

2027 Kansas County-Level Cash Rental Rates

Irrigated Cropland

Gregg Ibendahl and Daniel O'Brien · Kansas State University, Department of
Agricultural Economics

October 2026

1 Purpose of these KSU Irrigated Cash Rent Estimates

This publication is a companion to the *2027 Kansas County-Level Cash Rental Rates for Non-Irrigated Cropland*, and follows the same method wherever the data allows. It provides irrigated cash lease breakeven estimates to give renters and landowners another perspective when negotiating lease rates.

A **tenant's residual method** is used: county irrigated corn yield histories, forward-looking grain price expectations, farm program payments, and Kansas Farm Management Association irrigated corn costs.

As in the non-irrigated publication, two numbers are reported for every county. The first is the raw breakeven the model produces with no adjustment. The second is the market-anchored estimate, which blends that breakeven toward survey and prior-year evidence. The two differ substantially on irrigated ground, and readers are better served by seeing both.

Estimates cover **63 counties**, being those with at least 1,000 acres of irrigated corn and enough yield history to support an estimate. Together they account for about 1.5 million acres, or 98 percent of the irrigated corn grown in Kansas. Thirteen further counties clear the acreage threshold but have no usable irrigated yield history and are not estimated.

County-by-county estimates are in Tables 4 to 6 at the end of this publication, mapped in Figures 2 and 3, with supporting detail in Figures 4 to 7 and Tables 7 and 8, and the same estimates across a range of price outcomes in Tables 9 to 11. Tables 1 to 3 sit inside the Results section and summarize the anchoring and the regional movement.

Against the 2025 edition, the 2027 KSU irrigated estimates are **about 4 percent higher in Western Kansas and 3 percent higher in Central Kansas**. Those two regions carry 97 percent of the irrigated corn acres estimated here. Eastern Kansas is about **18 percent higher**, but that figure rests on five counties and 1.5 percent of the acres, and the Results section explains why it should be read with more caution than the other two.

These movements are set by the survey and prior-year evidence the estimates are anchored to rather than by the model's own view of the coming year, and the Discussion explains why they should not be read as a forecast of where market rents are heading.

2 Intended Use of These Estimates

The estimates are intended for the **2027 crop year**. Because they are based on trend yields for the county, actual lease rates could be higher or lower depending on a particular farm's yield history.

These estimates are built on irrigated corn alone. Corn is about 60 percent of Kansas irrigated crop acres, and it is the crop with by far the best county-level irrigated yield coverage. Because corn is generally the most profitable irrigated option, an estimate built on corn alone represents something close to the **highest expected return** for an irrigated acre, and a rotation including wheat, soybeans or sorghum would support somewhat less.

The estimates assume the landlord owns the irrigation system. The capital recovery cost of the pivot, well, pump and power unit is therefore not charged against the tenant's residual. It stays in the rent. Where the tenant owns part of the irrigation system, the corresponding capital recovery should be **subtracted** from these estimates. Table 8 reports those figures by region, on a depreciated basis, because the equipment actually in the ground is older than its useful life. Operating costs, meaning pumping energy, repairs and maintenance, are treated as the tenant's responsibility regardless of who owns the equipment, and are included in the costs below.

These estimates are intended to cover **all expenses**, not only cash costs, and they are **NOT an endorsement of what a tenant should pay**. Any lease that a tenant and landlord willingly agree to, both having used the best information available, is considered here to be a fair lease.

3 What Has Changed

There was no irrigated edition for the 2026 crop year, so the most recent prior estimates are those published in November 2024 for crop year 2025. The prior-year comparisons throughout are against those.

The model has been rebuilt on the same basis as the non-irrigated publication. Four changes matter:

1. Yields use a fitted trend rather than a short average. County irrigated corn yields come from the RMA County Yields Report, filled in with NASS county estimates. A linear trend is fitted over a 20-year window and projected to 2027, with each county's slope shrunk halfway toward the statewide slope because a slope fitted to twenty noisy county-years is unstable.

Fifty counties support a fitted trend. In thirteen more the irrigated yield series has gone stale, because NASS stopped publishing county yields split by irrigation practice after 2018-19, and for those the county's own most recent level is carried forward on the statewide slope. Counties needing more than twenty years of projection are not estimated at all.

That rule is why this edition covers fewer counties than the last one. The 2024 edition published 71 counties; this one publishes 63. The practice -split yield series has aged two further years since, and in eight counties it has now aged past the point where projecting it forward can be defended.

2. Prices are forward-looking. The USDA-ERS Season-Average Price Forecast, blended across the 2026 and 2027 marketing years and adjusted by the Kansas basis, giving **\$5.46 per bushel**. A trailing average would still carry the 2021-22 price spike at full weight.

3. Costs come from the KFMA Whole Farm Summary for irrigated farm types, allocated to irrigated corn with the K-State budget ratios. This is the same KFMA product and the same procedure the non-irrigated publication uses, which the earlier irrigated editions did not share. See *Expenses* below.

4. **The published range comes from price uncertainty**, built from the distribution of ERS's own price forecast errors, rather than from the 25th and 75th percentiles of farm-level income dispersion used previously.

4 Approach

The calculation is:

Revenue per acre = trend yield $\times$ price $\times$ (harvested $\div$ planted acres)

Residual = revenue + government payments – crop production cost – unpaid operator labor charge – management fee

The harvested-to-planted ratio plays the role that fallow acreage plays on the non-irrigated side. On irrigated ground it is close to 1.00, which is the point of irrigating, where on dryland it is much of what separates western Kansas from eastern Kansas.

4.1 Yields, prices and acres

Yields. County irrigated corn yields, RMA 1990-2025 filled with NASS, fitted as described above. The median county trend yield is **193 bushels**, ranging from 173 to 231, and the acreage-weighted figure is 202 bushels. As a check, KFMA irrigated corn farms averaged **197 bushels** over 2023-2025, which is consistent with a county-average trend a little below what association farms achieve.

Prices. ERS Season-Average Price Forecasts blended equally across the 2026 and 2027 marketing years, shifted by the average Kansas corn basis over the last five complete marketing years.

This is the single most important assumption in the publication. Because the model has one crop, the estimates move almost in proportion to the corn price.

Kansas corn price, \$ per bushel	Low	Mid	High
Corn	5.01	5.46	6.25

The **Mid** column produces every published estimate here. Low and High are the 10th and 90th percentiles of the ERS forecast's own historical error distribution, and they are the prices behind the Low and High columns of Tables 4 to 6 and the ladder in Tables 9 to 11.

A note on the price level. These prices come from the ERS vintage of 3 September 2026, and grain markets rallied hard through the late summer. The estimates in this publication therefore rest on a market that has moved a long way in a short time. Because irrigated corn carries roughly 200 bushels an acre, that movement goes almost entirely into the breakeven.

One further caution. ERS publishes two season-average forecasts, a futures-based model forecast and the WASDE forecast. This publication uses the model forecast, as the non-irrigated publication does. The two currently differ by more than usual. Against the October 2026 WASDE, the model forecast for the 2026 marketing year sits about **15 percent above WASDE for corn**. WASDE has been moving the same way. Its 2026/27 corn projection rose from \$4.40 in August to \$4.70 in October. It has simply not gone as far as the futures market.

A reader who prefers USDA's balance-sheet view to the futures market has a simple option: **read the Low column, which is within about 4 percent of the October WASDE corn price.**

Readers who hold their own view on corn can adjust these estimates accordingly. **Every \$1.00 per bushel on the Kansas corn price is worth about \$198 per irrigated acre.** By region that is **\$202 in Central Kansas, \$196 in Western Kansas and \$194 in Eastern Kansas**. Across districts it runs from \$180 in West Central Kansas to \$203 in South Central Kansas.

Why the figure hardly varies. Every acre estimated here grows the same crop, and trend yields differ little across the state. The equivalent figure in the non-irrigated publication, for wheat, runs from about \$24 per acre in South Central Kansas down to about \$1 in the Northeast, because wheat's share of the rotation varies that much from one end of the state to the other. On irrigated ground there is no such variation, so every county here moves almost in step with a single price.

It is also a large number. A dollar on the corn price exceeds the entire published estimate in 26 of the 63 counties, 16 of them in Western Kansas. The \$1.24 between the Low and High prices is worth \$245 per acre, against a statewide published estimate of \$204. That is why the Low and High columns are as far apart as they are, and it is why a reader who disagrees with the price forecast should adjust these estimates rather than discount them.

Yield deserves the same treatment, and a farmer knows it better than the model does. These estimates use a county trend yield. Ten bushels an acre above or below that trend is worth about **\$54 per acre** at the forecast price. The trend yields behind this publication run from 173 to 231 bushels, a spread worth \$310 per acre, which is more than the published estimate in most counties. A farm whose own yield history sits well above its county trend can support more rent than the tables show, and one below it less.

Acres. Irrigated corn acreage comes from FSA crop acreage reports averaged over 2020-2024. FSA is the only source that still publishes county acreage separated by irrigation practice.

4.2 Expenses

The level comes from KFMA, by the same route the non-irrigated publication uses. The Kansas Farm Management Association's Whole Farm Summary reports a "Crop Prod Costs" figure per crop acre for each farm type. The non-irrigated publication takes that line for the Crop Non-Irrigated farm type. This publication takes it for the two irrigated farm types, Crop 20-60% Irrigated and Crop >60% Irrigated, averaged over 2023, 2024 and 2025 and weighted by irrigated acres. Both types are used because the more heavily irrigated one is thin, 14 to 20 farms depending on the year. Together they cover 88 farms. Cash farm rent is excluded from this line, since land is the thing being estimated.

Those farms are not wholly irrigated, which is why an allocation step is needed. The 20-60% type averages 24 percent of its crop acres irrigated and the >60% type 45 percent, so the whole-farm figure is a blend of irrigated and dryland ground. The K-State 2026 crop budgets supply the relative cost of every crop and practice those farms grow, the farm type's own acreage in each sets the weights, and the whole set is scaled so that it reproduces KFMA's cost per crop acre. Reading irrigated corn off the result gives **\$689.60 per acre excluding land.**

Two checks on that figure, and both pass. The budgets reproduce KFMA’s own cost per crop acre to within a few percent in every farm-type-year, and the two farm types agree closely despite being sampled independently. Separately, the result comes within 2 percent of the KFMA irrigated corn enterprise summary that earlier editions used, once that summary is put on the same full-acre basis. The methodology document sets out both comparisons.

The regional differences come from the K-State irrigated corn budgets. The thing that genuinely varies across Kansas is pumping cost, and it varies with well depth:

Region	Well depth	Irrigation energy	Water applied
North Central	150 ft	\$23.03	13.5 in
South Central	150 ft	\$24.73	14.5 in
Northwest	300 ft	\$42.14	14.0 in
Southwest	300 ft	\$45.15	15.0 in

Pumping energy in the deep-well regions is roughly double that in the shallow ones. The budgets are used for this *difference* only, never for the cost level, which remains KFMA’s. That is the same division of labor the non-irrigated publication uses between ERS cost ratios and KFMA levels. The four K-State budgets cover the four regions above. Counties in the KFMA Northeast region, five of those estimated here and 2 percent of irrigated corn acres, fall back to the state cost figure.

The capital recovery of the irrigation equipment itself is excluded, because the estimates assume the landlord owns the system. It is excluded on a **depreciated** basis rather than at replacement cost. The 2017 Kansas Irrigation Equipment Cost Survey puts the useful life of a well at 26 years and of a pump and gearhead at 13. The 2025 Kansas Irrigated Farm Lease Arrangement Survey finds that the wells actually in use average 36 years old and the pumps 24. Those components are past their service lives and carry no remaining capital charge. Center pivots, at 16 years against a life of 25, do. The resulting charge is \$85 to \$92 per acre by region rather than the \$160 to \$206 a replacement-cost calculation would give.

Following the non-irrigated publication, 75 percent of unpaid operator labor is charged to the crop, and a 2 percent management fee is applied to gross revenue.

Costs are held at a three-year historical average while revenue is projected forward. The KFMA anchor is a nominal 2023 to 2025 average with no indexing and no

forward allowance, where the price and yield side of the model is projected to 2027. If input costs rise into 2027, the breakevens here are too high by the amount of that rise.

4.3 Government payments

ARC-CO and PLC are computed from program parameters under the One Big Beautiful Bill Act. Two compromises are needed because the program data is only partly split by irrigation practice. ARC benchmark yields **are** published by practice and the irrigated benchmark is used directly, but base acres and PLC yields are not, so corn base is apportioned to irrigated ground by the irrigated share of planted corn acres.

Farm programs pay essentially nothing on irrigated corn at these prices. At the mid price they add **\$0.05 per acre**, and even at the tenth-percentile price only **\$0.32**. Irrigated yields sit far enough above the ARC benchmark that the programs do not trigger, and at a forecast corn price well above the effective reference price PLC does not pay at all. Figure 7 shows this. The practical consequence is that the Low column in the county tables is a genuine downside, not one softened by program payments. Ad hoc assistance is not included.

4.4 Range

The range is built from the historical accuracy of the ERS price forecast. The 10th and 90th percentiles of that error distribution give a low and high price, and the whole model is re-run at each. In the county tables the low and high figures are reported around the **published** estimate, carrying the dollar width of the price-driven range onto the published number.

5 Results

Figures 2 to 7 and Tables 4 to 11 at the end of this publication show the results, against the 2026 USDA-NASS survey mapped in Figure 1. Tables 1 to 3 below summarize the anchoring and the regional movement. **Two estimates are reported for each county.**

5.1 The raw breakeven

Statewide, acreage-weighted, the raw breakeven for 2027 irrigated corn ground is **\$344 per acre**. It is positive in every county estimated, ranging from \$185 to \$493. At forecast prices irrigated corn covers its full economic cost with a wide margin left for land and for the irrigation system.

Across the price ladder:

Price scenario	Corn price	Revenue	Payments	Cost	Residual
p10	\$5.01	\$1,010	\$0.32	\$756	\$255
mid	\$5.46	\$1,101	\$0.05	\$757	\$344
p90	\$6.25	\$1,260	\$0.00	\$761	\$499

The range is wide because the residual is what is left after a large cost is taken from a large revenue, so a modest move in price moves it a great deal. Cost barely moves across the ladder, and the programs do not cushion the low end, so the spread in the residual is very close to the spread in revenue.

Figure 5 breaks the estimate into its parts for each district. Revenue runs from about \$1,130 per acre in North Central and South Central Kansas down to about \$1,005 in West Central Kansas, and cost runs the other way, highest in the deep-well districts. The residual is therefore highest where yields are good and wells are shallow, and lowest in West Central Kansas at \$244.

5.2 The market-anchored estimate

The raw estimate is blended toward the best available market evidence: 60 percent anchor and 40 percent model, bounded to within 20 percent of the prior KSU estimate and to between 80 and 120 percent of the NASS survey.

Anchoring irrigated ground is harder than anchoring dryland, because NASS publishes an irrigated county rate for only **28 Kansas counties** against the 102 it publishes for non-irrigated. Three tiers are used, best available first:

Table 1. Which anchor was available, by county count.

Anchor used	counties
NASS 2026 irrigated survey	28
Prior KSU estimate (2025)	32
None, raw breakeven published	3

Statewide the anchored estimate is **\$204 per acre**, against a 2026 NASS irrigated survey average of **\$166** across the counties it covers. That \$166 is the average of the published county rates weighted by irrigated corn acres, which is the right comparison for a set of county estimates.

A second survey points the same way. The 2025 Kansas Irrigated Farm Lease Arrangement Survey asks operators and landowners directly rather than through the NASS county program. It reports irrigated cash rent averaging **\$144.75 per acre** statewide and **\$154.41 on irrigated corn specifically**, ranging from \$99.93 in West Central Kansas to \$187.45 in South Central. It is corn-specific where NASS is not, and it covers districts NASS does not. Both surveys sit well below the model, and they bracket each other closely enough that the distance between the model and the market is unlikely to be an artifact of either one.

5.3 How much the anchoring does

Readers should know how much of the published number is model and how much is market evidence.

Table 2. Which constraint determines the published estimate, by county count.

	counties
capped at 120% of NASS	22
capped against prior-year KSU estimate	20
landing on an actual blend	18
unanchored	3

Every binding constraint is an upper cap. No county is floored. The model sits above both anchors everywhere: the raw breakeven exceeds the NASS survey in all 28 counties where a survey exists, and it exceeds the prior KSU estimate in all 60 counties where one exists. So in 42 of the 63 counties the published estimate is the **highest figure the anchoring rules permit**, and the model's own answer lies above it. Even in the 18 counties that land on a genuine blend, the published number is below the raw breakeven.

This is the mirror image of the non-irrigated publication, where the raw breakeven of \$13 per acre sits far below a survey of \$62 and the floor at 80 percent of the survey binds in 68 of 102 counties. There the published number is close to the survey less 20 percent. Here it is close to the survey plus 20 percent, or to the prior estimate plus 20 percent. In both publications the guardrails, rather than the model, set the level of the published figure. Figure 4 shows this directly.

5.4 Why the breakeven sits above the survey

In all 28 counties with an irrigated survey value the breakeven is above it, and by a wide margin: the raw breakeven averages **\$335** against a survey average of **\$162**. Part of that gap is that the two numbers measure different things.

The NASS survey reports the average rent actually being paid, across every acre currently under lease. Cash leases commonly run for more than one year, and even annual leases are usually renegotiated from the standing rate rather than rebuilt from scratch. The survey average is therefore a blend of leases struck across many different years. **It is not a measure of what ground is renting for now.**

The estimates in this publication are the other thing: what a tenant could afford to pay on ground being rented **for the coming crop year**, at next year's expected prices, yields and costs.

Three things specific to irrigated ground widen the gap further. The estimates are built on corn alone, and so describe the most profitable irrigated option rather than a rotation. They assume the landlord owns the irrigation system, so the residual includes a return on that equipment as well as on the land. And the corn price behind them has risen a long way in a short time, where the survey reflects leases agreed before that happened. The next section puts numbers on the first two.

5.5 Regional results

Table 3. KSU irrigated estimates by region, 2025 against 2027 (\$ per acre), averaged over the 60 counties with a prior estimate and weighted by irrigated corn acres.

Region	2025 KSU	2027 KSU	change
Eastern Kansas	\$217	\$256	+18%
Central Kansas	\$212	\$220	+3%
Western Kansas	\$187	\$194	+4%

Across those 60 counties the mean change is **+7.6 percent** and the median **+9.6 percent**. The movement is upward everywhere, and it is a movement in the *published* estimate rather than a measurement of the rental market. In most counties the published figure has risen because the model moved far enough above the anchor to push the estimate into its upper guardrail, so the increase shown is the largest the rules allow rather than the increase the model found.

The highest estimates are Pottawatomie (\$342), Jewell (\$324), Wabaunsee (\$314) and Brown (\$295). The lowest are Stanton (\$121), Marion (\$122), Graham (\$132) and Scott (\$138).

The two highest figures carry the least evidence. Pottawatomie and Wabaunsee have neither a NASS irrigated rate nor a prior KSU estimate, so their raw breakeven is published unchanged and no anchor restrains it. Saline, the third unanchored county, is in the same position at \$204. Readers should treat all three as model output rather than as market-anchored estimates, and the Eastern Kansas regional figure, which rests on seven counties and 37,000 acres, as the weakest of the three regional numbers.

6 Discussion

Why the breakeven exceeds market rents on irrigated ground. A full-economic-cost breakeven above observed market rent means the ground is currently rented for less than a

tenant could afford to pay on next year's expectations. On irrigated ground in 2027 that gap is large, and most of it is explained by things the reader can adjust for.

The first piece is the irrigation system, though not as a subtraction. These estimates assume the landlord owns it, so the raw breakeven of \$344 is what a tenant could pay for **land and the use of the system together**. The survey measures the same bundle: the 2025 lease survey finds landlords own about 90 percent of wells, 76 percent of pumps and gearheads and 60 percent of center pivots, so the rent it records also buys land and system. The comparison that matters is therefore **\$344 against \$166**, with nothing subtracted from either side.

What the equipment does explain is how two numbers measuring the same bundle can differ so far. At replacement cost the irrigation system would carry about \$196 per acre, more than the entire rent the survey records. But the equipment actually in the ground is old. Wells average 36 years against a 26-year service life and pumps 24 against 13. A landlord with a well of that age is not recovering a replacement-cost charge, and the rent that is paid reflects equipment largely written off. On the depreciated basis used here the charge is **\$85 to \$92 per acre**, and that is the figure a tenant who owns the system should subtract from Tables 4 to 6.

The second piece is the price, and it is the larger of the two. The forecast used here, \$5.46 per bushel, is about a third above the \$4.11 that Kansas irrigated corn actually realized in 2025. Because an irrigated acre carries roughly 200 bushels, that difference alone is worth about \$265 per acre. At the price realized last year the model's breakeven would be near \$100, below the survey rather than above it. The leases the survey measures were struck when corn was close to that level.

The third piece is the single-crop assumption. Corn is the most profitable irrigated option, so an estimate built on corn alone describes the best case for an irrigated acre. A rotation including wheat, soybeans or sorghum would support less.

Reading the KSU estimate against the NASS survey. Tables 4 to 6 print the two figures side by side. A single survey year and a single model year, printed next to each other, look like a disagreement about one quantity. They are not. The USDA-NASS county figure is the average rent *being paid* across every acre currently under a cash lease. The KSU figure is what a tenant could afford to pay on ground rented *for the coming crop year*. One is the price of the whole standing stock of leases. The other is the price of the next lease to be signed.

What the gap in the tables measures. The raw breakeven averages \$344 per acre statewide against a survey of \$166. The anchoring rules do not let the published estimate follow the model that far. The estimate is capped at 120 percent of the survey, and at 120 percent of the prior KSU estimate, and in 42 of the 63 counties one of those caps *is* the published number. The gap between the KSU and NASS columns is therefore not, in most counties, the distance the model found. It is the largest distance the guardrail permits. Two things follow. Where a cap binds, the model's own answer sits further above the survey than the tables are able to show. And the year-to-year change in a published estimate should not be read as a forecast of where market rents are heading, because its level is set by the anchor rather than by the breakeven.

What the difference means. A forward breakeven standing above a survey average is a statement about direction rather than about which number is correct. It says that the rents currently in force were agreed against a corn price lower than the one now in front of tenants, and that the standing stock of leases has not yet repriced. **Our reading is that the pressure on irrigated cash rents for newly rented ground is upward, and that it will appear in the survey gradually, as leases turn over, rather than as a step change in any one year.** How much of it appears depends on whether the corn price holds, and the Low column is the right place to look for what happens if it does not. At the tenth-percentile price the statewide raw breakeven is \$255 rather than \$344, which is still above the survey but by a good deal less.

Where that reading would change. Holding cost and yield fixed, the statewide raw breakeven falls to the NASS survey at a Kansas corn price of **\$4.58 per bushel**, and to the lease survey's corn rent at **\$4.52**. The upward reading therefore holds anywhere above about **\$4.55** and fails below it. For reference, the October 2026 WASDE projection is \$4.70 nationally, near \$4.81 in Kansas once basis is added; the Low column in this publication is \$5.01; and the forecast the estimates use is \$5.46. A reader who expects corn below \$4.55 should read these estimates as pointing down rather than up.

Water is the constraint this model does not represent. The estimates treat irrigation as a production practice with a cost. They do not account for declining saturated thickness in the Ogallala, for water-right allocations, or for the possibility that a given acre cannot be irrigated at the assumed application rate for the life of a lease. In parts of western Kansas that is a material omission, and it argues for treating the western estimates as an upper bound on what the ground can support over a multi-year lease.

The 2025 lease survey gives one measure of the direction. Average well output across reported irrigated lease units fell from **685 gallons per minute in 2021 to 606 in 2025**, a decline large enough to be statistically significant. A well that cannot deliver the assumed application rate cannot deliver the assumed yield, and these estimates assume both.

Ad hoc government payments are excluded, as in the non-irrigated publication. Mechanical ARC and PLC payments on irrigated corn are negligible at forecast prices, so the exclusion matters far less here than it does on non-irrigated ground, where ad hoc assistance has recently been worth many times the mechanical calculation. A recurring ad hoc program would still be capitalized into irrigated rents in the same way.

Other considerations. Tenants and landlords have economic and non-economic considerations beyond those modeled here. Rented cropland adjacent to a farmer may have more value to that particular farmer simply because of location. Likewise, a landlord may have developed trust in a particular tenant and adjust rent accordingly. On irrigated ground the condition and age of the system, the reliability of the water right, and who carries the repair risk all matter to what a lease is worth, and none of them is in these numbers.

Communication and full information are needed in any discussion of cropland leases. This publication has been developed to help both tenants and landlords make as fully informed a decision as possible when negotiating cash rental rate agreements for 2027.

7 References

USDA Economic Research Service. *Season-Average Price Forecasts*.

USDA Farm Service Agency. *ARC/PLC Program Data and Crop Acreage Data*.

USDA National Agricultural Statistics Service. *QuickStats*.

USDA Risk Management Agency. *County Yields Report*.

Kansas Farm Management Association. *Whole Farm Summary by Farm Type, Kansas, 2023, 2024 and 2025*.

Tsoodle, L. J. 2019. *2017 Irrigation Equipment Cost Survey in Kansas*. Land Use Survey Office, Kansas State University.

Tsoodle, L. J. and X. Li. 2026. *2025 Irrigated Farm Leasing Arrangements in Kansas*. Land Use Survey Office, Kansas State University, September 2026.

Kansas State University Department of Agricultural Economics. *Irrigated Corn (center-pivot) Cost-Return Budgets*, North Central, Northwest, South Central and Southwest Kansas, November 2025.

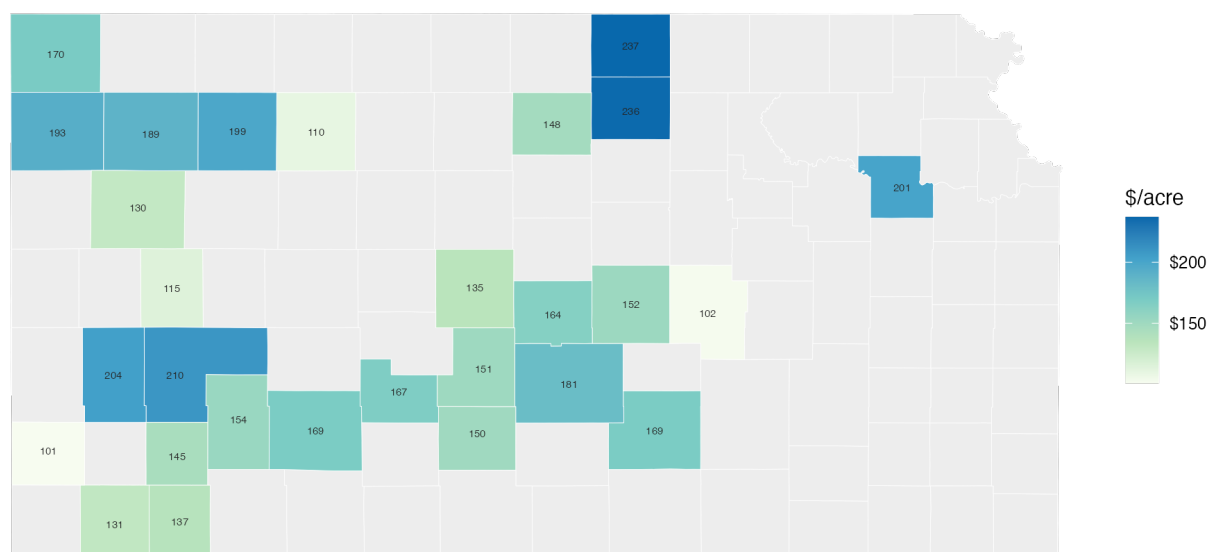
Ibendahl, G. and D. O'Brien. 2024. "2025 Kansas County-Level Cash Rental Rates for Irrigated Cropland." AgManager Publication, November 15, 2024.

A full methodology document, stating every input, source, assumption and known limitation, is available alongside this publication.

8 Figures and Tables

2026 USDA-NASS cash rent survey

Irrigated cropland, \$/acre. Published for only 28 Kansas counties.

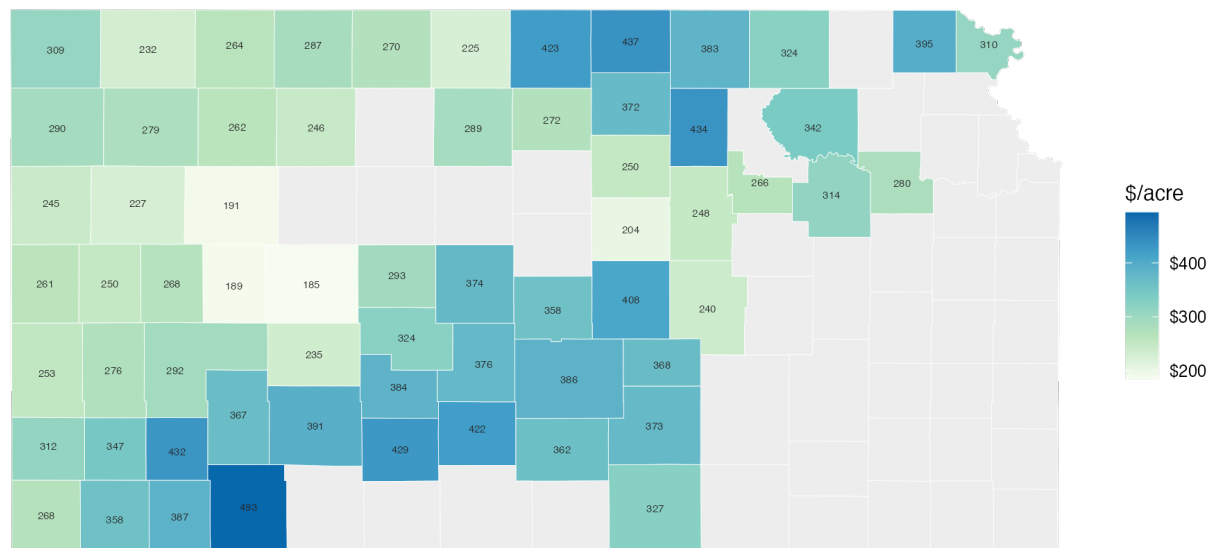


Grey = no irrigated corn estimate for that county.

Figure 1. 2026 USDA-NASS county cash lease survey, irrigated cropland. Published for only 28 Kansas counties.

2027 KSU raw breakeven, UNSMOOTHED

Full-economic-cost tenant's residual on irrigated corn, before any anchoring.



Grey = no irrigated corn estimate for that county.

Figure 3. 2027 KSU raw breakeven, unsmoothed, irrigated corn ground.**Table 4.** Estimated irrigated cash rental rates, Western Kansas (\$ per acre).

Northwest	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Cheyenne	170	228	309	204	118	355	NASS
Decatur		228	264	243	160	388	prior
Graham	110	161	246	132	51	274	NASS
Norton		228	287	252	167	400	prior
Rawlins		202	232	214	134	355	prior
Sheridan	199	228	262	224	142	369	NASS
Sherman	193	246	290	232	147	380	NASS
Thomas	189	246	279	225	141	372	NASS

Southwest	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Finney	210	183	292	220	135	369	NASS

Southwest	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Ford	169	172	391	203	110	366	NASS
Grant		183	347	220	130	376	prior
Gray	154	140	367	168	77	328	NASS
Hamilton		183	253	211	129	354	prior
Haskell	145	197	432	174	78	343	NASS
Hodgeman		141	235	169	89	310	prior
Kearny	204	231	276	233	149	379	NASS
Meade		183	493	220	118	398	prior
Morton		146	268	175	92	321	prior
Seward	137	153	387	164	72	327	NASS
Stanton	101	154	312	121	35	273	NASS
Stevens	131	158	358	157	67	316	NASS

West Central	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Gove		162	191	173	97	308	prior
Greeley		162	261	194	112	339	prior
Lane		162	189	173	96	307	prior
Logan	130	162	227	156	76	296	NASS
Ness		141	185	159	83	292	prior
Scott	115	147	268	138	55	283	NASS
Wallace		162	245	194	113	337	prior
Wichita		162	250	194	113	337	prior

What the columns mean. *Raw 2027* is the breakeven the model produces on its own. *KSU 2027* is the published estimate after anchoring. **Low** and **High** bracket the published estimate and are *price scenarios, not a confidence interval*: the estimate recomputed with corn at the 10th and 90th percentile of the USDA-ERS forecast's own historical error distribution, with yields held at trend. **Anchor** records which evidence was available. **NASS** is the 2026 irrigated survey, **prior** the 2025 KSU estimate, and **none** neither, in which case the raw breakeven is published unchanged. At the prices forecast for 2027 the farm programs are far out of the money on irrigated corn: ARC-CO and PLC together pay about \$0.05 per

acre at the mid forecast and about \$0.32 even at the 10th percentile, so the Low column should be read as a genuine downside rather than one softened by program payments. These estimates assume the landlord owns the irrigation system; a tenant who owns it subtracts the capital recovery in Table 8.

Table 5. Estimated irrigated cash rental rates, Central Kansas (\$ per acre).

Central	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Barton	135	173	374	162	73	319	NASS
Dickinson		155	248	186	107	326	prior
Marion	102	154	240	122	43	261	NASS
McPherson	152	202	408	182	90	344	NASS
Rice	164	191	358	197	109	351	NASS
Rush		154	293	185	100	334	prior
Saline			204	204	128	337	none

	NASS						
North Central	2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Clay		238	434	286	191	452	prior
Cloud	236	248	372	283	193	441	NASS
Jewell		270	423	324	230	489	prior
Mitchell	148	174	272	178	96	321	NASS
Osborne		193	289	231	148	377	prior
Ottawa		204	250	222	143	362	prior
Phillips		270	270	270	191	416	prior
Republic	237	270	437	284	189	451	NASS
Smith		201	225	211	133	347	prior
Washington		216	383	259	168	418	prior

	NASS						
South Central	2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Edwards	167	216	384	200	108	363	NASS

South Central	NASS						
	2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Harvey		207	368	248	160	404	prior
Kingman		152	362	182	94	337	prior
Kiowa		209	429	251	155	419	prior
Pawnee		213	324	256	168	409	prior
Pratt	150	221	422	180	87	344	NASS
Reno	181	211	386	217	127	376	NASS
Sedgwick	169	221	373	203	114	359	NASS
Stafford	151	182	376	181	92	338	NASS
Sumner		193	327	232	146	381	prior

What the columns mean. *Raw 2027* is the breakeven the model produces on its own. *KSU 2027* is the published estimate after anchoring. **Low** and **High** bracket the published estimate and are *price scenarios, not a confidence interval*: the estimate recomputed with corn at the 10th and 90th percentile of the USDA-ERS forecast's own historical error distribution, with yields held at trend. **Anchor** records which evidence was available. **NASS** is the 2026 irrigated survey, **prior** the 2025 KSU estimate, and **none** neither, in which case the raw breakeven is published unchanged. At the prices forecast for 2027 the farm programs are far out of the money on irrigated corn: ARC-CO and PLC together pay about \$0.05 per acre at the mid forecast and about \$0.32 even at the 10th percentile, so the Low column should be read as a genuine downside rather than one softened by program payments. These estimates assume the landlord owns the irrigation system; a tenant who owns it subtracts the capital recovery in Table 8.

Table 6. Estimated irrigated cash rental rates, Eastern Kansas (\$ per acre).

East Central	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Geary		195	266	224	142	366	prior
Shawnee	201	195	280	233	149	379	NASS
Wabaunsee			314	314	227	465	none

Northeast	NASS 2026	KSU 2025	Raw 2027	KSU 2027	Low	High	Anchor
Brown		246	395	295	239	458	prior
Doniphan		232	310	263	238	374	prior
Marshall		246	324	277	209	428	prior
Pottawatomie			342	342	253	497	none

What the columns mean. *Raw 2027* is the breakeven the model produces on its own. *KSU 2027* is the published estimate after anchoring. **Low** and **High** bracket the published estimate and are *price scenarios, not a confidence interval*: the estimate recomputed with corn at the 10th and 90th percentile of the USDA-ERS forecast's own historical error distribution, with yields held at trend. **Anchor** records which evidence was available. **NASS** is the 2026 irrigated survey, **prior** the 2025 KSU estimate, and **none** neither, in which case the raw breakeven is published unchanged. At the prices forecast for 2027 the farm programs are far out of the money on irrigated corn: ARC-CO and PLC together pay about \$0.05 per acre at the mid forecast and about \$0.32 even at the 10th percentile, so the Low column should be read as a genuine downside rather than one softened by program payments. These estimates assume the landlord owns the irrigation system; a tenant who owns it subtracts the capital recovery in Table 8.

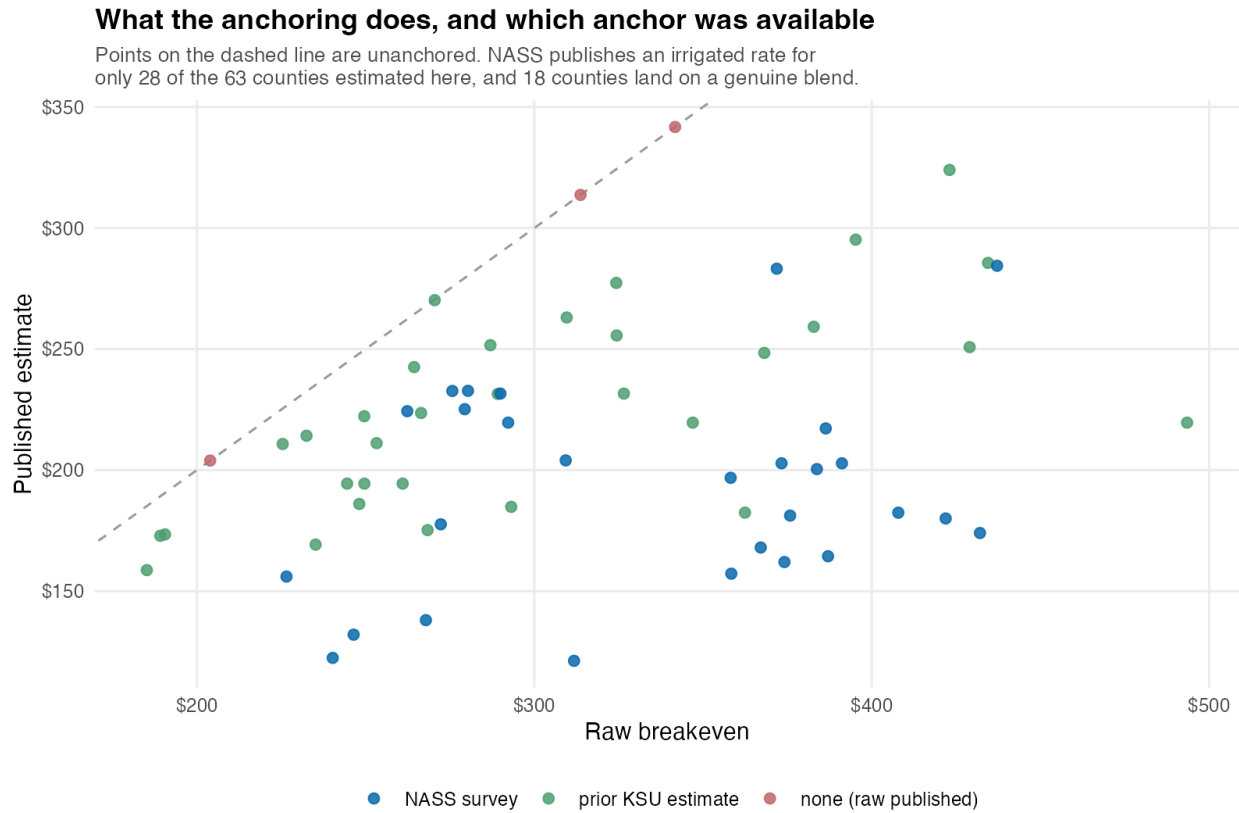


Figure 4. Raw breakeven against the published estimate, by county, colored by which anchor was available.

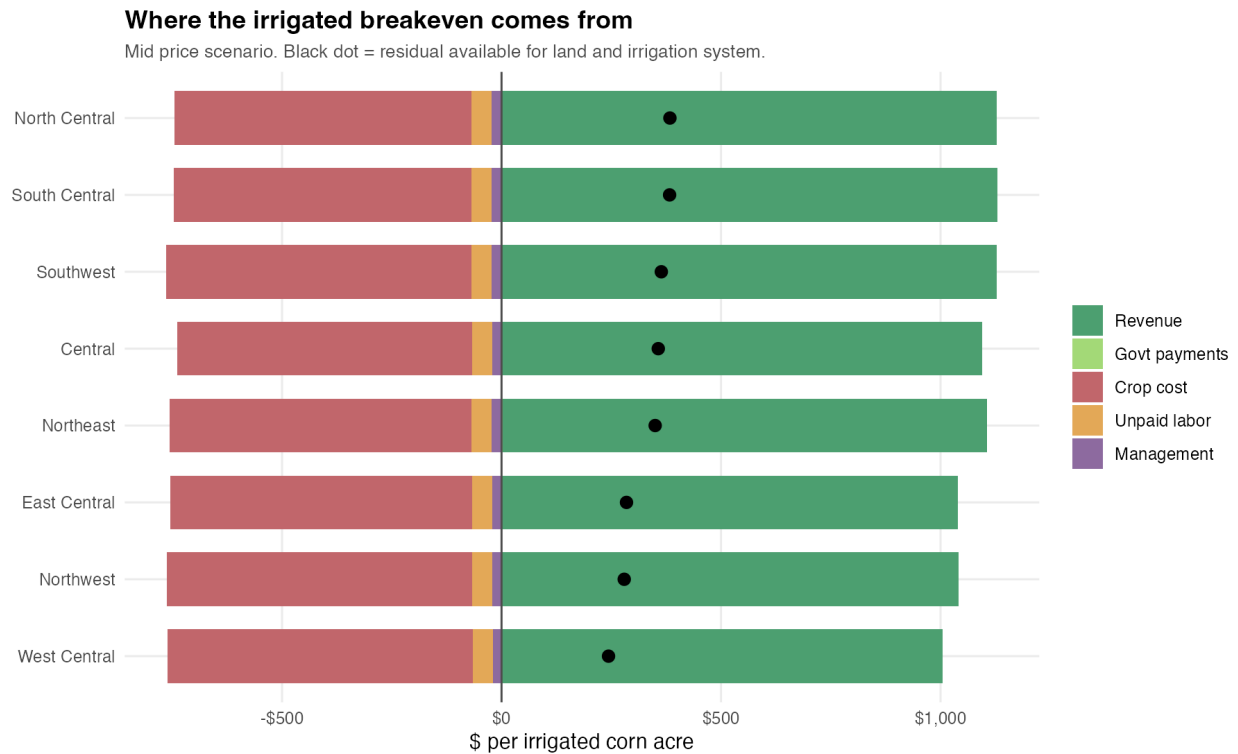


Figure 5. Where the irrigated breakeven comes from: revenue, payments and costs by district.

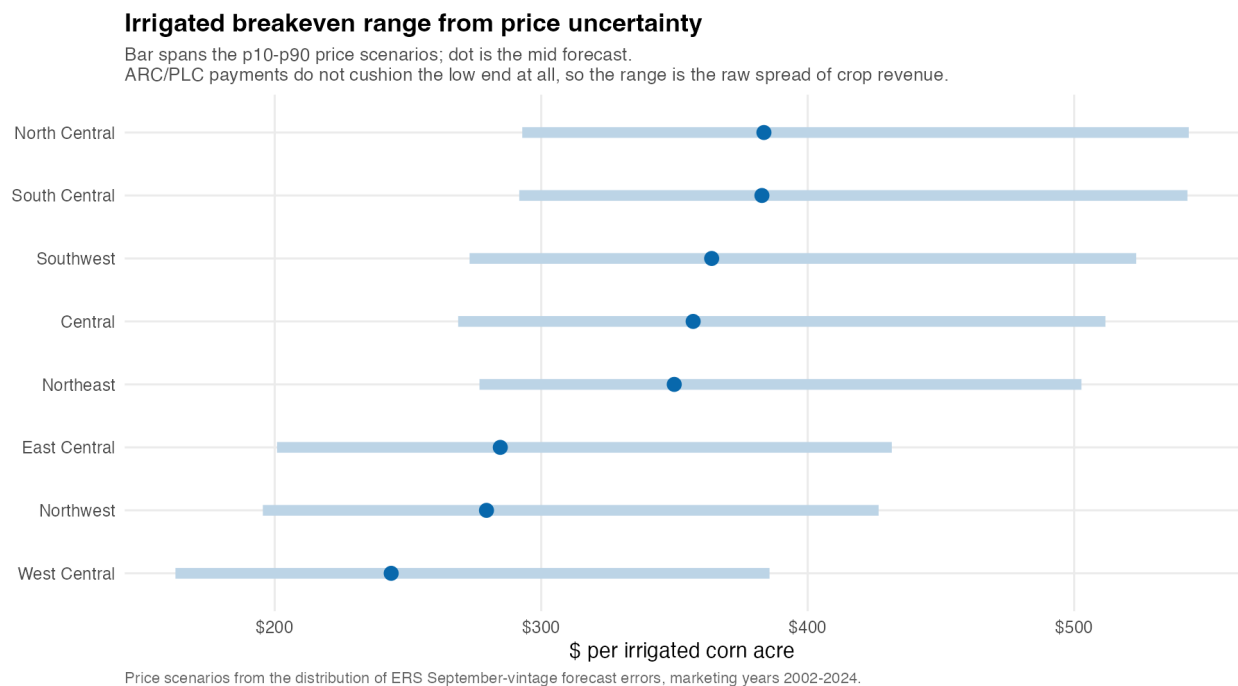


Figure 6. Irrigated breakeven range implied by price forecast uncertainty.

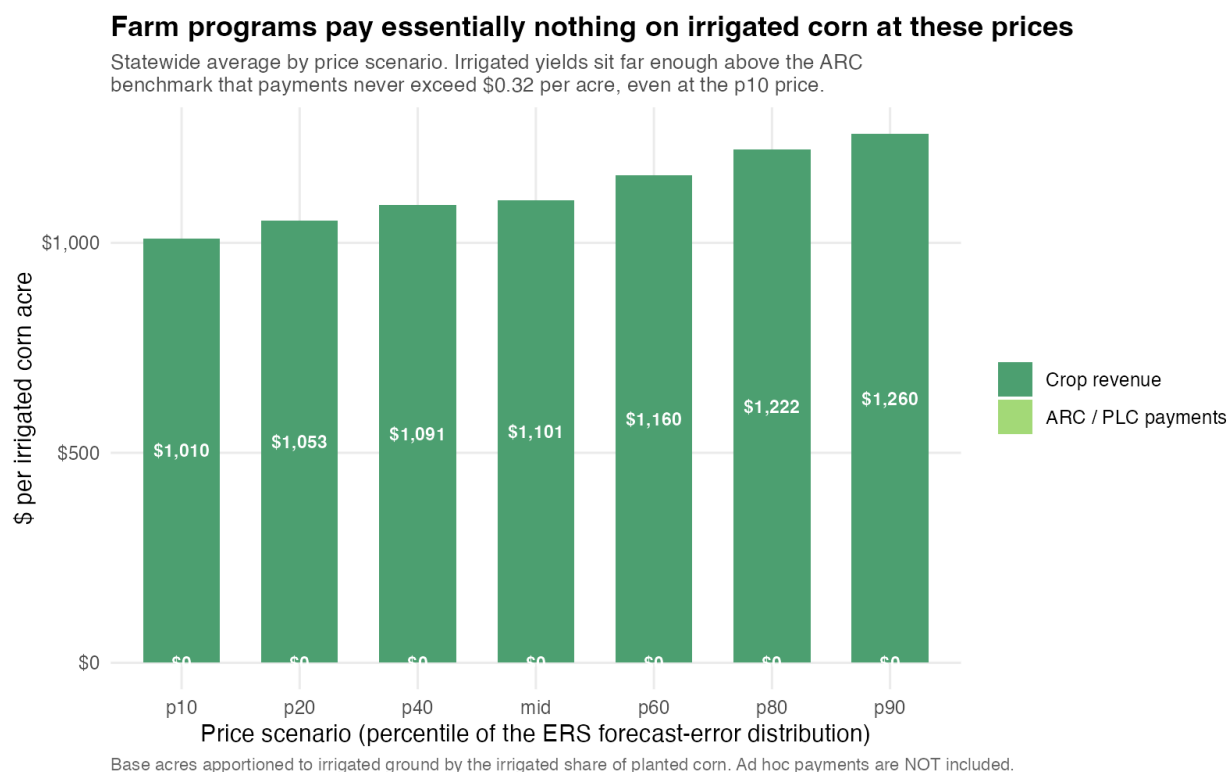


Figure 7. ARC-CO and PLC payments on irrigated corn, by price scenario.

Table 7. Comparison of KSU and NASS irrigated estimates by crop reporting district (\$ per acre).

Crop reporting district	Counties	Raw breakeven	NASS 2026	KSU 2027
Northeast	4	350		317
North Central	10	384	230	272
East Central	3	285	201	245
Northwest	8	279	187	222
South Central	10	383	162	211
Southwest	13	364	156	185
Central	7	357	147	178
West Central	8	244	118	177

Table 8. Irrigation equipment capital recovery and pumping assumptions, from the K-State irrigated corn budgets. These estimates assume the LANDLORD owns the system, so capital recovery is not charged against the tenant's residual. A tenant who owns the equipment subtracts it. Two figures are shown. *New* is the budgets' own charge, on replacement cost. *Depr.* charges only the components still within their useful life, and is the right figure to subtract: the 2025 lease survey finds wells averaging 36 years against a 26-year life and pumps 24 against 13, while center pivots at 16 against 25 are still in service. Both cover the pivot, power unit, well, pump and gearhead only, and exclude the field machinery that is already charged in the crop cost (\$ per acre).

Region	Well depth (ft)	Water applied (in)	Irrigation energy	New	Depr.
North Central	150	13.5	23.03	160.06	85.26
Northwest	300	14	42.14	205.9	91.72
South Central	150	14.5	24.73	160.06	85.26
Southwest	300	15	45.15	205.9	91.72

Table 9. 2027 KSU irrigated estimates across the price ladder, Western Kansas (\$ per acre).

	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
Northwest							
Cheyenne	170		158	195	204	261	319
Decatur			198	233	243	297	353
Graham	110		89	123	132	185	240
Norton			206	242	252	307	365
Rawlins			171	205	214	267	321
Sheridan	199		180	215	224	278	335
Sherman	193		186	222	232	287	345
Thomas	189		180	216	225	280	337

	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
Southwest							
Finney	210		174	210	220	275	333
Ford	169		153	193	203	264	327
Grant			172	210	220	278	339
Gray	154		119	158	168	228	290
Hamilton			167	202	211	265	320
Haskell	145		122	163	174	237	303
Hodgeman			126	160	169	222	276
Kearny	204		188	224	233	287	344
Meade			165	208	220	286	355
Morton			131	166	175	230	286
Seward	137		115	154	164	225	288
Stanton	101		75	112	121	178	237
Stevens	131		109	147	157	216	278

	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
West Central							
Gove			132	165	173	224	276
Greeley			150	185	194	248	304
Lane			132	164	173	223	275
Logan	130		113	147	156	208	262
Ness			118	150	159	209	260
Scott	115		94	129	138	192	249
Wallace			151	186	194	248	303
Wichita			151	185	194	248	303

What the columns mean. NASS 2026 is the USDA-NASS county survey for irrigated cropland, and the line beside it is that county's survey for 2020 through 2026, the same series the estimate is anchored to. It is there so the published figure can be read against the path the survey has taken rather than against a single year of it. Each line is scaled to its own

county's range and the dot marks the most recent survey year, so the *shape* of a county's line is what it shows; the steepness of one county's line is not comparable with another's. NASS publishes an irrigated rate for far fewer counties than a non-irrigated one, so many rows carry no survey value, no line, or neither. A blank line means fewer than four survey years since 2020, and a dot short of the right edge means the county has a history but no 2026 value. The percentile columns are the published 2027 KSU estimate recomputed with corn priced at that percentile of the USDA-ERS forecast's own historical error distribution, yields held at trend. The **Median** column is the published estimate itself, unchanged from Tables 4 to 6. These are *price outcomes, not percentiles of rents actually paid*.

Table 10. 2027 KSU irrigated estimates across the price ladder, Central Kansas (\$ per acre).

Central	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
Barton	135		114	152	162	221	281
Dickinson			143	177	186	238	292
Marion	102		80	114	122	174	228
McPherson	152		133	172	182	243	305
Rice	164		150	187	197	255	314
Rush			139	175	185	241	298
Saline			163	196	204	254	306

North Central	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
Clay			235	275	286	348	413
Cloud	236		235	273	283	342	403
Jewell			274	314	324	386	450
Mitchell	148		134	169	178	231	287
Osborne			187	222	231	286	342
Ottawa			180	213	222	275	329
Phillips			226	261	270	325	381
Republic	237		234	274	284	347	412
Smith			169	202	211	262	315

	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
North Central							
Washington			211	249	259	319	380

	NASS 2026	NASS 2020-26	20%	40%	Median	60%	80%
South Central							
Edwards	167		151	190	200	261	324
Harvey			201	239	248	307	367
Kingman			135	173	182	240	300
Kiowa			199	240	251	314	379
Pawnee			209	246	256	313	373
Pratt	150		130	170	180	241	305
Reno	181		169	207	217	276	338
Sedgwick	169		155	193	203	261	322
Stafford	151		133	171	181	240	301
Sumner			186	222	232	288	346

What the columns mean. **NASS 2026** is the USDA-NASS county survey for irrigated cropland, and the line beside it is that county's survey for 2020 through 2026, the same series the estimate is anchored to. It is there so the published figure can be read against the path the survey has taken rather than against a single year of it. Each line is scaled to its own county's range and the dot marks the most recent survey year, so the *shape* of a county's line is what it shows; the steepness of one county's line is not comparable with another's. NASS publishes an irrigated rate for far fewer counties than a non-irrigated one, so many rows carry no survey value, no line, or neither. A blank line means fewer than four survey years since 2020, and a dot short of the right edge means the county has a history but no 2026 value. The percentile columns are the published 2027 KSU estimate recomputed with corn priced at that percentile of the USDA-ERS forecast's own historical error distribution, yields held at trend. The **Median** column is the published estimate itself, unchanged from Tables 4 to 6. These are *price outcomes, not percentiles of rents actually paid*.

Table 11. 2027 KSU irrigated estimates across the price ladder, Eastern Kansas (\$ per acre).

	NASS	NASS					
East Central	2026	2020-26	20%	40%	Median	60%	80%
Geary			180	215	224	277	332
Shawnee	201		188	224	233	287	344
Wabaunsee			268	304	314	370	429

	NASS	NASS					
Northeast	2026	2020-26	20%	40%	Median	60%	80%
Brown			251	285	295	356	419
Doniphan			250	260	263	283	339
Marshall			231	268	277	334	392
Pottawatomie			294	332	342	400	460

What the columns mean. **NASS 2026** is the USDA-NASS county survey for irrigated cropland, and the line beside it is that county's survey for 2020 through 2026, the same series the estimate is anchored to. It is there so the published figure can be read against the path the survey has taken rather than against a single year of it. Each line is scaled to its own county's range and the dot marks the most recent survey year, so the *shape* of a county's line is what it shows; the steepness of one county's line is not comparable with another's. NASS publishes an irrigated rate for far fewer counties than a non-irrigated one, so many rows carry no survey value, no line, or neither. A blank line means fewer than four survey years since 2020, and a dot short of the right edge means the county has a history but no 2026 value. The percentile columns are the published 2027 KSU estimate recomputed with corn priced at that percentile of the USDA-ERS forecast's own historical error distribution, yields held at trend. The **Median** column is the published estimate itself, unchanged from Tables 4 to 6. These are *price outcomes*, *not percentiles of rents actually paid*.