# Title 1 and Crop Insurance Payouts for Kansas Producers, 2014-22

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The U.S. federal farm safety net is made up of Title 1 commodity, crop insurance, and disaster programs. Title 1 commodity programs currently include Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC). Strengthening the farm safety net through increasing the protection provided by these programs has been a part of ongoing farm bill debates. To provide context for these discussions, I have estimated average annual county-level payouts for (1) ARC and PLC; (2) net crop insurance indemnities; and (3) ARC, PLC, and crop insurance combined. Estimates are provided for all Title 1-eligible commodities and the four major crops grown in Kansas: corn, grain sorghum, soybeans, and wheat. Find the estimates in the maps below and a spreadsheet available at <a href="https://agmanager.info/ag-policy/historic-title-1-and-crop-insurance-net-payouts">https://agmanager.info/ag-policy/historic-title-1-and-crop-insurance-net-payouts</a>.

These estimated annual averages only reflect direct payouts made to producers over nine years (2014-22). Additional indirect impacts could be positive (e.g., improved risk management benefits, such as credit access and investment) or negative (e.g., higher land values, cash rents, or input costs). Further, areas that experienced worse weather and lower yields during these years would have received higher ARC and crop insurance payouts, and though safety net payments partially mitigate the impact of extreme weather, <u>the net impact is lower farm income</u>.

Below, I describe data sources and procedures used to estimate average annual payouts.

#### Net crop insurance indemnities

County-level crop insurance data are available on the USDA Risk Management Agency website. Net indemnities are estimated as total indemnities less the producer-paid premium divided by acres enrolled. In addition to the four major crops, all crops eligible for Title 1 programs with data reported at the county level are included: barley, canola, cotton, dry beans, dry peas, oats, sesame, and sunflowers. Although most insurance coverage is individual Revenue Protection (RP), any insurance policy purchased for these crops is included, such as Supplemental Coverage Option (SCO) endorsements and other area-based plans. Only 2014-22 are included for consistency; indemnities were relatively high in 2023.

#### Base acres

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County-level base acres from 2019-22 are available on the USDA Farm Service Agency (FSA) website. 2014 and 2015 county-level base acres were provided by University of Illinois researchers. For 2016-18, 2015 base acres were used as year-to-year fluctuation is minimal.

### Planted acres (FSA)

This estimate uses publicly available FSA data on planted and prevented acres by crop type. Acreage of any Title 1-eligible crop is included. I assume all types of sorghum are eligible. For rice and cotton, only Title 1-eligible varieties are included. Beans with a fresh "intended use" are not included. Corn varieties that suggest use as a sweet corn, fresh, or popcorn product are excluded. After identifying the relevant crops and varieties, their planted and prevented acres are aggregated to the county level. This combined area is referred to as "FSA acres." FSA acres range from 19 million to 20 million per year — comparable to data reported by the USDA National Agricultural Statistics Service.

## ARC and PLC – total payouts

Total Title 1 payouts, including county and individual ARC as well as PLC, are estimated using individual payment data posted on the FSA website. These payouts are reported annually by county with variables for the payout year and "accounting program year," which is the year the payout was triggered. Data are aggregated to the county level and assigned to the year in which the payout was triggered. When aggregated to the state level, the data closely match FSA-published ARC and PLC estimates. Per-acre estimates are made using total base acres.

## ARC and PLC – commodity-specific payouts

FSA doesn't consistently report commodity-specific actual ARC and PLC payouts at the county level, so more assumptions are required for these estimates. County-level per-acre payouts for PLC, ARC-County-irrigated, ARC-County-non-irrigated, and ARC-County-combined are estimated using payment rate information available from the FSA; the process to make these estimates follows procedures used in other studies and AgManager.info\_publications. ARC-irrigated and non-irrigated payouts are weighted by RMA irrigation share, which will be updated using FSA planted acre data when estimates are made for 2023 Title 1 payouts. ARC and PLC payouts are weighted to an average Title 1 payout per acre using base acres data published by FSA and 2014 ARC/PLC election data for Kansas provided directly by FSA. 2014 elections are used for 2015-18. ARC-individual is excluded from this analysis but captured in total payout estimates.



## Acknowledgements

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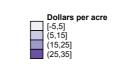
Average Annual Title 1 Payments per Base Acre, 2014-22

Cheyenne 12		wlins 12	Decatur 10	Norton 8	Phillips 10	Smith 12	Jewell 12	Republic 14	Washingto 14	on Mars 14			B Doniph 10	
Sherman 14	т	iomas 12	Sheridan 14	Graham 12	Rooks 12	Osborne 12	Mitchell 14	Cloud 14	Clay 14	Riley Pi	ottawatomie 10	Jackson 8	Atchison 8 Jefferson 8	enworth
Wallace 12	Log		Gove 10	Trego 12	Ellis 12	Russell 14	Lincoln 12	Ottawa 12	Dickinson	<u>ໂ</u> ເ	Wabaunsee 8	Shawnee 8		
				.2			Ellsworth 12	Saline 14	14	Morris 10	- 	Osage 6	Franklin	6 Miami
Greeley 10	Wichita 14	Scott 16	Lane 12	Ness 12	Rush 12	Barton 10	Rice	McPherson	Marion	L	Lyon 8	6	Franklin 6	Miami 6
	1				Pawnee		14	14	12	Chase 8		Coffey 4	Anderson 6	Linn 8
Hamilton 12	Kearny 14	Fini 1		Hodgeman 14	10 Edwards	Stafford 10	Reno 12	Harv 14			Greenwood	Woodson	Allen	
	l		Gray 20	Ford	16	Pratt	12	Sedgwi		Butler 8	6	8	8	Bourbon 8
Stanton 16	Grant 12	Haskell 14	20	12	Kiowa 12	14	Kingman 12	12		-	Elk	Wilson 8	Neosho 6	Crawford 10
Morton 12	Stevens 18	Seward 16	Meade 18	Clark 12	Comanche 6	Barber 8	Harper 10	Sumne 10	ir -	Cowley 10	4 Chautauqua 4	Montgomery 8	Labette 8	Cherokee 10



Net Crop Insurance Indemnities per Insured Acre for Title 1 Eligible Crops, 2014-22

Cheyenne 16		wlins 30	Decatur 32	Norton 26	Phillips 8	Smith 6	Jewell 0	Republic -4	Washington -4	Marshall 6	Nem 16		-4	
Sherman 24	IT I	iomas 24	Sheridan 26	Graham 16	Rooks 10	Osborne 14	Mitchell 10	Cloud 8 Ottawa	Clay 4	Riley 2	watomie 0	Jackson 4	Atchison -2 Jefferson -2	enworth 2 W <del>Wan</del> dotte
Wallace 24	Log:		Gove 22	Trego 14	Ellis 6	Russell 8	Lincoln 10 Ellsworth	10 Saline 12	Dickinson	Geany 4 Morris	Wabaunsee 2	-2	Douglas-	6
Greeley 14	Wichita 16	Scott 18	Lane 16	Ness 10	Rush 2	Barton 4	10 Rice	McPherson 10	Marion 8	6 Chase	Lyon 6	Osage 8	Franklin 0	Miami 6
Hamilton 24	Kearny 16	Finn 20		Hodgeman 8	Pawnee 2 Edwards	Stafford 8	10  Reno 10	Harve 10	ey	0	Greenwood	Coffey 4 Woodson	Anderson 6 Allen	Linn 14
Stanton 34	Grant 20	Haskell 16	Gray 14	Ford 6	6 Kiowa 8	Pratt 10	Kingman 10	Sedgwi 10		Butler 14	14	10 Wilson 18	14 Neosho 20	Bourbon 16 Crawford
Morton 28	Stevens 20	Seward 14	Meade 8	Clark 16	Comanche 14	Barber 18	Harper 16	Sumne 16	r Ci	owley 12 C	Elk 20 hautauqua 28	Montgomery 22	Labette 30	30 Cherokee 24



Average Annual Title 1 Payments and Crop Insurance Net Indemnities per Base Acre, 2014-22

Cheyenne 28		wlins 42	Decatur 42	Norton 34	Phillips 18	Smith 16	Jewell 12	Republic 8	Washington 10	Marsh 20			own 0 Donibt 6	
Sherman 38	Tr	iomas 36	Sheridan 40	Graham 26	Rooks 22	Osborne 26	Mitchell 24	Cloud 22 Ottawa	Clay 18	Riley 12	ttawatomie 10	Jackson 12	Atchison 6 Jefferson 8	renworth
Wallace 36	Loga 26		Gove 32	Trego 26	Ellis 18	Russell 20	Lincoln 22	22 Saline 26	Dickinson 22	12 12	Wabaunser 10		Douglas-	8 Wyandotte 18 Johnson 16
Greeley 24	Wichita 30	Scott 34	Lane 28	Ness 22	Rush 14	Barton 16	Ellsworth 22 Rice	26 McPherson 24	Marion	Morris 14 Chase	Lyon 14	Osage 14	Franklin 6	Miami 14
Hamilton 34	Kearny 28	Finr 34		Hodgeman 20	Pawnee 12 Edwards	Stafford 18	24 Reno 22	Harve 26		8	Greenwood	Coffey 10 Woodson	Anderson 12 Allen	Linn 22
Stanton	Grant	Haskell	Gray 34	Ford 18	22 Kiowa	Pratt 24	Kingman	Sedgwi 22		Butler 24	20	20 Wilson	22 Neosho	Bourbon 24 Crawford
48 Morton	32 Stevens	30 Seward	Meade 28	Clark 28	20 Comanche	Barber 26	20 Harper	Sumne 26	r C	owley	Elk 24 Chautauqua	26 Montgomery	26 / Labette	42 Cherokee
38	38	30	20	20	20	20	26	20			34	30	38	32



Average Annual Title 1 Payments and Crop Insurance Net Indemnities per Planted Acre, 2014-22

Cheyenne 30		wlins 42	Decatur 42	Norton 34	Phillips 18	Smith 16	Jewell 12	Republic 8	Washington 10	Marsi 20		Nemah 30	na Brov 18	Doni <del>ps</del> 6	
Sherman 38	т	iomas 34	Sheridan 38	Graham 28	Rooks 22	Osborne 26	Mitchell 24	Cloud 22 Ottawa	Clay 16	Riley 12	ottawatom 12	ne	Jackson 12	Atchison 6 Jefferson 8	enworth
Wallace 36	Log 26		Gove 32	Trego 26	Ellis 20	Russell 22	Lincoln 22	22 Saline	Dickinson 1	Geeny 14		unsee	Shawnee 6	Douglas-	8 Wyandotte
							Ellsworth 22	24		Morris 14	<b>_</b>		Osage 14	Franklin	Miami
Greeley 24	Wichita 30	Scott 34	Lane 28	Ness 24	Rush 16	Barton 16		McPherson	Marion			yon 14		6	12
					Pawnee		Rice 24	24	20	Chase 8		Ī	Coffey 10	Anderson	Linn
Hamilton	Kearny	Finr 34		Hodgeman 22	14	Stafford 20	Reno	Harve 24					10	12	22
36	32		-		Edwards 24		22	24		Butler	Greenv 20		Woodson 20	Allen 22	Bourbon 26
	<u> </u>	1	Gray 36	Ford 18	<b> </b>	Pratt	l	Sedgwi		22		ļ			20
Stanton 50	Grant 34	Haskell 32		10	Kiowa 22	24	Kingman 22	22		ŀ	Elk 28	:	Wilson 26	Neosho 26	Crawford 42
		<u> </u>	Meade	Clark	ι		1	Sumne		ioudou	28	-			 
Morton 40	Stevens 40	Seward 34	30	30	Comanche 46	Barber 26	Harper 26	26		22	Chautau 36	uqua	Montgomery 28	Labette 38	Cherokee 32

