

# Using the Supplemental Coverage Option in 2023

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Managing Risk with ARC, PLC, and SCO: 2023 Tradeoffs and Tools  
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## Introduction

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- Supplemental Coverage Option (SCO) / High Coverage Policies 101
- Analysis
  - Potential payouts
  - Protecting expected revenue
    - Relationship of APH with county yields

# What are high coverage policies?



High coverage policies increase your crop insurance coverage level to up to 95% of expected revenue/gross profit margin. Any payouts on coverage levels above the underlying RP policy are based on county-level yields.

## Overall concept

- County-based trigger\*
- SCO increases RP coverage to 86%
- ECO (Enhanced Coverage Option)
  - 2 coverage choices: 86 to 90% **OR** 86 to 95%
  - Can be used with YP or RP
  - SCO optional
  - Can be used with ARC, *cannot* be used with ARP or AYP

Deductible (no coverage)	100-95%
ECO Coverage range	95-86%
SCO or ARC Coverage range	86-75%
MCPI coverage range	75%

Deductible (no coverage)	100-90%
ECO Coverage range	90-86%
SCO or ARC Coverage range	86-75%
MCPI coverage range	75%

Source: Deliberto 2022, <https://www.lsuagcenter.com/-/media/system/7/b/3/a/7b3ad661e8932do2460a9217fgdb7ace/enhanced%20coverag%20option%20insurancepdf.pdf>

## Other SCO details

- Cannot be used with ARC
- 65% premium subsidy
  - Lower than enterprise units for policies at 75% coverage or below
  - Higher than basic/optional unit policies at 65% coverage or above
- Covers revenue between the underlying RP/YP policy coverage level and 86%
  - Lower underlying coverage level: high SCO premium
  - Higher underlying coverage level: lower SCO premium
- Payments are not made until RMA publishes county level yields
  - 2023 payments will be made in 2024

## SCO use limited, but growing

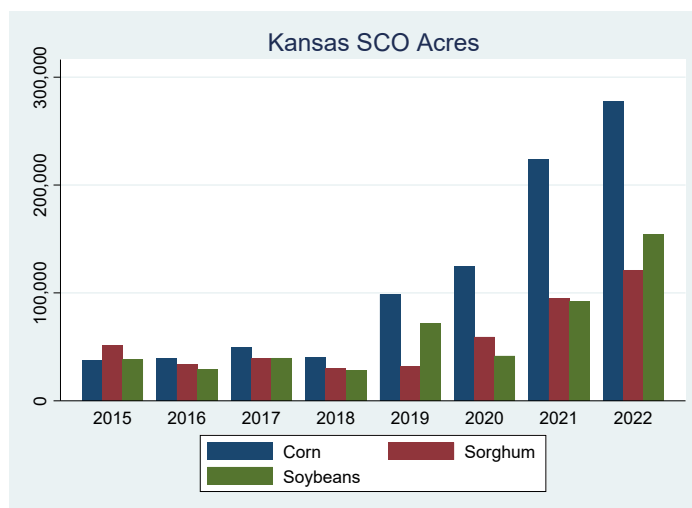
Why?

Additional cost

New product

ARC

Other types of risk management used



# Three key characteristics

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1. SCO costs more
2. SCO pays out more often
3. Long term perspective

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## 1. SCO costs more

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### Corn 2023 Estimated Premium

2023 Finney county irrigated corn, APH yield at county average (~205 bu/acre), enterprise units

	80%	75%	70%	65%
RP	\$22	\$13	\$8	\$6
SCO	\$6	\$9	\$10	\$10

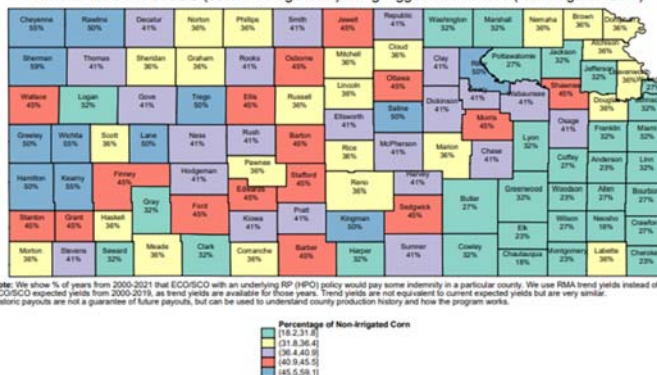
### Soybeans 2023 Estimated Premium

2023 Nemaha county non-irrigated soybeans, APH yield at county average (~51 bu/acre), enterprise units

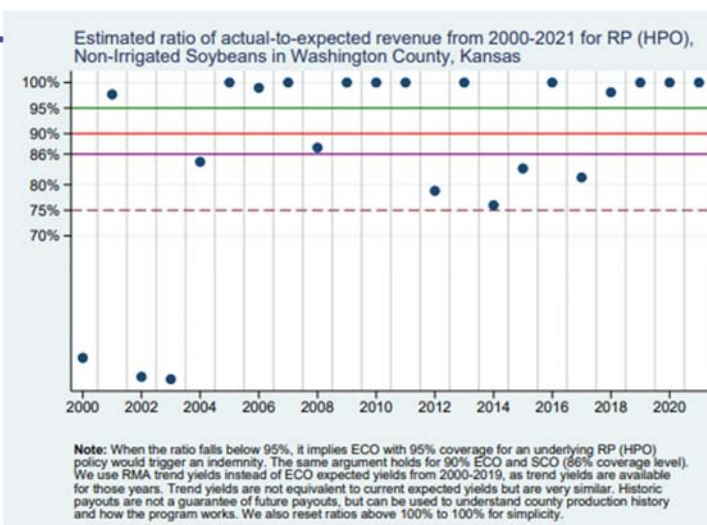
	80%	75%	70%	65%
RP	\$16	\$9	\$6	\$5
SCO	\$6	\$9	\$12	\$14

## 2. SCO pays out frequently

Historic likelihood of SCO (86% coverage level) being triggered in Kansas (Non-Irrigated Corn)



## 2. SCO pays out frequently



Note: Washington Co. has relatively high/stable yields compared to many other KS counties/crops

### 3. SCO policies are a long-term decision

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- High coverage policies, including SCO, require a different paradigm for risk management
  - Large(r) investment in risk management
  - You can go a few years with no indemnity

### Still in a high price environment (corn)

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2023 Projected Price \$5.96 (not final)

2022 Projected Price: \$5.90 (\$6.86)

2021 Projected Price: \$4.58 (\$5.37)

2020 Projected Price: \$3.88 (\$3.99)

2019 Projected Price: \$4.00 (\$3.90)

*Some county expected yields are a little higher than 2022*

Finney 2023 Expected Revenue: \$1222 (irrigated)

Finney 2022 Expected Revenue: \$1193 (irrigated)

# 2023 revenue guarantee vs costs

## Irrigated corn: SW KS

Ag manager estimate

+\$1418 revenue  
-\$749 direct expenses  
-\$459 indirect expenses  
=\$210 profit

70% RP guarantee: \$993 – covers direct expenses, some of indirect

RP + SCO guarantee: \$1219 – covers all expenses

## Non-irrigated soybeans: NE KS

Ag manager estimate

+\$598 revenue  
-\$299 direct expenses  
-\$178 indirect expenses  
=\$121 profit

70% RP guarantee: \$418 – covers direct expenses, some of indirect

RP + SCO guarantee: \$514 – covers all expenses, some of profits

# Approaches to the SCO decision

## Indemnities

General principle

Rule of thumb-compare SCO premium to liability; for example, if 70% RP policy is triggered once in 10 years (or more), SCO indemnities should cover premiums

Tools:

<https://agmanager.info/crop-insurance/kansas-crop-insurance-maps>,

Many agents have decision tools

## Risk Reduction

Understanding potential 2023 payouts

Understanding correlation of your yields with county yields

Tools:

SCO & ECO Payment calculator

County yield correlation tool

# SCO in 2023

## 2023 SCO and ECO Payment Calculator

State:	Kansas
County:	Nemaha
Commodity:	Corn
Practice:	Non-Irrigated
Type:	Grain
Final County Yield	120
Harvest Price	\$5.50
Final Revenue Amount	\$660.00
Expected County Yield	148.4
Projected Price	\$5.96
Expected Revenue Amount	\$884.46
Underlying Crop Insurance Coverage level	75%
Farm APH	148.4
SCO Coverage by Law	86%
Supplemental Ins. Coverage Range	11%
SCO Revenue Protection County Payment Rate	1
Revenue Protection-HPE County Payment Rate	1
SCO Yield Protection County Payment Rate	0.467
SCO Protection (RP)	\$97.29
SCO Protection (RP-HPE)	\$97.29
SCO Protection (YP)	\$97.29
SCO Revenue Protection Payment	\$97.29
SCO Revenue Protection-HPE Payment	\$97.29
SCO Yield Protection Payment	\$45.43

### Instructions:

- 1.) Use dropdown menus in yellow to choose your state, county, commodity calculator shows #N/A, your selection is not a viable category in the RMA d work from the top down, as menus are dependent on the above selection.
- 2.) "Final County Yield" for most crops will not be released until June 2024; be determined until July 2023 for winter wheat and November 2023 for fall type in projections.
- 3.) Projected (base) Price is not available for most 2023 crops other than winter wheat. 2023 winter wheat projected price is \$8.79. (Ja prices are \$5.96 for corn, \$5.89 sorghum, and \$14.33 for soybeans)
4. Select a practice and type: this may vary by state and county. "FAC" is 'fo "NFAC" is 'not following another crop'. You may need to try a few combin available in your state or county.
- 4.) Use the dropdown menu to select your underlying Crop Insurance Cover
- 5.) Enter your farm's Actual Production History (APH) to see your calculate equal to the county's expected yield.
- 6.) Use the dropdown menu to select your underlying ECO Coverage Level (

### Definitions:

Supplemental Insurance Coverage Range is equal to 86% minus the underlying Coverage Range is equal to the selected ECO Coverage Level minus 86%. Payment Rates determine if a payment is triggered based on expected and depending on coverage type, if positive a payment will be made.

## Risk reduction

If you are using SCO to protect your 2023 expected revenue, an important question is "Will I get an SCO indemnity if my own yields decline?"

In other words: How correlated are my yields with county level yields?



# Correlation doesn't require equal yields

Correlation does not mean the yields are the same, but that they 'move in the same direction' or are similarly affected by adverse weather conditions

## Positive vs. negative correlation

For most producers, individual yields will be positively correlated with county yields over time

# New KS Yield Correlation Tool

### Directions

Step 1. Select your county, crop, and practice from the pulldown menus in the purple shaded cells. Some practices/crops may not be available for all counties  
Step 2. Enter your yields from 1990-2021 in the purple shaded cells. If you don't have yields for a particular year, simply leave that cell blank  
Step 3. Use Result 1, Result 2 and Result 3 to analyze the relationship between your yields and county yields (scroll to bottom after entering yields)

### STEP 1

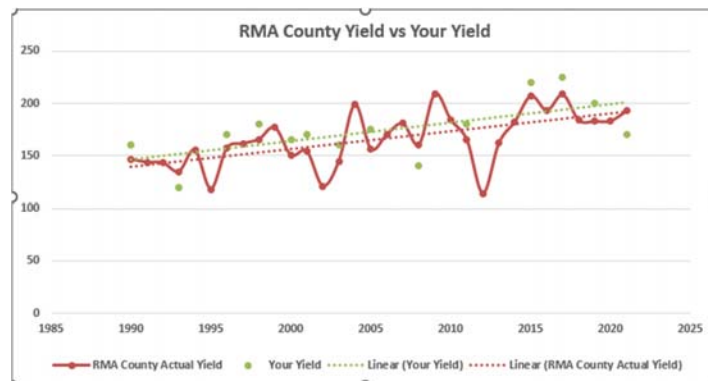
County	Scott
Crop	Corn
Practice	Irrigated

### STEP 2

# Yield correlation tool: information required

STEP 1		STEP 2			
County	Scott	Year	RMA County Actual Yield	RMA County Expected* Yield	Your Yield
Crop	Corn	1990	147	141	156
Practice	Irrigated	1991	144	143	
		1992	143	144	
		1993	135	146	145
		1994	155	148	
		1995	118	150	
		1996	157	151	167
		1997	162	153	
		1998	166	155	175

# Yield correlation tool: result 1



# Yield correlation tool: results 2 & 3

Result 2
Correlation of your yields to county yields
0.85

Strength of Correlation	Range
Weak	0 to 0.03 "-0.3 to 0"
Moderate	0.3 to 0.7 "-0.7 to -0.3"
High	0.7 to 1 "-1 to 0.7"

Result 3		
Year	SCO (YP) Payout Likely?	Indiv. Yield Loss > 14%
1990	No	
1991	No	
1992	No	
1993	No	
1994	No	
1995	Yes	
1996	No	
1997	No	
1998	No	
1999	No	
2000	No	No
2001	No	No
2002	Yes	
2003	No	No
2004	No	
2005	No	No
2006	No	
2007	No	
2008	No	Yes
2009	No	
2010	No	
2011	No	No
2012	Yes	
2013	No	
2014	No	
2015	No	No
2016	No	No
2017	No	No

# Sources of information on county yields

RMA:  
<https://webapp.rma.usda.gov/apps/RIRS/>

AgManager.info Crop Insurance Maps:  
<https://agmanager.info/crop-insurance/kansas-crop-insurance-maps>

New Yield Correlation tool

RMA Information Reporting System > Area Plan Reports > Area Plan Historical Yields

Area Plan Historical Yields

Select criteria to filter report—

1 Commodity Year [v]

2 Commodity [v]

3 Insurance Policy [v]

4 State [v]

County [v]

Select fields to display—

Insurance Offer Fields [v]

Data Source Fields [v]

Historical Yields Fields [v]

Report output format: Excel Spreadsheet [v]

Application requires Microsoft Excel 2007 or newer to use the Excel report output. For large number of records and fields to display, Excel is the preferred report format as report formats may not work.

Preview (only select top 10 rows) [ ] Get Report

# The bottom line

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SCO may be attractive for producers who want to protect their profit margins and are willing to pay additional premium for this



Take a long-term perspective, consider all high coverage policies



Consider operation vs county yield trends

Questions?  
Comments?  
Thank you!

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# Resources

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- Agmanager.info
  - <https://agmanager.info/crop-insurance/kansas-crop-insurance-maps>
  - <https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/kansas-yield-correlation-tool>
  - <https://agmanager.info/crop-insurance/crop-insurance-papers-and-information>
  - <https://agmanager.info/events/risk-and-profit-conference/previous-conference-proceedings/2022-risk-and-profit-conference/13>
  - <https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/margin-protection-insurance-introduction-and>
- Farmdoc: <https://farmdocdaily.illinois.edu/2021/03/rp-eco-and-sco-tradeoffs.html>; <https://farmdocdaily.illinois.edu/2022/08/sco-and-eco-insurance-program-use.html>
- ISU: <https://www.extension.iastate.edu/agdm/crops/html/a1-44.html>