

2024-25 Sorghum Market Outlook

Kansas Grain Sorghum School

Salina, Kansas – December 4, 2024

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EXTENSION AGRICULTURAL ECONOMIST

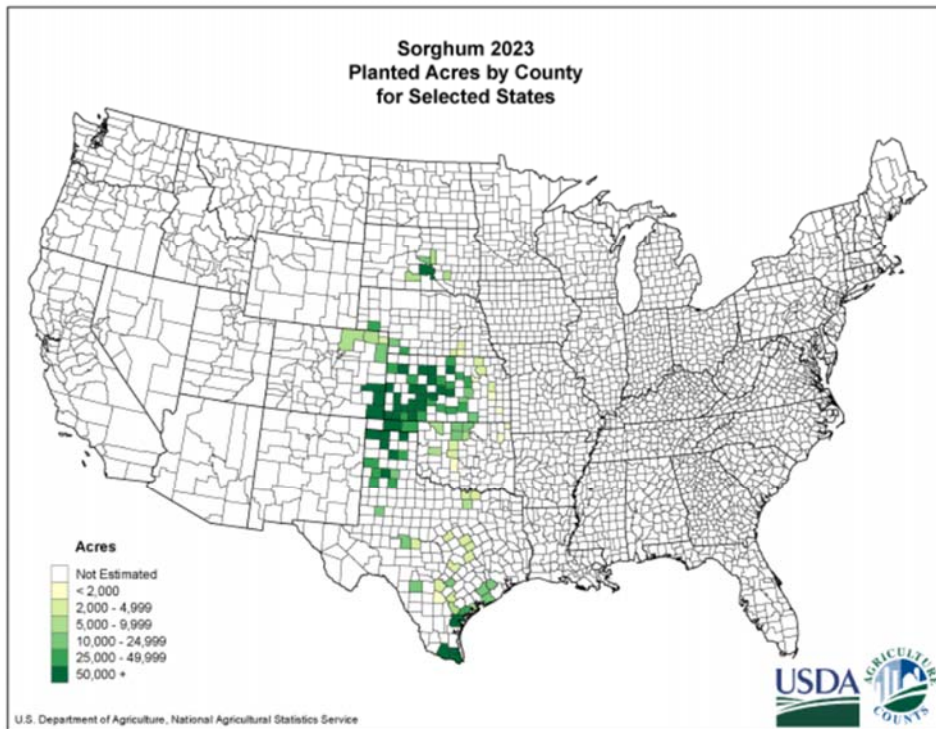
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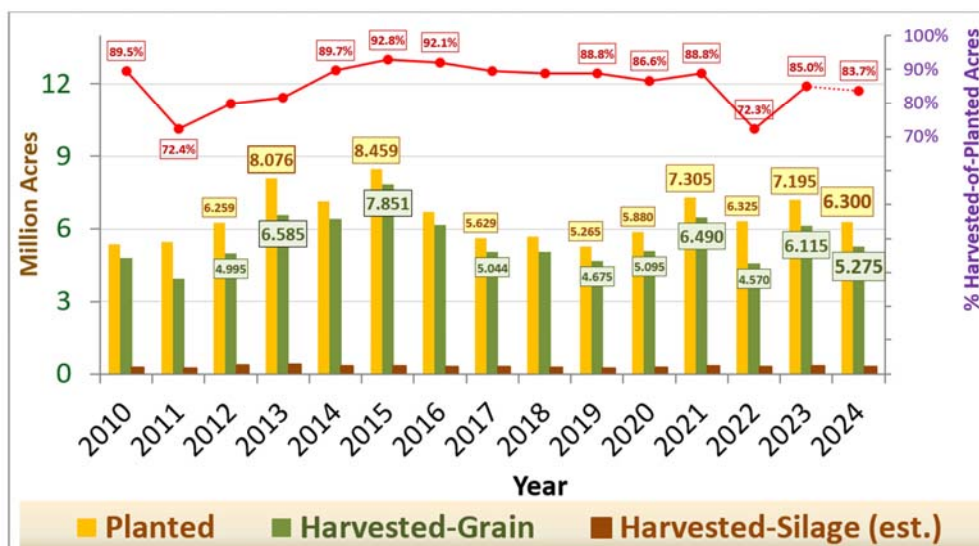
Current Global Grain Markets

- 1) “*Adequate*” Feedgrain & Oilseed supplies are limiting Crop Prices
- 2) “*Tight*” World Wheat supplies, but weak U.S. exports hurt Prices
- 3) Crop Seasonal \$ Trends “*sideways-to-higher*” through Spring
- 4) U.S. & World Crop Production plans for 2025??
 - **Soybeans**: *More U.S. & South America plantings likely in 2025*
 - **Wheat**: *Uncertainty about Black Sea, EU, Australia, U.S. & other major areas*
 - **Feedgrains**: *2025 U.S. & South America acres “sideways-to-lower”*



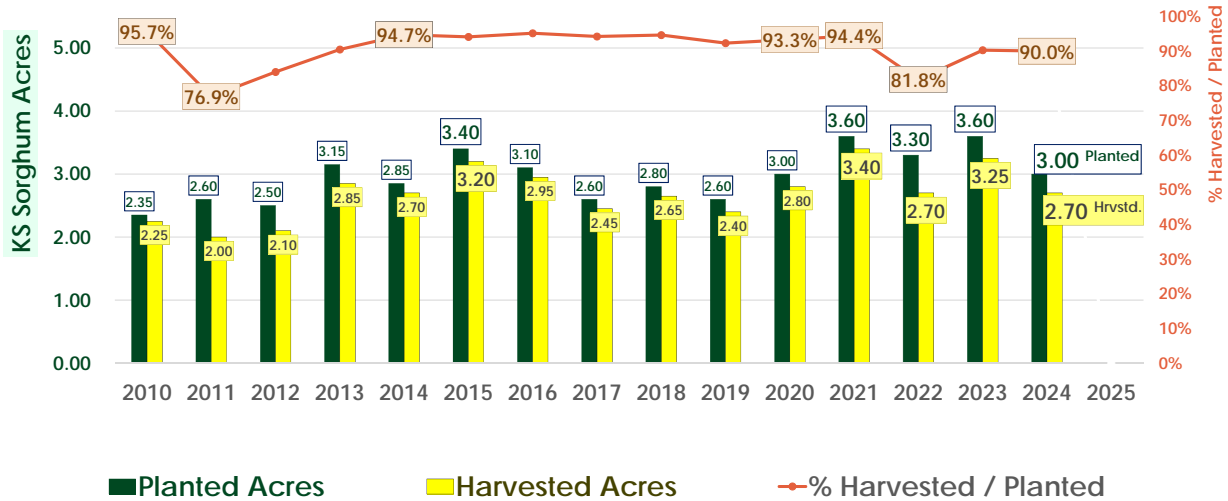
U.S. Grain Sorghum Acres

Years 2010 – 2024, Source: USDA NASS Crop Production Report 11/8/2024



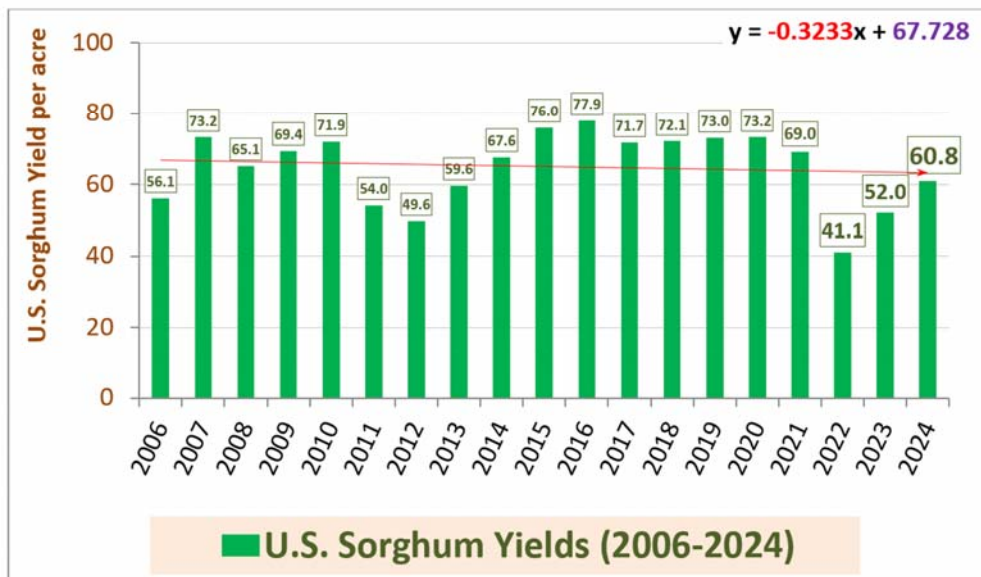
Kansas Grain Sorghum Acres

Kansas for years 2010 to 2024



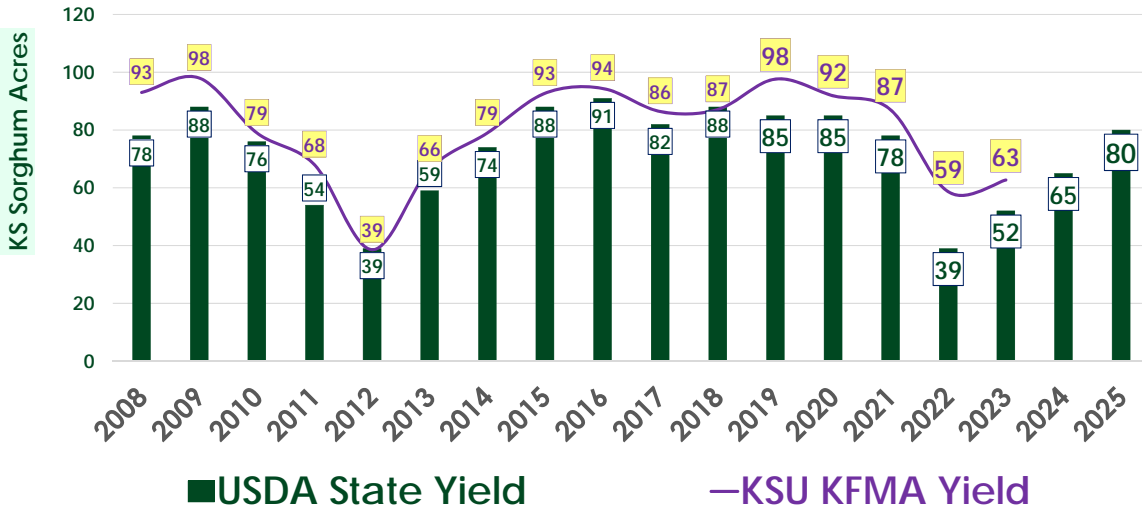
U.S. Grain Sorghum Yields

Years 2006 – 2024 as of the November 8, 2024 WASDE Report



Kansas Grain Sorghum Yields

State Averages for Kansas - Years 2008 to 2024



2025 Grain Sorghum Cost-Return Budget in South Central Kansas

----- MIDDLE YIELDS

Budget abstract

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

Date: Nov-20-2024

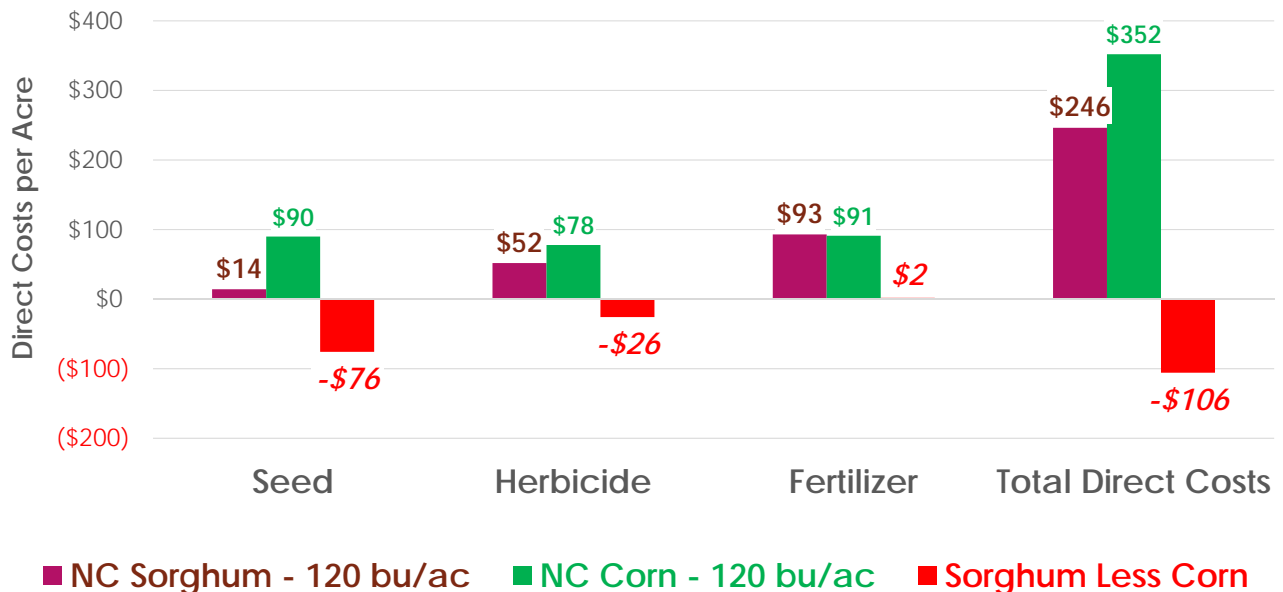
item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - South Central KS	bu	\$4.32	110.00	\$475.20	\$475.20	_____
--TOTAL INCOME--					\$475.20	_____
DIRECT EXPENSES						
Additional labor					\$0.00	_____
Crop insurance					\$0.67	_____
Custom Operations					\$15.39	_____
Diesel					\$17.03	_____
Fertilizers					\$12.04	_____
Herbicides					\$77.55	_____
Miscellaneous					\$20.39	_____
Operator labor					\$7.48	_____
Repair & Maintenance					\$8.06	_____
Seeds					\$14.21	_____
Interest on operating capital		7.5% percent on direct expenses			\$12.32	_____
					\$6.94	_____
--TOTAL DIRECT EXPENSES--					\$192.08	_____
-----Total direct expenses per bu \$1.75						
FIXED EXPENSES						
Cash rent					\$42.00	_____
Capital recovery (depreciation + interest)					\$57.09	_____
--TOTAL FIXED EXPENSES--					\$99.09	_____
-----Total expenses per bu \$2.65						

Non-Irrigated Sorghum Costs 2025 in NC Kansas

□ The Costs of Non-Irrigated Grain Sorghum vs Corn

- Comparing 120 bu/ac Sorghum vs Corn in NC KS 2025 KSU Budgets
 - **Seed** \$14.17 /ac (- \$75.83 /ac vs Corn)
 - **Herbicide** \$51.85 /ac (- \$25.87 /ac vs Corn)
 - **Fertilizer** \$92.96 /ac (+ \$1.83 /ac vs Corn)
 - **Total Direct Cost** \$246.12 /ac (- \$105.90 /ac vs Corn)
 - **Direct Cost / bu.** \$2.05 /bu (- \$0.88 /bu vs Corn)

NC Non-irrigated Sorghum vs Corn KSU 2025 Budgets



2025 Corn Cost-Return Budget in North Central Kansas

----- MIDDLE YIELDS

Gregg Iwendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Budget abstract

Date: Nov-20-2024

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Corn - North Central KS	bu	\$4.28	120.00	\$513.60	\$513.60	_____
--TOTAL INCOME--					\$513.60	_____
DIRECT EXPENSES						
Additional labor					\$0.00	_____
Crop insurance					\$0.92	_____
Custom Operations					\$22.21	_____
Diesel					\$17.03	_____
Fertilizers					\$10.30	_____
Herbicides					\$91.13	_____
Miscellaneous					\$77.72	_____
Operator labor					\$8.10	_____
Repair & Maintenance					\$6.38	_____
Seeds					\$15.51	_____
Interest on operating capital		7.5% percent on direct expenses			\$90.00	_____
					\$12.72	_____
--TOTAL DIRECT EXPENSES--					\$352.02	_____
-----Total direct expenses per bu \$2.93						
FIXED EXPENSES						
Cash rent					\$89.00	_____
Capital recovery (depreciation + interest)					\$54.61	_____
--TOTAL FIXED EXPENSES--					\$143.61	_____
-----Total expenses per bu \$4.13						

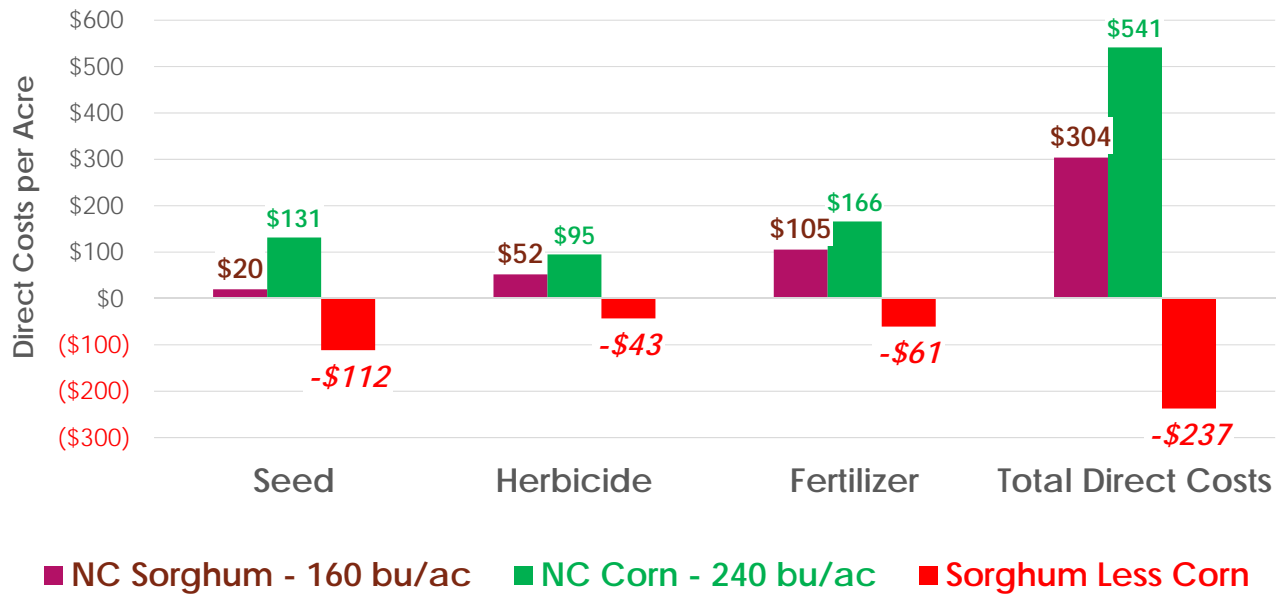
Irrigated Sorghum Costs 2025 in NC Kansas

☐ The Costs of Irrigated Grain Sorghum vs Corn

- Comparing 160 bu/ac Sorghum vs 240 bu/ac Corn in NC KS ^{2025 KSU Budgets}

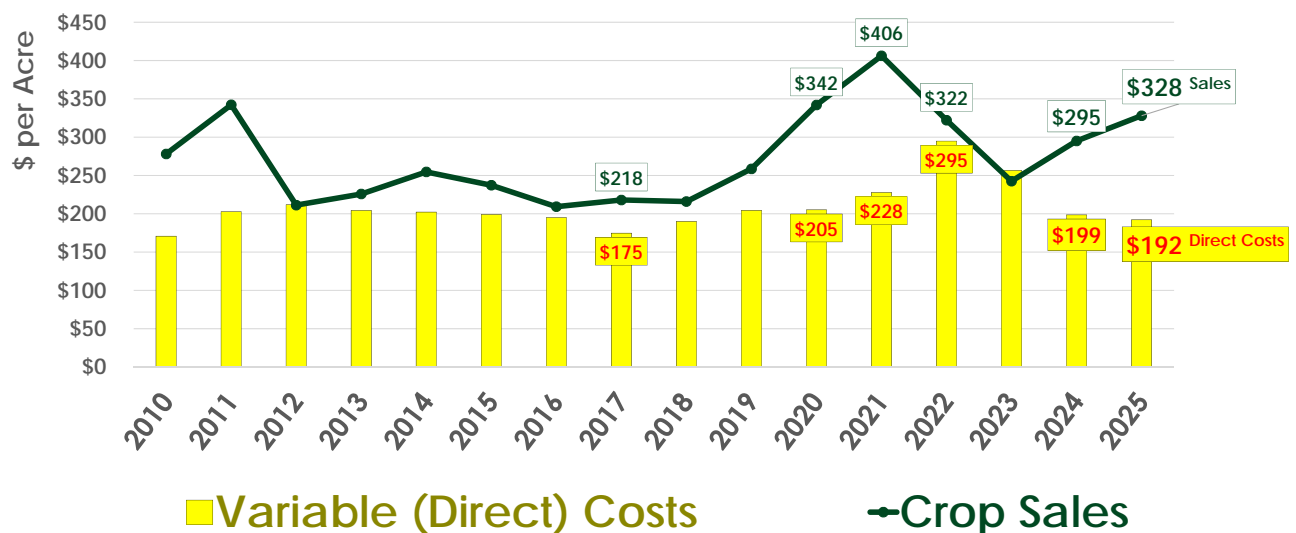
- **Seed** \$19.72 /ac (- \$111.68 /ac vs Corn)
- **Herbicide** \$51.85 /ac (- \$43.13 /ac vs Corn)
- **Fertilizer** \$105.30 /ac (- \$60.81 /ac vs Corn)
- **Total Direct Cost** \$303.94 /ac (- \$237.28 /ac vs Corn)
- **Direct Cost / bu.** \$1.90 /bu (- \$0.36 /bu vs Corn)

NC Irrigated Sorghum vs Corn KSU 2025 Budgets



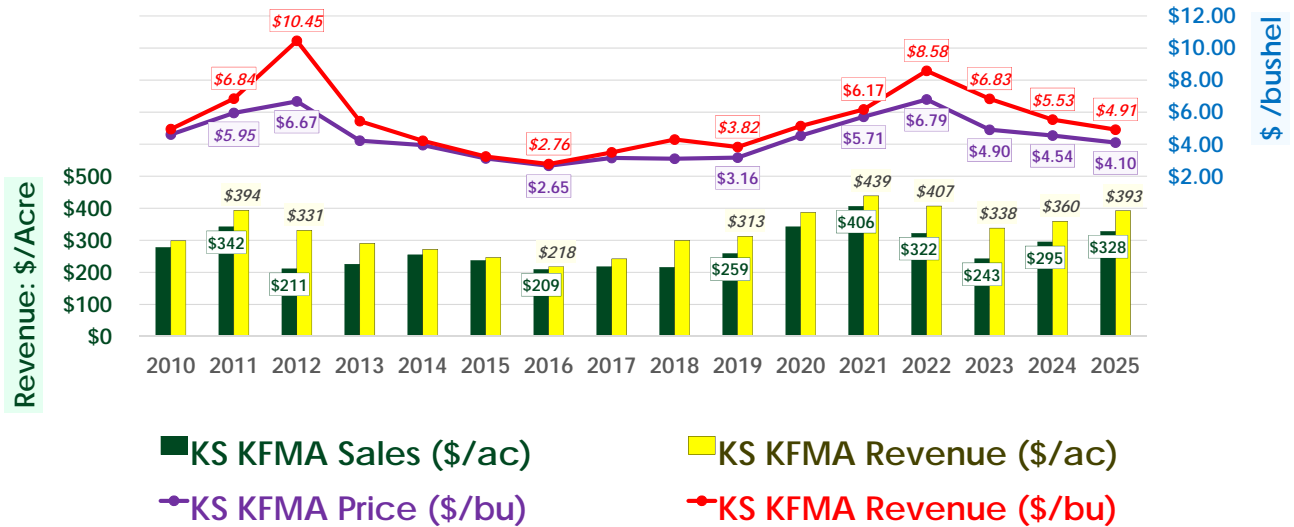
Sorghum Variable Costs & Crop Sales

Kansas – Non-irrigated 2010 - 2025 KFMA Crop Enterprise Records + 2025 KFMB Crop Ests.



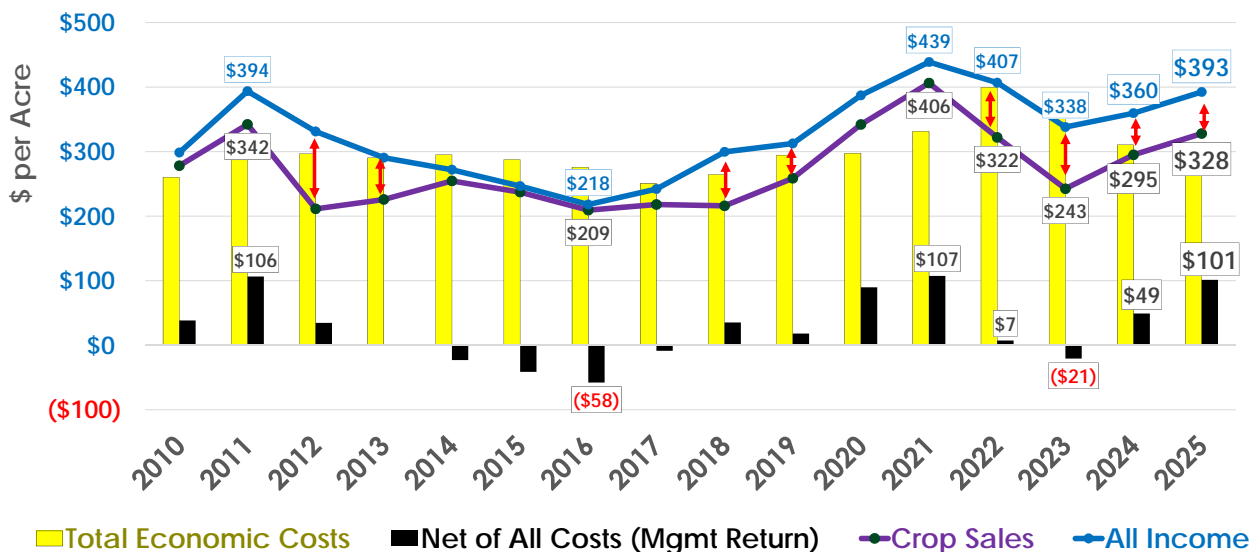
Kansas Sorghum Prices & All Revenue

Years 2010 - 2023 Kansas Farm Mgmt. Assoc. Enterprise Records + 2024 KFMG Budget Ests.

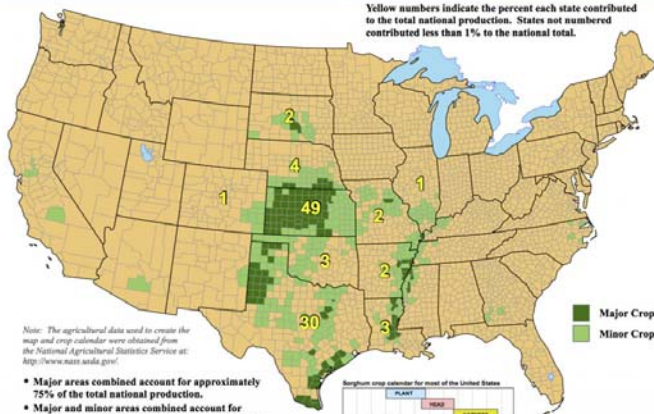


Sorghum Revenue, Costs & Returns

All Kansas – Non-irrigated Since 2010 Kansas Farm Mgmt. Assoc. Enterprise Records



United States: Sorghum



Note: The agricultural data used to create the map and crop calendar were obtained from the National Agricultural Statistics Service at: <http://www.nass.usda.gov/>

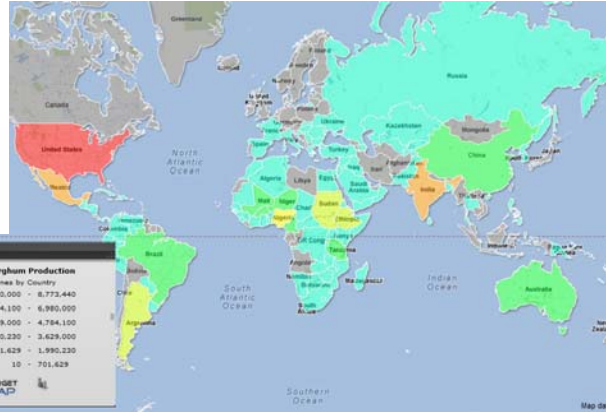
- Major areas combined account for approximately 75% of the total national production.
- Major and minor areas combined account for approximately 95% of the total national production.
- Major and minor areas and state production percentages are derived from NASS county- and state-level production data from 2006-2010.

USDA Agricultural Weather Assessments
 World Agricultural Outlook Board

Sorghum crop calendar for most of the United States

PLANT	PLANT	HARVEST
Jan	Feb	Mar
Apr	May	Jun
Jul	Aug	Sep
Oct	Nov	Dec

Crop calendar dates are based upon NASS crop progress data from 2000-2010. The field activities and crop development stages illustrated on the crop calendar represent the average time period when national programs advanced from 15 to 30 percent.



Grain Sorghum Markets



KANSAS STATE UNIVERSITY

Department of Agricultural Economics

CME Corn Futures



Monthly Chart: Nov. 2007 – December 2017 + 1/31/2017



Kansas Cash & Futures Prices						
Date						
12/3/2024 - Closes						
Grain Futures Contracts		Closing \$				
MAR 2025 Corn ^{"New" MY 2024/25 Post-Harvest Futures}		\$4.3225				
DEC 2025 Corn ^{"Next" MY 2025/26 Harvest Futures}		\$4.3075				
12/3/2024 - Closes						
Cash Grain & Harvest Contract Prices @ Kansas Grain Elevators						
Representing the highest bids available at each location						
Cash Market Spot & FC Bids	Colby ^{Area}	Salina ^{Area}	Topeka ^{Area}	Garden City ^{Area}	Hutchinson ^{Area}	Columbus ^{Area}
	NW KS	NC KS	EC-NE KS	SW KS	SC KS	SE KS
Grain Sorghum Spot Cash\$: Fall ²⁰²⁴	\$3.97	\$3.92	\$3.89	\$4.07	\$4.17	\$3.68
2024 Harvest Cash Market Basis	(\$0.35)	(\$0.40)	(\$0.43)	(\$0.25)	(\$0.15)	(\$0.64)
Grain Sorghum Harvest FC\$: Fall ²⁰²⁵	\$3.87	\$3.84	\$3.76	\$3.96	\$3.91	\$3.53
"Next Crop" MY 2025/26 Harvest Frwd Contract	(\$0.44)	(\$0.47)	(\$0.55)	(\$0.35)	(\$0.40)	(\$0.78)

SALINA, KS: Grain Sorghum Basis - CARGILL

www.AgManager.info



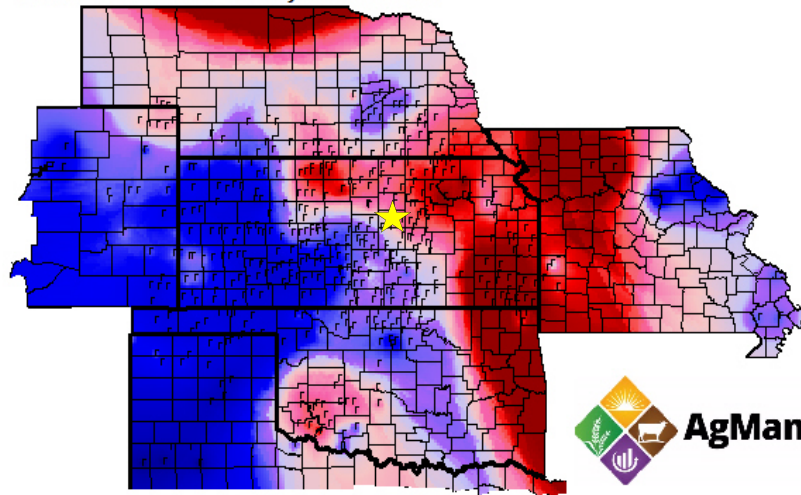
Grain Sorghum Basis, 11-27-2024

Basis = Cash Price - Nearby Futures Price

CBT Corn
Dec Futures
Price: \$4.16

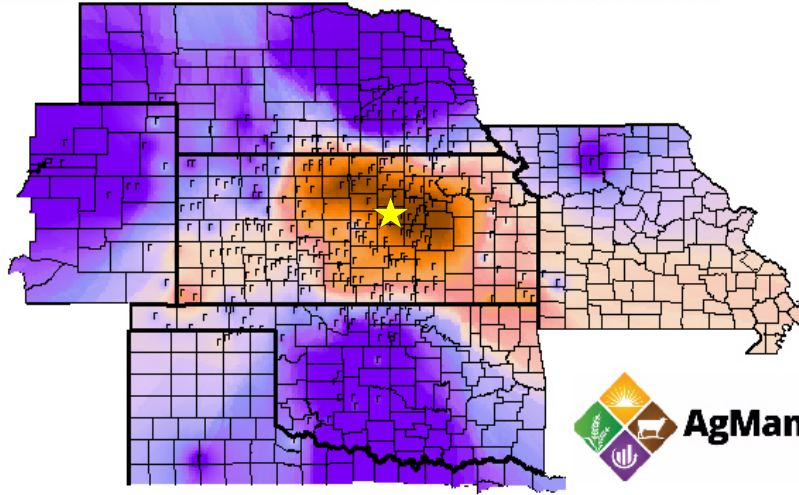
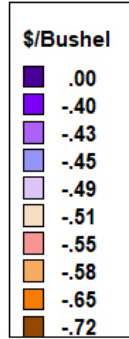
\$/Bushel

- .17
- -.29
- -.33
- -.38
- -.39
- -.44
- -.49
- -.52
- -.54
- -.58



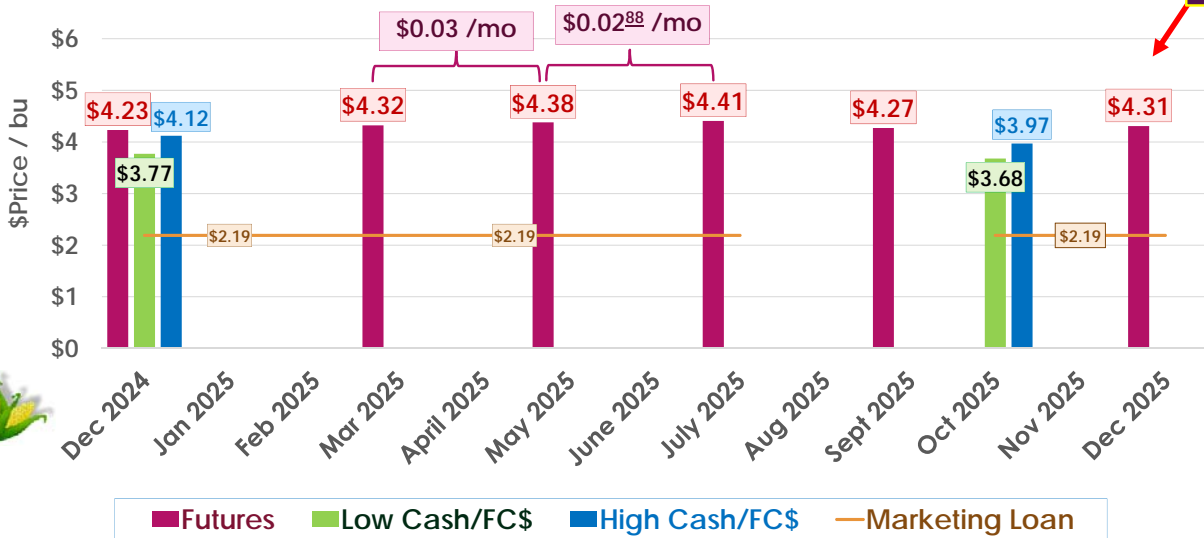
Grain Sorghum Basis Deviation, 11-27-2024

Basis Deviation = Current Basis - 3 Year Average Basis (2021, 2022, 2023)



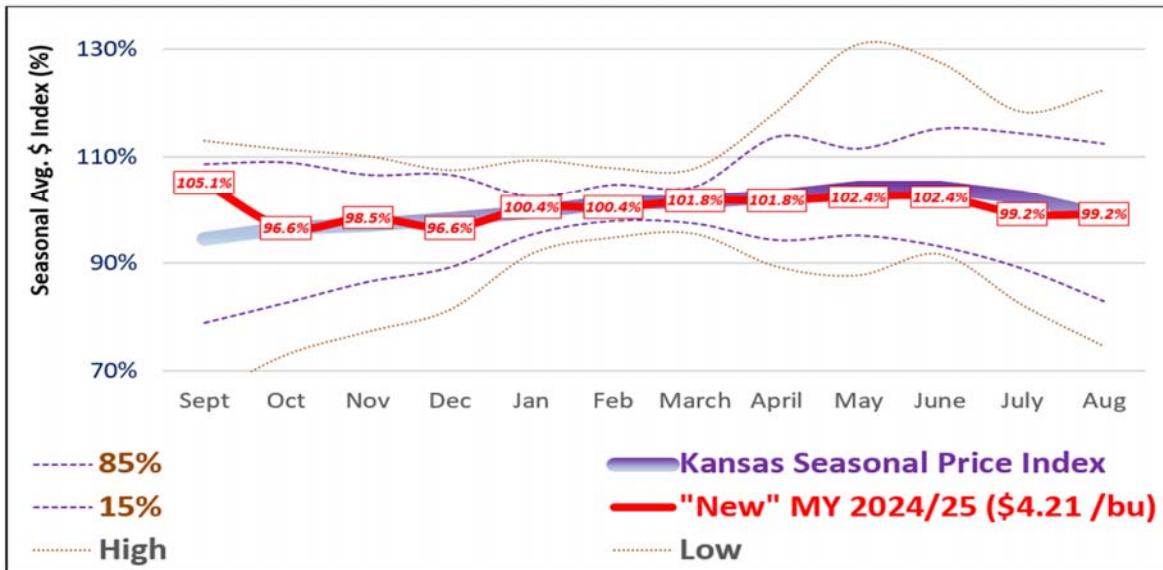
Sorghum Cash & Futures \$'s – Salina, KS

Local Elevators – December 3, 2024



Kansas Sorghum Seasonal Cash \$ Index

Monthly Prices: 1999/2000 – 2023/24 + Forecast MY 2024/25



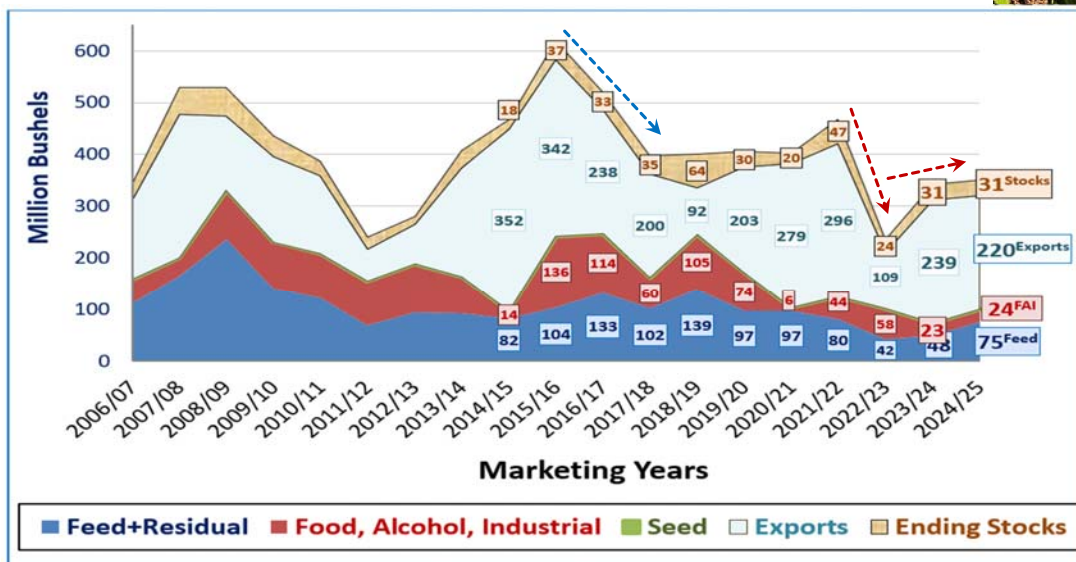
U.S. Sorghum Production & Supplies

NY 2000/01 to "Next Crop" MY 2017/18



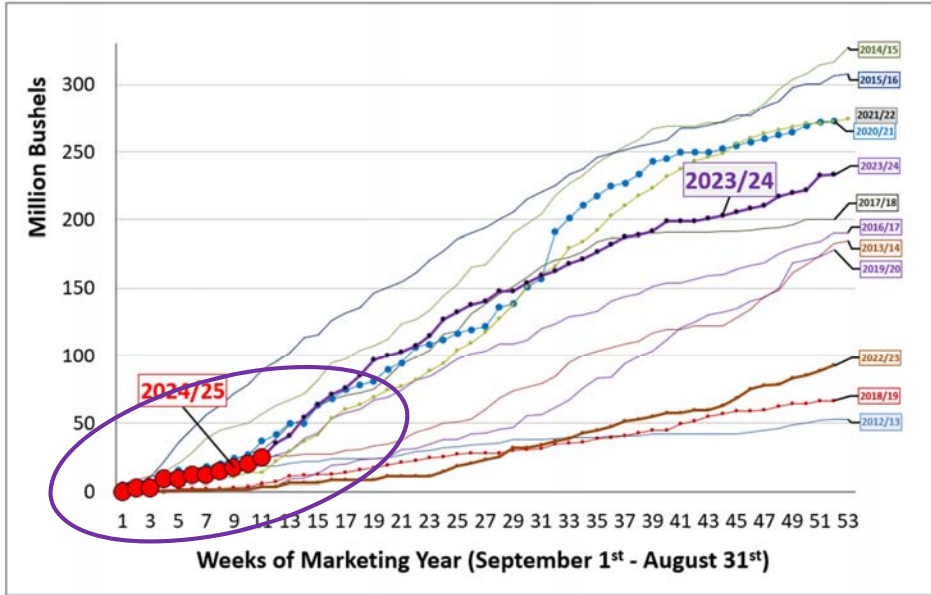
U.S. Sorghum Use & Ending Stocks

MY 2006/07 to "New Crop" MY 2024/25



U.S. Grain Sorghum Exports

MY 2012/13 - "New" MY 2024/25 as of November 21, 2024 - via USDA FAS



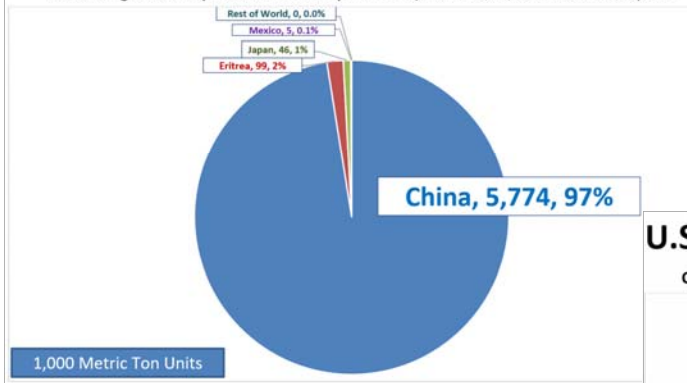
U.S. Sorghum Use & Ending Stocks

MY 2006/07 to "New Crop" MY 2024/25



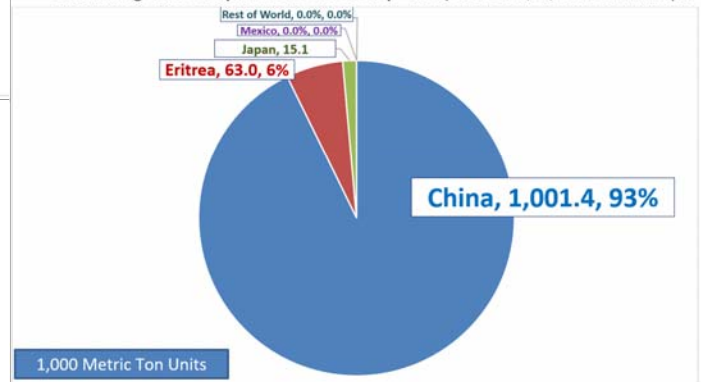
U.S. Sorghum Export Buyers "Old Crop" MY 2023/24

Outstanding Sales + Shipments for "Old Crop" MY 2023/24 as of 8/29/2024 USDA FAS Reports



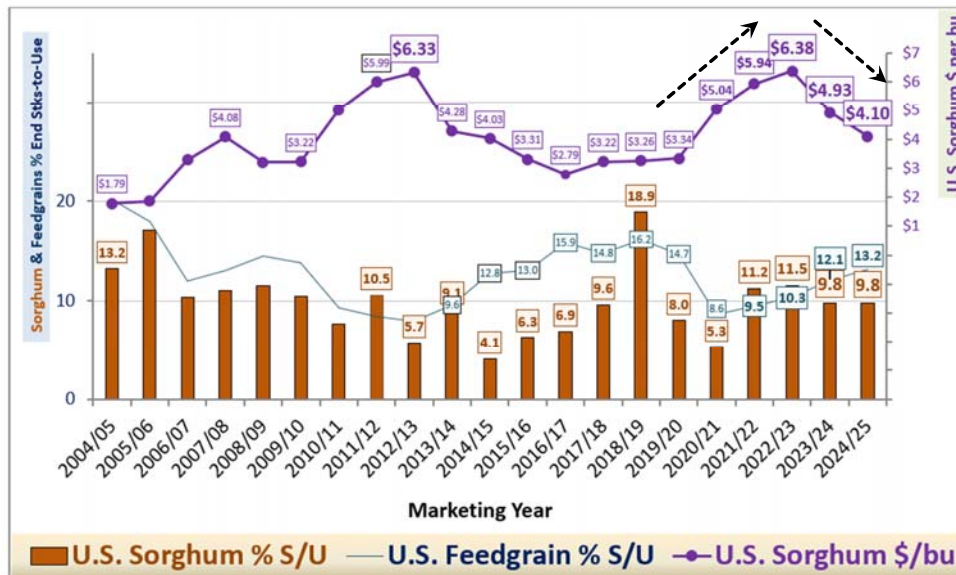
U.S. Sorghum Export Buyers "New Crop" MY 2024/25

Outstanding Sales + Shipments for "New Crop" 2024/25 as of 10/21/2024 USDA FAS Rpt.



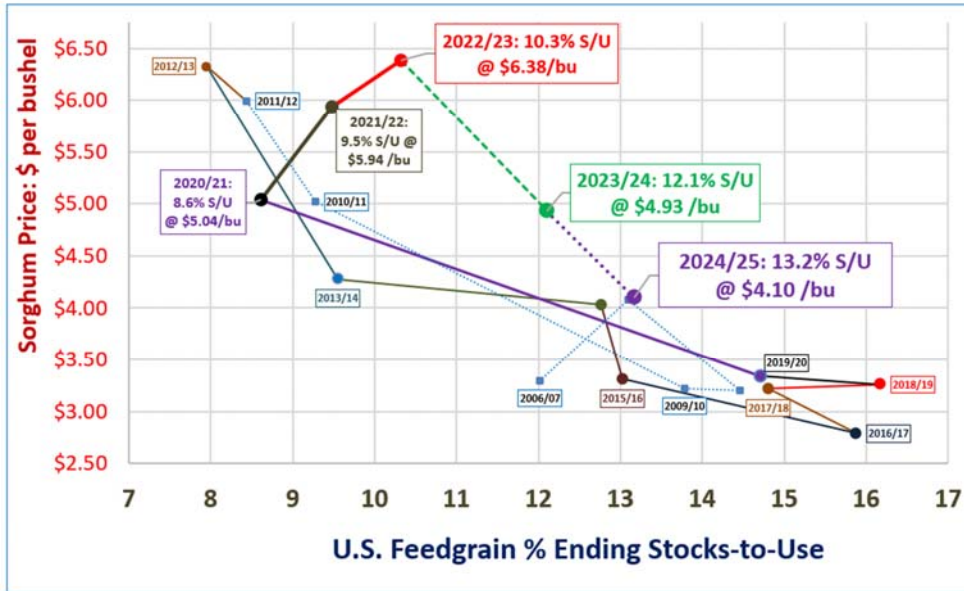
U.S. Sorghum %S/U vs Cash \$

MY 2004/05 - "New Crop" MY 2024/25; as of the USDA 11/8/2024 WASDE Report



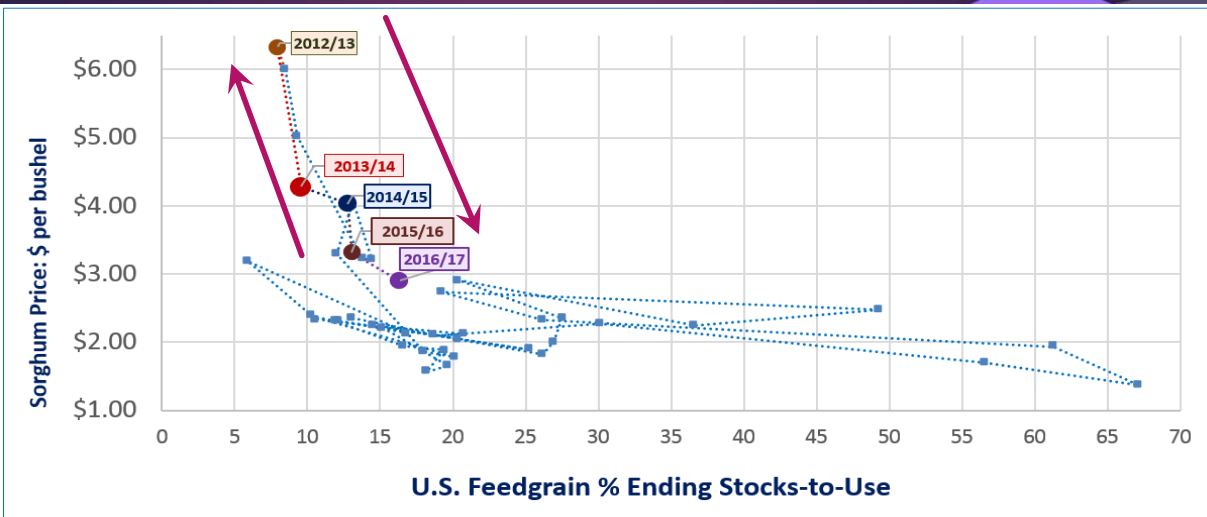
U.S. Sorghum \$ vs Feedgrain % S/U

MY 1975/76 - "New Crop" 2024/25 as of the November 8, 2024 USDA WASDE Report



U.S. Sorghum \$ vs U.S. Feedgrain % S/U

MY 1973/74 through "Current" MY 2016/17



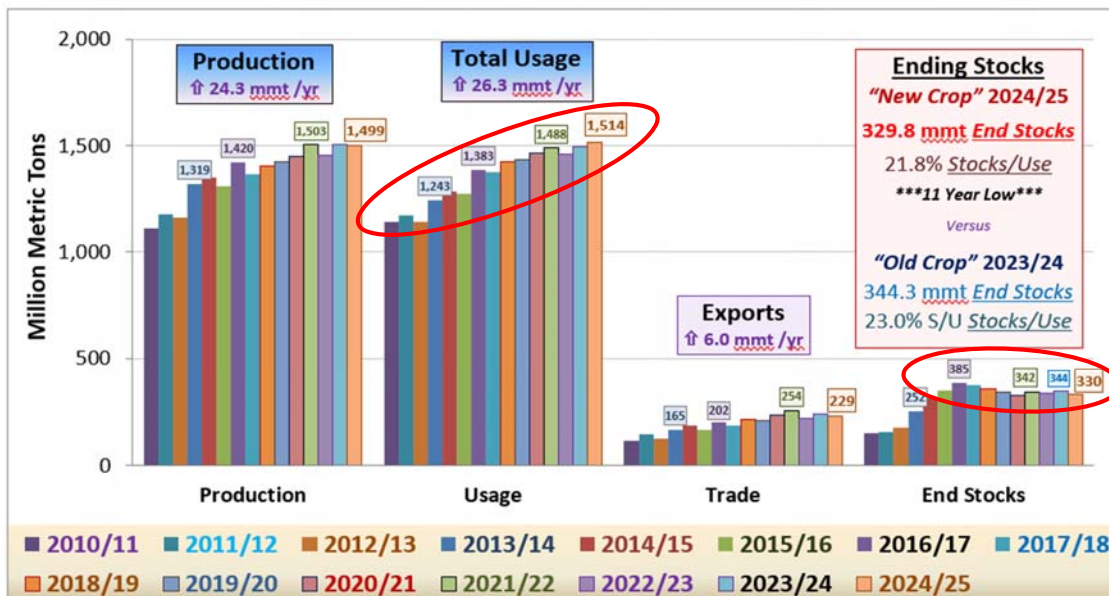
U.S. Sorghum S-D “New Crop” MY 2024/25

As of the September 12, 2024 USDA WASDE + 11/8/2024 Grain Stocks, with KSU Scenarios ^{11/3/2024}

Item	USDA Scenario #1 11/8/2024 WASDE	KSU Scenario #2 Lower Exports = 195 mb (-25 mb)	KSU Scenario #3 Higher Exports = 245 mb (+25 mb)
<i>% Prob. of Occurring (KSU)</i>	65% KSU Est.	25% KSU Est.	10% KSU Est.
Planted Area (million acres)	6.300	6.300	6.300
Harvested Area (million acres)	5.275	5.275	5.275
Yield / harvested acre (bu/ac)	57.3	57.3	57.3
Beginning Stocks (million bu.)	30.5	30.5	30.5
Production (million bu.)	320.7	320.7	320.7
Total Supply (million bu.)	351.3	351.3	351.3
Food & Industrial Use (mIn bu.)	24.1	24.1	24.1
Exports (million bu.)	220	-25 mb 195	+25 mb 245
Feed & Residual Use (million bu.)	75	+10 mb 85	-13.7 mb 61.3
Total Use (million bu.)	305	-25 mb 280	+11.3 mb 315
Ending Stocks (million bu.)	22	+15 mb 46.3	-11.3 mb 20
% Ending Stocks-to-Use	9.77%	15.69%	6.03%
U.S. Sorghum Avg. Farm \$ (\$/bu)	\$4.10 USDA \$4.21 Futures 11/3/2024	\$3.85 KSU \$4.21 Futures 11/3/2024	\$4.45 KSU \$4.21 Futures 11/3/2024

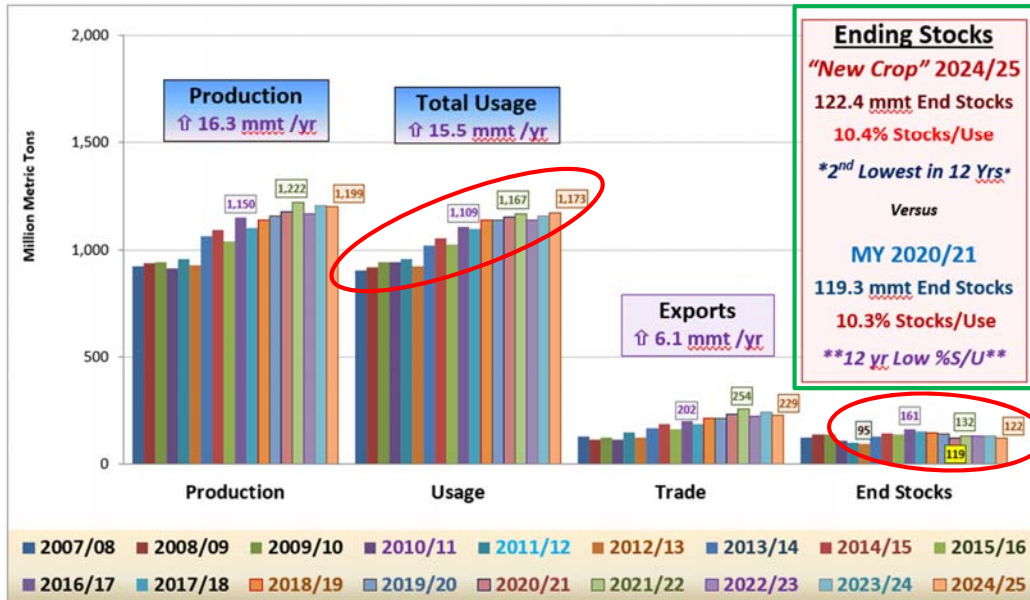
World Coarse Grain Supply-Demand

MY 2007/08 thru “New Crop” 2024/25 as of the November 8, 2024 USDA WASDE



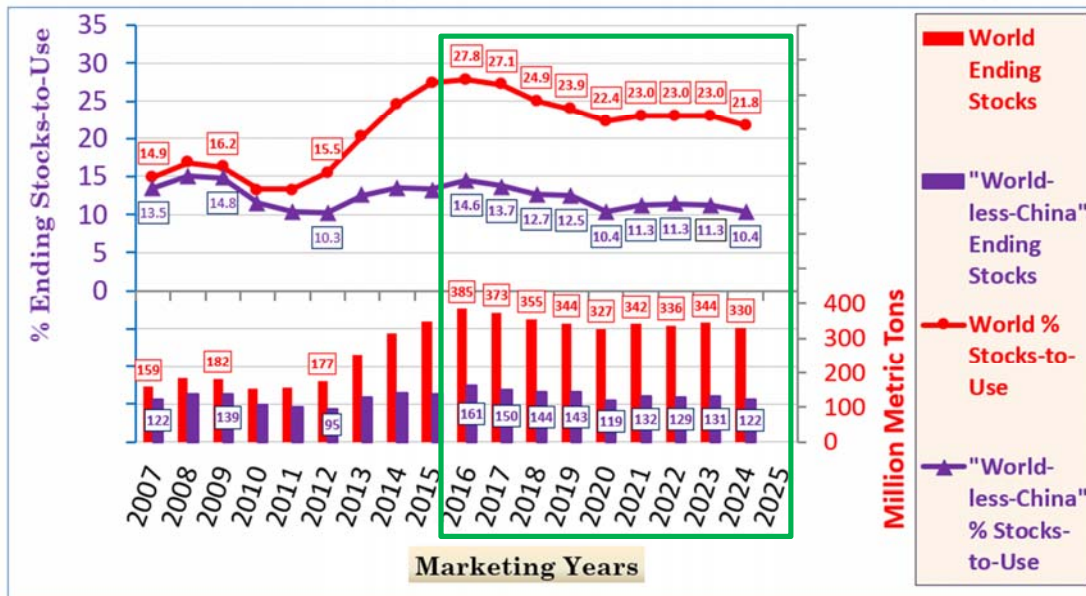
World *Less-China* Coarse Grain Supply-Demand

MY 2007/08 thru "New Crop" 2024/25 as of the November 8, 2024 USDA WASDE



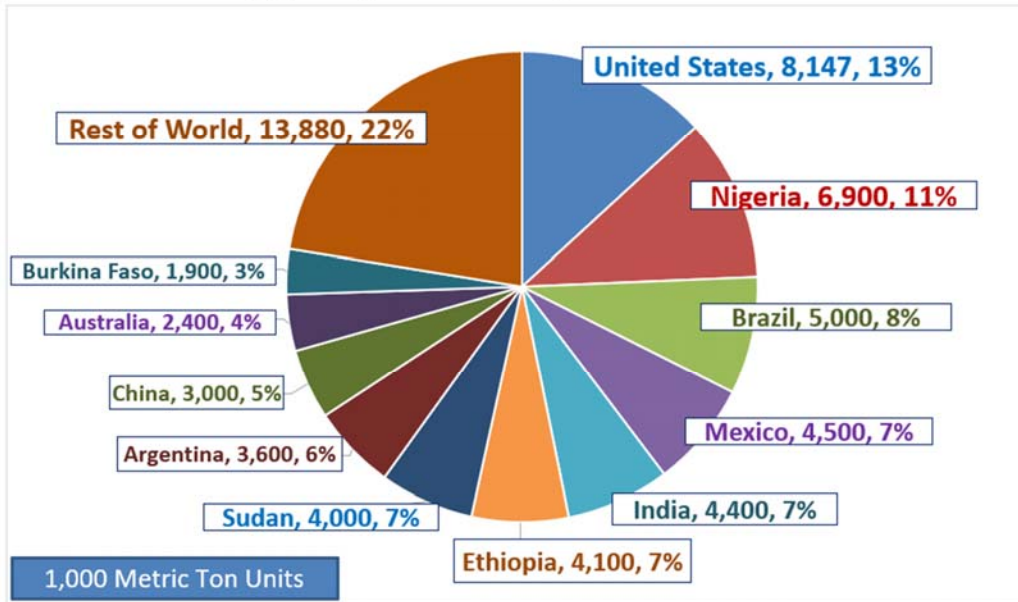
World vs *World Less-China* Coarse Grain % S/U

MY 2007/08 thru "New Crop" 2024/25 as of the 11/8/2024 USDA WASDE report



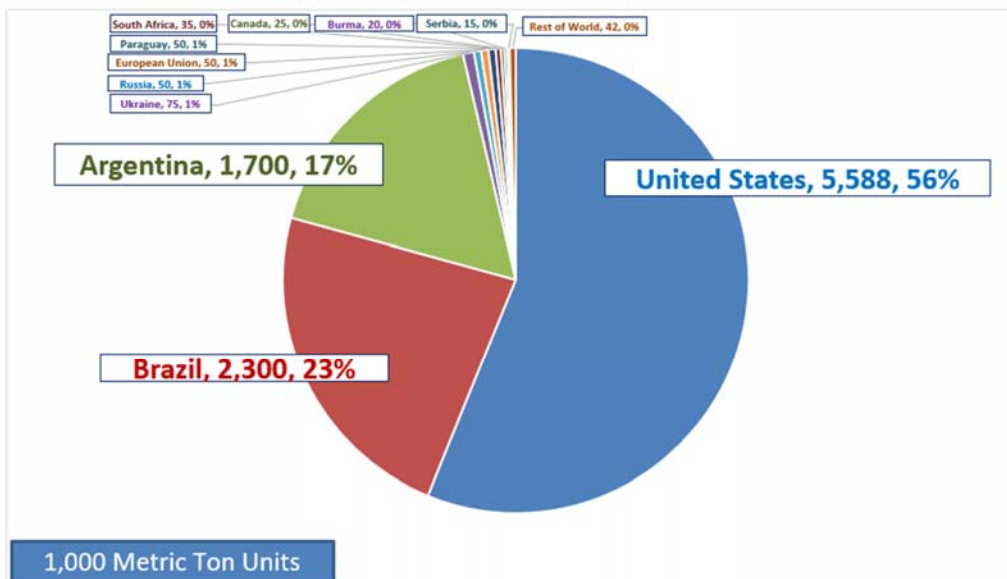
World Sorghum Producers "New Crop" MY 2024/25

USDA FAS PSD-Online, (1,000 mt); as of November 8, 2024



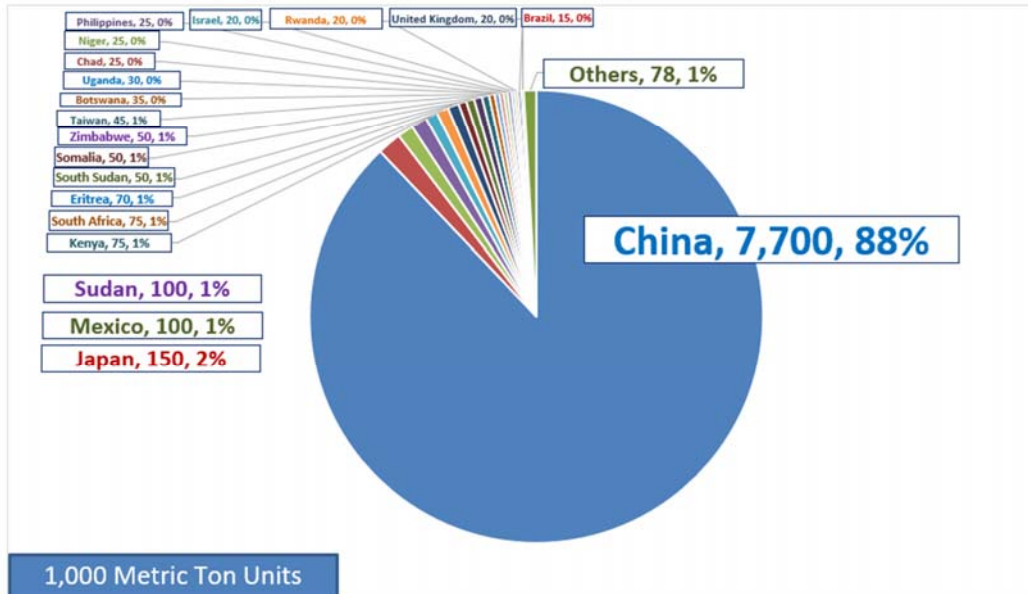
World Sorghum Exporters "New Crop" MY 2024/25

USDA FAS PSD-Online, (1,000 mt); as of November 8, 2024



World Sorghum Importers "New Crop" 2024/25

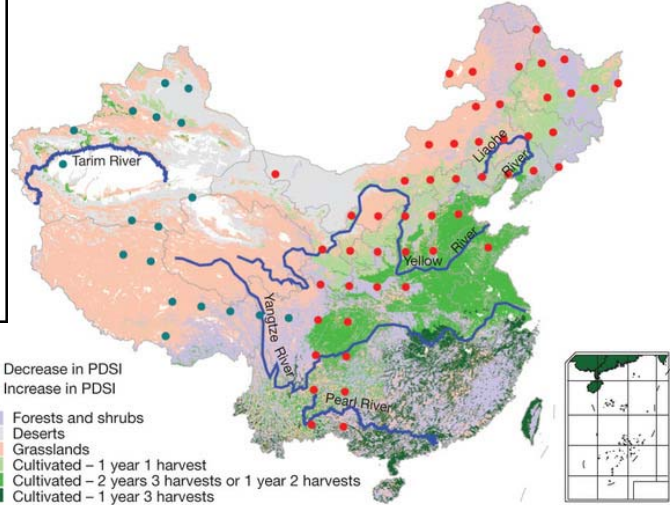
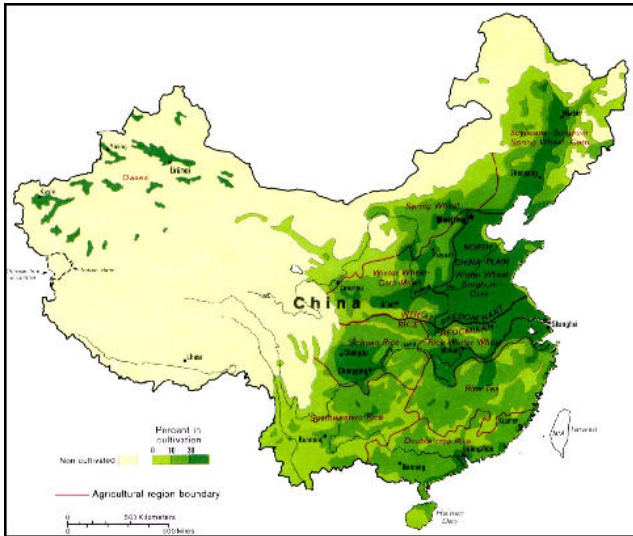
USDA FAS PSD-Online, (1,000 mt); as of November 8, 2024



China Sorghum Supply-Demand

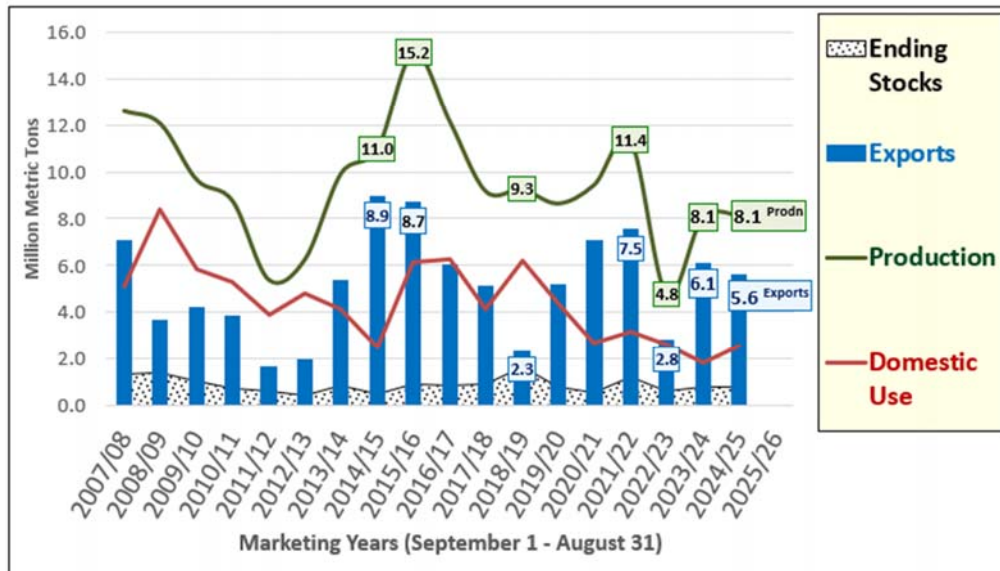
MY 2007/08 – "New Crop" 2024/25 as of the November 8, 2024 USDA WASDE report





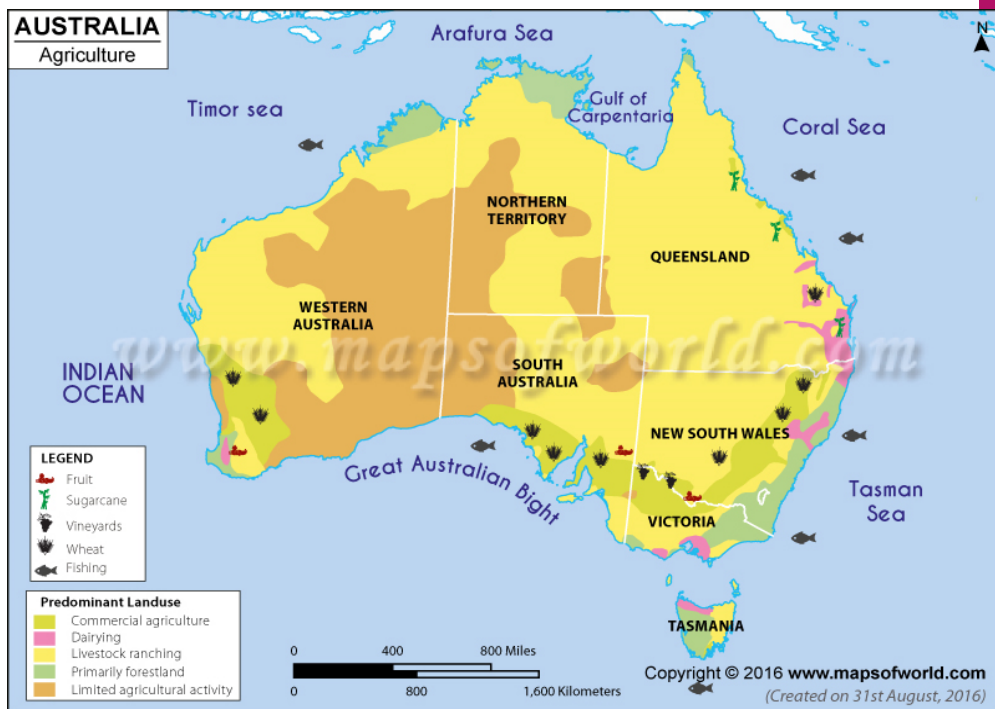
U.S. Sorghum Supply-Demand

MY 2007/08 – “New Crop” 2024/25 as of the November 8, 2024 USDA WASDE



Australia Sorghum S-D

MY 2007/08 – “New Crop” 2024/25 as of the November 8, 2024 USDA WASDE



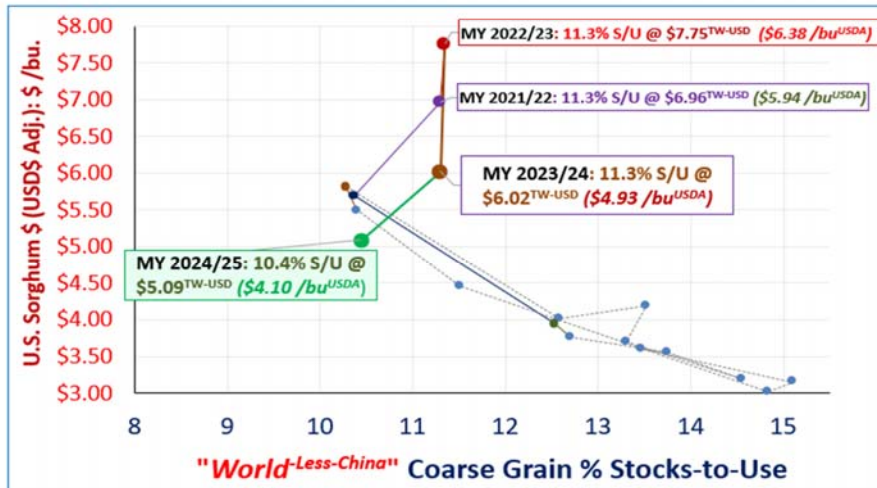
Argentina Sorghum S-D

MY 2007/08 – “New Crop” 2024/25 as of the November 8, 2024 USDA WASDE



U.S. Sorghum Prices *USD\$ Adj.* vs Coarse Grain *World-Less-China* % S/U

MY 2007/08 thru “New Crop” 2024/25 as of the 11/8/2024 USDA WASDE



Questions?

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