



Estimates of 2015 ARC-CO Payments

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Many farmers will place estimates of 2015 Agricultural Risk Coverage – County Option (ARC-CO) payments on the 2015 income statement as revenue, resulting in an accrued ARC-CO payment on their balance sheets. Having a reasonable estimate of ARC-CO payments will aid in these income and balance sheet valuations. At this point, there is a great deal of uncertainty about 2015 ARC-CO payments. Still, it seems reasonable to expect some level of 2015 ARC-CO payments. An estimate of \$50 per base acre averaged over corn and soybeans seems reasonable at this point, with the caveat that there will be ARC-CO payment variability across counties.

Background on 2015 ARC-CO Payments

ARC-CO payments for 2015 production will be made after October 1, 2016. Individualized estimates of these payments can be obtained using the FAST ARC-PLC tool (available for download [here](#)). ARC-CO payments occur when county revenue is below county revenue guarantee. County revenue equals county yield times market year average (MYA) price:

- County yields – Farm Service Agency (FSA) calculates county yields used in determining ARC-CO payments. FSA released 2014 county yields in October 2015. Using this release as a guide, 2015 county yields likely will be released next autumn. Therefore, county yields for 2015 will not be known with certainty for quite some time. However, fairly accurate estimates of FSA county yields will be available when the National Agricultural Statistical Service (NASS) releases 2015 county yields in late February 2016. NASS county yields are not the same as FSA county yields. However, with notable exceptions, NASS county yields often are close to FSA Yields. Until NASS releases county yields, it is difficult to arrive at variations in ARC-CO payments across counties.
- MYA prices – MYA prices are calculated to represent the average of cash prices in the United States during a marketing year. The 2015 marketing years for corn and soybeans began in September 2015 and will end in August 2016.

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At this point, 2015 county yields and MYA prices are not known with certainty. Therefore, the following will be used to estimate 2015 ARC-CO payments:

1. USDA releases estimates of MYA average prices in its World Agricultural Supply and Demand Estimates (WASDE) report. The midpoint of WASDE ranges from the November 2015 report will be used to make estimates
2. NASS state yields will be used to estimate county yields by comparing the estimated state yield to its trend. Take corn as an example. NASS estimates the 2015 Illinois yield at 168 bushels per acre. This state yield is four bushels below the 2015 trend yield estimated using data from 1972 through 2014. As a result, a 2015 county yield estimate will be four bushels below its 2015 trend yield. Of course, county yields can vary tremendously from these yield estimates. At this point, though, estimating how these differences is difficult.

ARC-CO estimates will be illustrated for Piatt County, Illinois. Piatt County is in central Illinois.

Corn ARC-CO Payment

The 2015 trend yield for Piatt County is 185 bushels per acre. A four bushels per acre reduction from trend results in a county yield of 181 bushels per acre. In the November WASDE Report, the MYA price range for corn is from \$3.35 per bushel to \$3.95 per bushel. The midpoint is \$3.65 per bushel.

At a 181 bushel yield and \$3.65 price, the ARC-CO payment is \$75.99 per base acre. This \$75.99 has been adjusted for the fact that commodity programs make payments on 85% of base acres. If a farm has 50 base acres in corn, the total payment is \$3,799.50 (\$75.99 per acre payment x 50 base acres). This \$75.99 per base acre estimate is the maximum payment, as ARC-CO payments cannot exceed 10% of the revenue guarantee.

Table 1 shows per acre payments for different county yields and MYA prices. ARC-CO will make corn payments at many yield-price combinations. Even at the \$3.95 MYA price, the high end of the WASDE range, ARC-CO payments occur for county yields below 190 bushels per acre.

County Yield	Market Year Average Price		
	\$3.35	\$3.65	\$3.95
	\$ per base acre		
175	75.99	75.99	65.96
180	75.99	75.99	49.17
185	75.99	75.99	32.38
190	75.99	64.05	15.60
195	75.99	48.53	0.00
200	75.99	33.02	0.00

Soybean ARC-CO Payments

As of November, the 2015 Illinois state soybean yield is estimated at 56 bushels per acre, six bushels per acre above the 2015 trend yield of 50 bushels per acre. The 2015 trend yield for Piatt County is 59 bushels per acre. A six bushels per acre adjustment results in an estimate of 2015 yield of 65 bushels per acre. In the November WASDE report, MYA price ranges from \$8.15 per bushel up to \$9.65 per bushel. The midpoint of this range is \$8.90 per bushel.

An ARC-CO payment of \$28.50 per base acre results at a 65 bushels per acre yield and an \$8.90 per bushel price. As can be seen in Table 2, higher yields will result in reductions in ARC-CO payments while lower yields will result in higher ARC-CO payments. There are more possible yield-price combinations that will not result in payments for soybeans than for corn.

Table 2. Estimated 2015 ARC-CO Payments in Piatt County, Illinois, Soybeans

County Yield	Market Year Average Price		
	\$8.15	\$8.90	\$9.65
	\$ per base acre		
56	60.49	60.49	60.49
59	60.49	60.49	36.28
62	60.49	51.19	11.67
65	60.49	28.50	0.00
68	49.15	5.80	0.00
71	28.37	0.00	0.00

Summary

ARC-CO payments appear likely for 2015. For corn, payments at the maximum could occur in many counties of Illinois. Estimates of soybean ARC-CO payments near \$30 per base acre appear reasonable at this point. Two caveats to these estimates:

- Higher MYA prices, particularly for soybeans, will result in lower ARC-CO payments, and vice versa.
- County yields will vary across Illinois. Last year these differences in yields resulting in some counties receiving no ARC-CO payments for corn while other counties received maximum ARC-CO payments (*farmdoc daily* November 10, 2015). A range this large could occur with 2015 ARC-CO payments.

Given these caveats, 2015 ARC-CO payments likely will occur. An average of \$50 per acre across corn and soybean base acres seems reasonable at this point.

References

farmdoc website. [2014 Farm Bill Tool: ARC-CO PLC Spreadsheet](#). Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, Released November 10, 2015.

Schnitkey, G., J. Coppess, N. Paulson, and C. Zulauf. "2014 ARC-CO Payments: Release of 2014 County Yields." *farmdoc daily* (5):209, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, November 10, 2015.