

KSU Updates ARC-CO Estimates for 2020/2021 Corn, Soybeans, Grain Sorghum and Wheat Payments Using SCO yields

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The USDA Risk Management Agency (RMA) recently released county-level yields for 2020 harvested crops used in determining Supplemental Coverage Option (SCO) payments. These will not be the final county yields Farm Service Agency (FSA) uses to determine Agricultural Risk Coverage (ARC-County) payments, but are the best estimates to date of the county-level yields that FSA will use. The 2018 Farm Bill directed FSA to use RMA yields as the first source of information to determine a county yield instead of National Agricultural Statistic Service (NASS) yields which were used previously, but FSA has the flexibility to make adjustments before certifying the county yields used to make ARC-County payments.

This payment, if any, will be received October 2021 and will be for the crop harvested in 2020, where the marketing year concluded on May 31st for wheat and will conclude August 31st for corn, grain sorghum and soybeans. For cash flow purposes and general expectations of payment levels, the authors have estimated these ARC County rates, which can be found in interactive map form here:

Kansas:

<https://www.agmanager.info/ag-policy/20202021-arc-county-projections/20202021-kansas-arc-county-projections>

National:

<https://www.agmanager.info/ag-policy/20202021-arc-county-projections/20202021-national-arc-county-projections>

These payments are listed as a per acre rate, which would be paid on 85% of base acres in that commodity. If your county is not displayed, you need to change the type to “All” or “Irrigated”/”Non-irrigated” in the dropdown menu to match your county’s irrigated designation.

Based on K-State estimates of the 2020/2021 Marketing Year Average (MYA) price, which can be found here: <https://www.agmanager.info/crop-insurance/risk-management-strategies/mya-price-estimates-updated-arc-and-plc-commodity-0>, few counties and commodities will receive an ARC-County payment in October unless they experienced a significant yield loss at the county level in 2020. Comparing the corn benchmark price of \$3.70 and the forecasted MYA price of \$4.52, actual county yield in 2020 would need to be 70.4% of the benchmark to start generating a payment. Similarly, soybean yield at the county-level would need to be 70.6% of the benchmark to start generating a payment if the MYA stays at the current estimate of \$11.27 compared to the benchmark of \$9.25.



Most grain sorghum base acres are in the Price Loss Coverage (PLC) program, but for those enrolled in ARC-County, payment will only be realized with a significant yield loss at the county-level. Grain Sorghum MYA price is currently forecasted at \$5.34. Comparing that to the benchmark of \$3.95, the 2020 county yield would need to be 63.6% of the benchmark yield to start generating an ARC-County payment. Wheat is the only one of these four commodities that has a forecasted MYA less than the benchmark, at \$5.05 relative to the \$5.50 benchmark price. This means that county yield would only need to be 93.7% of the benchmark to start generating a payment. However most wheat base acres are in PLC and will be getting an estimated \$0.45 per bushel payment on their established farm yield with FSA.

One issue with the county yield is that the 2018 Farm Bill splits more counties by practice than previously, generating more counties with both an irrigated and non-irrigated ARC-County guarantee. Based on RMA county yields, FSA will certify an irrigated and a non-irrigated county yield and generate both an irrigated and a non-irrigated ARC-County payment. The producer's ARC-County payment (if any) would then be weighted between the two guarantees based on their Historical Irrigation Percentage (HIP). Click [HERE](#) for more information.

If FSA did not split the ARC-County guarantee by irrigation practice, then the authors had to estimate a combined yield for the county using RMA published yields. In many cases with these combined counties, RMA reported the same yield for both irrigated and non-irrigated practices anyway. If not, the authors produced a weighted average of the two yields based on the percentage of insured acres of the county in each practice.

There are also issues in some states where different classes of wheat (hard red, soft white, spring vs. winter wheat, etc.) need to be combined to form one county yield for ARC-County payments because FSA treats all classes of wheat as just wheat. The combining of wheat classes into a combined yield is based on a weighted average of the RMA county wheat yields by type (class) of wheat. The weights were based on the county's insured acres by type (class) of wheat.

Here are the key variables to note when looking at the detail for the county as you hover your cursor over it (see Figure 1):

2020 Benchmark Yield: 5-Year Olympic Average of trend adjusted county yields (2014-2018)

2020 Benchmark Price: 5-Year Olympic Average of National Marketing Year Prices (2014-2018)

2020 Benchmark Revenue: 2020 Benchmark Yield X 2020 Benchmark Price

2020 Guaranteed Revenue: 86% of Benchmark Revenue

2020 RMA Yield: County yield as reported by RMA for the SCO program

Estimated 2020/2021 National MYA Price: National Marketing Year Average Price estimated from KSU



2020 Estimated Payment: The difference between the 2020 Guaranteed Revenue and the Estimated 2020/2021 MYA price X 2020 RMA yield, subject to the Maximum Payment Rate. This is your estimated payment per acre, that would be paid on 85% of the base acres in that crop

2020 Maximum Payment Rate: 10% of Benchmark Revenue, which is the maximum payment rate per acre, by law.

***Max Yield-Trigger Payment:** This is the maximum yield a county can have to trigger ANY ARC-CO payment at the projected MYA price.

***Max Yield-Trigger Max Payment:** This is the maximum yield a county can have to trigger the MAXIMUM ARC-CO payment at the projected MYA price.

**This information is insightful if RMA reported yields are significantly less than the yield trigger required for an ARC-County payment, giving some certainty to the payment even with known errors around the county yield data source.*

Figure 1. Screenshot of ARC-County Corn payment estimate detail for Rooks County, KS

State Name:	Kansas
County Name:	Rooks
Crop Name:	Corn
ARC-CO Yield Designation:	All
2020 Benchmark Yield(2014-18 olympic avg):	98.6
2020 Benchmark Price (2014-18 olympic avg):	\$3.70
2020 Benchmark Revenue:	\$364.93
2020 Guarantee Revenue:	\$313.84
2020 RMA Yield:	113.4
Estimated 2020/2021 National MYA Price:	\$4.52
2020 Estimated Payment:	\$0.00
2020 Maximum Payment Rate:	\$36.49
Max Yield to Trigger a Payment:	69.4
Max Yield to Trigger Max Payment:	61.4

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