### Agriculture Update

ALLEN M. FEATHERSTONE KANSAS STATE UNIVERSITY





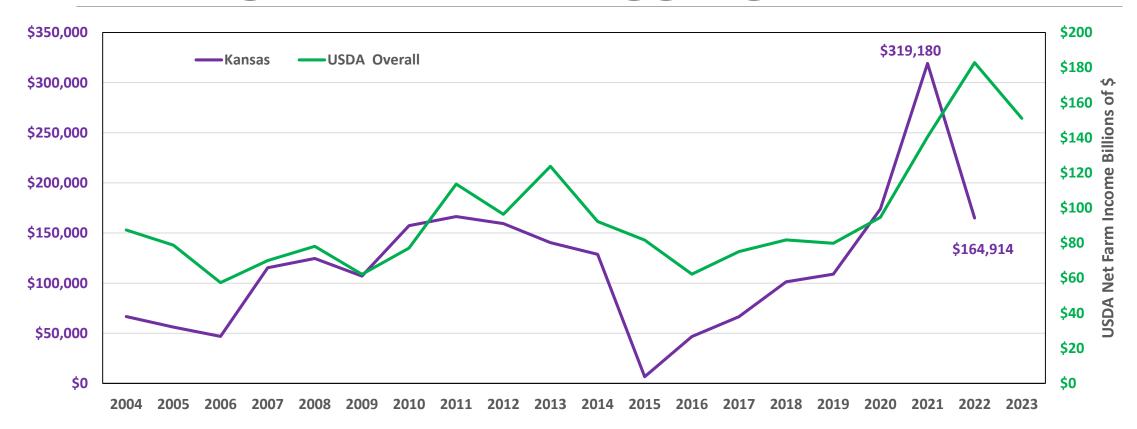
#### Introduction

- ❖A decent 2022 farm economy with a bit better 2023
- Net farm income
- **❖** Financial Situation
  - Probability of Default
  - Debt to Asset Ratio
  - **❖**Working Capital Position
  - Capital Debt Repayment Capacity
- \*2022, 2023, and 2024
- Land Prices





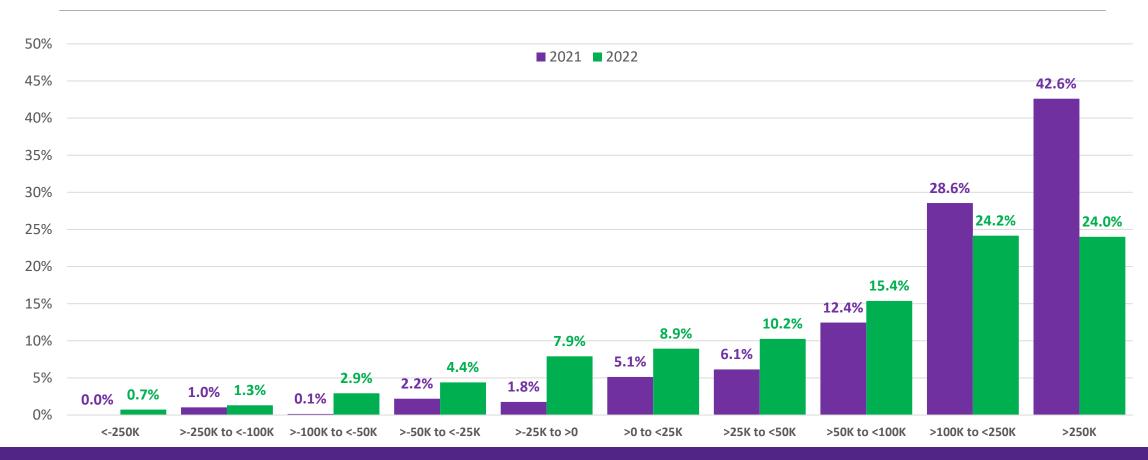
# Net Farm Income – Kansas Farm Management and Aggregate U.S.







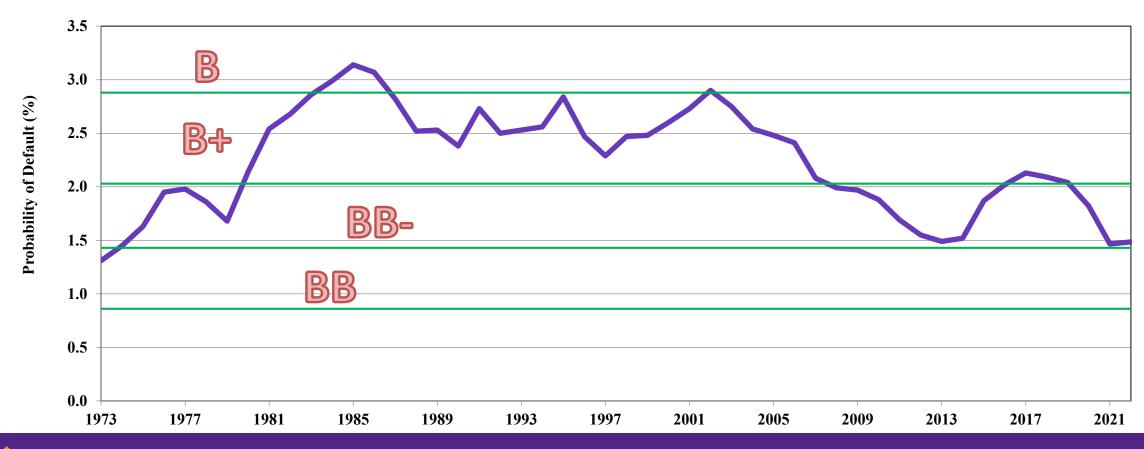
## Distribution of 2021 and 2022 Net Farm Income







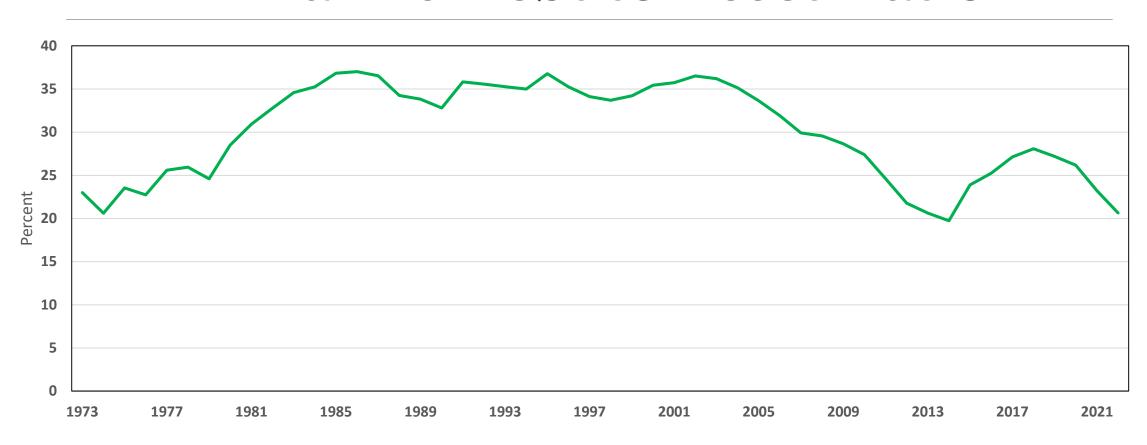
#### Default Risk for KFMA farms 1973 through 2022







#### KFMA Farms Debt to Asset Ratio







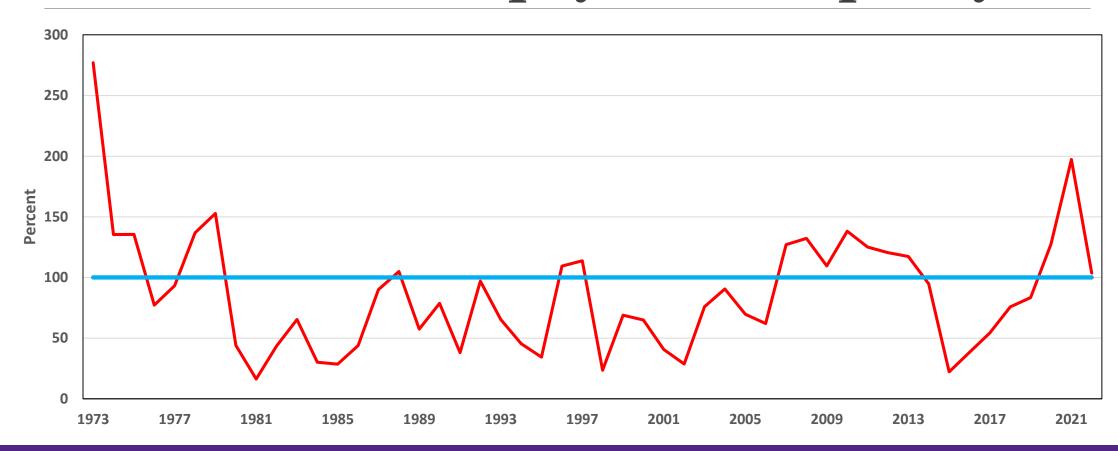
#### KFMA Farms Working Capital to Asset Ratio







#### KFMA Farms Repayment Capacity







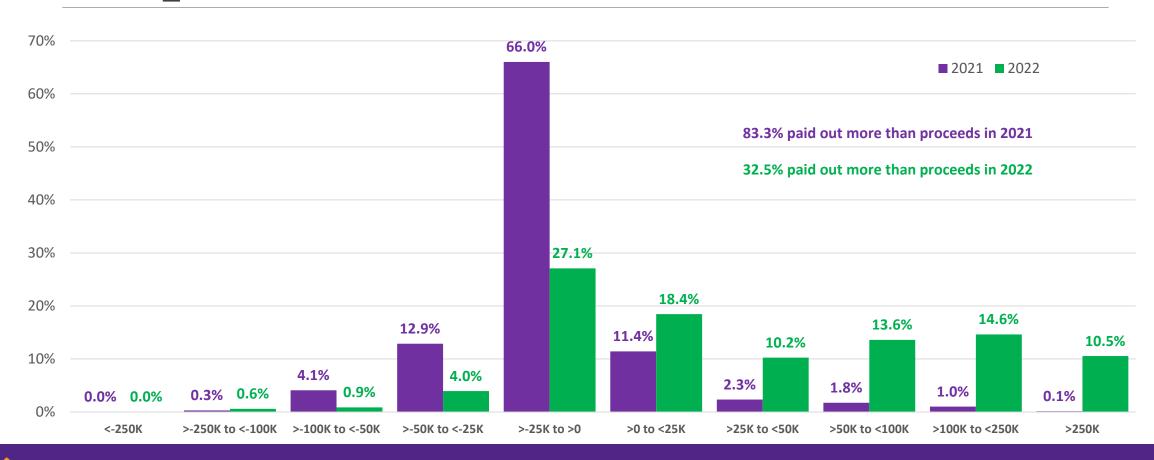
### KFMA 2021 and 2022 Average Net Crop Insurance per Farm and 2022 Net Farm Income





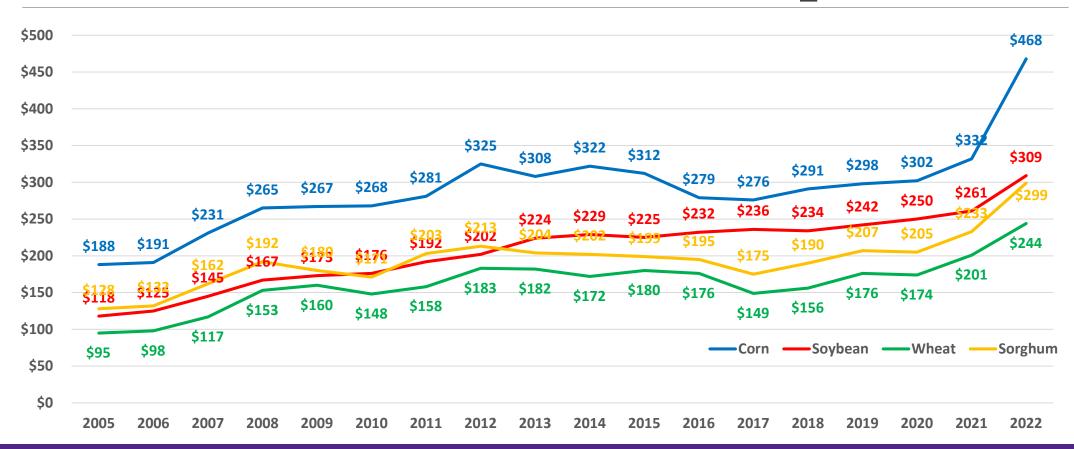


## Distribution of 2021 and 2022 Net Crop Insurance





# KFMA Enterprise Non-Irrigated Variable Cost of Production per Acre







#### Input Cost Changes (2022 vs 5-year Average)

Category	Corn	Sorghum	Soybean	Wheat
Seed	28.3%	18.0%	2.3%	63.3%
Crop Insurance	38.2%	25.1%	39.6%	31.0%
Fertilizer	125.9%	128.5%	82.2%	89.2%
Machine Hire	11.8%	1.3%	12.5%	4.3%
Miscellaneous	-51.4%	-28.3%	26.9%	-36.5%
Cash Rent	67.9%	34.3%	31.9%	38.5%
Pesticide	40.7%	35.2%	43.1%	24.6%
Total Variable	63.6%	57.3%	29.3%	54.2%





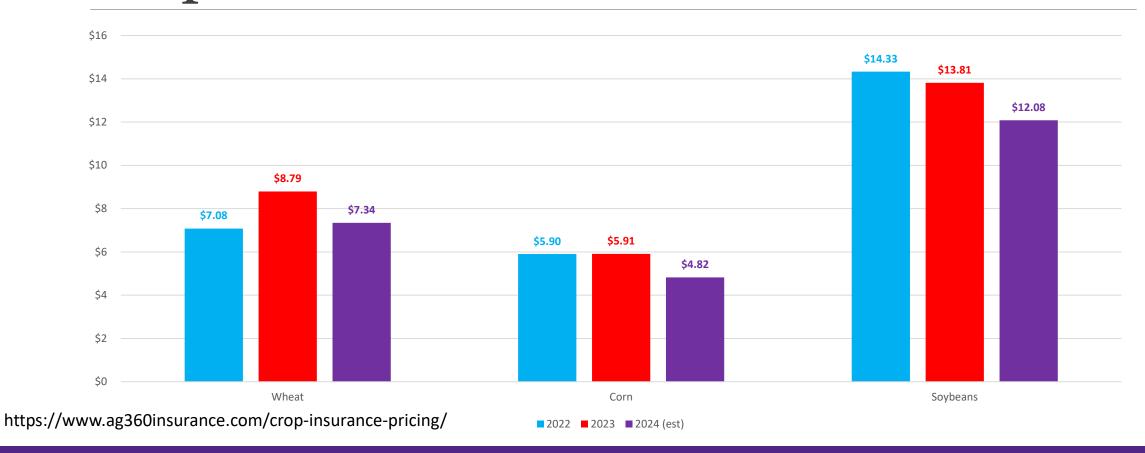
#### 2022 Enterprise Information

- Kansas Corn 2022 Yield 19.0% below the previous 5-year average
  - Revenue \$634 per acre
  - Variable Cost \$468 per acre
  - Total Cost \$631 per acre
- Kansas Soybeans 2022 Yield 43.0% below previous 5-year average
  - Revenue \$407 per acre
  - Variable Cost \$309 per acre
  - Total Cost \$438 per acre
- Kansas Wheat 2022 Yield 10.4% below the previous 5-year average
  - Revenue \$342 per acre
  - Variable Cost \$244 per acre
  - Total Cost \$352 per acre
- Kansas Sorghum 2022 Yield 32.8% below the previous 5-year average
  - Revenue \$410 per acre
  - Variable Cost \$299 per acre
  - Total Cost \$404 per acre





#### Crop Insurance – Corn Contract Price







### 2024 Price Situation

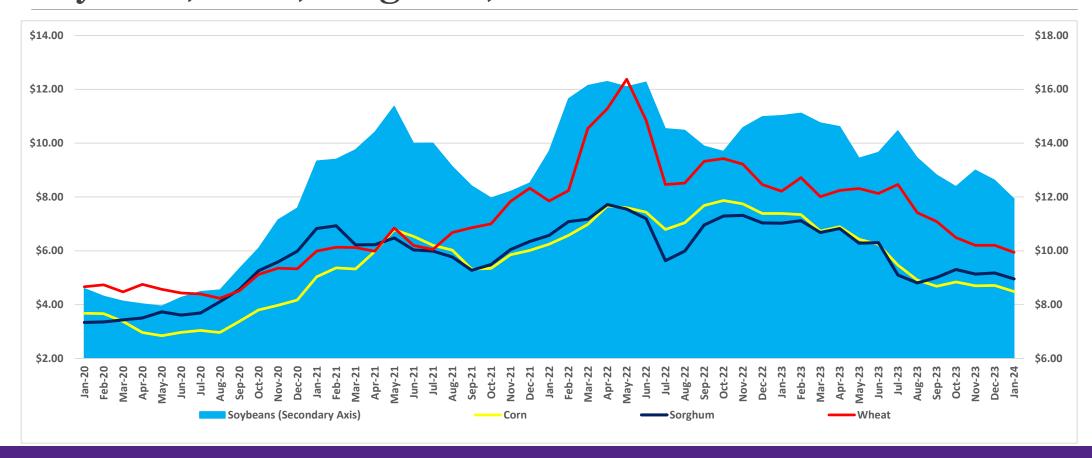
#### January Bid at Salina Kansas

Commodity	Cash Bid (1/29/24)	Cash Bid (1/31/23)
Wheat	\$5.88	\$8.86
Corn	\$4.34	\$4.84
Sorghum	\$4.79	\$4.79
Soybean	\$11.45	\$11.38





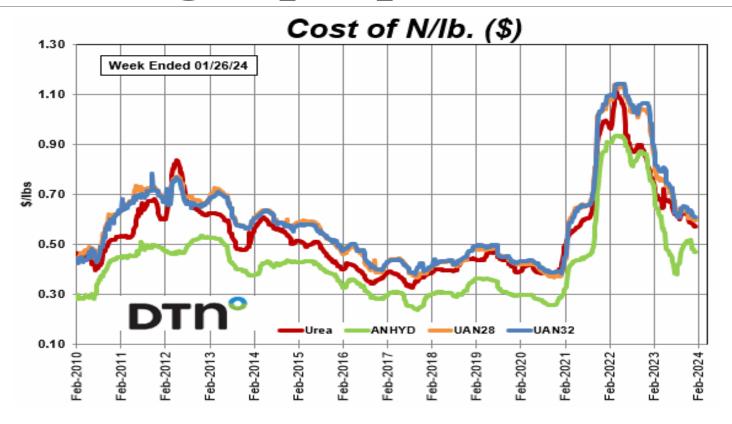
#### Soybean, Corn, Sorghum, and Wheat Salina Cash Prices







#### Cost of Nitrogen per pound





#### 2024 Non-Irrigated Crop Enterprise Estimates

Crop (Expected yield)	2024 Estimated Total Expenses	Net Income
Corn (110)	\$631	-\$154
Sorghum (90)	\$438	-\$7
Soybean (45)	\$352	\$163
Wheat (50)	\$404	-\$110





#### Crop Farm Income Estimates

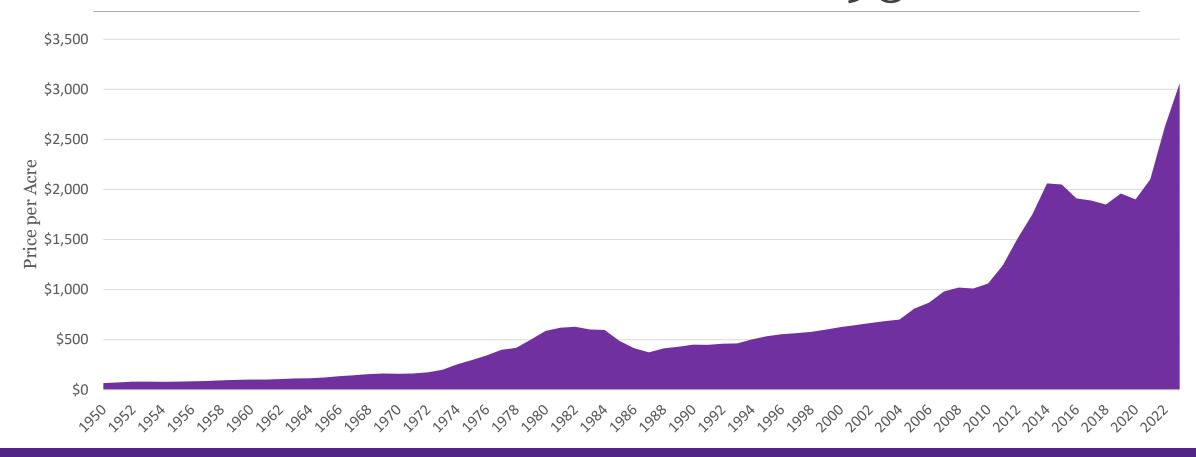
Year	Net Farm Income	<b>Government Payments</b>	% Government Payments
2021	\$342,936	\$60,011	17.5%
2022	\$190,336	\$25,568	13.4%
2023	\$250,357	\$8,747	3.5%
2024	\$72,682	\$0	0%

September 2023 estimates from Gregg Ibendahl





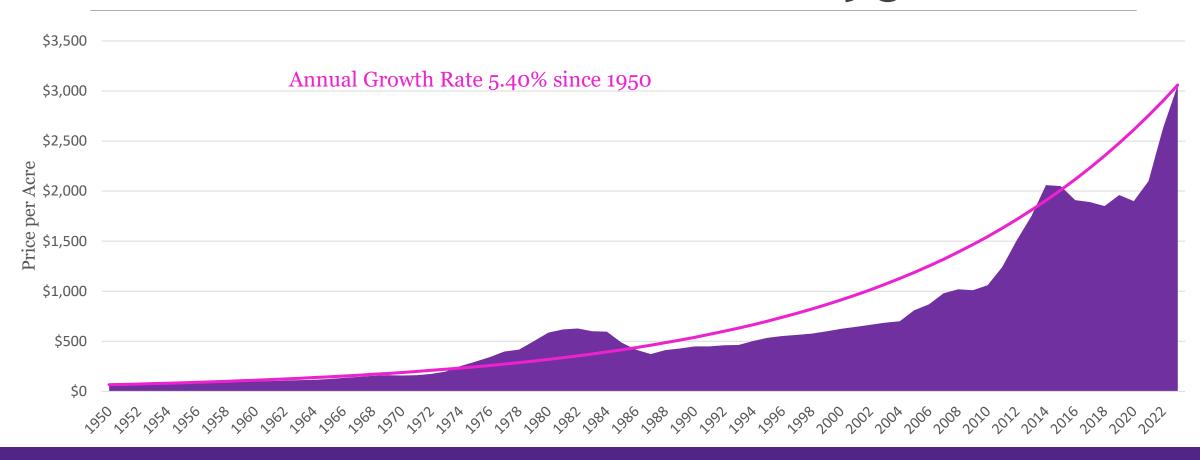
#### Kansas Land Values from 1950







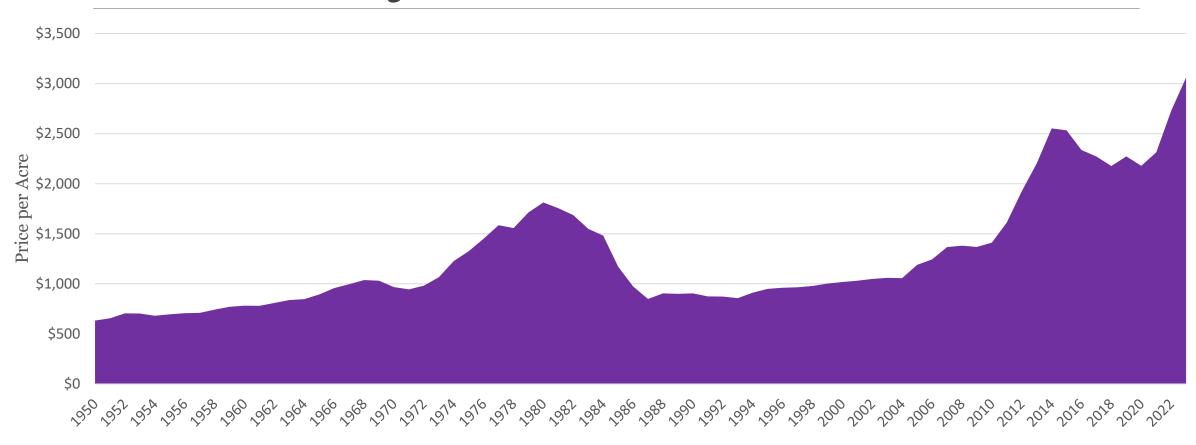
#### Kansas Land Values from 1950







### Inflation-Adjusted Kansas Land Values







### Inflation-Adjusted Kansas Land Values







#### Land Value Summary

- \*Kansas Agricultural Land Values increased by 25.2% in 2022 and 16.4% in 2023
  - Abnormally large increase for a two-year period
  - ❖Increased from \$2,100 per acre in 2021 to \$3,060 in 2023, a 45.7% increase
  - **❖**Long-term average increase is 5.40%
- \*Kansas Inflation adjusted Agricultural Land Values increased by 17.9% in 2022 and 12.2% in 2023
  - ❖Abnormally large increase for a two-year period
  - ❖Increased from \$2,315 per acre in 2021 to \$3,060 in 2023, a 32.2% increase
  - **❖**Long-term average increase is 2.18%





#### Summary

- ➤ Net Farm Income fell by nearly 50% in 2022
- ➤ Crop Insurance was key to preventing additional deterioration
- ➤ Crop Farmers income was good in 2023
- Crop Insurance was key for 2023 especially for wheat
- Early pricing was key for 2023
- ➤ Government Payments were limited in 2023
- ➤ Crop expenses will be stable in 2024 with fertilizer expenses lessening
- ➤ Net Farm Income may be tough in 2024





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