Managing Farm Expenses

2026 Ag Profitability Webinar
February 2026

GREGG IBENDAHL

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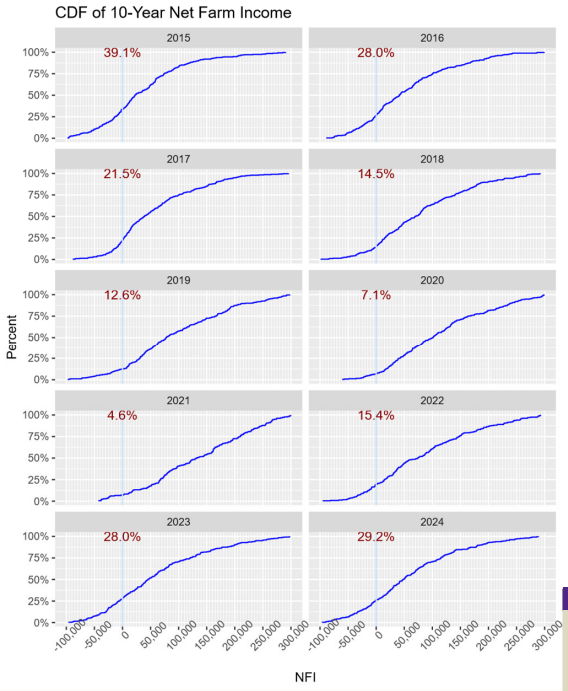
Kansas State University | Agricultural Economics

Distribution of NFI by year



How a CDF works

- A point on the blue line represents the % of farmers earning that NFI or lower
- The more horizontal the line the greater the range of NFI
- Lines to the right are better

Last year 30% of farmers had negative NFI

- 2nd worse year in 10
- This is even after significant extra government payments
- on the positive side, 70% of farmers had positive NFI

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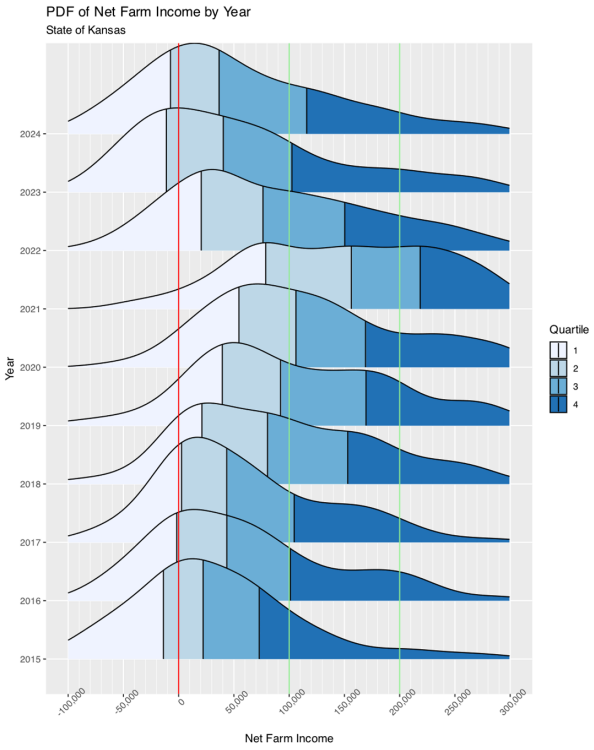


Same information as previous slide but as a PDF

Producers would certainly like to see more years like 2020 and 2021

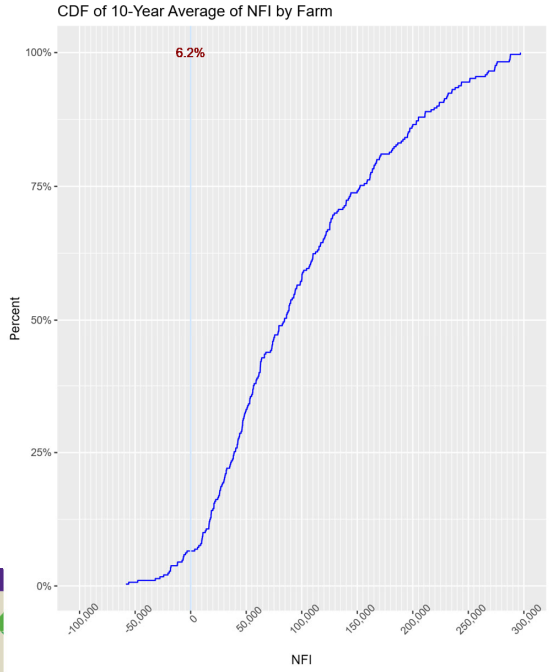
2021 had more than a quarter of farms earn more than $200,000

Any improvement in 2025 and 2026?

Maybe

- While grain prices remain low, more ad hoc payments
- Changes in OB3 could greatly increase 2026 NFI

Distribution of NFI – 10 yr combined

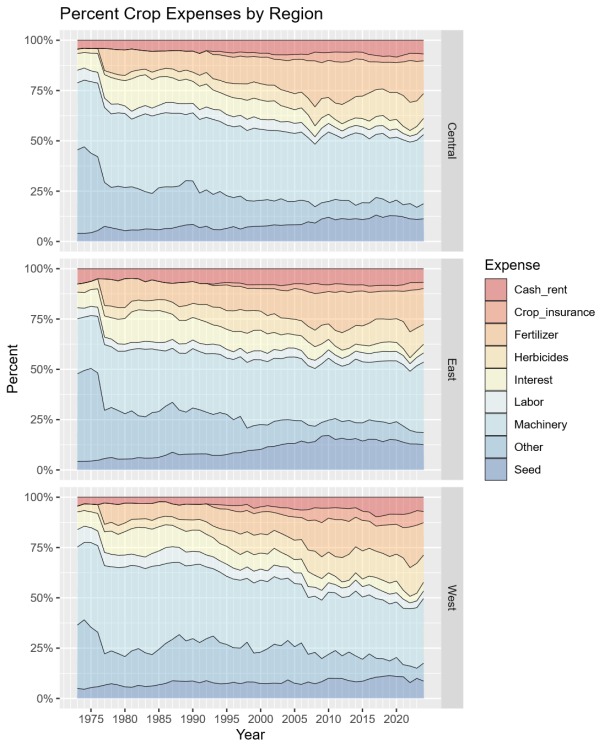


When averaged across 10 years, most farms are doing OK

- Based on a panel dataset (consistent set of farms)

There may be motives other than profit contributing to the 6% of farms with a negative 10-yr NFI

The median NFI over 10-years was about $75,000 per year



Machinery is largest expense

2024 for central Kansas

Machinery	34% of total expenses
Fertilizer	16%
Herbicides	12% (only 2% in ‘78)
Seeds	11% (only 6% in ‘78)
Cash rent	7%
Interest	5% (13% in ‘78)
Crop insurance	3%
Labor	3%
Other	8%

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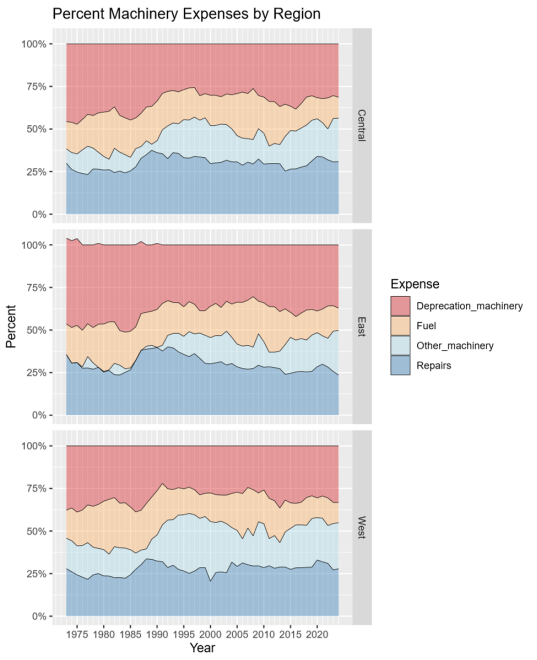
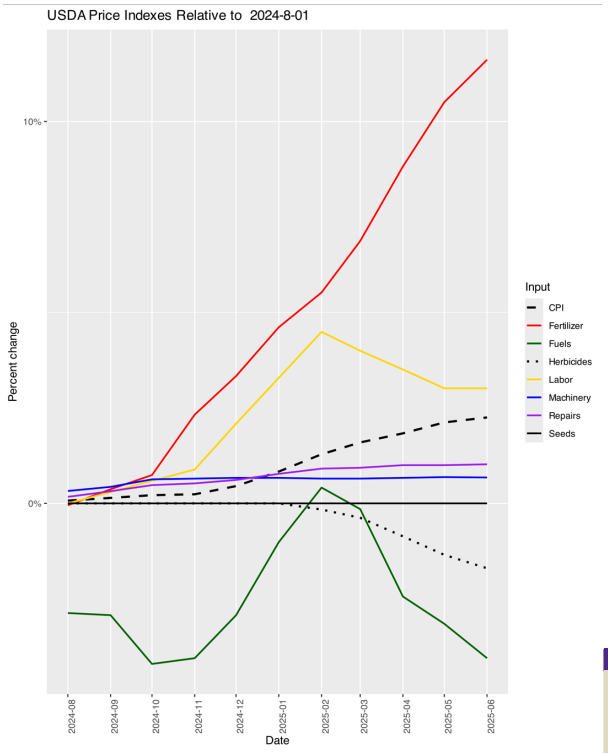
Focus on Machinery Expenses

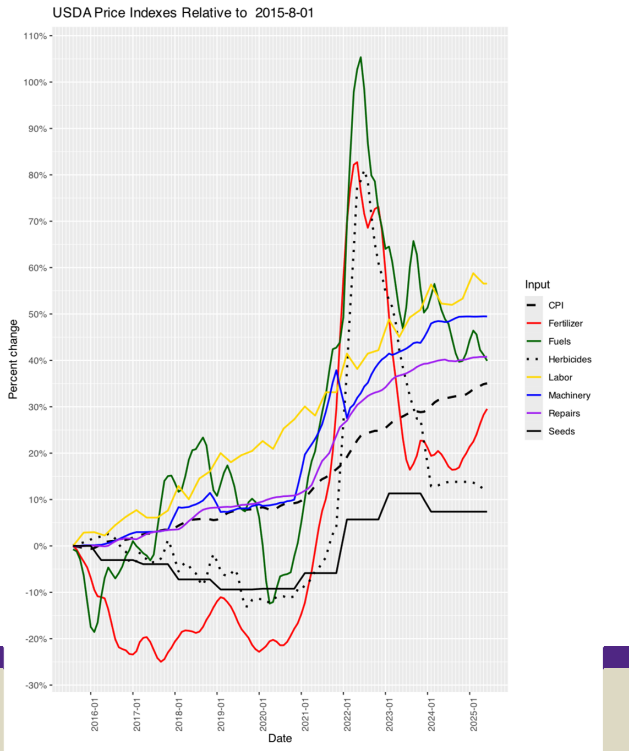


Comparison of Machinery Expenses by Area

Percent of Total Machinery Expenses - 1978 and 2024

Year	Depreciation	Fuel	Repairs	Other
Central				
1978	42.1%	19.1%	26.5%	12.3%
2024	31.3%	12.3%	30.8%	25.6%
East				
1978	48.5%	20.7%	27.0%	3.8%
2024	37.2%	13.0%	23.6%	26.2%
West				
1978	35.5%	24.0%	24.3%	16.3%
2024	33.2%	11.9%	27.9%	27.0%





Ability to control expenses

Machinery – Purchase strategy and timing (Don't need to buy every year)

Fertilizer – Price taker (so somewhat limited)

- N will likely need every year (for corn, wheat, grain sorghum)
- P and K – can sometimes skip years (soil testing recommended)
- Lime – apply based on soil tests
- Crop choice can make a big difference! (no N for soybeans)

Herbicides – limited

- Owning your own sprayer can be an advantage to custom operation (high machinery cost)

Seeds – limited

Cash rent – ability to negotiate so opportunities exist to change rental rates

Interest – based on amount of debt capital employed

Crop insurance – based on coverage level chosen

Labor – limited (mechanization vs manpower)

Options for Machinery

Purchase
- Replace frequently
- Replace something every year
- Replace when cash is available
- Keep it forever
- Cost minimization

Lease

Rent

Custom Hire

Option 1: Purchase

Advantages
- Control over use of machine, easier management, timeliness
- Generally considered less expensive in the long run
- Tax advantages – 179 depreciation can significantly lower NFI in high income years

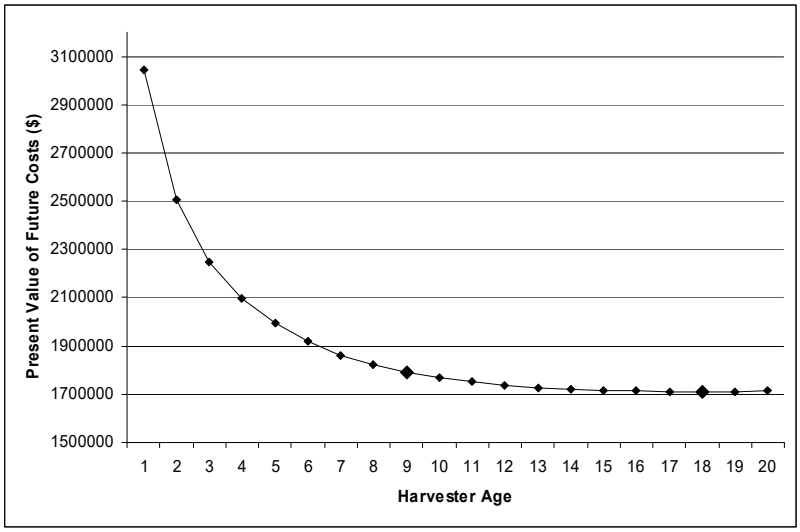
Disadvantages
- May require more cash up front, tie up capital
- Farmer pays for all operating expenses (labor, fuel, repairs, insurance, taxes)

Reasons to Replace

Cost minimization

- Rule of thumb: Replace when the annualized total cost of owning and operating the machine begins to increase
  - i.e., Depreciation and interest decrease over time while repairs increase and fuel costs stay constant
- Models are very sensitive to estimates
  - Requires some knowledge of future repairs
- Typical curves are very flat
  - i.e., wide possible range of replace ages

Example of cost minimization



Reason to Replace (cont)

Reliability

- Previous cost minimization left this out
- Ability to get crop planted or harvested at the optimal times
  - Small harvest windows
  - Weather damage the longer crop stays in the field
- Difficult to measure
  - Intuition?

Reason to Replace (cont)

Other

- Pride of ownership
- New technology
- Need for capacity

Option 2: Rent

Advantages
- Short-term contract (hours, days, weeks, or months)
- Low capital commitment
- Better control over machine operation

Disadvantages
- The number of rental companies might be limited
- Farmer needs to operate machine
- May need insurance on machine

Option 3: Custom Hire

Advantages
- Producer not responsible for machine repairs, daily maintenance, selling machine, etc.
- Free up time and avoid hiring part-time help
  - i.e., Operator is part of package
- No long-term capital commitment
- Ideal for specialized work
- Know your costs in advance (no surprises)

Disadvantages
- Less control over timeliness and quality of work

Is there another option to this?

Your Build

$717,022.00 Total Suggested List Price *

Select | **Build** | Options | Attachments | Summary | Request a Quote

S7 600 Combine (MY2026)

List Price* USD	$717,022.00
Base Machine (327BH)	$717,022.00
Options	$0.00
Attachments & Accessories **	$0.00

Product Features

More Details

Photo is representative and will not reflect your configured product. Manufacturer's suggested price on base machine. Optional accessories and attachments as shown not included. Taxes, freight, setup, and delivery not included. See your dealer for available models, options, attachments and pricing. Product options and accessories

Of course you still need a header

$172,019.00 Total Suggested List Price *

Select | **Build** | Options | Attachments | Summary | Request a Quote

HDF 35 Hinged Frame Draper MY2026

List Price* USD	$172,019.00
Base Machine (804BH)	$172,019.00
Options	$0.00
Attachments & Accessories **	$0.00

Product Features

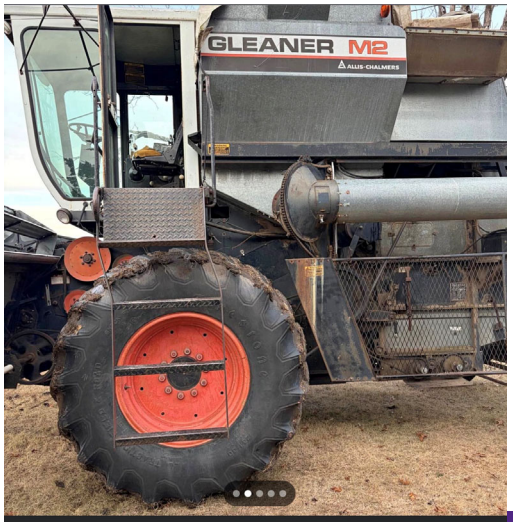
More Details

Photo is representative and will not reflect your configured product. Manufacturer's suggested price on base machine. Optional

717,000
172,000

889,000

Gleaner M2 – a Class 5 combine, is cheap



1977 M2 Gleaner Combine m2
$4,250 ~~$5,250~~
Listed 24 days ago · Abilene, KS

Description
1977 M2 Gleaner Combine M2

20′ rigid hdr
New ac compressor'23
Nice running machine, rpm gauge stopped working, probably an electrical issue, new feeder chain in '22.
Diesel engine

Questions to Consider

How much will it cost? (total cost *and* $/acre) Will the machine increase efficiency or profitability on my operation? Can my capital be used more profitably in other areas of my farm? (ROI)

Can I afford it? How much capital do I need? How will it impact my working capital and cash flow?

Are there tax advantages to owning? (Depends on your situation)

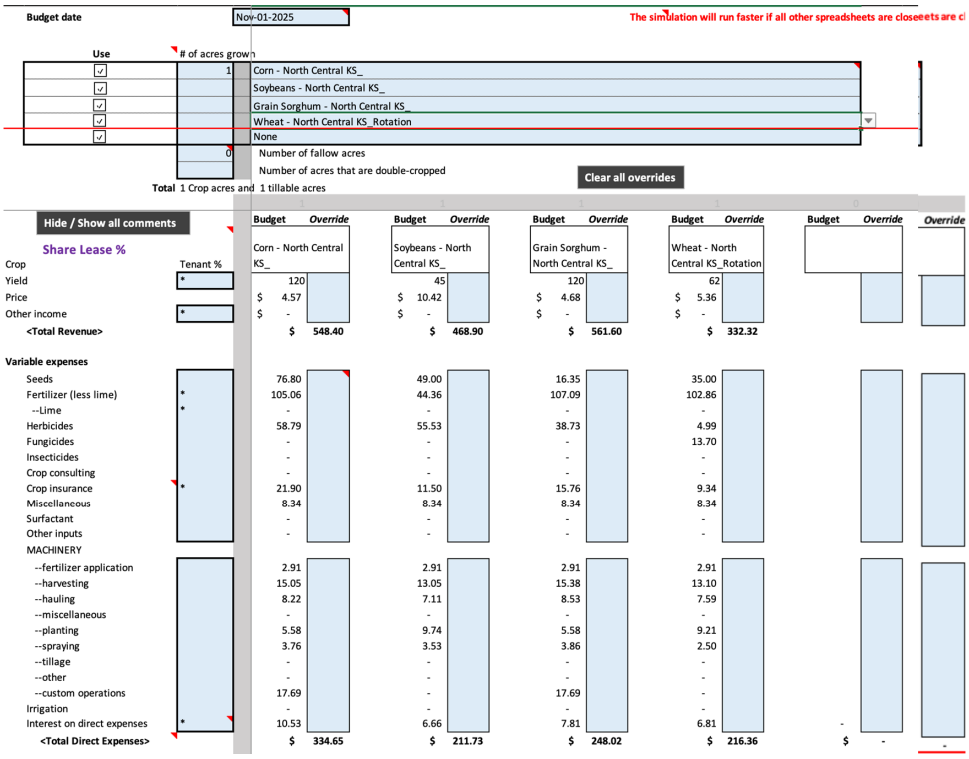
What about reliability and timeliness?

First, Make Sure Equipment is Running Well (before you do anything else)

Doing a poor job of planting or harvesting can be very expensive

2 kernels of corn per sq ft – 1 bu/ac

4 soybeans per sq ft – 1 bu/ac



Budget date Nov-01-2025 — The simulation will run faster if all other spreadsheets are closeets are cl

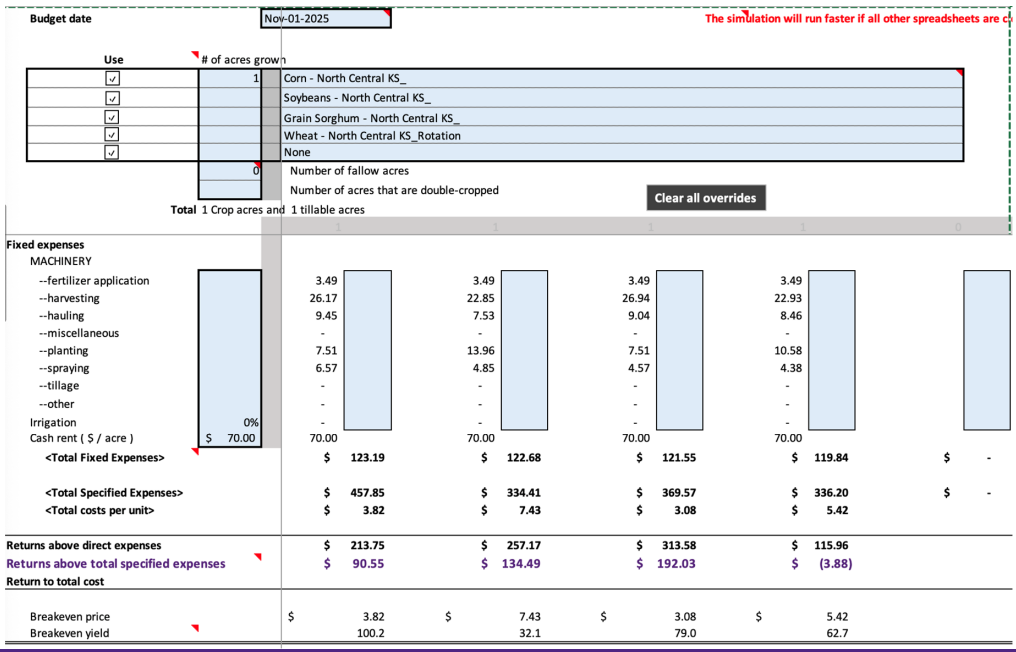
Use	# of acres grown	
☑	1	Corn - North Central KS_
☑		Soybeans - North Central KS_
☑		Grain Sorghum - North Central KS_
☑		Wheat - North Central KS_Rotation
☑		None
	0	Number of fallow acres
		Number of acres that are double-cropped

Total 1 Crop acres and 1 tillable acres — Clear all overrides

Hide / Show all comments

Share Lease %

Crop	Tenant %	Budget	Override	Budget	Override	Budget	Override	Budget	Override	Budget	Override	Override
		Corn - North Central KS_		Soybeans - North Central KS_		Grain Sorghum - North Central KS_		Wheat - North Central KS_Rotation				
Yield	*	120		45		120		62				
Price		$ 4.57		$ 10.42		$ 4.68		$ 5.36				
Other income	*	$ -		$ -		$ -		$ -				
<Total Revenue>		**$ 548.40**		**$ 468.90**		**$ 561.60**		**$ 332.32**				
Variable expenses												
Seeds	*	76.80		49.00		16.35		35.00				
Fertilizer (less lime)	*	105.06		44.36		107.09		102.86				
--Lime	*	-		-		-		-				
Herbicides		58.79		55.53		38.73		4.99				
Fungicides		-		-		-		13.70				
Insecticides		-		-		-		-				
Crop consulting		-		-		-		-				
Crop insurance	*	21.90		11.50		15.76		9.34				
Miscellaneous		8.34		8.34		8.34		8.34				
Surfactant		-		-		-		-				
Other inputs		-		-		-		-				
MACHINERY												
--fertilizer application		2.91		2.91		2.91		2.91				
--harvesting		15.05		13.05		15.38		13.10				
--hauling		8.22		7.11		8.53		7.59				
--miscellaneous		-		-		-		-				
--planting		5.58		9.74		5.58		9.21				
--spraying		3.76		3.53		3.86		2.50				
--tillage		-		-		-		-				
--other		-		-		-		-				
--custom operations		17.69		-		17.69		-				
Irrigation		-		-				-				
Interest on direct expenses	*	10.53		6.66		7.81		6.81		-		
<Total Direct Expenses>		**$ 334.65**		**$ 211.73**		**$ 248.02**		**$ 216.36**		**$ -**		-



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☑		Wheat - North Central KS_Rotation
☑		None
	0	Number of fallow acres
		Number of acres that are double-cropped

Total 1 Crop acres and 1 tillable acres — Clear all overrides

Fixed expenses												
MACHINERY												
--fertilizer application			3.49		3.49		3.49		3.49			
--harvesting			26.17		22.85		26.94		22.93			
--hauling			9.45		7.53		9.04		8.46			
--miscellaneous			-		-		-		-			
--planting			7.51		13.96		7.51		10.58			
--spraying			6.57		4.85		4.57		4.38			
--tillage			-		-		-		-			
--other			-		-		-		-			
Irrigation		0%	-		-		-		-			
Cash rent ($ / acre)		$ 70.00	70.00		70.00		70.00		70.00			
<Total Fixed Expenses>			**$ 123.19**		**$ 122.68**		**$ 121.55**		**$ 119.84**		**$ -**	
<Total Specified Expenses>			**$ 457.85**		**$ 334.41**		**$ 369.57**		**$ 336.20**		**$ -**	
<Total costs per unit>			**$ 3.82**		**$ 7.43**		**$ 3.08**		**$ 5.42**			
Returns above direct expenses			**$ 213.75**		**$ 257.17**		**$ 313.58**		**$ 115.96**			
Returns above total specified expenses			**$ 90.55**		**$ 134.49**		**$ 192.03**		**$ (3.88)**			
Return to total cost												
Breakeven price			$ 3.82		$ 7.43		$ 3.08		$ 5.42			
Breakeven yield			100.2		32.1		79.0		62.7			

KSU Crop budget Issues

KSU Crop Budgets

- Kansas Farm Management Guides KSU Ag Economics – *2016-2026 Projections*

Key Issues with KSU Crop Budgets

- Direct (Variable) versus Fixed Costs
  - Direct Variable Cash Costs *vs* Fixed Costs of Land, Machinery & Family Living

Key Principle – *Covering Direct Costs vs Full Economic Costs*

- To continue producing crops as long as ***Price$ > Direct Costs***

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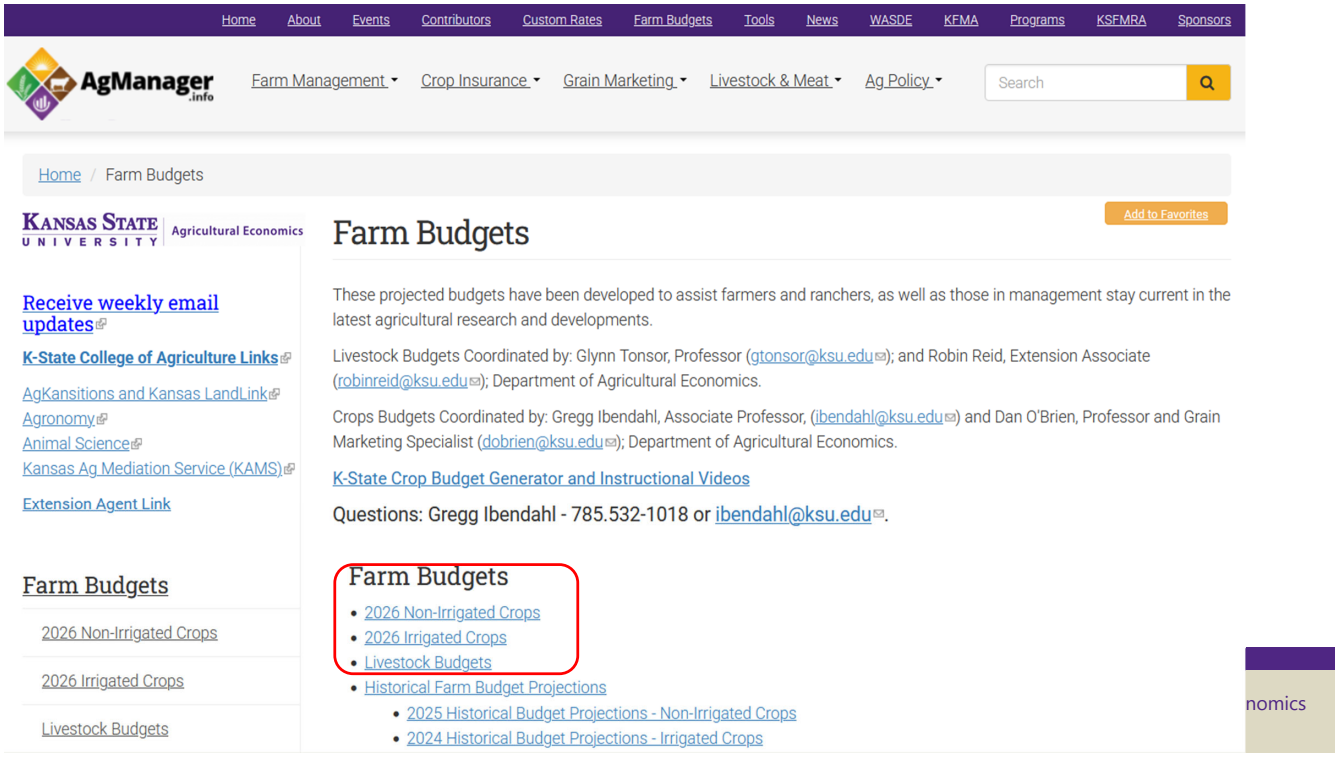


2026 Soybean Cost-Return Budget in Southeast Kansas
----- - MIDDLE YIELDS

Budget abstract

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Date: Nov-01-2025

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Soybeans - Southeast KS	bu	$10.59	45.00	$476.55	$476.55	_____
--TOTAL INCOME--					$476.55	_____
DIRECT EXPENSES						
Additional labor					$1.82	_____
Crop insurance					$13.27	_____
Diesel					$14.21	_____
Fertilizers					$61.26	_____
Herbicides					$32.49	_____
Miscellaneous					$8.98	_____
Operator labor					$10.60	_____
Repair & Maintenance					$17.96	_____
Seeds					$45.50	_____
Interest on operating capital	6.5% percent on direct expenses				$6.70	_____
--TOTAL DIRECT EXPENSES--					$212.79	
----------Total direct expenses per bu $4.73						
FIXED EXPENSES						
Cash rent					$44.00	_____
Capital recovery (depreciation + interest)					$63.93	_____
--TOTAL FIXED EXPENSES--					$107.93	
----------Total expenses per bu $7.13						
RETURNS ABOVE DIRECT EXPENSES					$263.76	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					$155.83	

2026 Soybean Cost-Return Budget in Southeast Kansas
----- - MIDDLE YIELDS

Summary page(s)

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Date: Nov-01-2025

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Soybeans - Southeast KS	bu	$10.59	45.00	$476.55	$476.55	_____
--TOTAL INCOME--					$476.55	_____
DIRECT EXPENSES						
Additional labor						
Fertilizer application				$0.20		
Planting				$1.04		
Spraying				$0.58	$1.82	_____
Crop insurance						
-----				$13.27	$13.27	_____
Diesel						
Fertilizer application				$0.68		
Harvesting				$4.59		
Hauling				$2.68		
Planting				$1.76		
Spraying				$1.53		
Tillage				$2.97	$14.21	_____
Fertilizers						
Nitrogen	lbs	$0.00	7.00	$0.00		
Phosphorus	lbs	$0.89	33.00	$29.36		
Potassium	lbs	$0.41	54.00	$21.91		
Lime	lbs	$0.03	333.00	$9.99	$61.26	_____
Herbicides						
Burndown				$6.55		
Post-emergence				$3.71		
Pre-emergence				$22.23	$32.49	_____

2026 Soybean Cost-Return Budget in Southeast Kansas

----- - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Detailed budget page(s)

Date: Nov-01-2025

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Soybeans - Southeast KS	bu	$10.59	45.00	$476.55	$476.55	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					$476.55	_____
DIRECT EXPENSES						
Additional labor						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	$22.00	0.01	$0.20		
Planting						
Plant - Folding_32R-15 with Tractor(200-249hp)CB	hour	$22.00	0.05	$1.04		
Spraying						
Sprayer 600-750gal_60' 175hp with Sprayer 600-750gal	hour	$22.00	0.03	$0.58	$1.82	_____
Crop insurance						

Soybeans _SE_Dry	acre	$13.27	1.00	$13.27	$13.27	_____
Diesel						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	gal	$3.22	0.21	$0.68		
Harvesting						
Header -Soybean_30' Flex with Combine (300-349 hp)	gal	$3.22	1.42	$4.59		
Hauling						
Grain Cart Soybean_700 bu with Tractor(180-199hp)CB	gal	$3.22	0.83	$2.68		
Planting						
Plant - Folding_32R-15 with Tractor(200-249hp)CB	gal	$3.22	0.55	$1.76		
Spraying						
Sprayer 600-750gal_60' 175hp with Sprayer 600-750gal	gal	$3.22	0.48	$1.53		
Tillage						
Chisel Plow-Folding_42' with Tractor(200-249hp)CB	gal	$3.22	0.51	$1.64		
Field Cultivate Fld_42' with Tractor(200-249hp)CB	gal	$3.22	0.41	$1.33	$14.21	_____
Fertilizers						
Pre-plant						
Lime	lb	$0.03	333.00	$9.99		
MAP (11-52-0)	lb	$0.47	63.00	$29.36		
Potash	lb	$0.24	90.00	$21.92	$61.26	_____
- - - ACTUAL POUNDS - 7 lb - N, 33 lb - P, 54 lb - K						

2024 Data - Kansas Enterprise Summary

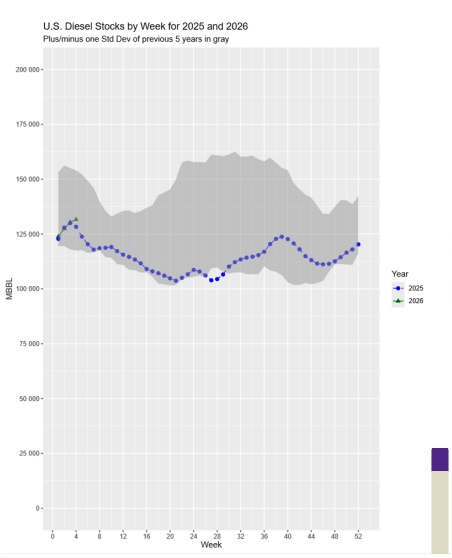
Kansas Farm Management Association
Annual ProfitLink Summary
NON-IRRIGATED SOYBEANS (ALL FARMS)

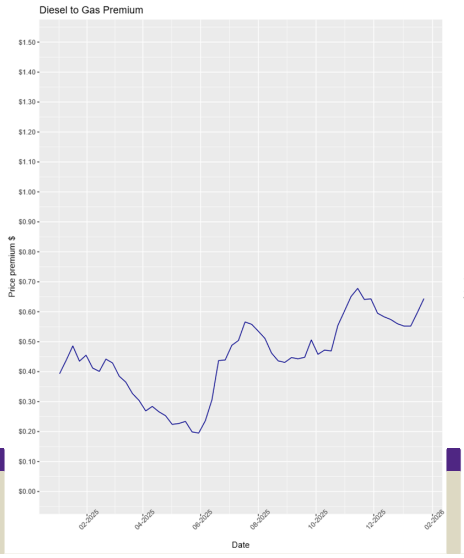
	2019 - 2023				2024			
Number of Farms	209				122			
Crop Acres	542				619			
Acres Owned	116				182			
Acres Rented	426				437			
Yield/Acre	37.04				37.20			
Operator Percentage	84.32%				87.32%			
Gross Income/Acre	$413.39				$388.81			
Variable Cost/Acre	$272.66				$320.61			
Total Expense/Acre	$395.87				$482.89			
Gross Income/Bushels	$13.20				$11.94			
Total Expense/Bushels	$12.64				$14.82			
	Bushels	**Total $**	**$/Bush**	**$/Acre**	**Bushels**	**Total $**	**$/Bush**	**$/Acre**
INCOME (Operators Share)								
Soybeans	***16,972***	***$186,873.73***	***$11.01***	***$344.85***	***20,165***	***$200,435.65***	***$9.94***	***$323.78***
Patronage Refunds		1,312.75				2,033.97		
Government Payments		12,848.43				19,306.65		
Miscellaneous Income		869.00				29.97		
Crop Insurance Proceeds		22,213.35				18,576.21		
Grain Futures		-107.43				310.62		
Total Other Income		***$37,136.10***	***2.19***	***68.53***		***$40,257.41***	***2.00***	***65.03***
GROSS INCOME		**$224,009.84**	**$13.20**	**$413.39**		**$240,693.06**	**$11.94**	**$388.81**
EXPENSE (Operators Share)								
Seed/Other Crop Expense		30,385.93	1.79	56.07		37,278.04	1.85	60.22
Crop Insurance		7,045.77	0.42	13.00		8,523.16	0.42	13.77
Fertilizer/Lime		10,104.24	0.60	18.65		20,642.86	1.02	33.35
Machine Hire - Lease		4,634.20	0.27	8.55		4,583.36	0.23	7.40
Misc Crop Expense		351.48	0.02	0.65		546.75	0.03	0.88
Cash Farm Rent		18,042.14	1.06	33.29		24,286.54	1.20	39.23
Herbicide, Insecticide		32,245.30	1.90	59.51		36,863.70	1.83	59.55
Total Direct Expense		***$102,809.05***	***6.06***	***189.72***		***$132,724.42***	***6.58***	***214.40***
Repairs-Tools-Supplies		16,738.55	0.99	30.89		22,923.37	1.14	37.03
Gas, Fuel, Oil		7,819.85	0.46	14.43		10,161.81	0.50	16.41
Real Estate Tax		2,217.21	0.13	4.09		2,918.78	0.14	4.71
Depreciation		20,760.29	1.22	38.31		35,502.57	1.76	57.35
Auto Expense		182.71	0.01	0.34		215.59	0.01	0.35
Total Machinery & Facility Expense		***$47,718.61***	***2.81***	***88.06***		***$71,722.13***	***3.56***	***115.86***
Labor Hired		6,226.47	0.37	11.49		12,566.78	0.62	20.30

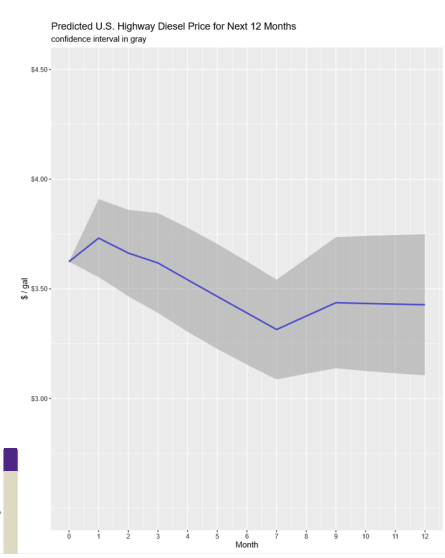
Predictions

(and things to worry about)

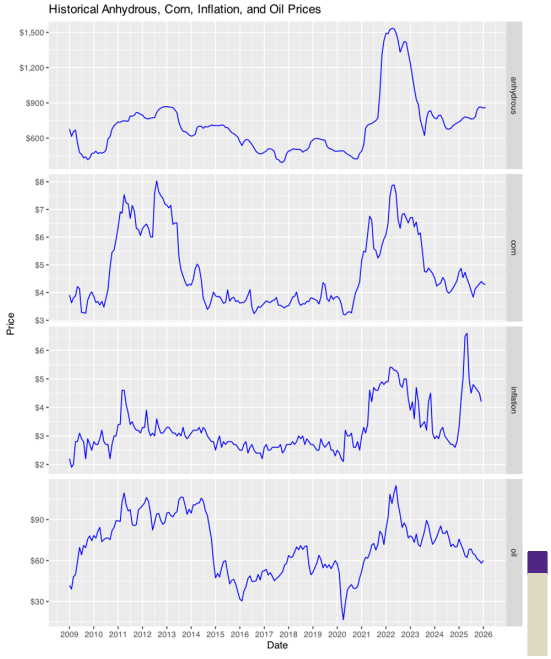
Diesel fuel

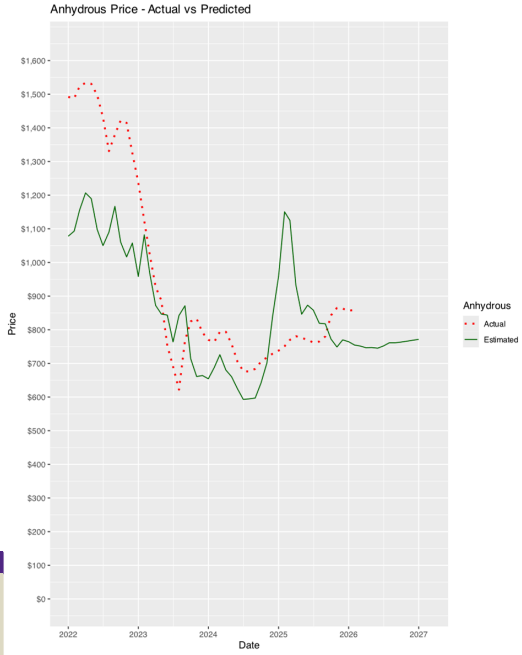






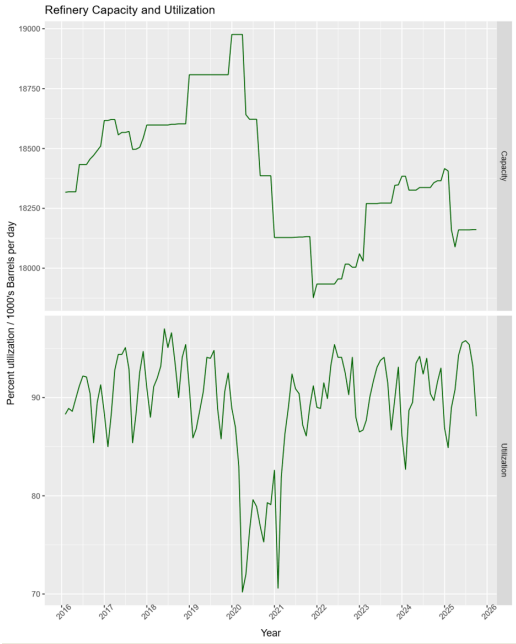
Fertilizer predictions





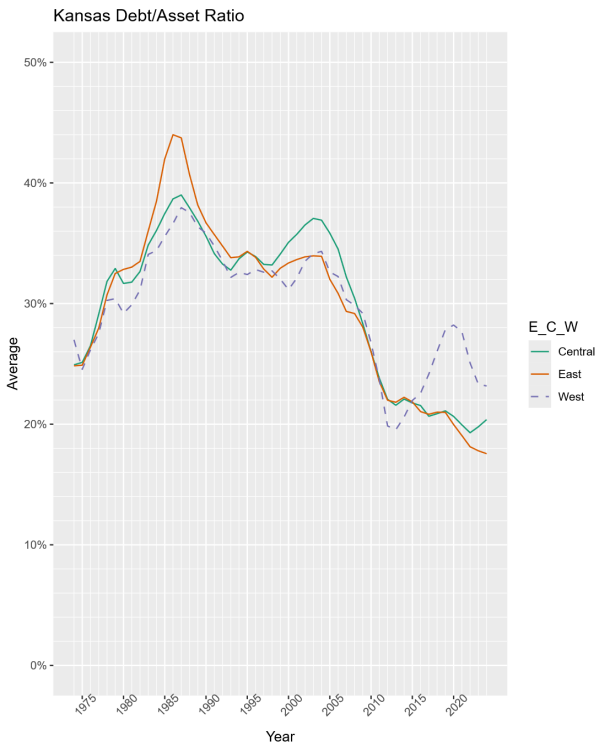
Worry – Is there much chance of lower fertilizer prices?

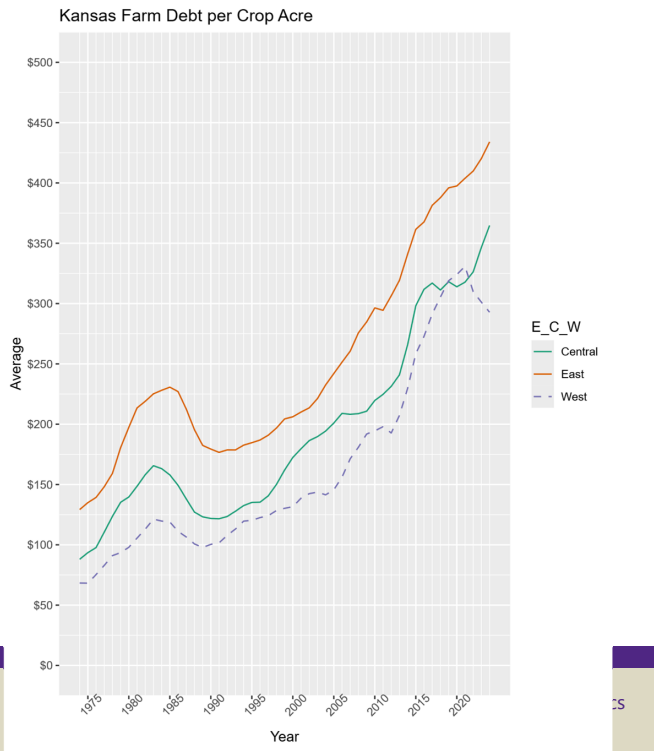
Why worry about diesel fuel?



Capacity is down and is not coming back

We are keeping 60 year old plants running at 90% utilization rates





Thank you!

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  - agricultural.substack.com