680
ARC/PLC payment	0	2	30	0	2	20
Other govt payments	24	0	0	21	0	(
Crop insurance proceeds	<u>103</u>	<u>10</u>	<u>0</u>	<u>157</u>	<u>7</u>	<u>(</u>
Gross Revenue	\$970	\$820	\$794	\$906	\$737	\$700

¹ Regions are northern, central, and southern Illinois. Central Illinois is divided into high productivity (196 bushel expected yield in 2015) and low productivity (182 bushel expected yield) farmland. Data for 2010 through 2014 come from Illinois Farm Business Farm Management.

² The column 2010-13 gives averages for 2010 through 2013

Gross Revenues in 2014 and 2015 Compared to 2010-13 Revenues

Gross revenues in 2014 were below 2010-13 levels. In Northern Illinois, for example, gross revenue in 2010-13 averaged \$1,049 per acre while 2014 gross revenue was \$886 per acre (see Panel A of Table 1), a decrease of \$163 per acre.

Moreover, 2015 gross revenues are projected to be below 2014 revenues. In Northern Illinois, gross revenue is \$886 in 2014 and \$846 in 2015 (see Panel A). Gross revenue in 2015 is projected \$30 less in 2015 compared to 2014 in Northern Illinois.

Overall, 2015 gross revenues are well below 2010-13 levels. The 2015 projected gross revenue is \$203 per acre below 2010-13 levels in Northern Illinois (\$1,049 in 2010-13 minus \$846 projected revenue in 2015). The projected 2015 gross revenues are \$189 below 2010-13 levels in central – High Illinois, \$175 in Central – Low Illinois, and \$206 below in Southern Illinois.

Corn prices in 2014 and 2015 are lower than 2010-13 prices. From 2010-14, Northern Illinois farmers received an average \$5.62 per bushel for corn. Corn prices are projected at \$3.80 for 2014 and \$4.25 for 2015. These lower prices lead to lower projected gross revenues. As long as price expectation are below \$4.50 per bushel for corn, projected returns will be significantly below 2010-13 levels.

Projected 2015 Revenues Compared to 2014 Revenues

Yields were exceptional over much of Illinois in 2014. As a result, the 2015 yields -- based on trend yields -- are projected to be lower than 2014 yields. Offsetting lower projected yields are higher projected prices. The projected 2015 corn price used in Table 1 is \$4.25 per bushel. This projected price is based on an analysis of price implications resulting from 2015-16 corn balance sheet (see April 16th *farmdoc daily* article).

The combination of lower yields and higher prices has different impacts on crop revenue across regions. In northern Illinois, crop revenue in 2015 is projected higher than crop revenue in 2014: \$816 in 2015 versus \$790 in 2014. In the other regions, 2015 crop revenue is projected below 2014 revenue. In Central —High Illinois, 2015 crop revenue is projected at \$833 per acre compare to \$866 per acre in 2014. In general, Northern Illinois yields in 2014 were not as much above average as the other Illinois regions. As a result, a return to trend yields is not as large as a decrease in Northern Illinois. The relatively lower yields in Northern Illinois also resulted in higher 2014 crop insurance payments (\$46 per acre) and a higher estimated 2014 ARC payment (\$50 per acre) than in other regions of Illinois.

For 2015, ARC/PLC payments are projected to occur in Illinois. A \$4.25 price is well above the \$3.70 reference price, resulting in no PLC payments. ARC payments are projected to occur in all regions of Illinois in 2015. Payments are estimated at \$30 per acre in Northern and Central Illinois and \$20 per acre in Southern Illinois. However, a \$4.25 price could result in significantly lower ARC payments than those shown in Table 1In many counties, a \$4.25 market year average price would result in no ARC payments, particularly if county yields are above average.

Commentary and Summary

For the foreseeable future corn prices likely will be nearer \$4.00 per bushel than the high \$5.00 per bushel values experienced from 2010 to 2013. From 2010 to 2013, many farms in Northern and Central Illinois had gross revenues near or above \$1,000 per acre. For the foreseeable future, gross revenues that are near \$200 per acre less than the 2010-13 time period are reasonable. Expectations of gross revenues in the mid to high \$800 range are reasonable for many farms in Northern and Central - High Illinois. Gross revenues near \$800 are reasonable for Central – Low Illinois farms. Gross revenues in the low \$700 range are reasonable for Southern Illinois.

References

Good, D., and S. Irwin. "Projecting the 2015-16 Corn Balance Sheet and Price Implications." *farmdoc daily* (5):70, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 16, 2015.

Schnitkey, G. "Estimated 2014 ARC-CO and PLC Payments." *farmdoc daily* (5):34, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 24, 2015.

Also available at:

http://farmdoc.illinois.edu/manage/newsletters/fefo15_08/fefo_15_08.html