

2024 Kansas County-Level Cash Rental Rates for Irrigated Cropland

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Intended Use¹

This publication is a sister publication to the 2024 Kansas County-Level Cash Rental Rate for Non-Irrigated Cropland (available on AgManager.info). A procedure similar to the one used to develop the non-irrigated cash rental rates is employed for this publication of irrigated cash rental rates. The rental rate estimates provided in this publication are intended for the 2024 crop year. The estimate includes an expectation of 2023 farm profitability. Because the estimate is based on average irrigated corn yields for the county, actual lease rates could be higher or lower. In particular, the use of irrigated corn only for these estimates likely means the highest expected profitability for an irrigated acre. Estimates are also a function of NASS survey rates from 2023 to help smooth out the estimate. The estimates that are provided are intended to cover all expenses and not just the cash cost. These estimates are also not an endorsement for what a tenant and landlord should pay. They are merely provided to give a starting point in lease negotiations. Any lease that a tenant and landlord willingly agree to is considered a “fair” lease.

Approach

The approach to develop these estimates of irrigated cash leases is nearly identical to the non-irrigated lease rates. Please see this other publication for full details. While the non-irrigated estimates is based on the percentage of corn, grain sorghum, wheat, and soybeans in a county, these estimates of irrigated lease rates are based solely on growing irrigated corn only on the irrigated land. As in the non-irrigated estimates, FSA reported acres and yields are used.

The one change incorporated into the model for this year's estimates is a limit to the upper increased in cash rental rates. The limit is a 15% increase from the last year's KSU estimate. This change is to help smooth the yearly variation in rental rates that could happen if farm profitability was the only factor in rental rates.

The reported cash rent estimates are all based on the assumption that the landlord owns all irrigation items. For those acres where the tenant may own part of the irrigation process, the values

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of fixed costs for components of the irrigation process can be subtracted from the estimated cash rental rate (these are shown in the last figure). These values are taken from K-State irrigated crop budgets and represent wells of two different depths. In Western Kansas, a 300 well depth is assumed while in Central Kansas, a 150 foot well depth is assumed. The operating costs and repair and maintenance of the irrigation equipment are assumed to be the responsibility of the tenant no matter who owns the equipment.

Results

Figures 1, 2, 3, 4, and 5 show the results of estimating a potential cash rent for 2024 irrigated cropland. The 2022 and 2023 NASS values are shown along with the predicted KSU value and the potential ranges for cash rents. Figure 1 shows the NASS August survey results for irrigated cropland while Figure 2 shows the predicted KSU value on a color coded state map of Kansas counties. Darker values have higher predicted cash rental rates. *Based on the modeling approach used here, irrigated cash rents for newly rented ground are expected to: increase by 15% in Eastern Kansas, increase by 12% in Central Kansas, and increase by 5% in Western Kansas.*

References

Ibendahl, G. and D. O'Brien. 2023. "2024 Kansas County-Level Cash Rental Rates for Non-Irrigated Cropland." AgManager Publication, October 2, 2023.

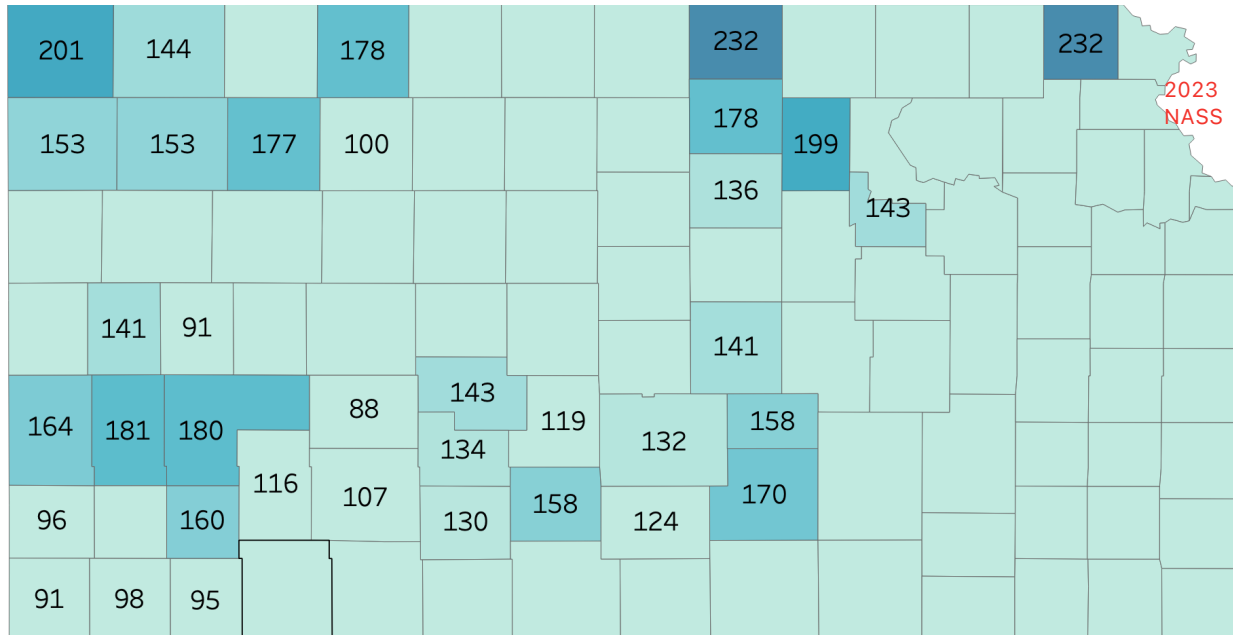


Figure 1: 2023 USDA-NASS Cash Lease Survey Results for Irrigated Crop Land in Kansas.

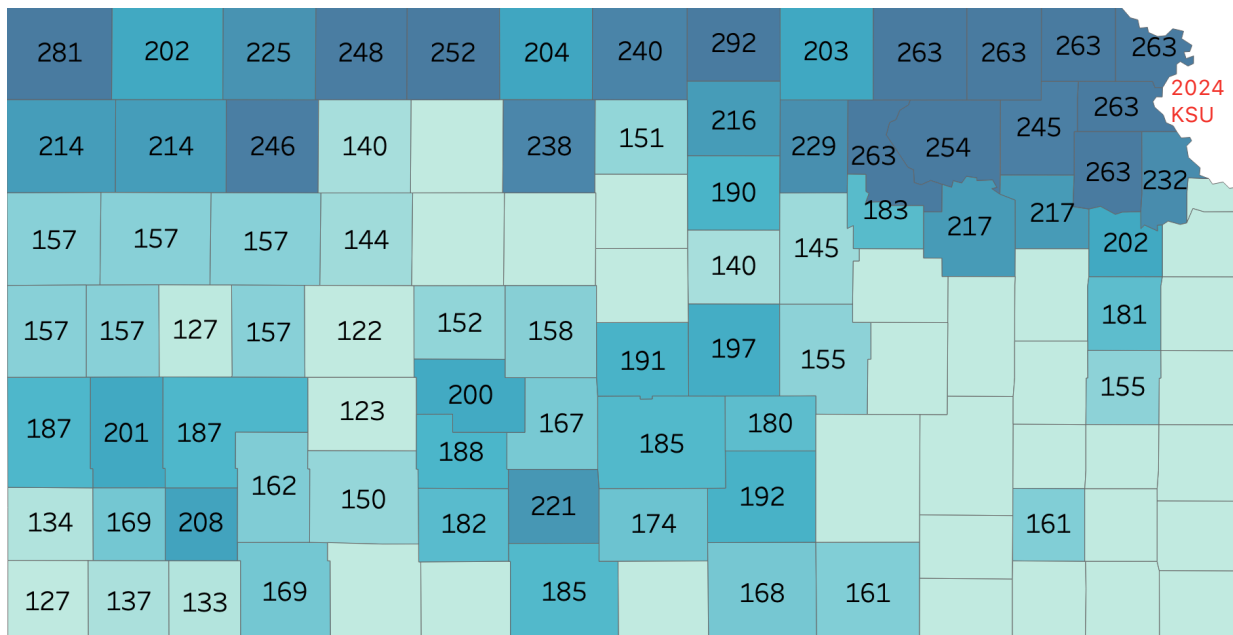


Figure 2: 2024 KSU Cash Lease Estimates for Irrigated Crop Land in Kansas

Region	County	2022 NASS	2023 KSU	2023 NASS	2024 KSU	25th Percentile	75th Percentile
Northwest	Cheyenne	185	251	201	281	176	400
	Decatur		217		225	140	319
	Graham		171	100	140	88	199
	Norton	154	216	178	248	155	352
	Rawlins	176	235	144	202	126	287
	Sheridan	153	214	177	246	154	350
	Sherman	146	204	153	214	134	304
	Thomas	165	231	153	214	134	304
West Central	Gove		137		157	101	214
	Greeley		137		157	101	214
	Lane		137		157	101	214
	Logan		137		157	101	214
	Ness		106		122	78	166
	Scott		137	91	127	82	173
	Trego		125		144	92	195
	Wallace		137		157	101	214
	Wichita		137	141	157	101	214
Southwest	Clark						
	Finney		162	180	187	134	228
	Ford	120	168	107	150	107	183
	Grant		162		169	121	206
	Gray	132	185	116	162	116	198
	Hamilton		162	164	187	134	228
	Haskell	129	181	160	208	149	253
	Hodgeman	109	139	88	123	88	149
	Kearny	125	175	181	201	144	245
	Meade		162		169	121	206
	Morton	108	119	91	127	91	154
	Seward	114	160	95	133	95	162
	Stanton	113	158	96	134	96	163
Stevens	88	123	98	137	98	167	

Figure 3: Estimated Cash Rental Rates for Irrigated Cropland in Western Kansas

Region	County	2022 NASS	2023 KSU	2023 NASS	2024 KSU	25th Percentile	75th Percentile
North Central	Clay	189	199	199	229	192	265
	Cloud	149	188	178	216	181	250
	Jewell		208		240	201	278
	Mitchell	122	132		151	127	175
	Osborne				238	199	275
	Ottawa		176	136	190	160	221
	Phillips		226		252	212	292
	Republic	236	254	232	292	245	338
	Rooks						
	Smith			177	204	171	237
	Washington			176	203	170	235
Central	Barton	114	138		158	127	194
	Dickinson		126		145	116	178
	Ellis						
	Ellsworth						
	Lincoln						
	Marion		135		155	124	190
	McPherson	149	191	141	197	158	242
	Rice	155	166		191	153	234
	Rush		132		152	122	186
	Russell						
	Saline				140	112	171
South Central	Barber		161		185	152	231
	Comanche						
	Edwards		186	134	188	154	235
	Harper						
	Harvey	121	157	158	180	148	225
	Kingman	104		124	174	143	217
	Kiowa	146	204	130	182	150	228
	Pawnee		174	143	200	165	250
	Pratt	161	202	158	221	182	277
	Reno	141	165	132	185	152	231
	Sedgwick	153	167	170	192	158	240
	Stafford	141	163	119	167	137	208
	Sumner	124	146		168	138	210

Figure 4: Estimated Cash Rental Rates for Irrigated Cropland in Central Kansas

Region	County	2022 NASS	2023 KSU	2023 NASS	2024 KSU	25th Percentile	75th Percentile
Northeast	Atchison		229		263	203	337
	Brown		229	232	263	203	337
	Doniphan		229		263	203	337
	Jackson				245	190	315
	Jefferson		229		263	203	337
	Leavenworth				232	179	297
	Marshall		229		263	203	337
	Nemaha		229		263	203	337
	Pottawatomie				254	196	326
	Riley		229		263	203	337
	Wyandotte						
East Central	Anderson				155	123	185
	Chase						
	Coffey						
	Douglas				202	160	240
	Franklin		157		181	144	215
	Geary	146	159	143	183	145	218
	Johnson						
	Linn						
	Lyon						
	Miami						
	Morris						
	Osage						
	Shawnee	176			217	173	259
	Wabaunsee				217	173	259
Southeast	Allen						
	Bourbon						
	Butler						
	Chautauqua						
	Cherokee		117				
	Cowley				161	118	214
	Crawford						
	Elk						
	Greenwood						
	Labette						
	Montgomery						
	Neosho						
	Wilson				161	118	214
	Woodson						

Figure 5: Estimated Cash Rental Rates for Irrigated Cropland in Eastern Kansas

	Western KS		Central KS	
Center Pivot	\$	70.38	\$	70.38
Power unit	\$	26.29	\$	14.84
Well, pump, and gearhead	\$	90.40	\$	60.46

Figure 6: Capital Recovery Costs (Depreciation and Interest) for Irrigation Equipment in Kansas