Outlook for 2017 ARC-CO Payments

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For those counties in which payments will be received, farmers and land owners will soon receive Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) payments related to 2016 production. The level and size of the ARC-CO payments are described in an October 6, 2017 *farmdoc daily* article. In this article, we turn attention to 2017 ARC-CO payments, which will be received in 2018. Benchmark prices will be down for corn, soybeans, and wheat. Given current price projections, county yields below the five-year Olympic average will trigger payments. Many counties likely will receive ARC-CO payments on wheat.

Background on ARC-CO Payments

Agricultural Risk Coverage at the county level (ARC-CO) makes payments when a county's revenue is below the benchmark revenue (see *farmdoc daily*, February 20, 2014 for more background). County revenue equals county yield as determined by the Farm Service Agency (FSA) times the Market Year Average (MYA) price. The MYA price is a national price determined by the U.S. Department of Agriculture for a marketing year. The marketing year begins in September and ends in August for corn and soybeans. For wheat, the marketing year is from June through the following May.

A higher benchmark revenue will cause ARC-CO payments to trigger at higher county revenues. Moreover, for the same county revenue, ARC-CO payments will be larger for a higher benchmark revenue, given that the county revenue is below the benchmark revenue. Therefore, the value of the benchmark revenue impacts whether ARC-CO makes payments as well as the size of those payments when they occur.

The benchmark revenue equals:

.86 x Benchmark Yield x Benchmark Price

Benchmarks yields and benchmark prices are based on the Olympic averages of the past five years of county yields and MYA prices, respectively. An Olympic average excludes the high and low value in calculating the average. In the benchmark price calculation, the MYA price is replaced by the reference price when the MYA price is below the reference price.

This Olympic averaging process is illustrated for the calculation of the $3.95 benchmark price for corn in 2017. The 2017 benchmark price is based on reference-price-limited-MYA prices from 2012 to 2016:

> 2012: 6.89 MYA price.

> 2013: $4.46 MYA price,

> 2014: $3.70 MYA price (which also is the reference price),

> 2015 $3.70 reference price because the $3.61 MYA price for 2015 is below the reference price,

> 2016: $3.70 reference price because the $3.36 MYA price for 2016 is below the reference price.

The $6.89 MYA price for 2012 and one of the $3.70 reference prices are not considered in the average calculation as they represent the high and low price, respectively. The average of the three remaining prices, which is the 2017 benchmark price, is $3.95 ($3.95 = ($4.46 + $3.70 + $3.70)/3).

Benchmark Prices for Corn, Soybeans, and Wheat over Time

ARC-CO was instituted in the 2014 Farm Bill beginning with the 2014 marketing year. Since 2014, benchmark prices for corn, soybeans, and wheat have all declined.   This decline reflects the sharp downward movement in commodity prices since 2014. For corn, the benchmark price was $5.29 in both 2014 and 2015 (see Table 1). Benchmark prices declined to $4.70 in 2016, and $3.95 in 2017. Between 2016 and 2017, the benchmark price declined by 17%.   Given no changes in the benchmark yield, the benchmark revenue will decline by 17%.

Table 1. Market Year Average Prices and ARC-CO Reference Prices, Corn, Soybeans, and Wheat

	Corn		Soybeans		Wheat	
Year	Market Year Average Price	Benchmark Price[1]	Market Year Average Price	Benchmark Price[1]	Market Year Average Price	Benchmark Price[1]
2009	3.55		9.59		4.87	
2010	5.18		11.30		5.70	
2011	6.22		12.50		7.24	
2012	6.89		14.40		7.77	
2013	4.46		13.00		6.87	
2014	3.70	5.29	10.10	12.27	5.99	6.60
2015	3.61	5.29	8.95	12.27	4.89	6.70
2016	3.36	4.79	9.47	11.87	3.89	6.70
2017		3.95		10.86		6.12
Reference Price	3.70		8.40		5.50	

[1] Equals Olympic average of five-previous prices. If the market year average price is below the reference price, the reference price is used in calculations of the benchmark price.

For soybeans, the benchmark price declined from $12.27 per bushel in 2014 to $10.86 in 2017. Between 2016 and 2017, the benchmark price declined by 9%. For wheat, the benchmark price declined from $6.60 in 2014 to $6.12 in 2017. Between 2016 and 2017, the benchmark price declined by 9%.

Between 2016 and 2017, benchmark prices will decline by 17% for corn, 9% for soybeans, and 9% for wheat. In and of itself, these benchmark price declines will reduce benchmark revenues. However, benchmark yields will increase in many counties due to above average yields in 2016, thereby offsetting some or all of the price decline. Using national yields, the benchmark yield between 2015 and 2016 will increased by 5% for corn, 5% for soybeans, and 3% for wheat. These changes will vary by county.

Outlook for 2018 payments

The two components of 2017 county revenue – 2017 county yields and 2017 MYA prices – are not known. FSA will release county yields in the fall of 2018. Good indications of county yields will be obtained for many counties when the National Agricultural Statistical Service (NASS) releases county yields in late February.

MYA for corn and soybeans will not be known until September of next year. Estimates of MYA prices can be obtained from monthly World Agricultural Supply and Demand Estimated (WASDE) reports released each month by the Office of the Chief Economist, USDA (https://www.usda.gov/oce/commodity/wasde/). The midpoint of the price range in those reports serve as estimates of MYA prices. In the September report, midpoints of the WASDE range are:

> Corn: $3.20 (range from $2.80 to $3.60),

> Soybean: $9.20 (range from $8.35 to $10.05),

> Wheat: $4.60 (range from $4.30 to $4.90).

At this point, all midpoint price estimates are below benchmark prices. The corn midpoint is $3.20 compared to a $3.95 benchmark price. The soybean midpoint is $9.20 compared to a $10.86 benchmark price. The wheat midpoint is $4.60 compared to a $6.12benchmark price. As indicated by the ranges, a great deal of uncertainty still exists concerning MYA prices, particularly for corn and soybeans.

Based on the above midpoints, the 2017 yield relative to the 2017 benchmark yield that would trigger ARC-CO payments can be calculated. The equation for making this calculation is:

> .86 x 2017 benchmark price / 2017 MYA price

Those values for the three crops are:

- Corn: 1.06 = .86 x $3.95 / $3.20 (These values range from 1.21 at the $2.80 low end of the WASDE range to a low of .94 at the $3.60 high end of the WASDE price range).

- Soybeans: 1.02 = .86 x $10.86 / $9.20 (These values range from 1.12 at the $8.35 low end of the WASDE range to a low of .93 at the $10.05 high end of the WASDE price range).

- Wheat: 1.15 = .86 x $6.12 / $4.60 (These values range from 1.22 at the $4.30 low end of the WASDE range to a low of 1.07 at the $4.90 high end of the WASDE price range).

For corn, payments will occur when the 2017 county yield is below 1.06 times the benchmark yield, given a $3.20 MYA price. For many Illinois counties, yields are projected to be near average this year. Because of recent increases in benchmark yields, near average yields will cause some counties to have payments for 2017. For some counties, those payments could be in the $40 range.

For soybeans, payments will occur when 2017 yields are below 1.02 times the benchmark yield, given a 2017 MYA price of $9.20. Soybean yields are near average, which could trigger some 2017 ARC-CO payments. In general, payments will be less than $20 per acre.

For wheat, payments will occur when 2017 yields are below 1.17 times the benchmark yield, given that the 2017 MYA price is $4.60. There appears to be good chances of wheat payments in many areas for 2017.

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Summary

At this point, ARC-CO payments for 2017 corn and soybeans will likely occur if actual county yield equals or is less than the county's benchmark yield. ARC-CO payments for wheat are more likely as an actual yield that is somewhat larger than the benchmark yield will likely trigger payment.   Significant uncertainties even with these conditional statements. The outlook for 2017 payments will come into clearer focus when NASS releases their estimates of county yields in late February.

References

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