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# 2015 Harvest Prices and Estimated 2016 Projected Prices

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For most Midwest states, harvest prices used to determine crop insurance payments are \$3.83 per bushel for corn and \$8.91 per bushel for soybeans. Yields will need to be below guarantee yields before payments occur. Current futures prices suggest that 2016 projected prices will be lower than 2015 projected prices, leading to lower revenue guarantees in 2016.

#### **Break-even Yields and Insurance Payments in 2015**

The 2015 projected price for corn is \$4.15 per bushel while the harvest price is \$3.83 per bushel. The harvest price is 8% lower than the projected price. Even at an 85% coverage level, actual yields must be lower than the guarantee yields before payments occur on Revenue Protection (RP) products.

Multipliers in Table 1 can be used to calculate yields below which RP payments will occur. Take the yield multiplier times the Actual Production History (APH) yield or Trend-Adjusted APH (TA-APH) yield to arrive at a break-even yield. As an example, suppose the TA-APH yield is 190 bushels per acre and the selected coverage level is 85%. The multiplier in this case .92 (see Table 1) and the break-even yield is 175 bushels per acre (190 TA-APH yield x .92 multiplier), and RP will make payments when yields are below 175 bushels per acre.

The 2015 projected price for soybeans is \$9.74 per bushel, and the harvest price is \$8.91 per bushel. The harvest price is 9% lower than the projected price. Similar to corn, actual yields must be lower than the guarantee yields before payments occur on RP products.

Reports suggest that many yields in Illinois are near trend yields for corn and significantly above trend yields for soybeans. Overall, this would suggest relatively low payments for crop insurance in 2015. In Illinois, it is likely that loss ratios for corn and soybeans will be below 1.0 in 2015.

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Table 1. Revenue Protection Yield Multipliers for 2015 Coverage Level Corn Soybeans Yield Multipliers<sup>1,2</sup> 50% 0.54 0.55 55% 0.60 0.60 60% 0.65 0.66 65% 0.70 0.71 70% 0.76 0.77 75% 0.81 0.82 80% 0.87 0.87 85% 0.92 0.93

#### 2016 Projected Prices and Guarantee Levels

Crop insurance provides within year revenue protection as projected prices reset each year, with the overall level varying from year to year depending on the level of the projected price. For most Midwest states, the projected price for corn is the average of settlement price during the month of February. The December Chicago Mercantile Exchange (CME) contract is used for corn. The November CME contract is used for soybeans.

Projected prices for corn have decreased each year since 2011 (see Table 2). In 2011, projected price for corn was \$6.01 per bushel. From this level, projected price declined to \$5.68 per bushel in 2012, \$5.65 in 2013, \$4.62 in 2014, and \$4.15 in 2015. Since 2011, the projected price for corn has decreased by 31%. If the coverage level and guarantee yield did not change, insurance guarantees would also decrease by 31%.

A similar trend exists for soybeans. In 2011, the projected price for soybeans was \$13.49 per bushel while the 2015 projected price is \$9.74 per bushel. Since 2011, the projected price for soybeans has decreased by 28%.

	Year				
_	2011	2012	2013	2014	2015
Corn					
Projected	6.01	5.68	5.65	4.62	4.15
Harvest	6.32	7.50	4.39	3.49	3.83
Soybeans					
Projected	13.49	12.55	12.87	11.36	9.74
Harvest	12.14	15.39	12.87	9.65	8.91

<sup>&</sup>lt;sup>1</sup> Take the yield multiplier times the guarantee yield to arrive at a break-even yield. Actual yield below break-even yield will result in insurance payments. The break-even yield for corn at an 80% coverage level for a 200 bushel TA-APH yield is 184 bushels per acre (200 x 0.92).

<sup>&</sup>lt;sup>2</sup> Yield multipliers equal projected price times coverage level divided by harvest price.

We are several months away from setting 2016 projected prices; however, current futures price levels provide good indicators of 2016 projected prices. The 2016 December corn contract is near \$4.00 per bushel for corn, \$.15 per bushel lower than the 2015 projected price. The 2016 soybean contract is near \$8.85 per bushel, almost a \$1 per bushel lower than the 2015 projected price. Overall, this suggests that there is a potential for lower projected prices in 2016, leading to lower guarantees.

## **Summary**

Yield losses are needed to trigger 2015 RP premiums. Current futures prices suggest lower projected prices in 2016 as compared to 2015. If futures prices do not change, guarantees in 2016 will be lower than 2015 guarantees given the same coverage level.