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2022 Drought Will Likely Trigger ARC-CO Payments in 2023

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As Kansas farmers are wrapping up the 2022 harvest, many are seeing poor yields across a large drought-stricken area of Kansas. The <u>U.S. Drought Monitor</u> shows 75% of Kansas currently in a D2-D4 drought status (Figure 1). Just one year ago, this was 3.1%.

Figure 1: U.S. Drought Monitor on Oct. 11th, 2022



Agricultural Risk Coverage County payments (ARC-CO) will likely be triggered in many counties due to low yield, but these payments will not be received until October 2023, after the marketing year for the 2022 crop concludes (May 31st for wheat and August 31st for corn, grain sorghum and soybeans). ARC-CO uses the 2022/2023 Marketing Year Average (MYA) price and the actual 2022 county average yield to determine if there was a loss in revenue that was 86% below the guarantee (based on a 5-year Olympic average of previous national MYA prices and county-level yields). Much uncertainty exists in what the MYA price will be for the 2022 harvest crop, but <u>current estimates</u> are listed in Table 1 along with Benchmark Prices for the 2022 ARC program and what county yield loss will be needed to start triggering ARC-CO payments.

Table 1: County Yield Loss needed to Trigger 2023 ARC-CO payments based on current MYA Estimates

Commodity	2022 ARC-CO	2022/2023	County Yield Loss needed to start	
	Benchmark Price	MYA Estimate	Triggering ARC-CO payment	
Corn	\$3.70	\$6.65	53%	
Grain Sorghum	\$3.95	\$6.55	57%	
Soybeans	\$9.12	\$14.35	58%	
Wheat	\$5.50	\$9.25	62%	



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County yield losses will need to be large to trigger ARC-CO payments as commodity prices are currently significantly higher than Benchmark Prices. Benchmark Prices will start to increase in coming years, as the increase in commodity prices since 2020 will start entering the guarantee. Based on each county's unique Benchmark Yield and the MYA price estimates in Table 1, the actual yield to trigger an ARC-CO payment can be calculated. Also, since ARC-CO payments are capped at 10% of benchmark revenue, the actual county yield needed to trigger the maximum ARC-CO payment can also be calculated.

Maps showing detail of these yield thresholds for all counties can be found here:

Kansas:

https://www.agmanager.info/ag-policy/2018-farm-bill/20222023-arc-county-payment-projections/20222023-kansasarc-county-payment

National:

https://www.agmanager.info/ag-policy/20222023-arc-county-payment-projections/20222023-national-arc-county-payment-projections

Use the dropdown menu to select your Crop and Yield Type. If your county is not showing up on the map, change the yield type to "All" as your county likely does not have an irrigation designation. Click "Full Screen" in the lower right to see a larger version of the map. By hovering your cursor over a county, you will see detail for that county, as in Figure 2:

	Sheridan 51.1	Graham 45.7		Osborne 50.6	Mitchell 56.3	CI 6
	Gove	State Name: County Name Crop Name:	c (Kansas Sheridan Corn		Ot 5
	46.6 ARC-CO Yield Designation: Nonirrigated					Sa 4
	Lane 42.0	2022 Benchm 2022 Benchm	ark County Yi ark Price : ark Revenue: tee Revenue:	\$3.70 \$394.94	:e 7	McPl 4
ey P		Yield to Trigg Yield to Trigg	22/2023 MYA er ARC-CO Pay er Max. ARC-C im Payment Ra	/ment: 5 O Payment: 4	6.65 1.1	

Figure 2. Screenshot of Yields need to trigger ARC-CO Payments map for Sheridan County, KS



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The key variables to note when looking at the detail for the county are:

2022 Benchmark County Yield: 5-Year Olympic Average of trend adjusted county yields (2016-2020)
2022 Benchmark Price: 5-Year Olympic Average of National Marketing Year Prices (2016-2020)
2022 Benchmark Revenue: 2022 Benchmark Yield X 2022 Benchmark Price
2022 Guaranteed Revenue: 86% of Benchmark Revenue
Estimated 2022/2023 MYA: Marketing Year Average Price estimate
Yield to Trigger ARC-CO Payment: Yield that will trigger ARC-CO payment if 2022 Actual County yield is below this amount
Yield to Trigger Max. ARC-CO Payment: Yield that will trigger the Maximum ARC-CO payment if 2022 Actual County yield is below this amount
2023 Maximum Payment Pate: 10% of Benchmark Payenue, which is the maximum payment rate par acro. but

2022 Maximum Payment Rate: 10% of Benchmark Revenue, which is the maximum payment rate per acre, by law.

For the example in Sheridan County in Figure 2, a non-irrigated corn yield less than 51.1 bushels/acre will trigger an ARC-CO payment. If the county's yield is less than 45.1 bushels/acre, the maximum payment of \$39.49 per acre will be received. This will be paid on 85% of a producer's corn base acres based on their <u>Historical Irrigation</u> <u>Percentage</u>. Reductions for government sequestration are not included.

In summary, wide-spread drought will likely cause ARC-CO payments to be received on the 2022 harvested crop, even with a historically high MYA price. These payments will not be known for certain until they are received in October of 2023. As National Ag. Statistics Service and Risk Management Agency start publishing their own county yields, the Agricultural Economics Department at Kansas State University will start estimating these payments. For now, knowing the thresholds of county yield that it will take to trigger ARC-CO payments can be helpful for farmers to anticipate if payment will be received or not, especially if it is anticipated that county yield is much less than these thresholds.

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