

# Economic Hot Topics

January 23, 2025

East Tennessee Grain Conference

Dr. S. Aaron Smith, Professor and Extension Economist

Department of Agricultural and Resource Economics

University of Tennessee Institute of Agriculture

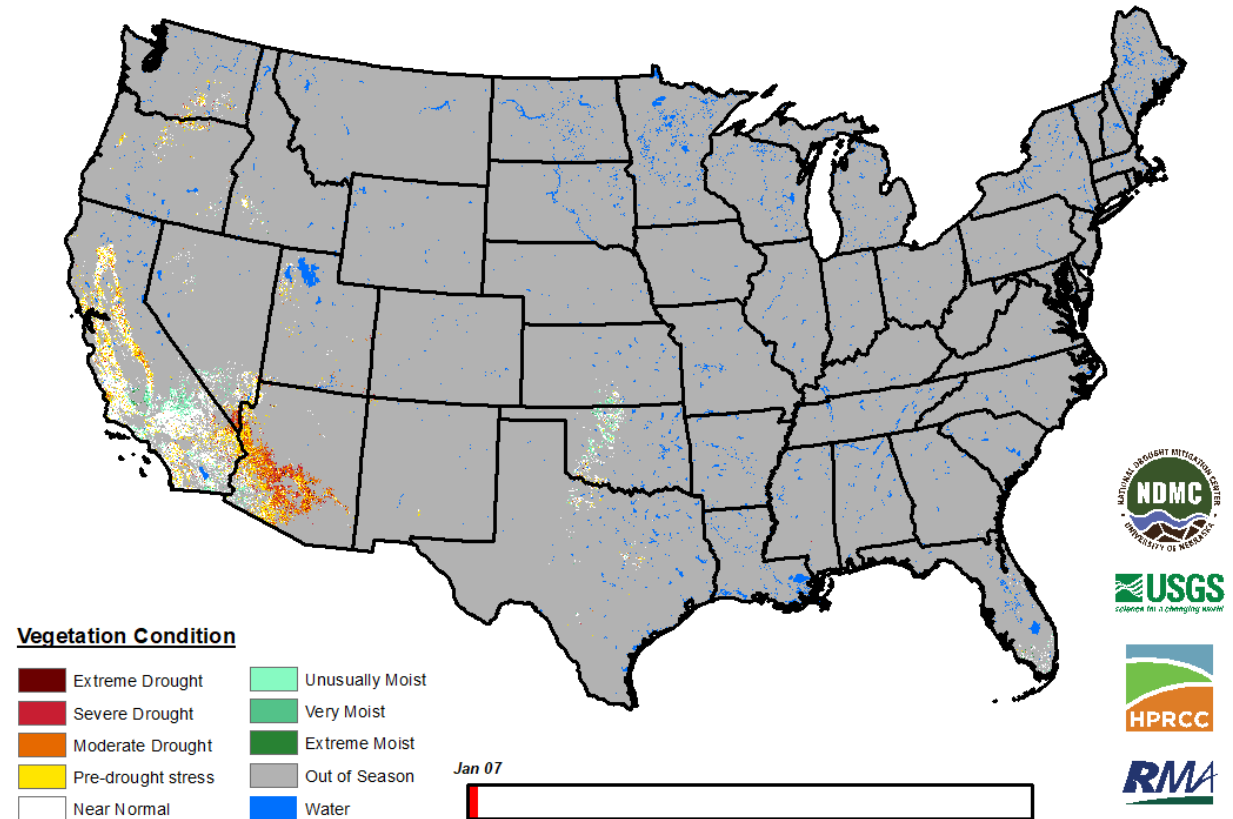
Email: [aaron.smith@utk.edu](mailto:aaron.smith@utk.edu)

Web Page: <https://cropeconomics.tennessee.edu>

# Overview

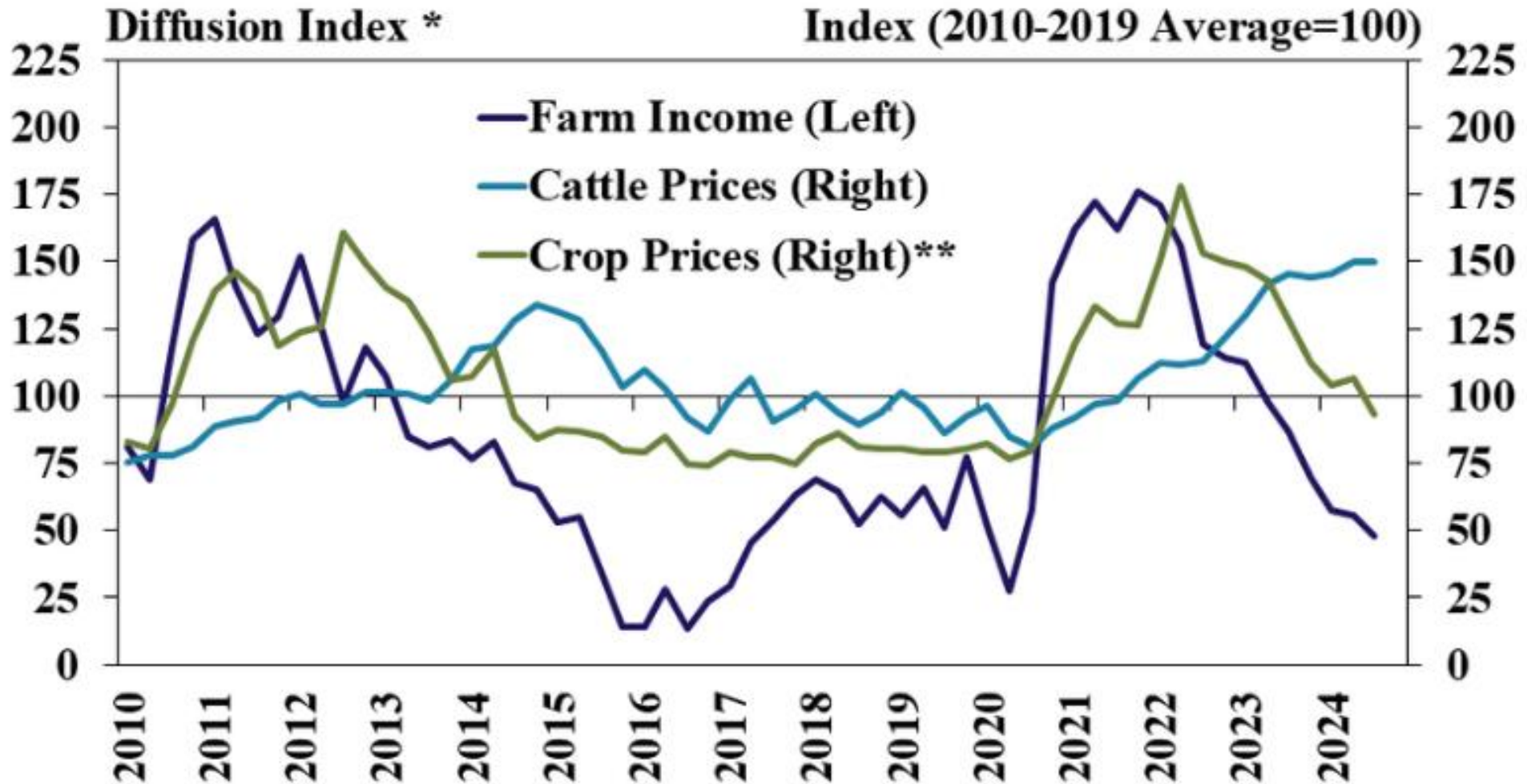
- General Economy, Ag Commodity, and Input Prices
- 2024 Tennessee Profitability
- Policy and Trade
- Corn and Soybean Supply and Demand
- Prices / 2025 Profitability
- Risk Management and Marketing

## 2024 Vegetation Drought Response Index (VegDRI)



Indicator	Unit	Current Measure	Previous	Previous	Last Reported	Previous	
			Reporting	Year		Reporting	
GDP Growth Rate	%	3.1%	3.0%	4.4%	Q3 2024	Q	
US Trade Deficit	Billion \$	74.2	73.6	64.8	Nov-24	M	
Government Expenditures	Billion \$	7,053	6,865	6,527	Q3 2024	Q	
Inflation Rate	%	2.8%	2.6%	3.1%	Nov-24	M	
Bank Prime Rate	%	7.50%	7.8%	8.5%	Dec-24	M	
Federal Funds Rate	%	4.5%	4.6%	5.3%	Dec-24	M	
Unemployment Rate	%	4.1%	4.2%	3.8%	Dec-24	M	
Labor Force Participation Rate	%	62.5%	62.5%	62.5%	Dec-24	M	
Unemployed Persons per Job Opening	Ratio	0.9	0.9	0.7	Nov-24	M	Negative
USD Index	Index	109.5	106.4	102.1	January 10, 2025	M	Positive
DJIA	Index	41,938	44,247	37,592	January 10, 2025	M	No Change
S&P	Index	5,827	6,035	4,784	January 10, 2025	M	
NASDAQ	Index	19,162	19,687	14,973	January 10, 2025	M	
Personal Consumption Expenditures	Billion \$	20,196	20,114	19,151	Nov-24	M	
Retail Sales	% MoM	0.70%	0.50%	0.10%	Nov-24	M	
Existing Home Sales	Million	4.15	3.96	3.91	Nov-24	M	
Housing Starts	Million	1,289	1,312	1,510	Nov-24	M	
Credit Card Delinquency	%	11.1%	10.9%	9.4%	Q3 2024	Q	
Auto Loan Delinquency	%	4.6%	4.4%	3.9%	Q3 2024	Q	
Mortgage Delinquency	%	0.7%	0.6%	0.5%	Q3 2024	Q	
Federal Deficit	Brillion \$	624	284	381	Nov-24	M	
Federal Debt	Trillion \$	36.17	36.17	34.02	Jan-25	M	

# Farm Income and Commodity Prices- Kansas City Federal Reserve Bank



Source: Kansas City Federal Reserve Bank - <https://www.kansascityfed.org/agriculture/ag-credit-survey/credit-conditions-tighten-gradually/>

Commodity	Source	Current	Previous Month	Previous Year	% Change Month	% Change Year
Corn	Futures	4.7	4.49	4.43	4.7%	6.1%
Soybean	Futures	10.25	9.94	12.27	3.1%	-16.5%
Wheat	Futures	5.3	5.61	5.82	-5.5%	-8.9%
Cotton	Futures	67.01	69.48	81.33	-3.6%	-17.6%
Soybean Meal	Futures	298.3	298.3	371.1	0.0%	-19.6%
Class III Milk	Futures	20.27	19.25	15.73	5.3%	28.9%
Lean Hogs	Futures	82.55	84.575	77.575	-2.4%	6.4%
Live Cattle	Futures	198.775	189.025	175.175	5.2%	13.5%
Feeder Cattle	Futures	269.4	257.325	228.825	4.7%	17.7%
Whole Broiler*	LMIC	134.22	135.3	129.54	-0.8%	3.6%
Crude Oil	Futures	76.57	68.59	72.52	11.6%	5.6%
Natural Gas	Futures	3.989	3.163	2.477	26.1%	61.0%
Urea	DTN	489	498	536	-1.8%	-8.8%
UAN-32	DTN	364	364	394	0.0%	-7.6%
Potash	DTN	444	443	514	0.2%	-13.6%
DAP	DTN	739	740	721	-0.1%	2.5%
Lumber	Futures	608	564.5	559	7.7%	8.8%
Copper	Futures	4.304	4.272	3.766	0.7%	14.3%
Gold	Futures	2,715.0	2,718.0	2,030.0	-0.1%	33.7%

Up  
Down

\*Week Change

# Tennessee Corn

	Yield (bu/acre)	Price (\$/bu)	Gross Revenue (\$/acre)	Acres Harvested (acres)	Tennessee Cash Receipts (\$)
2023	173	\$5.68	\$982.64	890,000	874,549,600
2024*	152	\$4.21	\$607.41	660,000	400,890,600
<b>% Change</b>	<b>-12.1%</b>	<b>-25.9%</b>	<b>-34.9%</b>	<b>-25.8%</b>	<b>-51.7%</b>

\* Estimated as of January 2025

# Tennessee Soybean

	Yield (bu/acre)	Price (\$/bu)	Gross Revenue (\$/acre)	Acres Harvested (acres)	Tennessee Cash Receipts (\$)
2023	51	\$14.39	\$733.89	1,570,000	1,152,207,300
2024*	42	\$9.97	\$418.74	1,800,000	753,732,000
<b>% Change</b>	<b>-17.7%</b>	<b>-30.7%</b>	<b>-42.9%</b>	<b>+14.7%</b>	<b>-34.6%</b>

\* Estimated as of January 2025

# Tennessee Cotton

	Yield (lb/acre)	Price (\$/lb)	Gross Revenue (\$/acre)	Acres Harvested (acres)	Tennessee Cash Receipts (\$)
2023	1,250	\$0.828	\$1,035	260,000	\$269,100,000
2024*	1,066	\$0.666	\$710	250,000	\$177,489,000
<b>% Change</b>	<b>-14.7%</b>	<b>-19.6%</b>	<b>-31.4%</b>	<b>-3.8%</b>	<b>-34.0%</b>

\* Estimated as of January 2025



# Tennessee Wheat

	Yield (bu/acre)	Price (\$/bu)	Gross Revenue (\$/acre)	Acres Harvested (acres)	Tennessee Cash Receipts (\$)
2023	80	\$6.75	\$540	390,000	\$210,600,000
2024*	75	\$5.19	\$389	320,000	\$124,560,000
<b>% Change</b>	<b>-6.3%</b>	<b>-23.1%</b>	<b>-27.9%</b>	<b>-17.9%</b>	<b>-40.9%</b>

\* Estimated as of January 2025

# 2024 Tennessee Corn, Soybean, Cotton, and Wheat Summary

- Prices are down substantially from last year and even more compared to 2022/2023. (follows national trend).
- Tennessee yields are down 6-18% compared to last year. Most states will have yield increases compared to last year.
- **Tennessee Net Cash Receipts for corn, cotton, soybeans, and wheat will be down 41% (~\$1.05 billion) compared to last year.**

# Estimates of the Economic Assistance for Producers Contained in the American Relief Act of 2025

Commodity	Payment (\$/acre)	Projected Tennessee Payments
Corn	\$42.51	\$30M
Cotton	\$87.26	\$25M
Soybeans	\$29.50	\$53M
Wheat	\$30.69	\$10M

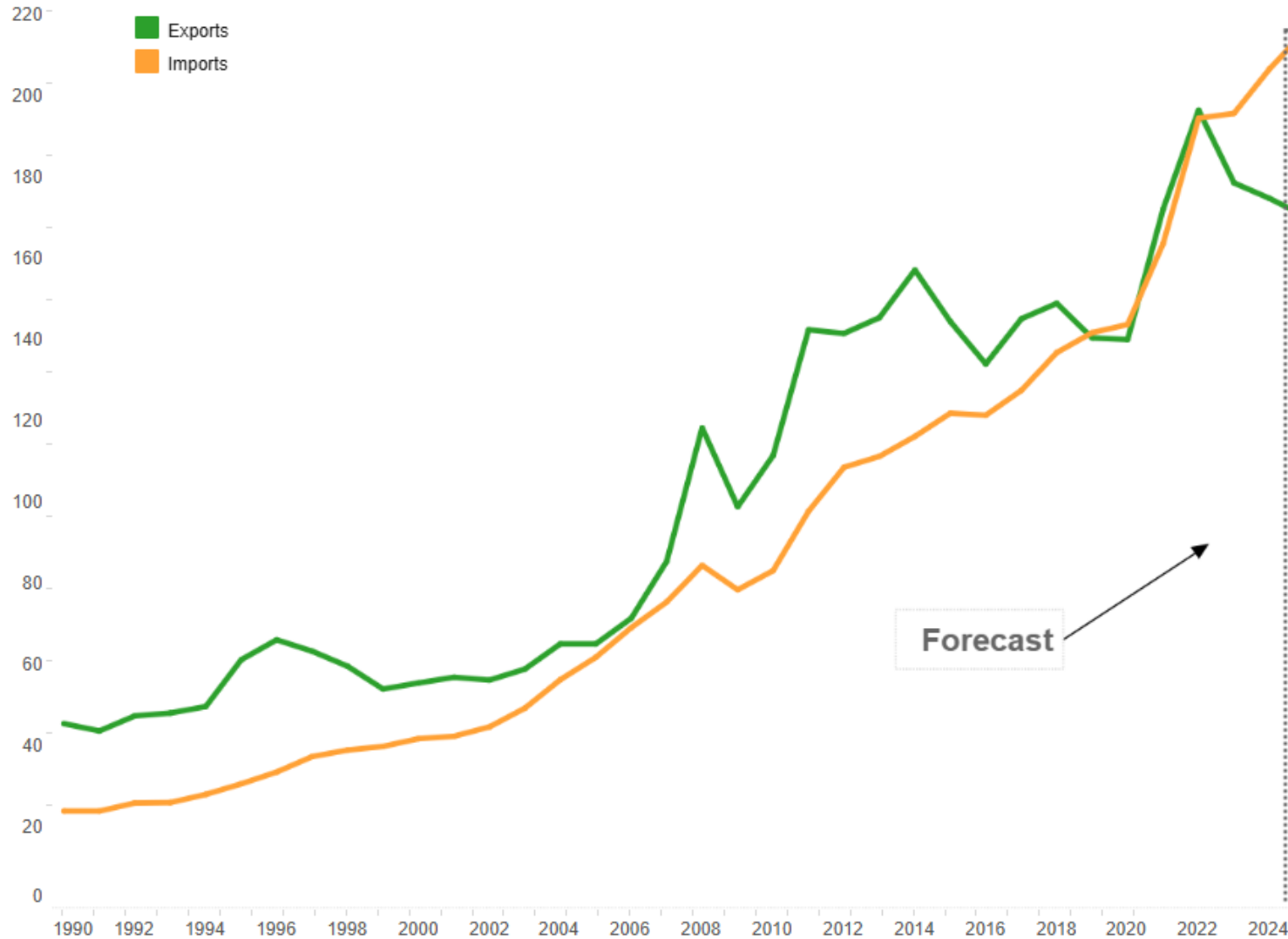
\*FAPRI estimated payment amounts per planted acre

\*50% of prevented planted acres in 2024 eligible for payments

\*Payments to be received by March 21.

## U.S. agricultural trade

Value, billion dollars



Source: USDA, Economic Research Service and USDA, Foreign Agricultural Service analysis and forecasts using data from U.S. Department of Commerce, Bureau of the Census.

# Percent of 2024 Production Projected to be Exported

- **Corn – 16.4%**
- **Soybean – 41.8%**
- **Wheat – 43.1%**
- **Cotton – 76.3%**

# Policy Uncertainty

- Trade Policy, Tariffs, and Retaliatory Tariffs
- Farm Bill versus Ad Hoc payments
- Crop Insurance
- Conservation and Environmental Policy

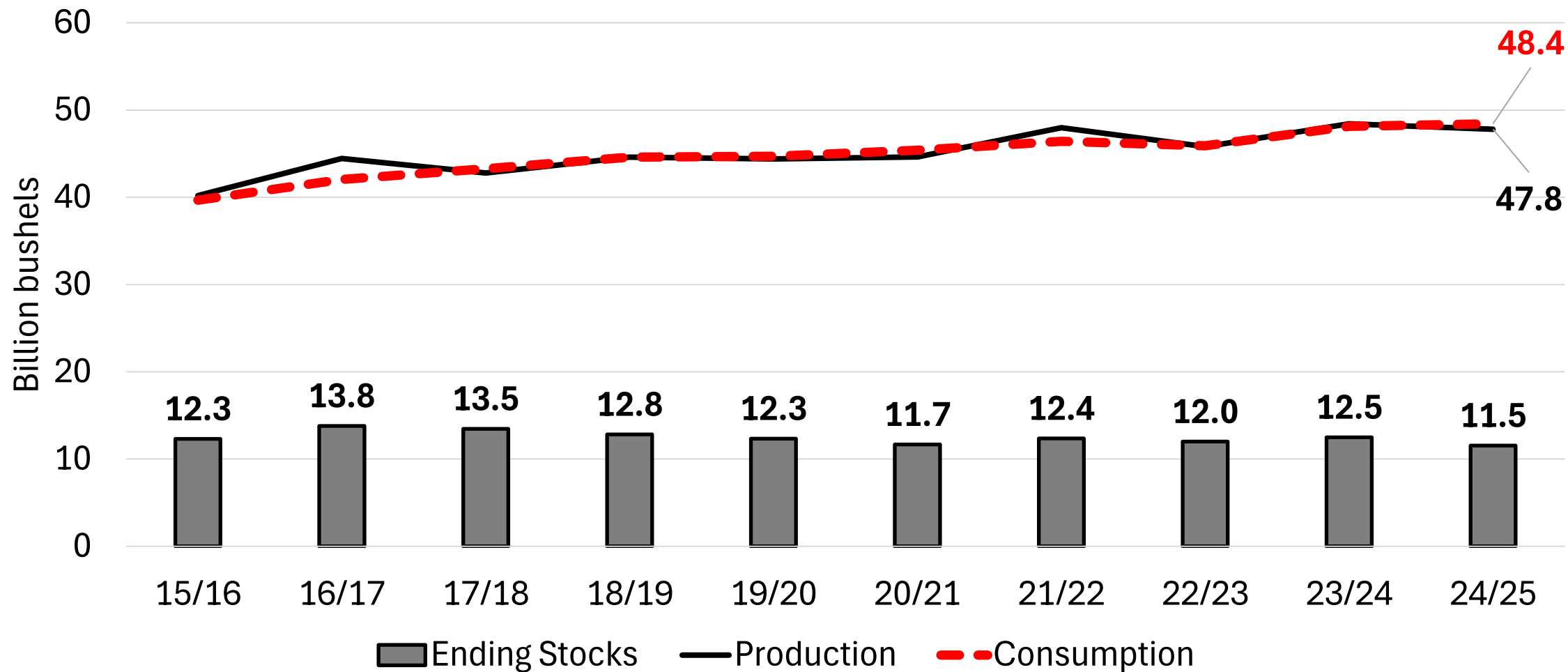


Supply and Demand

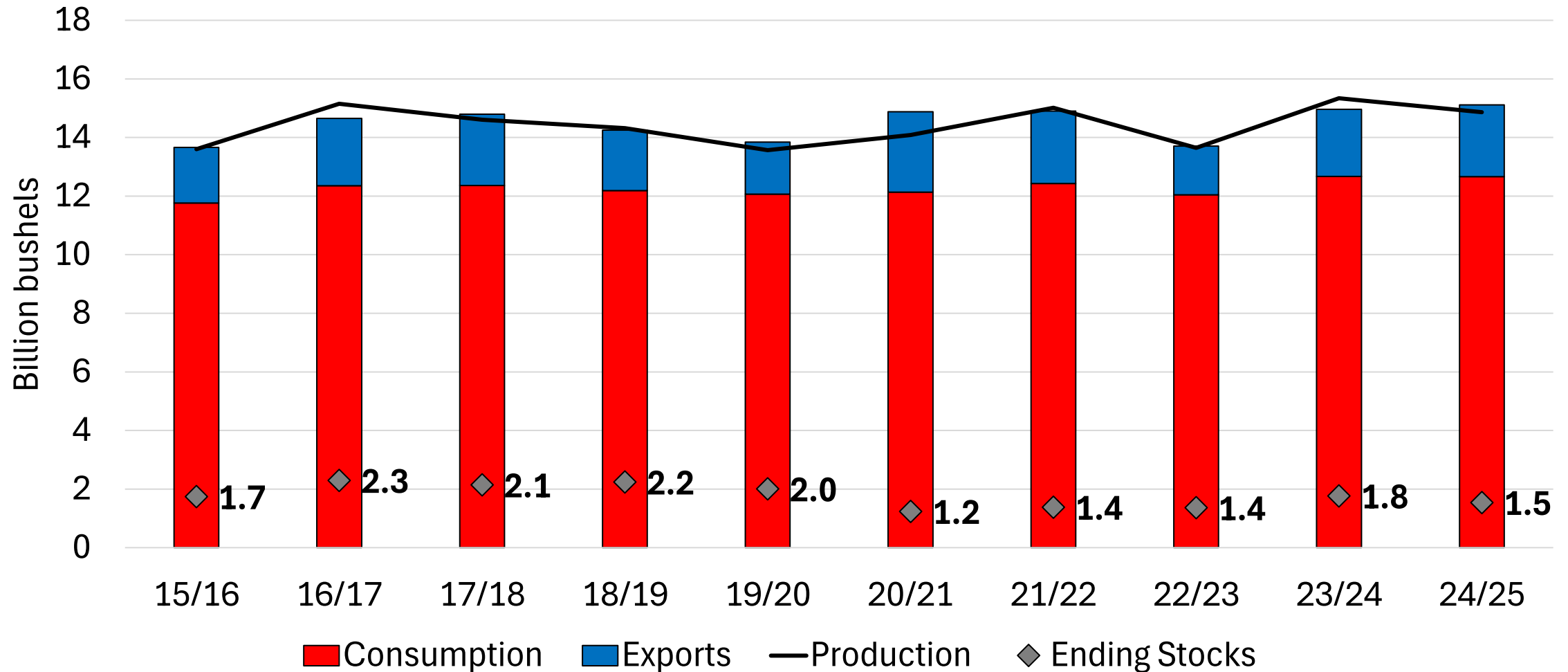
# CORN



# World Corn Production, Consumption, and Ending Stocks, 2015-2024

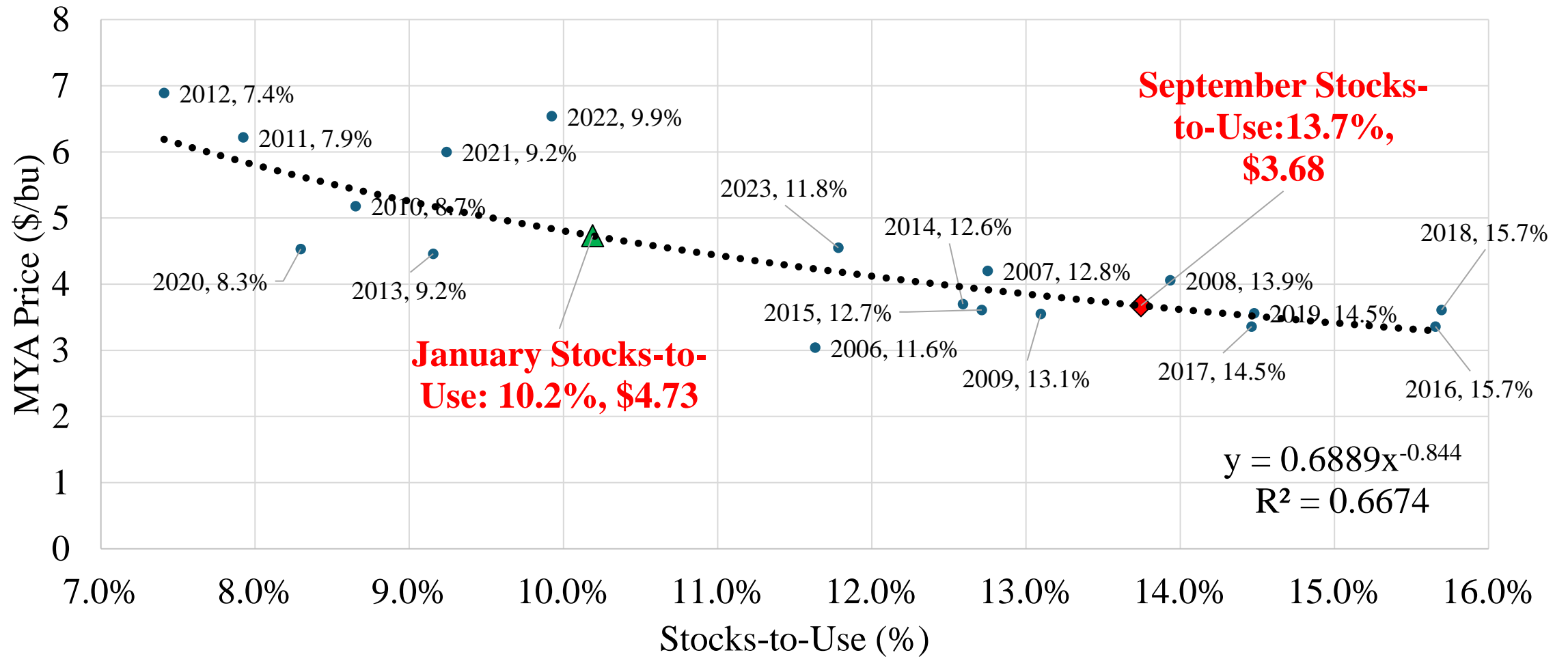


# U.S. Corn Production, Consumption, Exports, and Ending Stocks, 2015-2024





# Corn Stocks-to-Use and MYA Price Relationship, 2006-2024

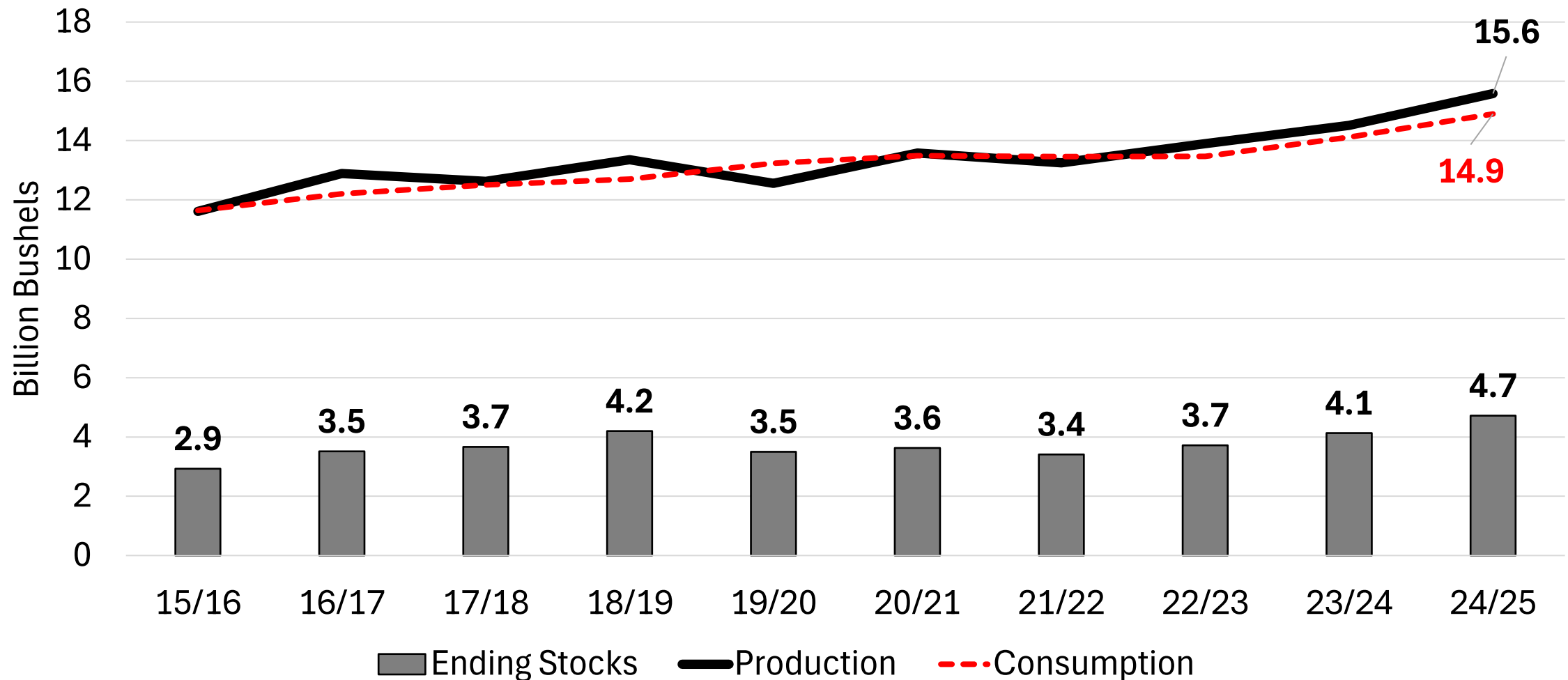




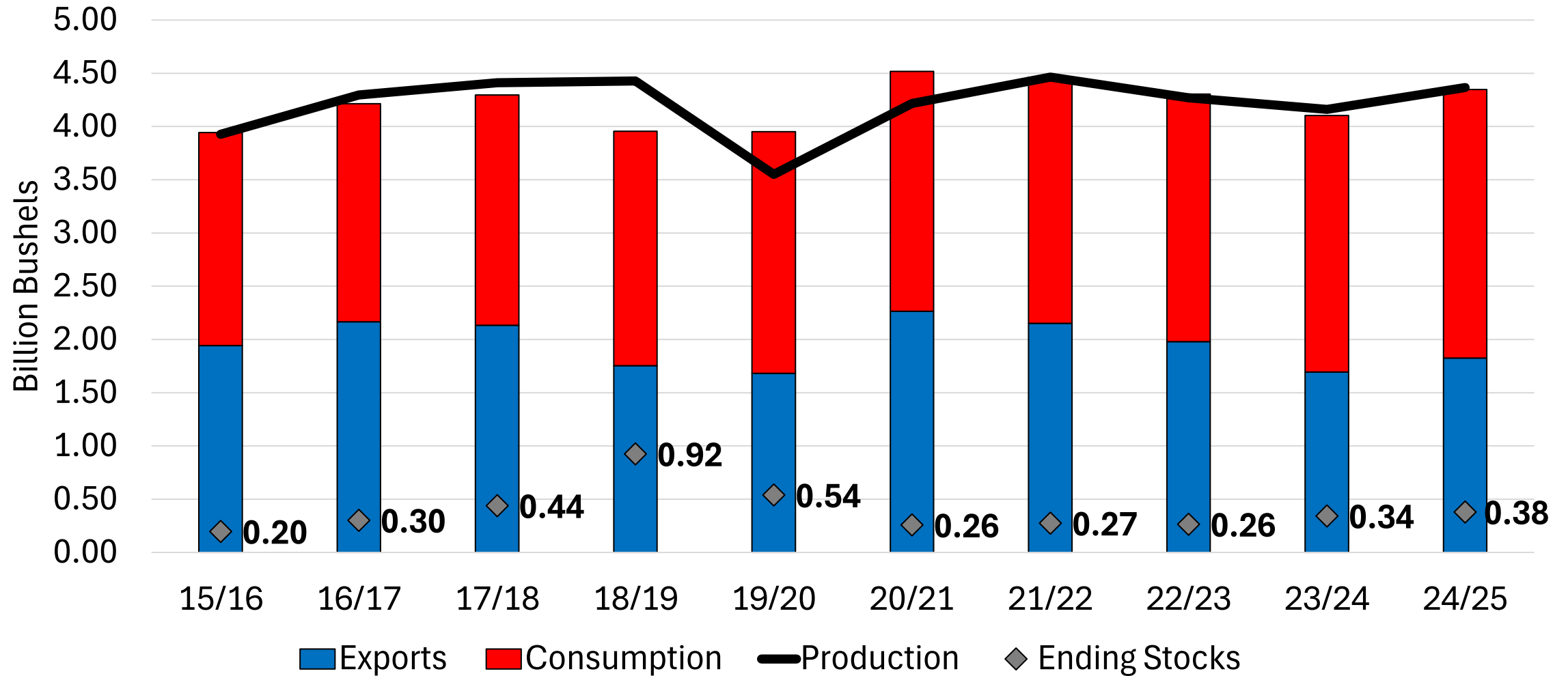
Supply and demand

# SOYBEAN

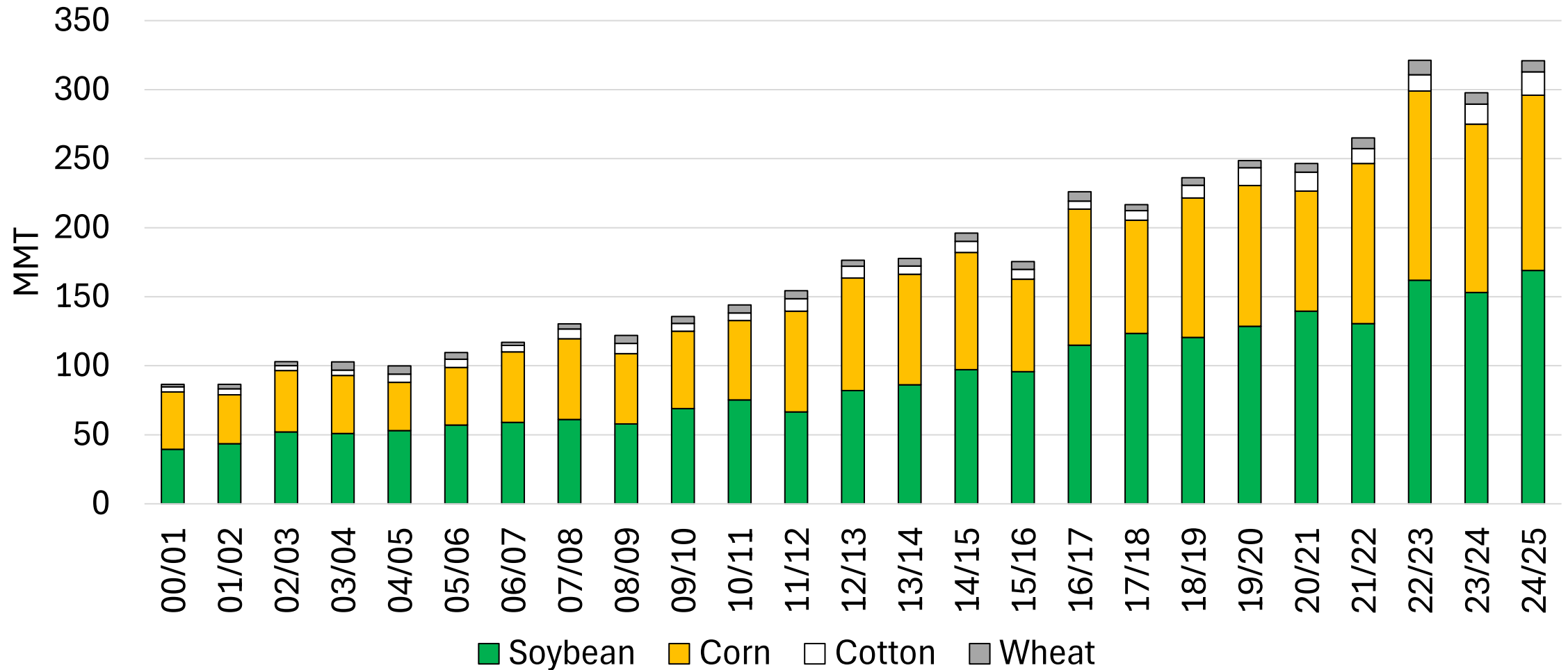
# World Soybean Production, Consumption, and Ending Stocks, 2015-2024



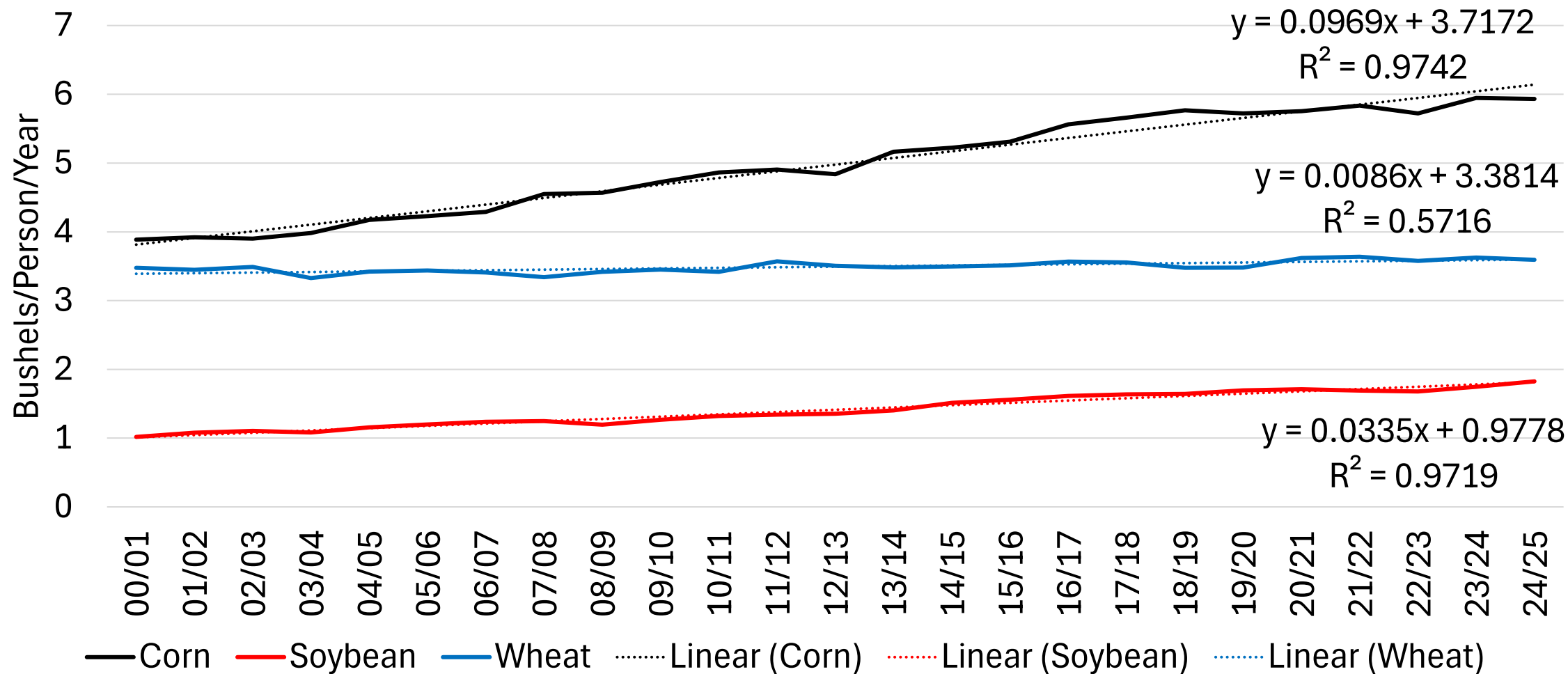
# U.S. Soybean Production, Consumption, Exports, and Ending Stocks, 2015-2024



# Brazil Production Soybean, Corn, Cotton, and Wheat, 2000-2024



# World per Capita Consumption of Corn, Soybeans, and Wheat, 2000-2024



# Corn Supply and Demand Summary

- US estimated corn ending stocks for the 2024/25 marketing year have been decreased for over 2 billion to 1.5 billion from September to January.
- Argentina cut its corn planting by 20% because of disease issues (corn stunt disease)..
- Domestic use of corn and soybeans is easier to project than exports.
- South America production will be key for price direction in soybeans and corn.
- What will use planted acreage allocation be?
  - 2024 – 90.6 million acres of corn; 87.1 million acres of soybeans; Jan-Mar Futures Price Ratio was 2.49
  - 2025 price ratio = 2.28



Old Crop, New Crop, Basis

# CORN AND SOYBEAN PRICES



# Corn Nearby Daily Futures Price, Jan 2021-Jan 2025

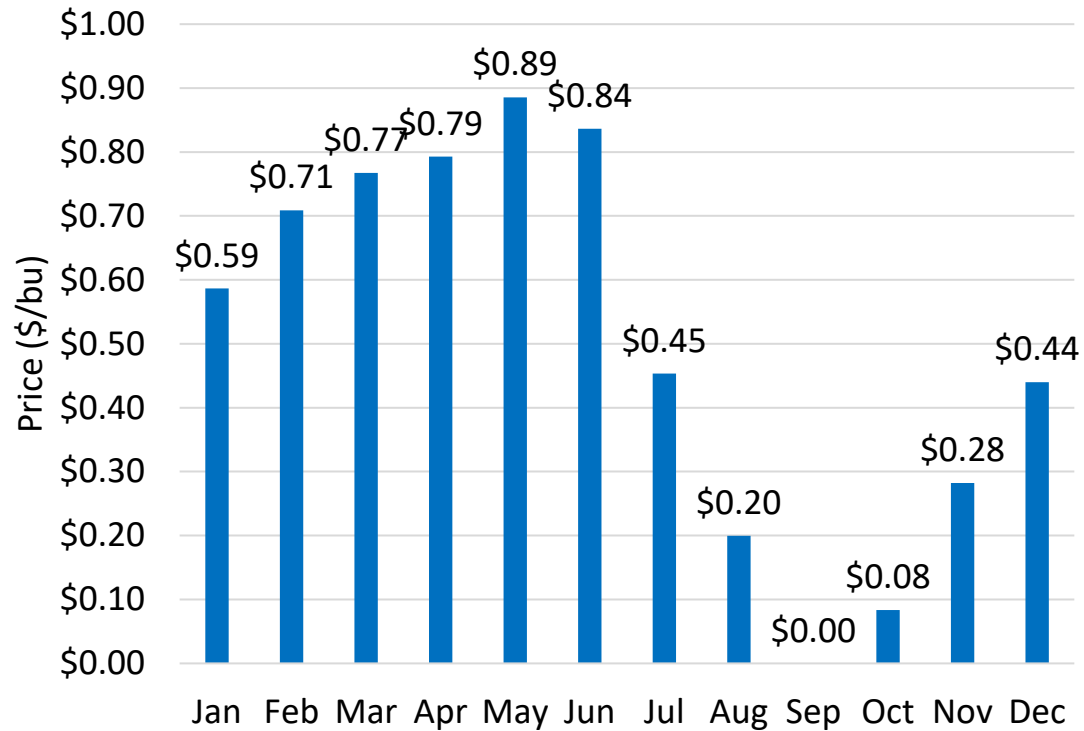


# Soybean Nearby Daily Futures Price, Jan 2021-Jan 2025

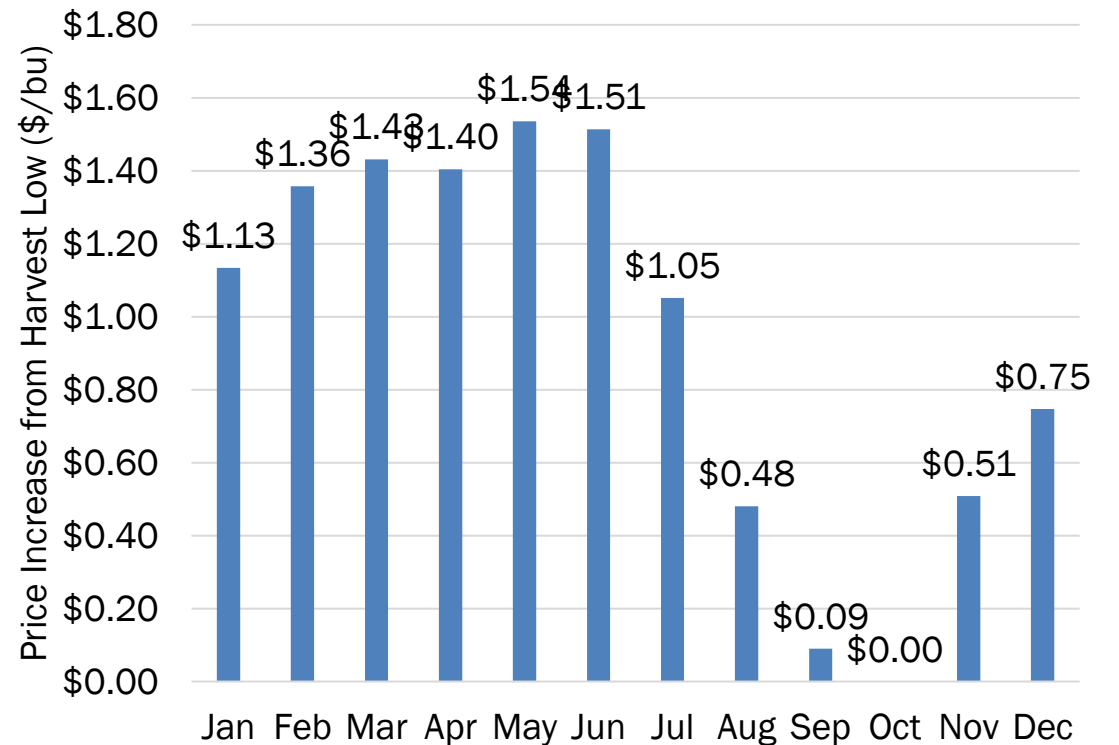


# Storage

**Tennessee Corn - 10 Year Average Cash Price Improvement from the September Low, 2013/14 to 2023/24**



**Tennessee Soybean - 10 Year Average Cash Price Increase from the October Low, 2013/14 to 2023/24**

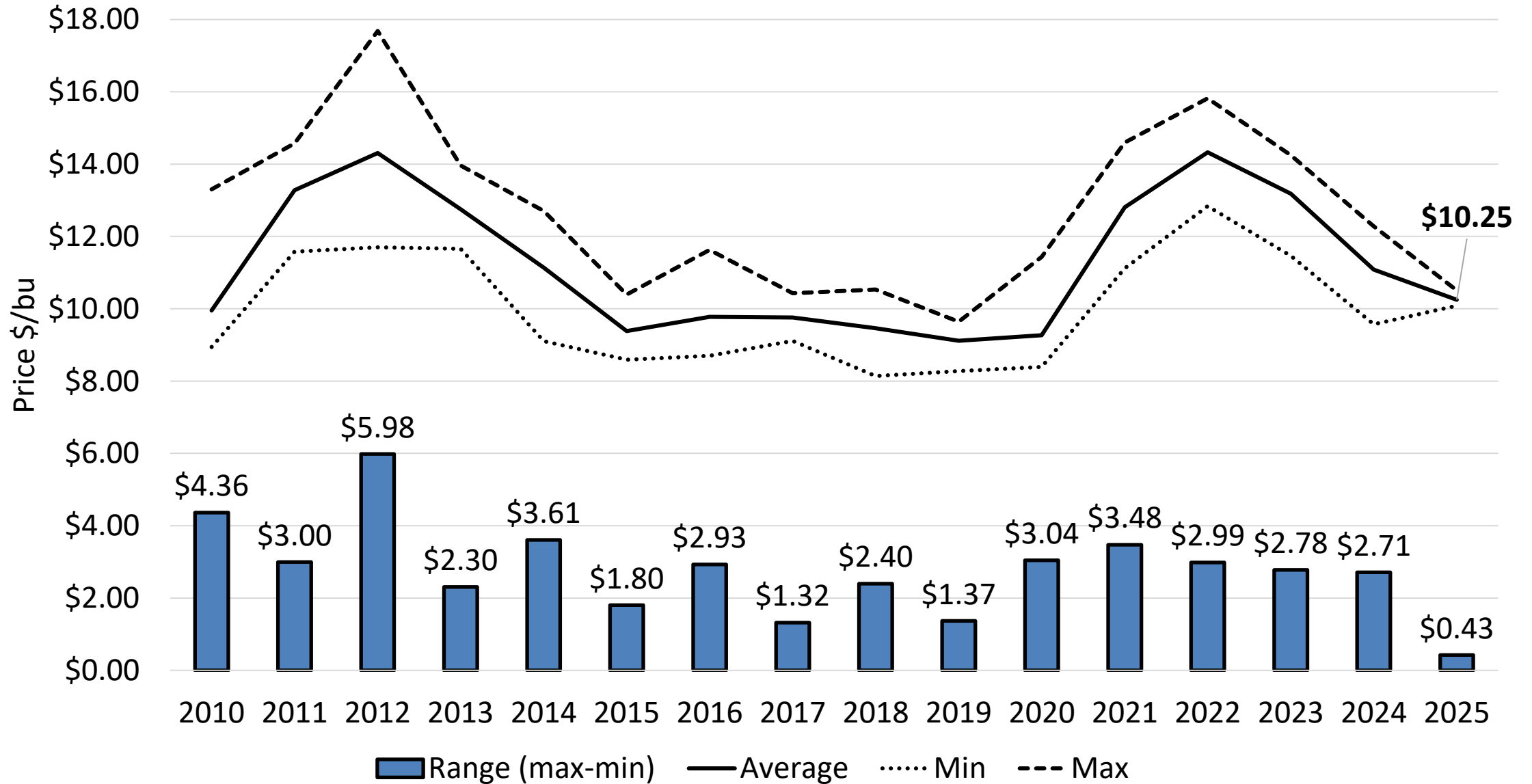


# Basis Opportunities

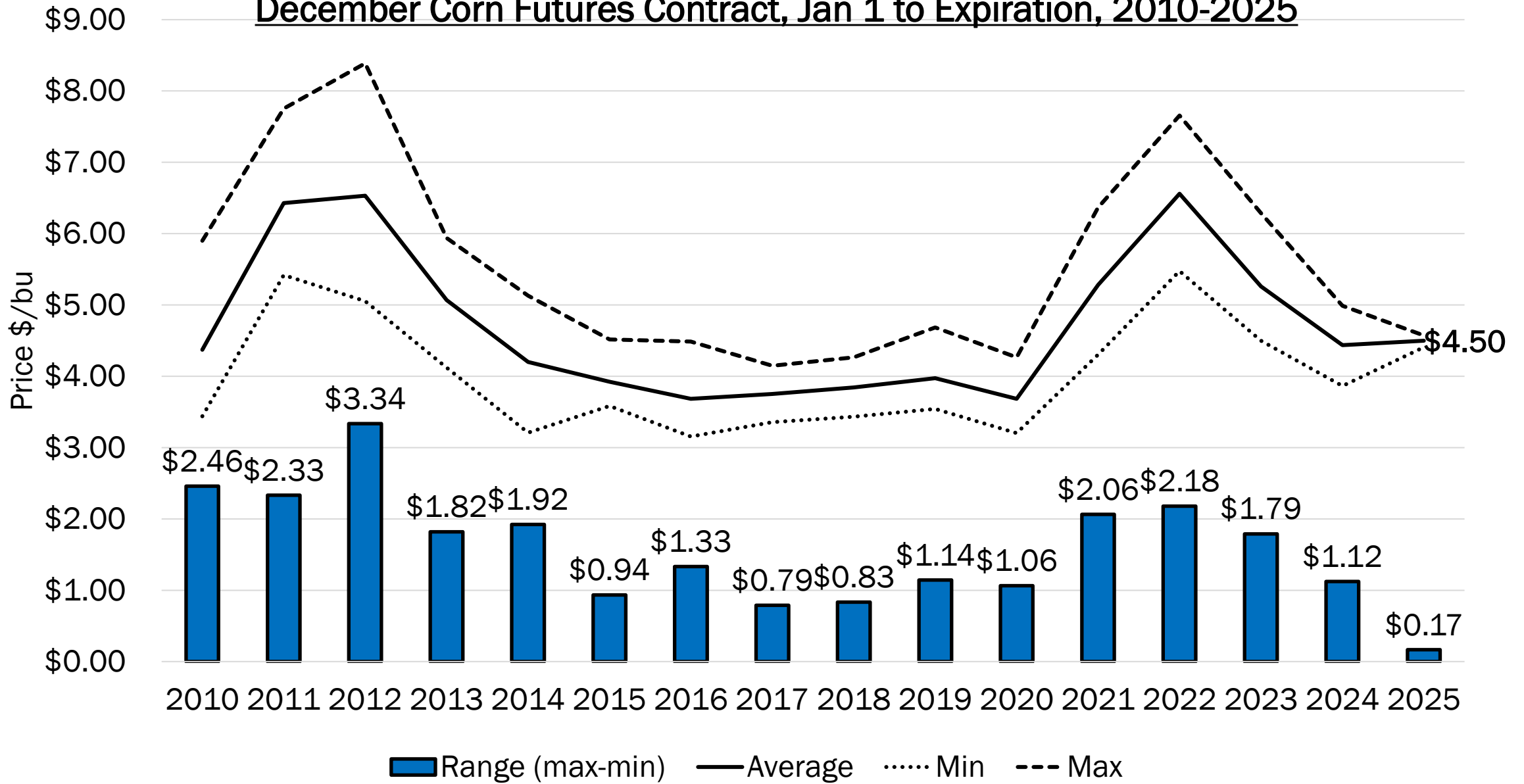
- Production
- Storage capacity
- Transportation
- Market Access



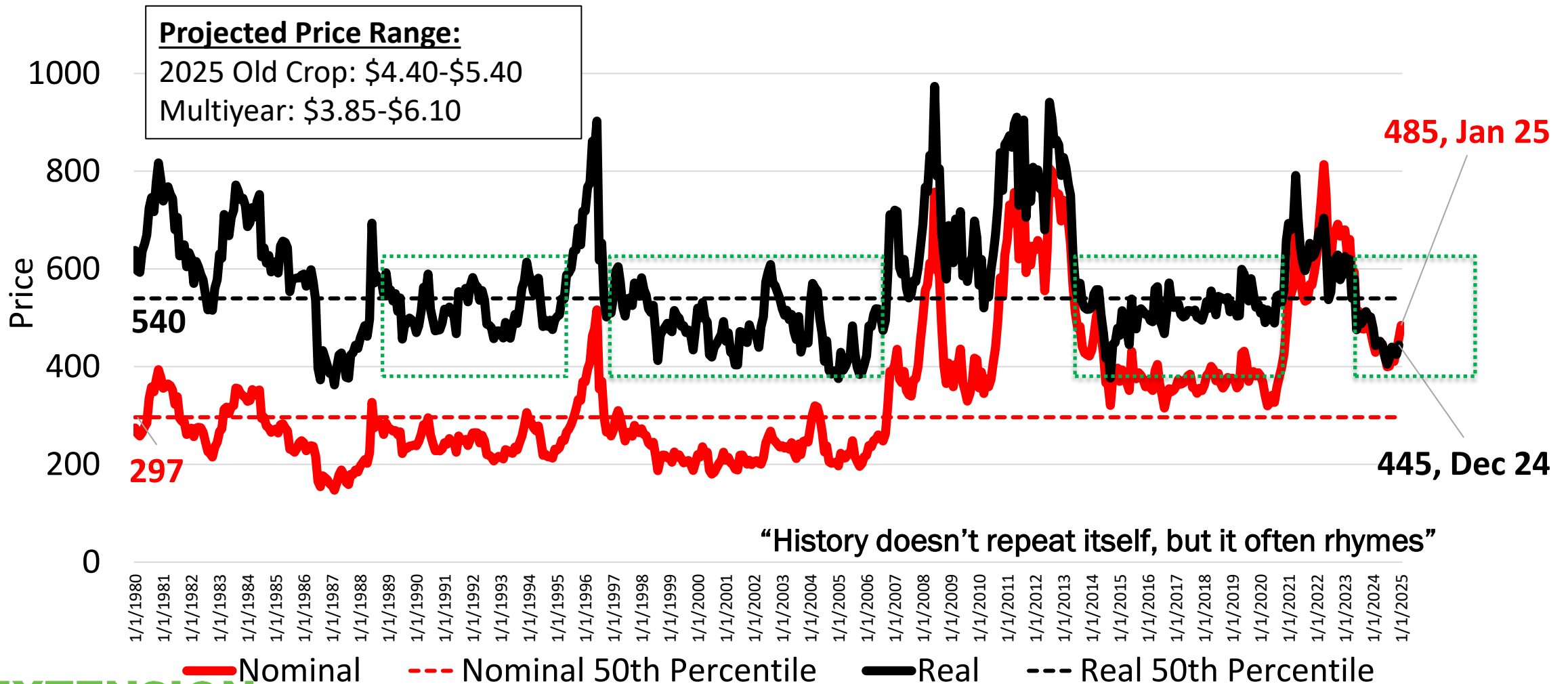
# November Soybean Futures Contract, Jan 1 to Expiration, 2010-2025



# December Corn Futures Contract, Jan 1 to Expiration, 2010-2025



# Monthly Real and Nominal Corn Futures Prices, 1980-2024 (Base= June 2024)



# 2025 Futures Price Projections

	Old Crop	New Crop
Corn	\$4.40-\$5.40	\$3.85-\$6.10
Soybean	\$9.75-\$11.50	\$9.25-\$12.00
Cotton	\$0.65-\$0.73	\$0.65-\$0.77
Wheat	\$5.25-\$6.25	\$5.30-\$6.20

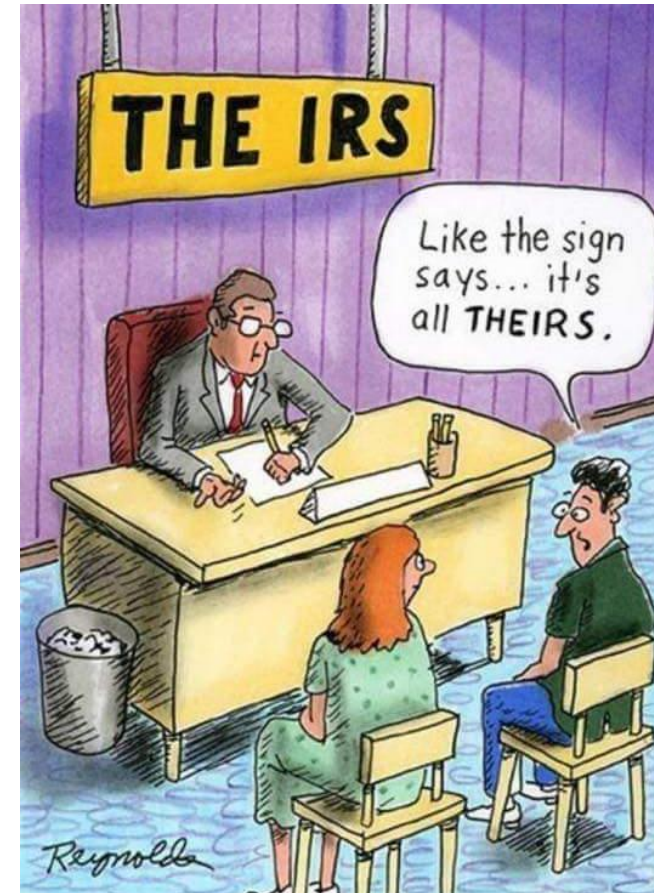


# 2025 Tennessee Crop Budget Summary

Commodity & Production Process	Revenue (\$/Acre)	Variable Expenses (\$/Acre)	Fixed Expenses (\$/Acre)	Returns Over Specified Costs	Cash Cost per Bushel	Economic Cost per Bushel
Corn (175 bu)	\$805	\$534	\$284	(\$12)	\$3.83	\$4.67
Soybeans (50 bu)	\$520	\$315	\$271	(\$67)	\$9.04	\$11.73
Wheat (80 bu)	\$468	\$310	\$264	(\$106)	\$5.59	\$7.17
Cotton (1,150 lb)	\$828	\$598	\$334	(\$104)	\$0.64	\$0.81

# Who's in Your Support Network?

- Lawyer
- Accountant
- Crop Insurance Agent
- **Agricultural Lender**
- Broker / Marketer
- Consultant / Agronomist / Vet
- Extension Agent / Specialist



# Effective Reference Prices (ERPs) for the 2025 Crop Year (ARC/PLC)

Commodity	Units	ERP	2025 Harvest Futures Price Range Year-to-Date	FAPRI MYA Price Estimate
Corn	Bushel	\$4.26	\$4.39-\$4.60	\$4.13
Cotton	Pound	\$0.367	Na (68.5-70.4)	\$0.342
Sorghum	Bushel	\$4.51	Na	\$3.84
Soybeans	Bushel	\$9.66	\$10.00-\$10.57	\$9.65
Wheat	Bushel	\$5.56	\$5.26-\$5.53	\$5.79

\*Estimated January 2025

2024 payments (receive ~ October 2025) ARC-Co versus PLC

# 2024 Tennessee Crop Insurance Summary

Commodity	Acres Insured	Companion /Endorsed acres	Liabilities Million \$	Premium Million \$	Subsidy Million \$	Indemnity Million \$	Loss Ratio	Prod. Loss Ratio
Corn	667,001	63,258	\$370.32	\$32.93	\$21.82	\$44.84	1.36	4.04
Cotton	278,357	11,286	\$156.48	\$11.88	\$8.77	\$9.83	0.83	3.17
Soybean	1,583,420	165,006	\$647.71	\$48.08	\$32.21	\$49.06	1.02	3.09
Wheat	278,369	17,870	\$91.50	\$9.35	\$6.68	\$4.14	0.44	1.55
Total	2,807,147	257,420	\$1,266.02	\$102.23	\$69.48	\$107.87	1.06	3.29

\*as at January 13, 2025

# Crop Insurance Coverage

APH (bu)	Price (\$/bu) Futures +/- Expected Basis	Projected Revenue (\$/acre)	Crop Ins. Projected Revenue (\$/acre)	Crop Ins. Purchased Coverage	Crop Ins. Guarantee (\$/acre)	Crop Ins. Coverage vs. Expected Revenue (%)
175	\$4.50	\$788	\$788	70%	\$552	70%
175	\$5.00 (\$4.50+\$0.5)	\$875	\$788	70%	\$552	63%
175	\$4.00 (\$4.50-\$0.5)	\$700	\$788	70%	\$552	79%

# Crop Marketing

- Protect the downside
- Manage for profit
- Evaluate storage vs projected production
- Identify risk intervals
- Price incrementally
- Disaggregate futures and basis

# Take Home Message

- 2024 was a challenging production year for many Tennessee row crop farmers
- Prices have increased from recent lows. 2025 prices are uncertain but will likely be in a lower price environment than 2022/2023.
- Managing profit margin, not price is essential
- Utilize risk management and marketing tools

Aaron Smith, Professor and Extension Economist  
Department of Agricultural and Resource Economics  
University of Tennessee Institute of Agriculture

Email: [aaron.smith@utk.edu](mailto:aaron.smith@utk.edu)

Web Page: <https://cropeconomics.tennessee.edu>

# THANK YOU

