High Coverage Crop Insurance Policies: 2023 Considerations and 2022 Update

Jennifer Ifft (<u>jifft@ksu.edu</u>) – K-State Department of Agricultural Economics Sylvanus Gaku – K-State Department of Agricultural Economics February 8, 2023

SCO (Supplemental Coverage Option) and ECO (Enhanced Coverage Option) allow crop producers to increase insurance coverage for row crops beyond coverage levels allowed for individual policies, but only pay out based on county-level revenue or yield shortfalls. SCO was introduced in the 2014 Farm Bill and is only available to producers who are **not** enrolled in Agricultural Risk Coverage (ARC). SCO policies cover expected revenue from the level of the underlying policy up to 86%. Use of SCO is a <u>relevant consideration</u> for the 2023 ARC or PLC decision for row crop producers with base acreage. ECO was introduced in 2021 and is available for major row crops produced in Kansas. ECO policies cover expected revenue from 86% to either 90% or 95%. This article covers the fundamentals of these high coverage policies, the relevance of these policies in the 2023 market environment, and historic participation and outcomes. Several tools for analyzing high coverage polices are available on AgManager.info, with links at the end of the article.

There are three key considerations for SCO and ECO participation. The first is that premium costs will increase, likely doubling or more. Second, premiums are higher because payouts will likely be larger and more frequent. Third, a long-term perspective is important when considering high coverage polices. While producers are likely to receive more indemnities than premiums in the long-term, a few years may pass with no indemnities. These high coverage policies require a significant upfront investment in risk management and thus merit careful study.

Using High Coverage Policies in 2023: Examples and Discussion

The high cost of inputs continues to be a major concern for crop producers. Harvest prices are also expected to be relatively high, leading to crop insurance guarantees at levels similar to or slightly higher than 2022. The two examples below demonstrate current expected revenue and expense levels for 2023.

For northeast Kansas, direct expenses for non-irrigated corn are estimated to be around \$559 per acre, with total expenses around \$736 per acre. Based on estimated corn prices of \$5.96 per acre and an expected yield of 145 bushels per acre, non-irrigated corn in Nemaha County insured under a 70% Revenue Protection (RP) policy would have a liability or guarantee of \$605 per acre and a producer premium of \$14 per acre. An SCO endorsement (which increases coverage to 86%) would cost an additional \$18 per acre and a 95% ECO endorsement would cost \$26 per acre.

For southwest Kansas, direct expenses for irrigated corn are estimated to be around \$749 per acre, with total expenses around \$1,208 per acre. Based on estimated corn prices of \$5.96 per acre and an expected yield of 225 bushels per acre, non-irrigated corn in Finney County insured under a 70% RP policy would have a liability or guarantee of \$939 per

👌 AgManager

acre and a producer premium of \$9 per acre. An SCO endorsement (which increases coverage to 86%) would cost an additional \$12 per acre and a 95% ECO endorsement would have a producer premium of \$35 per acre.¹

Both examples show how a 70% RP policy will provide a guarantee that is close to or covers direct expenses. In other words, crop insurance effectively provides a guarantee that a producer can cover variable expenses or repay an operating loan in the event of lower harvest prices and/or yields. If a producer wants to have a guarantee that covers profit margins or indirect expenses such as cash rents, SCO or ECO may be <u>worth consideration</u>. The county revenue or yield trigger for SCO and ECO is <u>important to consider</u> in this case, as an individual producer may have different yield levels than their county, and thus a different likelihood of payout than more common individual unit or enterprise crop insurance policies.

Historic use of SCO and ECO

SCO has been increasing in recent years (see Figure 1). However, use of SCO is still very small share of total insured acres. For example, SCO covered only about 4% of the 5.4 million acres of corn enrolled in crop insurance in 2021 in Kansas. ECO use is lower than SCO (see Figure 2), but ECO was only first available in 2021. These policies are used across Kansas, with some regions having relatively higher use for specific commodities. County-level maps of combined 2022 SCO and ECO participation are available in Figures 3-6 at the end of this article.

Figure 1. SCO use has increased in recent years



Source: USDA Risk Management Agency; Estimates include endorsements for underlying, RP, RP-HPE, and YP policies.

¹ Both examples are based on hypothetical premium estimates for a producer using enterprise units – only a crop insurance agent can provide an official estimate. The price discovery period for most spring planted crops is February, so projected prices are preliminary. Expense estimates are based on K-State crop budgets available at https://agmanager.info/farm-budgets.



Figure 2. ECO participation is lower than SCO



Source: USDA Risk Management Agency; Estimates include endorsements for underlying, RP, RP-HPE, and YP policies. ECO was not available for wheat in 2021. SCO and ECO policies could potentially be used on the same underlying policy or acreage.

97% of all acres enrolled in ECO for all commodities in 2022 used the 95% coverage level. Over 70 percent of all SCO policies (for all commodities) purchased in 2022 had an underlying Yield Protection (YP) or RP policy at the 70% or 75% coverage level and 27 percent had an underlying coverage level of 80%. Nearly all ECO and SCO endorsements had underlying RP policies.

In 2021, ECO and SCO endorsements for corn and grain sorghum RP policies in Kansas received more indemnities than paid in producer premiums, although some individual producers may not have received indemnities. For ECO and SCO for soybeans and SCO for wheat, indemnities were lower than producer premiums. 2022 SCO and ECO payouts will not be determined for a few more months, when RMA finalizes 2022 county yields. Another consideration for using SCO or ECO is that payouts take a longer time to be paid out than for individual policies. 2022 harvest prices were higher at harvest than at planting for soybeans, corn, and sorghum, so any potential indemnities will be triggered by a yield decline. Given the large payouts on underlying policies in 2022, substantial payouts are anticipated for many producers that used SCO and ECO. For the entire state of Kansas, current 2022 loss ratios for RP policies are 1.9 for corn, 2.3 for sorghum, 2.0 for soybeans, and 1.1 for wheat.

Resources

There are several resources available to inform the decision whether to use a high-coverage policy.

Ag Manager: Webinar on Managing Risk with ARC, PLC, and SCO in 2023

https://agmanager.info/news/recent-videos/managing-risk-arc-plc-and-sco-2023-webinar-recording-and-slides

Analysis of the 2023 ARC and PLC decisions

AgManager

- Introduction to SCO
- Analysis of SCO and explanation of decision support tools
- Recordings and slides available

Ag Manager: Kansas Crop Insurance Maps

https://agmanager.info/crop-insurance/kansas-crop-insurance-maps

- County level expected and actual/historic yields from 1999-2022
- Estimated historic frequency of SCO and ECO indemnities by county
- Actual revenue relative to expected revenue since 2000, for selected Kansas counties

Ag Manager: Kansas County Yield Correlation Tool

https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/kansas-yield-correlation-tool

• A spreadsheet tool to analyze the historic relationship between a producer's yields and county level yields.

Ag Manager: SCO and ECO Payment Calculator

https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/2022-supplemental-coverage-option-sco-and

• A spreadsheet tool to estimate SCO and ECO payouts under different potential yield and price outcomes, for all states.

SCO and ECO Webinar

https://agmanager.info/news/recent-videos/2021-crop-insurance-choices-sco-and-eco

• Covers ECO and SCO basics, using 2021 examples (updated 2023 examples are in this article)

RMA Fact Sheets

https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Enhanced-Coverage-Option

https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Supplemental-Coverage-Option-2017

Farmdoc Daily Crop Insurance Decision Tool – Spring 2023

https://farmdoc.illinois.edu/fast-tools/crop-insurance-decision-tool

For more information about this publication and others, visit <u>AgManager.info</u>. K-State Agricultural Economics | 342 Waters Hall, Manhattan, KS 66506-4011 | 785.532.1504 <u>www.agecononomics.k-state.edu</u> Copyright 2022: AgManager.info and K-State Department of Agricultural Economics



Figure 3: 2022 Kansas Combined Corn SCO and ECO acres

Cheyenne 12738	Ra 32	wlins 2295	Decatur 8755	Norton 2059	Phillips 1855	Smith 11555	Jewell 5343	Republic 3351	Washingtor 1131	Marsh 7300	all Nem 115	iaha Bro 105	Mn Donipt		
Sherman 36133	Th 5	iomas 0095	Sheridan 10783	Graham 4891	Rooks 2565	Osborne 1031	Mitchell 616	Cloud 2106 Ottawa	Clay 1715	Rilly 722	awatomie 257	Jackson 2994	Jefferson Leav		
Wallace 49382	Loga 370	an O	Gove 5438	Trego 481	Ellis 0	Russell 284	Lincoln 0	2334 Saline	Dickinson 1 2202		Wabaunsee 1273	Shawnee 139	Douglas-	Johnson 428	
Greeley	Wichita	Scott	Lane	Ness	Rush 602	Barton	Ellsworth 0	422	{	Morris 254	Lyon	Osage 458	Franklin 411	Miami 1994	
24069	6516	28282	5776	1333	Pawnee	162	Rice 495	5708	Marion 5800	Chase	1159	Coffey 155	Anderson	Linn 2993	
Hamilton 3883	Kearny 2661	Finr 197	67 Gray	Hodgeman 40	3025 Edwards 641	Stafford 390	Stafford 390	Reno 3502	Harv 942	ey 2	Butler	Greenwood 367	Woodson 997	Allen 390	Bourbon 534
Stanton 28276	Grant 2641	Haskell 4505	7000	327	Kiowa	Pratt 701	Kingman 241	2779			Elk 103	Wilson 2649	Neosho 250	Crawford 0	
Morton 2145	Stevens 1874	Seward 436	Meade 7528	Clark	Comanche	Barber	Harper 0	Sumne 392	er C	owley 1329	Chautauqua 330	Montgomery 4586	Labette 1864	Cherokee 320	



Figure 4: 2022 Kansas Combined Sorghum SCO and ECO acres

Cheyenne 0	Ra 2	wlins 20	Decatur 0	Norton 0	Phillips 242	Smith 1061	Jewell 1785	Republic 0	Washingto 477	n Mar (shall)	Nemal 654	ha Bro		م م
Sherman 0	Th	omas 0	Sheridan 1430	Graham 674	Rooks 3641	Osborne 364	Mitchell 2322	Cloud 156	Clay 247	Rilly P	ottawaton	nie	Jackson 125	Jefferson	enwokta
Wallace 27471	Loga 249	an 7	Gove 2795	Trego 0	Ellis 49	Russell 160	Lincoln 4599 Ellsworth	233 Saline 597	Dickinson 866	Coarty Coarty 0 Morris	Waba	unsee	Shawnee 0	Dougla	Johnson
Greeley 17021	Wichita 12321	Scott 29253	Lane 11486	Ness 1465	Rush 2037	Barton 3003	721 Rice 695	McPherson 5885	Marion 491	432 Chas	e L	Lyon	Coffey	Franklin	Miami
Hamilton 5825	Kearny 4153	Finn 3685	ey 52 Grav	Hodgeman 2546	Pawnee 96 Edwards 0	Stafford 191	Reno 2684	Harv 116	ey	Butler	Greenv 0	wood	Woodson 0	Allen	Bourbon
Stanton 9336	Grant 101	Haskell 2449	4418	Ford 1315	Kiowa	Pratt 0	Kingman 261	Sedgw 402	ick	-	Elk 215		Wilson 89	Neosho	Crawford
Morton 1748	Stevens 18	Seward 1995	Meade 1291	Clark 443	Comanche	Barber 0	Harper 2478	Sumne 502	er (Cowley	Chauta 0	iuqua	Montgomery	Labette 0	Cherokee 0



Figure 5: 2022 Kansas Combined Soybeans SCO and ECO acres

Cheyenne 191	Ra 1	wlins 53	Decatur 0	Norton 0	Phillips 1930	Smith 12276	Jewell 7456	Republic 2818	Washingtor 4775	n Mars 548	hall Nei 87 13	naha Bro 805	Dompt 35 Dompt 891	
Sherman 0	Th	omas 0	Sheridan 675	Graham 852	Rooks 2995	Osborne 758	Mitchell 2814	Cloud 1561 Ottawa	Clay 2447	Riley 1368	ottawatomie 703	Jackson 2917	Jefferson Leav	enwokta
Wallace 0	Loga	an	Gove 0	Trego 0	Ellis	Russell 278	Lincoln 4263	2250 Saline	Dickinson 3740		Wabaunse 1073	e Shawnee 200	Douglas-	sohnson 4637
Greeley	Wichita	Scott	Lane	Ness	Rush 33	Barton	Ellsworth 1118	6689		Morris 519	Lyon	Osage 246	Franklin 1315	Miami 6039
0	0	0	0	Hodgeman	Pawnee	1028	Rice 3741	15653	Marion 6136	Chase	1160	Coffey 794	Anderson 4982	Linn 8449
Hamilton 0	Kearny 537	Finn 121	ey 2 Gray	0 Ford	Edwards	Stafford 0	Reno 4402	Harve 1267 Sedawi	ey 77 E	Butler 722	Greenwood 162	Woodson 1936	Allen 600	Bourbon 1539
Stanton 0	Grant	Haskell 1041	736	0	Kiowa	Pratt 345	Kingman 1593	1565			Elk 909	Wilson 9181	Neosho 168	Crawford 0
Morton	Stevens	Seward	Meade 0	Clark	Comanche	Barber 0	Harper 1926	Sumne 3378	r C	owley 1947	Chautauqua 829	Montgomer 10872	y Labette 2413	Cherokee 1120



Figure 6: 2022 Kansas Combined Wheat SCO and ECO acres

Cheyenne 2360	Ra 7	wlins 119	Decatur 2057	Norton 0	Phillips 1339	Smith 13	Jewell 1241	Republic 622	Washingto	on Mars	hall Nemaha		Brow		
Sherman 0	Th 1:	omas 5920	Sheridan 11955	Graham 2539	Rooks 4191	Osborne 362	Mitchell 3407	Cloud 403 Ottawa	Clay 1653	Riley 150		Jacks	son J	42 efferson_eave	
Wallace 11267	Loga 933	in 5	Gove 6347	Trego 1407	Ellis 0	Russell 780	Lincoln 10301 Ellsworth	1491 Saline 2910	Dickinson 1602		Wabauns 0	ee C	vnee	Douglas o	o injuneza
Greeley 7063	Wichita 10209	Scott 14271	Lane 6812	Ness 0	Rush 234	Barton 6469	192 Rice	McPherson 17595	Marion	Chase	Lyoi 0		sage 0	Franklin 0	Miami 34
Hamilton 1174	Kearny 0	Finn 145	ey .7	Hodgeman 2714	Pawnee 509 Edwards	Stafford 857	6499 Reno	Harve 1382	4039 ey 28		Greenwoo	Co	offey 0 odson	Anderson 175 Allen	Linn 199
Stanton	Grant	Haskell	Gray 1264	Ford 518	1915 Kiowa	Pratt 795	Kingman	Sedgwi 7666	ck	Butler 160	0	14 Wil	son	128 Neosho	29 Crawford
Morton 209	952 Stevens 270	Seward 2021	Meade 258	Clark 2596	1685 Comanche	Barber 3709	2281 Harper 23920	Sumne 5757	r (Cowley 2245	Elk 230 Chautauqu	40 Montg	omery	212 Labette 0	558 Cherokee
											144				011

