

# Grain Market Update and Risk Management Insights

February 7, 2025

KY/TN Grain Conference

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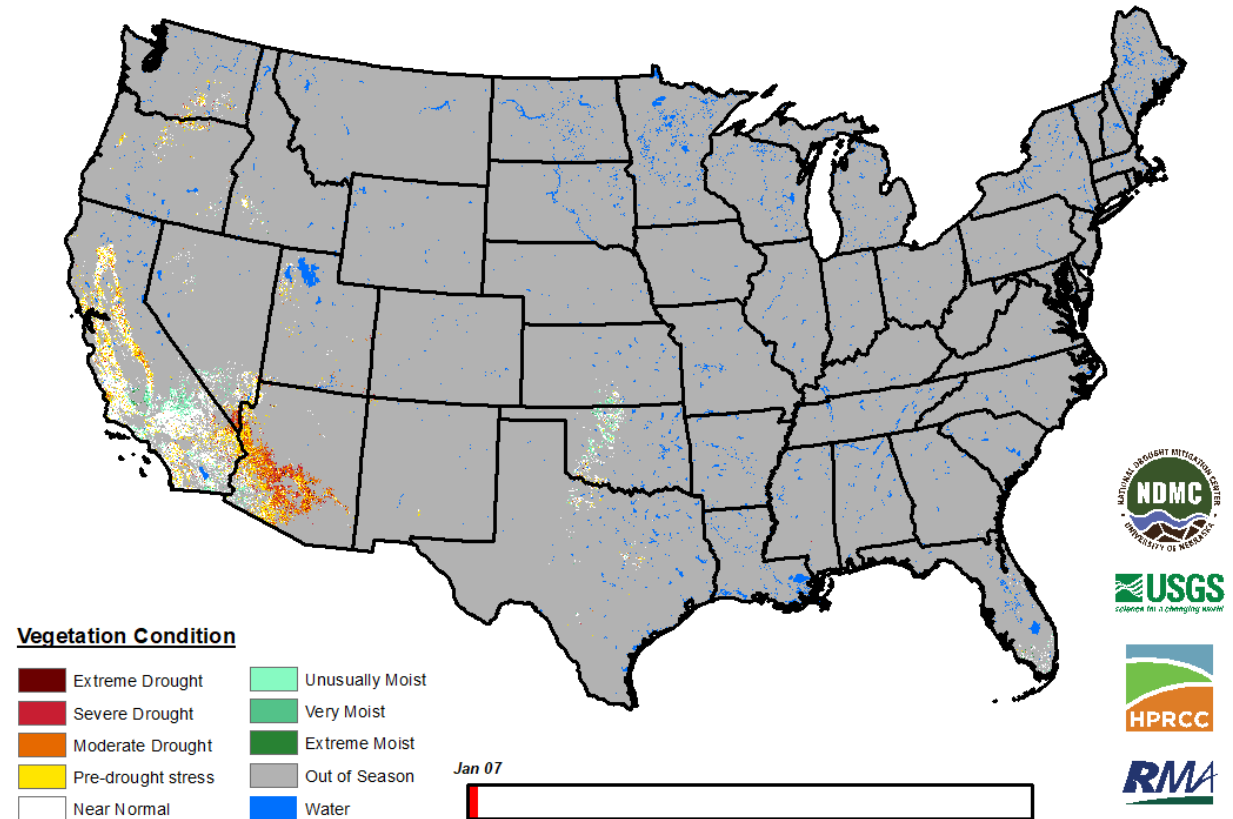
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# Overview

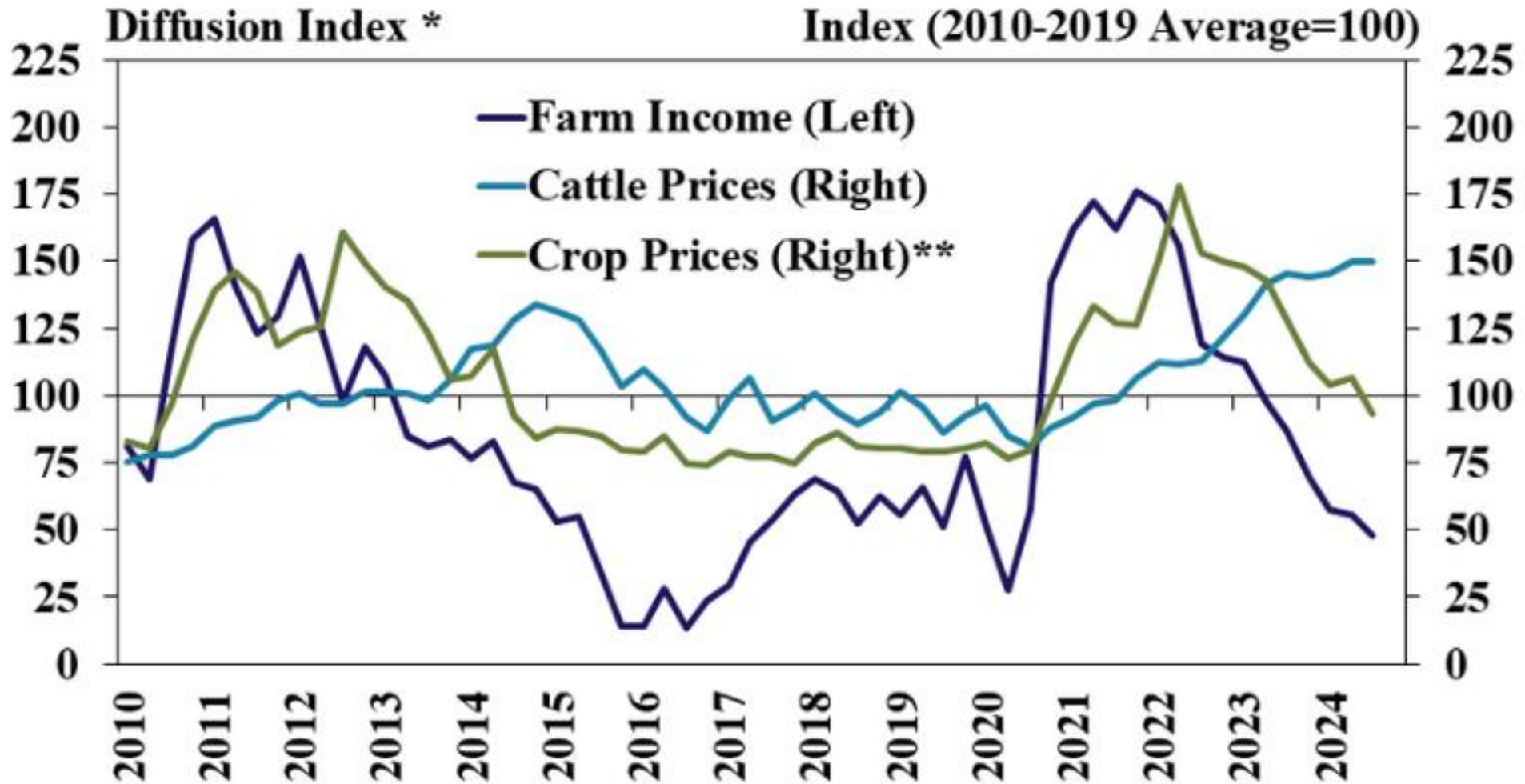
- General Economy, Ag Commodity, and Input Prices
- Policy and Trade
- Corn and Soybean Supply and Demand
- Prices / 2025 Profitability
- Risk Management and Marketing

**2024** Vegetation Drought Response Index (VegDRI)



Indicator	Unit	Current Measure	Previous Reporting	Previous Year	Last Reported	Previous Reporting	
			Period			Time	
GDP Growth Rate	%	2.3%	3.1%	3.2%	Q4 2024	Q	
US Trade Deficit	Billion \$	78.2	73.6	64.8	Nov-24	M	
Government Expenditures	Billion \$	7,107	7,052	6,620	Q4 2024	Q	
Inflation Rate	%	2.9%	2.8%	3.4%	Dec-24	M	
Bank Prime Rate	%	7.50%	7.5%	8.5%	Jan-25	M	
Federal Funds Rate	%	4.3%	4.5%	5.3%	Jan-25	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	Dec-24	M	Negative
USD Index	Index	107.5	108.1	104.7	6-Feb-25	M	Positive
DJIA	Index	44,747	42,706	38,521	6-Feb-25	M	No Change
S&P	Index	6,084	5,975	4,954	6-Feb-25	M	
NASDAQ	Index	19,791	19,864	15,609	6-Feb-25	M	
Personal Consumption Expenditures	Billion \$	20,387	20,253	19,289	Dec-24	M	
Retail Sales	% MoM	0.40%	0.80%	0.40%	Dec-24	M	
Existing Home Sales	Million	4.24	4.15	3.88	Dec-24	M	
Housing Starts	Million	1,499	1,294	1,568	Dec-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 \$	711	624	510	Dec-24	M	
Federal Debt	Trillion \$	36.22	36.17	34.16	Feb-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	4.95	4.57	4.3	8.3%	15.1%
Soybean	Futures	10.6	9.97	11.93	6.3%	-11.1%
Wheat	Futures	5.87	5.4	5.97	8.7%	-1.7%
Cotton	Futures	66.03	68.68	91.3	-3.9%	-27.7%
Soybean Meal	Futures	306	307	342	-0.3%	-10.5%
Class III Milk	Futures	19.9	19.45	16.19	2.3%	22.9%
Lean Hogs	Futures	91.75	79.65	81.125	15.2%	13.1%
Live Cattle	Futures	196.775	195.2	185.925	0.8%	5.8%
Feeder Cattle	Futures	265.3	265	248.825	0.1%	6.6%
Whole Broiler*	LMIC	130.86	133.72	126.62	-2.1%	3.3%
Crude Oil	Futures	70.59	73.56	77.56	-4.0%	-9.0%
Natural Gas	Futures	3.374	3.112	1.689	8.4%	99.8%
Urea	DTN	514	489	527	5.1%	-2.5%
UAN-32	DTN	383	364	390	5.2%	-1.8%
Potash	DTN	436	444	509	-1.8%	-14.3%
DAP	DTN	743	739	735	0.5%	1.1%

Up  
Down

# 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.

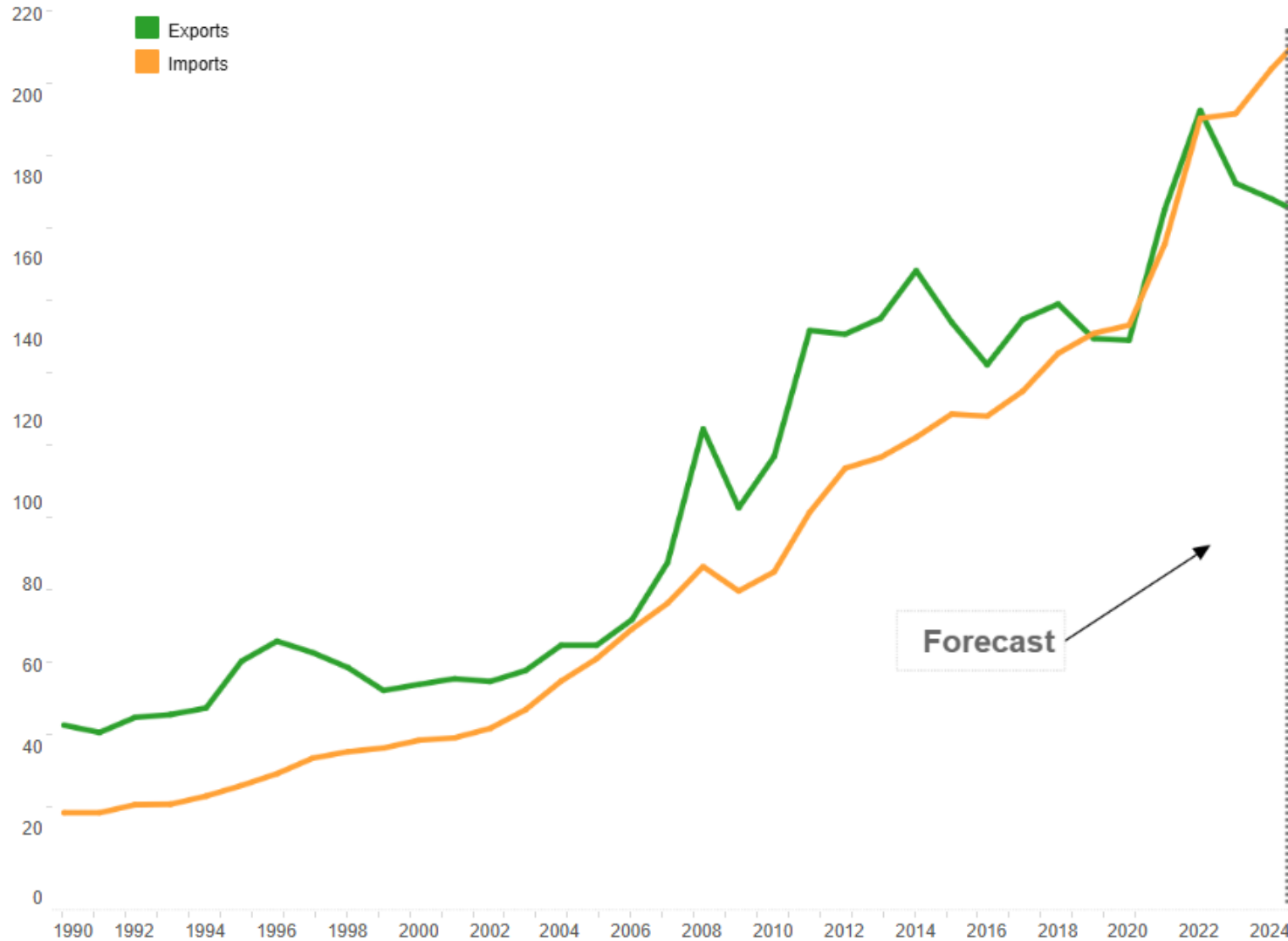
# Policy Uncertainty

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



## 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%**

More than 80% of the U.S. supply of potash comes from Canada.

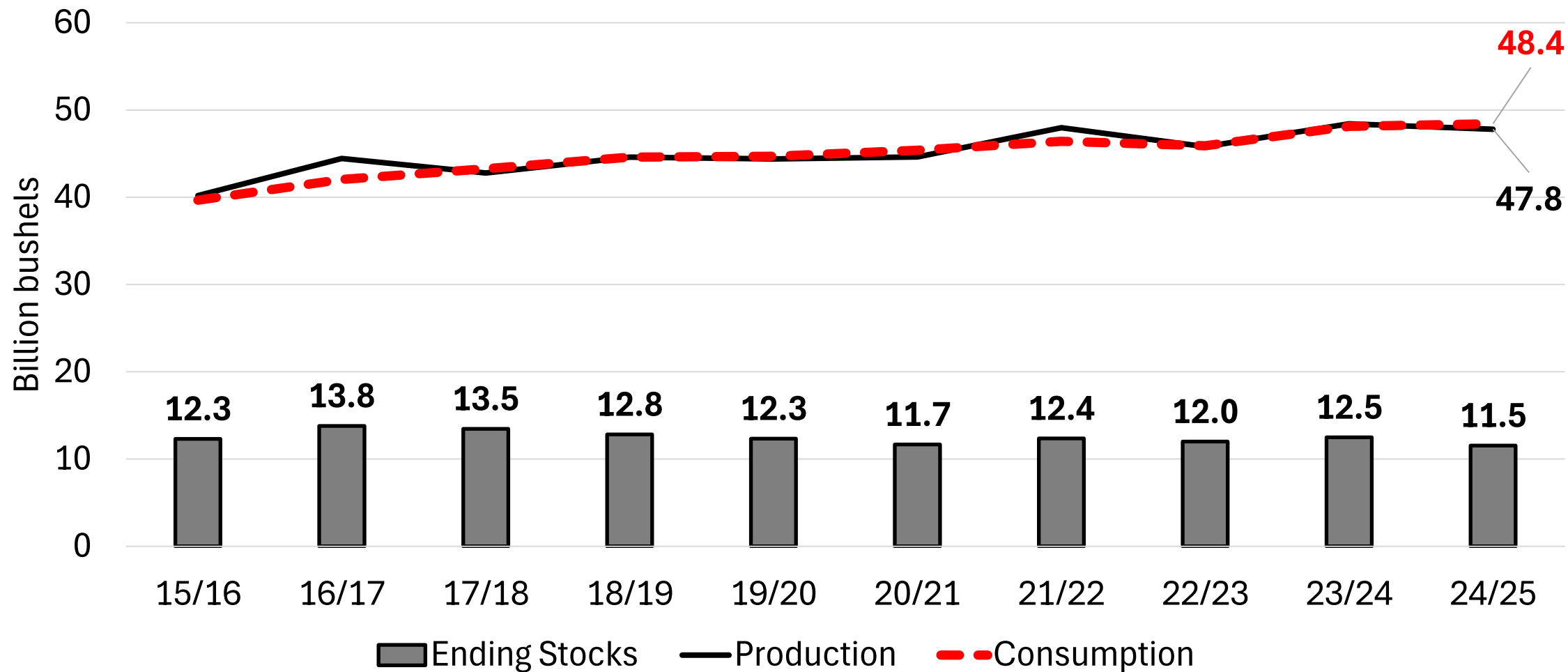


Supply and Demand

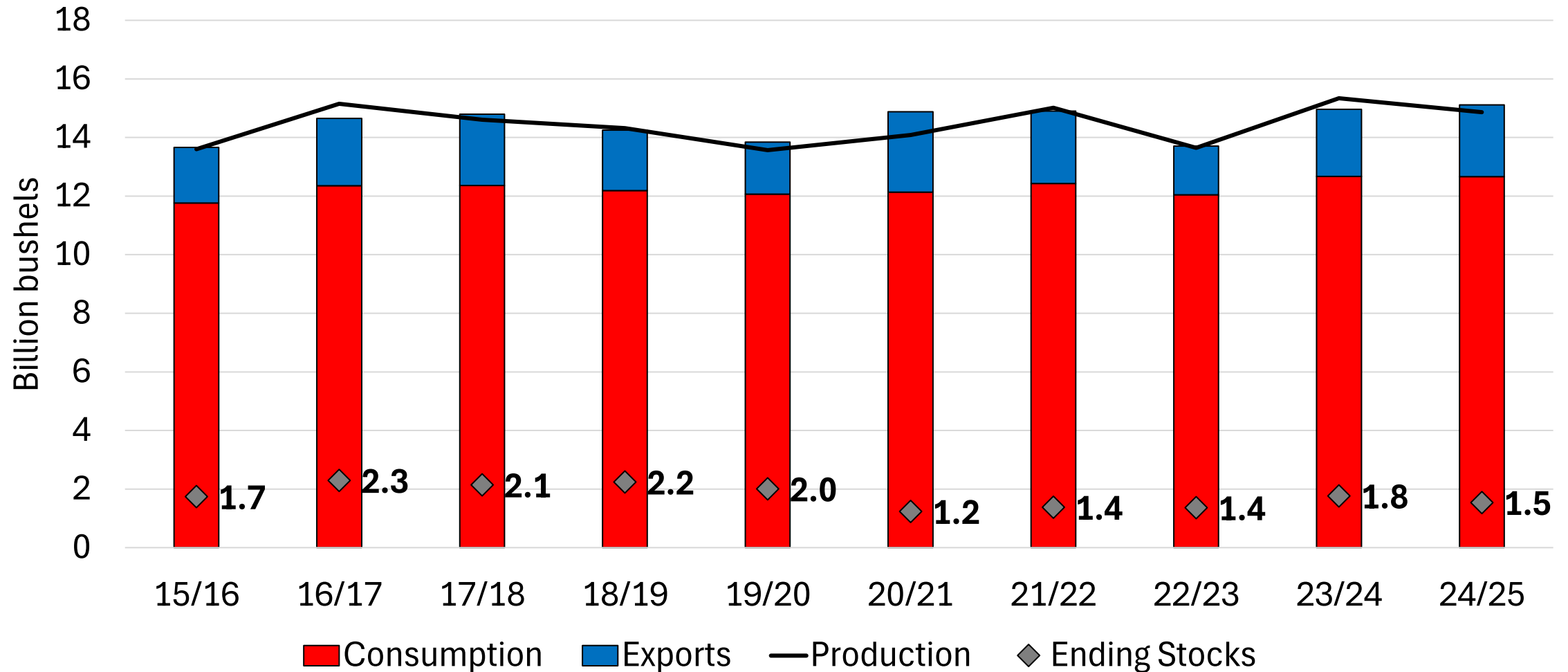
# CORN



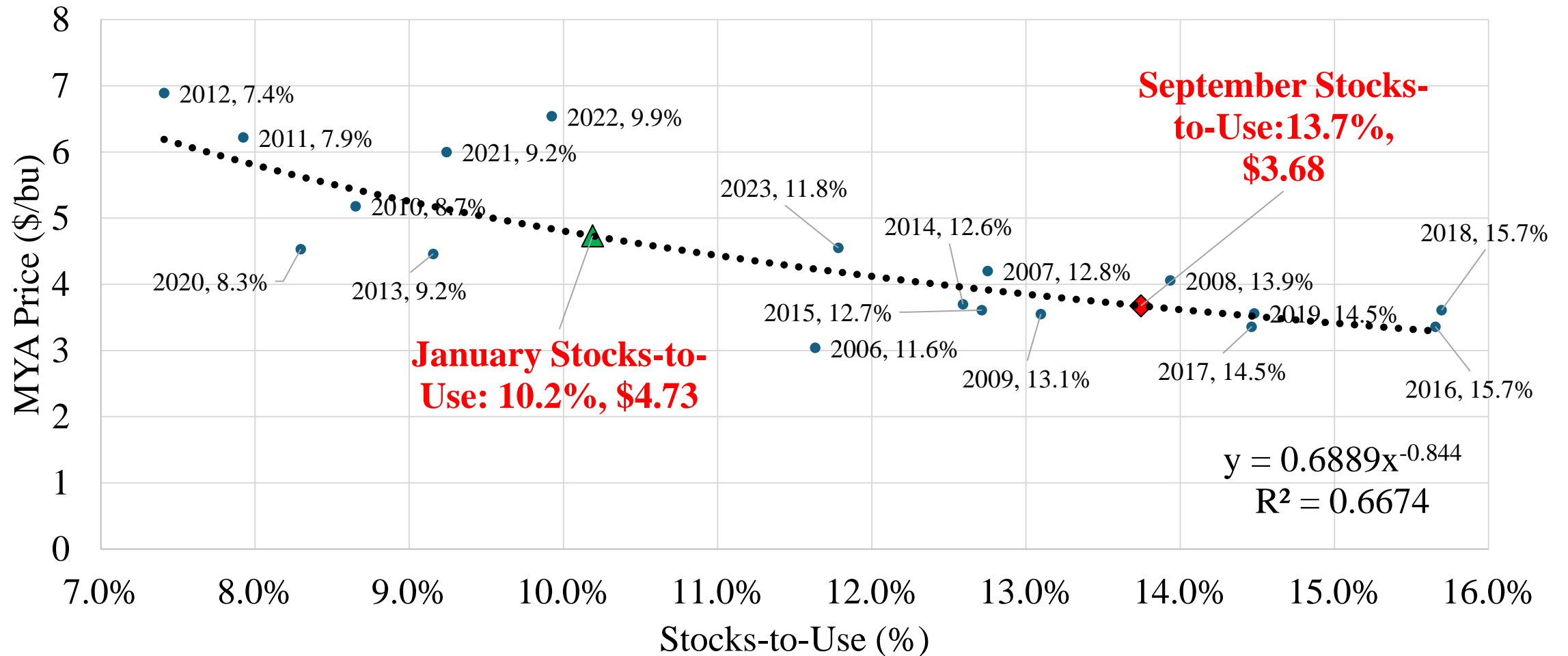
# World Corn Production, Consumption, and Ending Stocks, 2015-2024



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



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

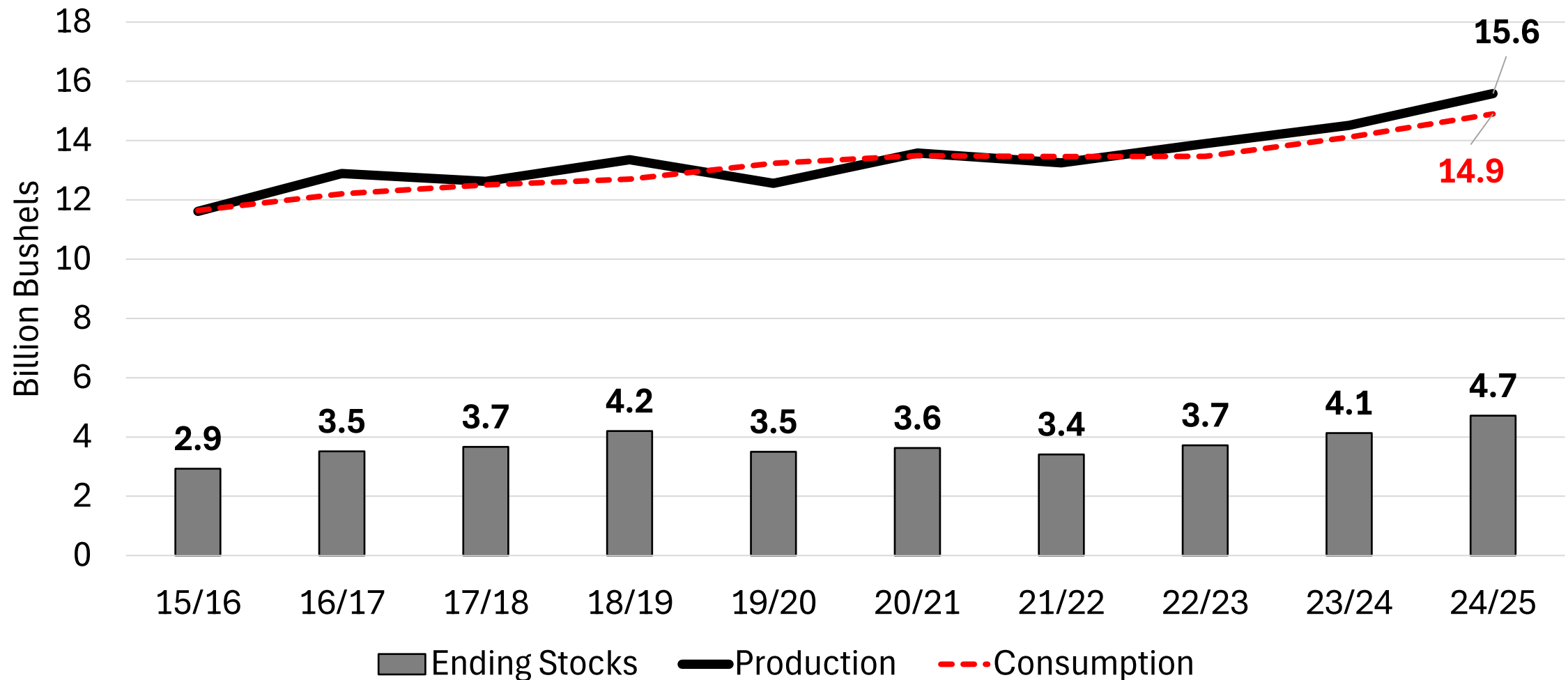




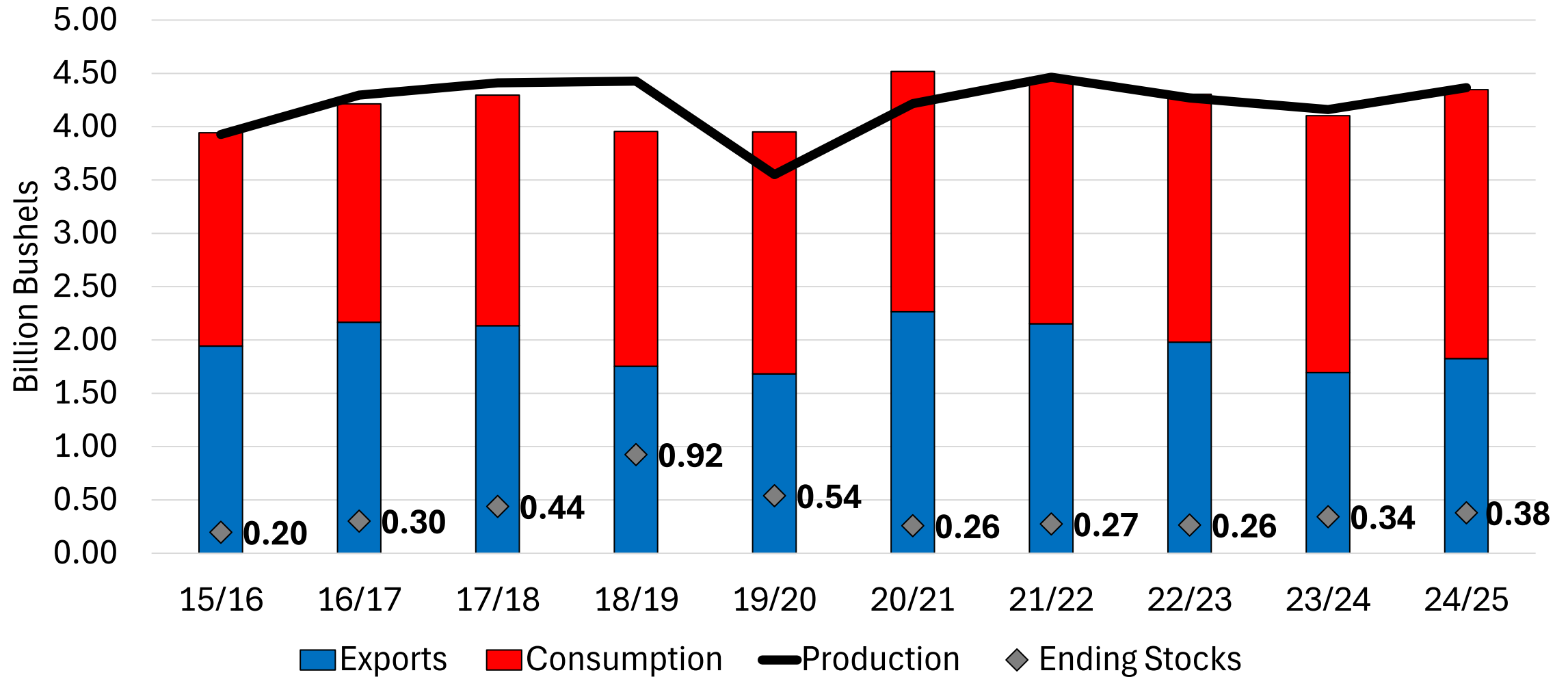
Supply and demand

# SOYBEAN

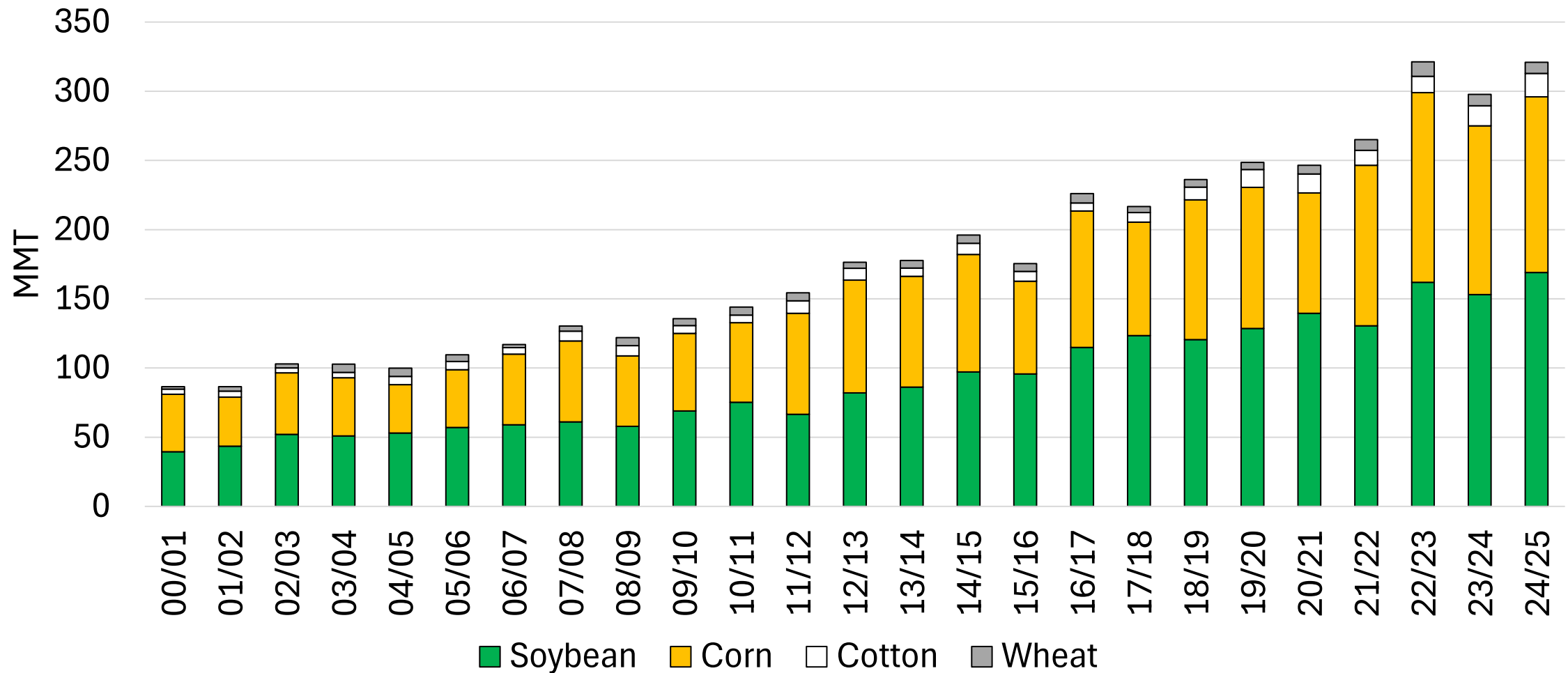
# World Soybean Production, Consumption, and Ending Stocks, 2015-2024



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

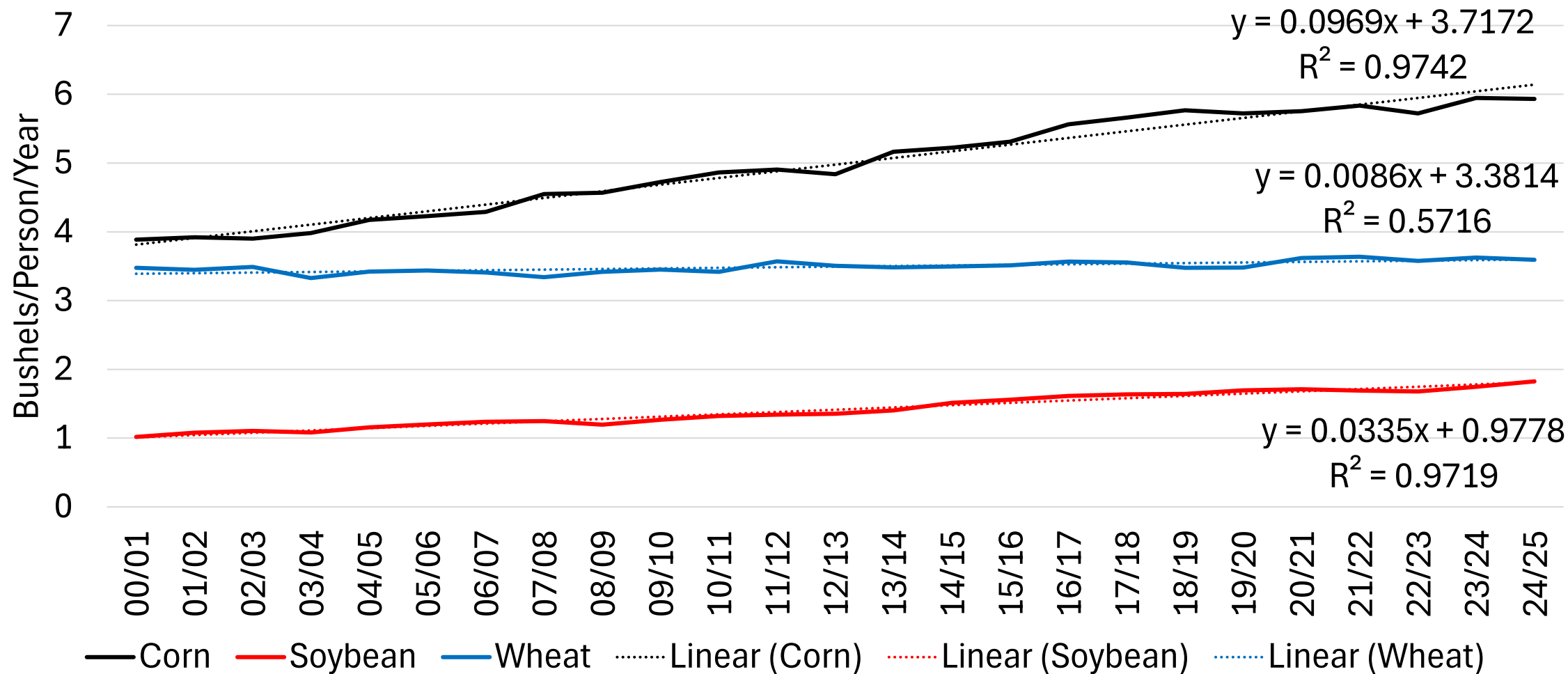


# Brazil Production Soybean, Corn, Cotton, and Wheat, 2000-2024





# 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).
- 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-Feb 2025

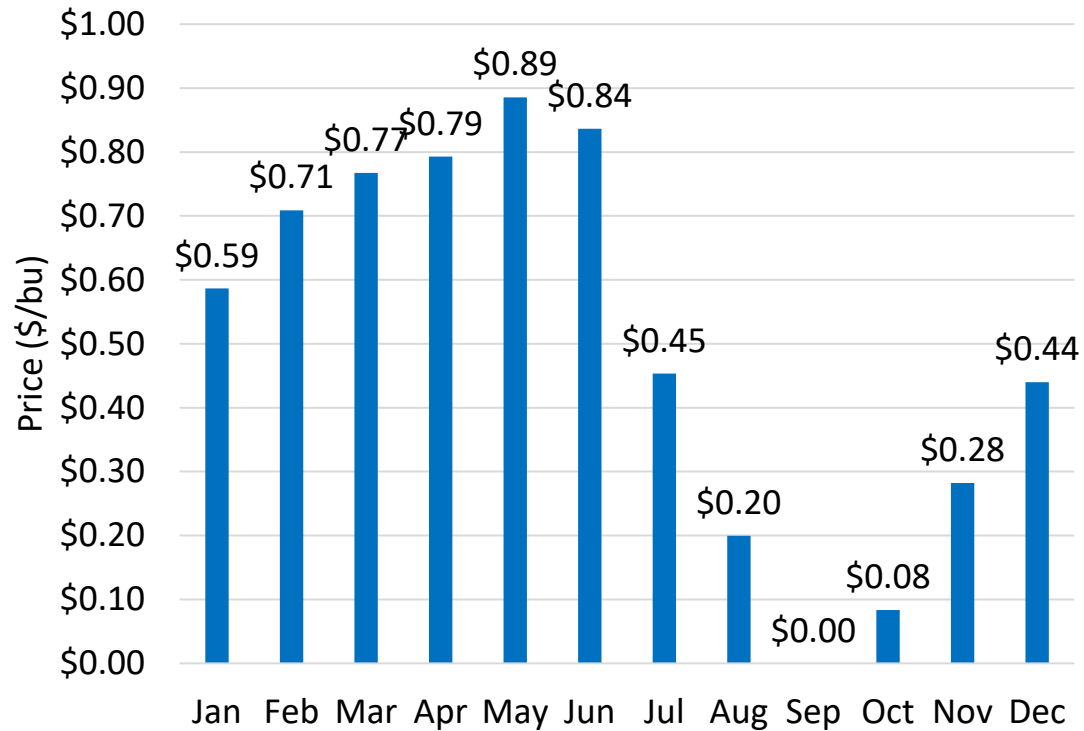


# Soybean Nearby Daily Futures Price, Jan 2021-Jan 2025

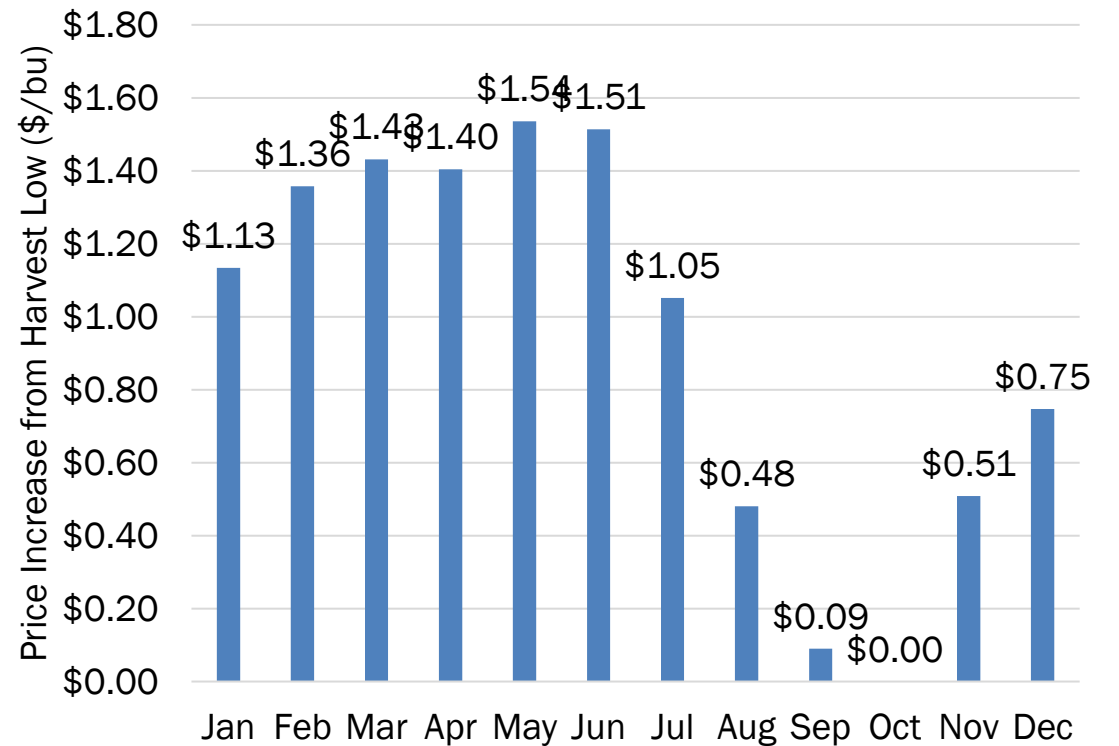


# Storage

**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**

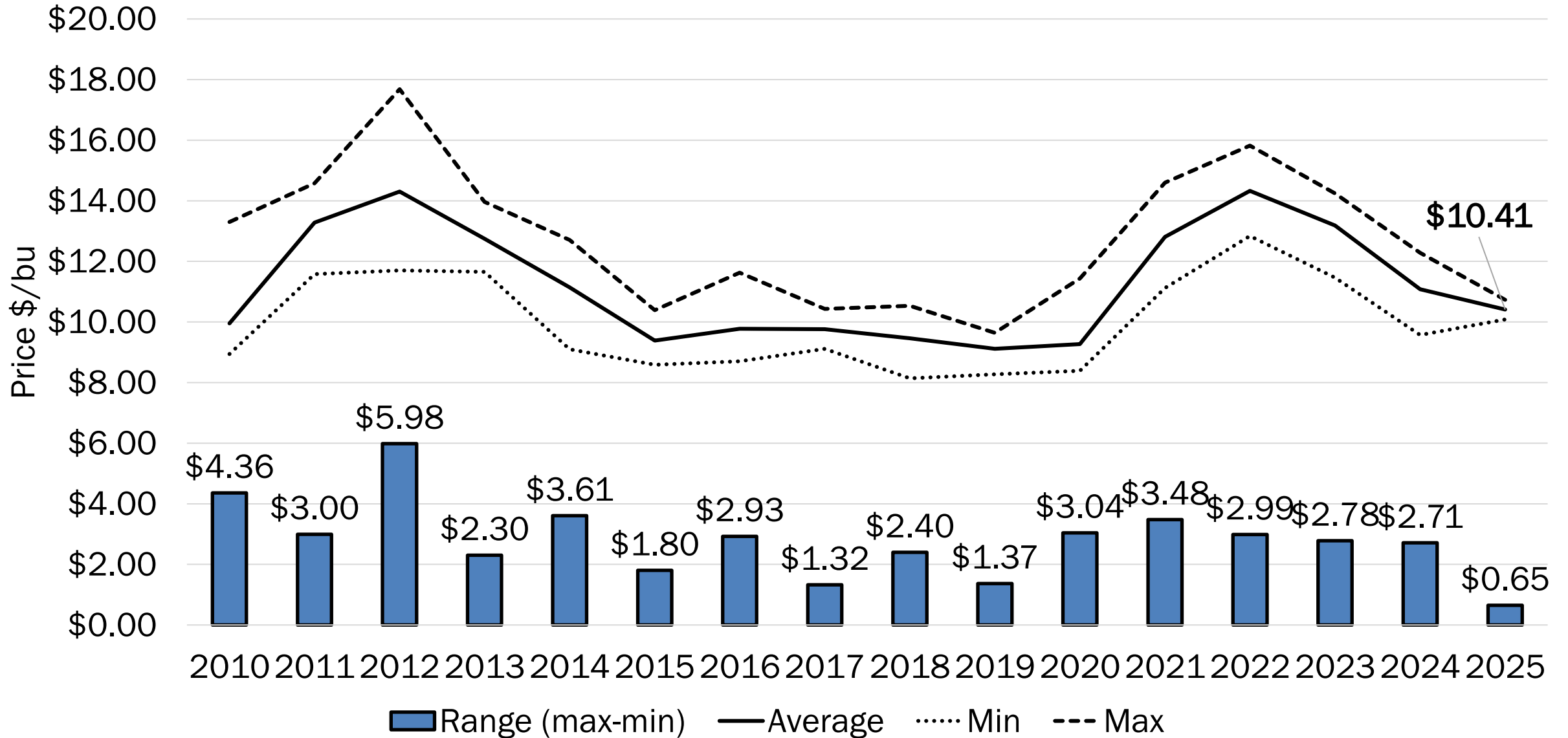


# Basis Opportunities

- Production
- Storage capacity
- Transportation
- Market Access

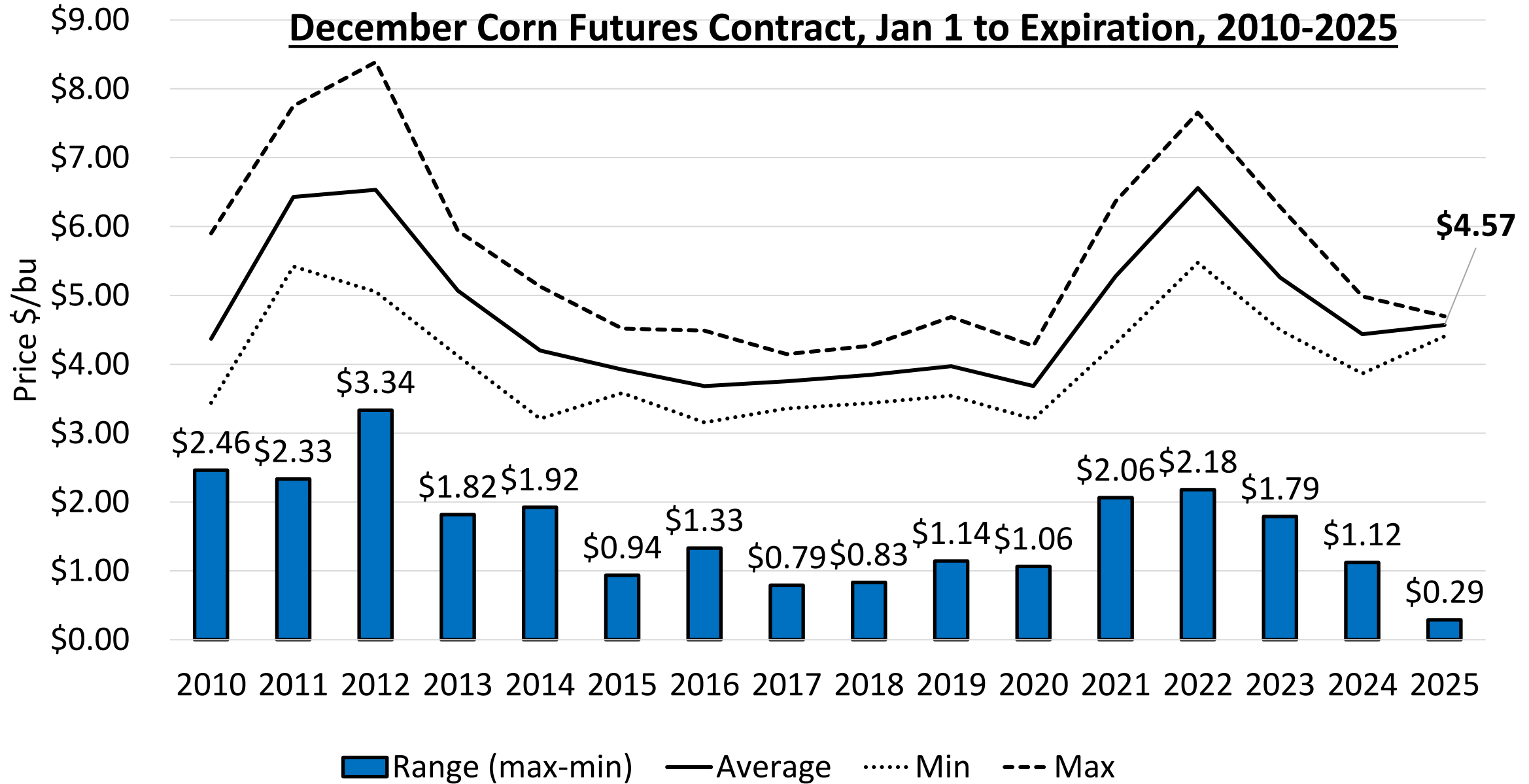


# November Soybean Futures Contract, Jan 1 to Expiration, 2010-2025

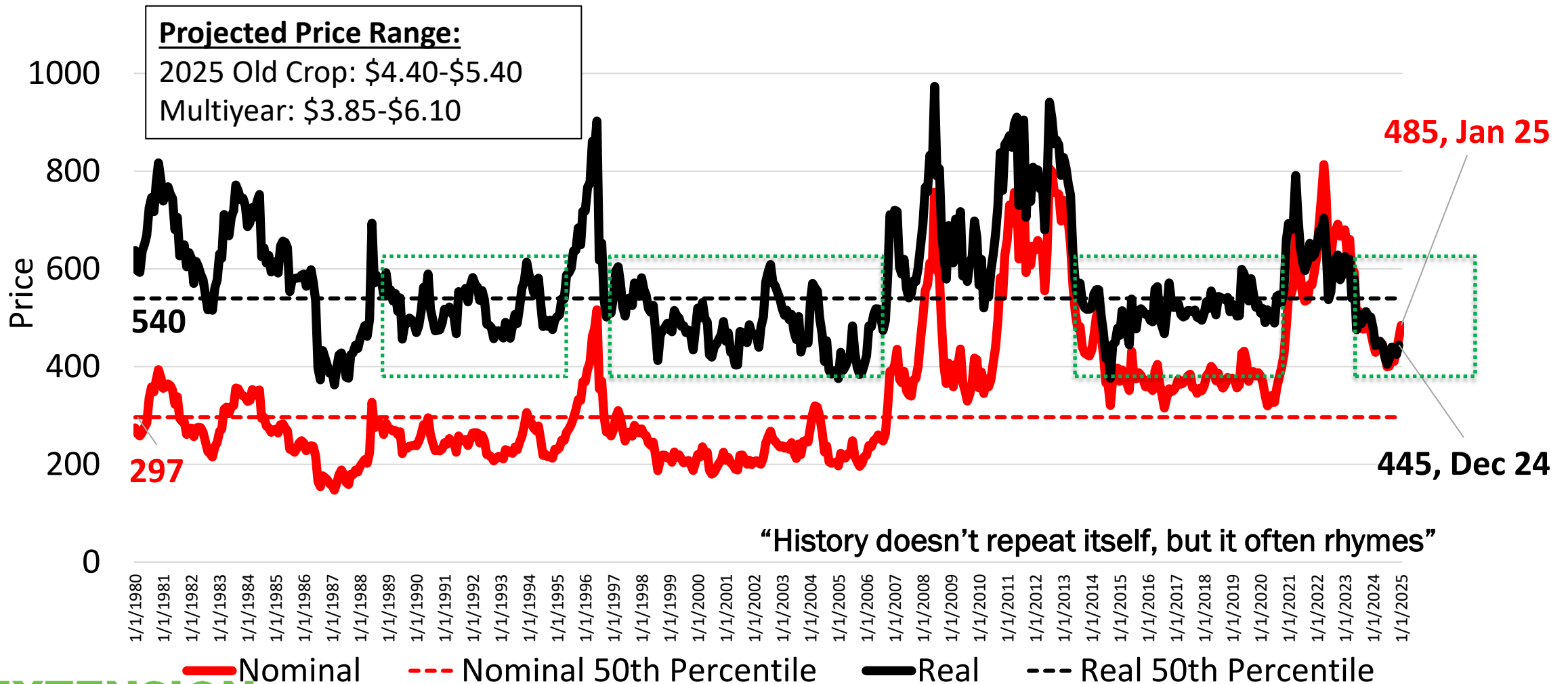




## December Corn Futures Contract, Jan 1 to Expiration, 2010-2025



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

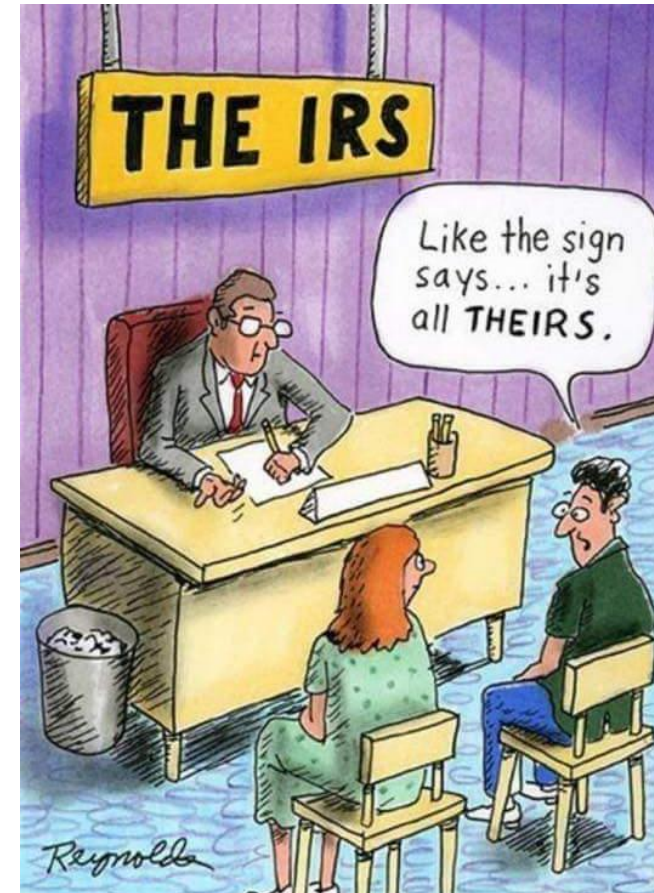


# 2025 Futures Price Projections

	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	\$5.50-\$6.30	\$5.50-\$6.60

# Who's in Your Support Network?

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



# Marketing Plan

- Understand your market
- Determine cost of production
- Identify risks and timing
- Identify available tools
- Develop a plan
- Execute and evaluate



## 2025 Corn, Non-Irrigated Budget

	<u>Unit</u>	<u>Quantity</u>	<u>Price</u>	<u>Total</u>	<u>Your Farm</u>
<b>Revenue</b>					
Corn	Bu/acre	175	\$4.60	\$805.00	_____
<b>Variable Expenses</b>					
Seed	Thous.	32	\$3.88	\$124.16	_____
Fertilizer & Lime	Acre	1	\$208.15	\$208.15	_____
Chemical	Acre	1	\$72.27	\$72.27	_____
Crop Scout or Consultant	Acre	1	\$10.00	\$10.00	_____
Repair & Maintenance	Acre	1	\$45.98	\$45.98	_____
Fuel, Oil & Filter	Acre	1	\$22.09	\$22.09	_____
Operator Labor	Acre	1	\$13.98	\$13.98	_____
Crop Insurance	Acre	1	\$16.66	\$16.66	_____
Operating Interest	%	\$513.28	8.00%	\$20.53	_____
<b>Total Variable Expenses</b>				<b>\$533.81</b>	_____
<b>Return Above Variable Expenses</b>				<b>\$271.19</b>	_____
<b>Fixed Expenses</b>					
Machinery Capital Recovery	Acre	1	\$121.63	\$121.63	_____
Overhead	Acre	1	\$20.00	\$20.00	_____
Cash Rent	Acre	1	\$117.00	\$117.00	_____
Management Labor	Acre	1	\$25.00	\$25.00	_____
<b>Total Fixed Expenses</b>				<b>\$283.63</b>	_____
<b>Total Expenses</b>				<b>\$817.45</b>	_____
<b>Return Above Specified Expenses</b>				<b>-\$12.45</b>	_____
<b>Cash Cost per Bushel</b>				<b>\$3.83</b>	_____
<b>Economic Cost per Bushel</b>				<b>\$4.67</b>	_____

# Develop a budget for the commodities produced on your farm.

- Estimate the cost for the production cycle
  - Cash expenses
  - Non-cash expenses
- Sensitivity to changes in cost categories
- Determine breakeven
- Identify price points

# 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

# Corn - Net Return Table (\$/acre): **\$817 COP**

		<u>Yield (bu/acre)</u>										
		130	140	150	160	170	180	190	200	210	220	230
<u>Price</u> (\$/bu)	3.00	(427)	(397)	(367)	(337)	(307)	(277)	(247)	(217)	(187)	(157)	(127)
	3.25	(395)	(362)	(330)	(297)	(265)	(232)	(200)	(167)	(135)	(102)	(70)
	3.50	(362)	(327)	(292)	(257)	(222)	(187)	(152)	(117)	(82)	(47)	(12)
	3.75	(330)	(292)	(255)	(217)	(180)	(142)	(105)	(67)	(30)	8	45
	4.00	(297)	(257)	(217)	(177)	(137)	(97)	(57)	(17)	23	63	103
	4.25	(265)	(222)	(180)	(137)	(95)	(52)	(10)	33	75	118	160
	4.50	(232)	(187)	(142)	(97)	(52)	(7)	38	83	128	173	218
	4.75	(200)	(152)	(105)	(57)	(10)	38	85	133	180	228	275
	5.00	(167)	(117)	(67)	(17)	33	83	133	183	233	283	333
	5.25	(135)	(82)	(30)	23	75	128	180	233	285	338	390
	5.50	(102)	(47)	8	63	118	173	228	283	338	393	448
	5.75	(70)	(12)	45	103	160	218	275	333	390	448	505
	6.00	(37)	23	83	143	203	263	323	383	443	503	563
	6.25	(5)	58	120	183	245	308	370	433	495	558	620
	6.50	28	93	158	223	288	353	418	483	548	613	678
6.75	60	128	195	263	330	398	465	533	600	668	735	



# Identifying Risk and Timing

- When does production risk occur?
- When does risk decrease?
- When are prices typically highest?
- Are markets near the top of the cycle or bottom?

# Futures and Basis

- Disaggregate Cash Price
  - Cash Price = Futures Price + **Basis**
  - Ex. \$5.17 = \$4.97 + \$0.20
- Futures ~ 80-95% of price risk
- Basis ~ 5-20% of price risk
- Futures are reflective of national/global supply and demand
- Basis is reflective of local supply and demand

# What are futures markets telling us?

How long are you willing to store old crop?

Contract	Price
Mar	\$4.95
May	\$5.07
Jul	\$5.10
<b>Sep</b>	<b>\$4.72</b>
<b>Dec</b>	<b>\$4.69</b>

Contract	Price
Mar	\$10.60
May	\$10.75
Jul	\$10.90
Aug	\$10.84
Sep	\$10.66
<b>Nov</b>	<b>\$10.66</b>

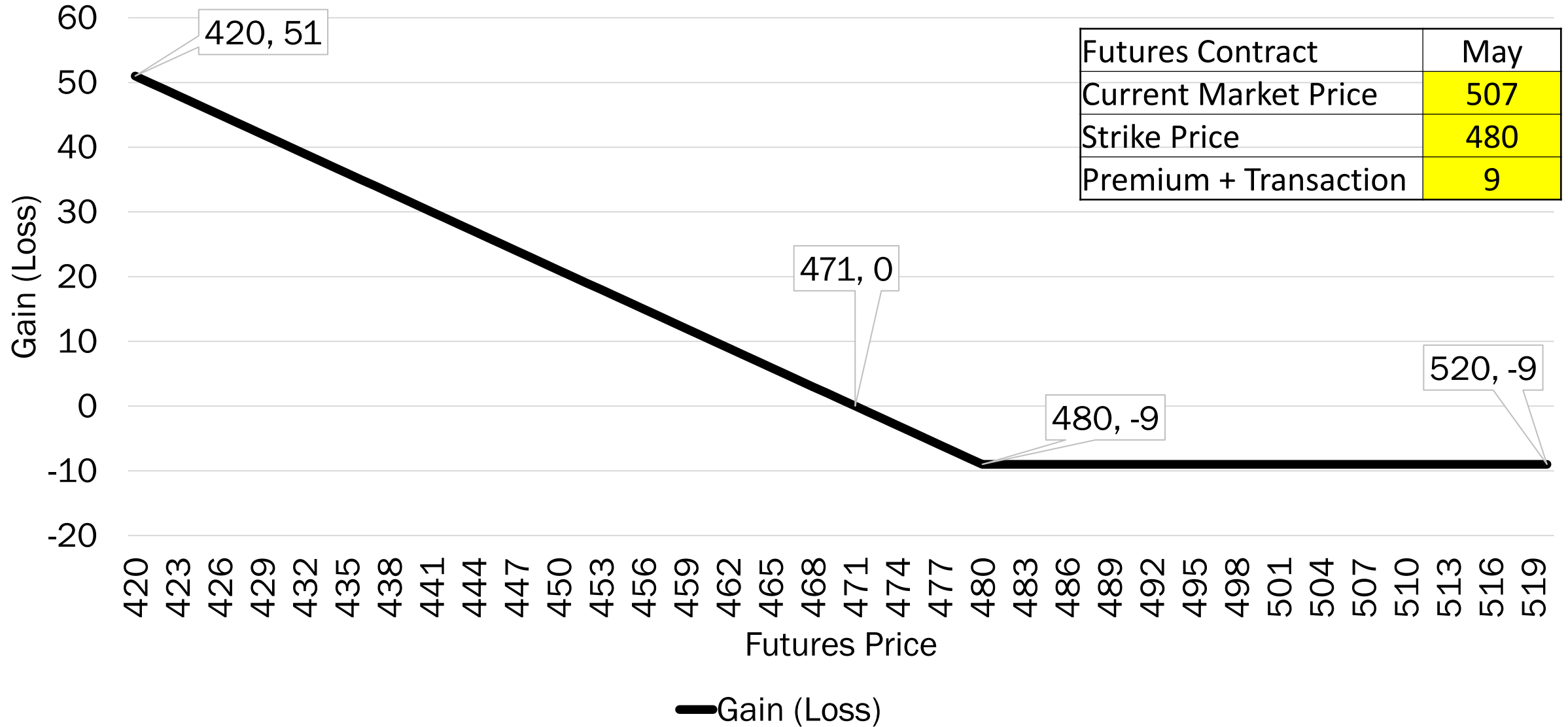
Contract	Price
Mar	66.03
May	67.22
Jul	68.37
Oct	69.01
<b>Dec</b>	<b>68.89</b>

Contract	Price
Mar	\$5.87
May	\$5.98
<b>Jul</b>	<b>\$6.10</b>
Sep	\$6.23
Dec	\$6.41

# Strategies

- Old crop – Get a floor under unpriced crop in storage.
- New crop – where is your cash cost per bushel. Start pricing incrementally into rallies. (short hedge, options, cash contracts).

## Buy a May Corn Put Option - Net Gain (Loss)



# Percent of projected production priced at different times of the year?

## No Storage

- Pre-planting: 10-25%
- March–July: 25-75%
- August-Harvest: 75% - 100%

## Storage

- Pre-planting: 0%-25%
- March–July: 0%-50%
- August-Harvest: 25-75%
- Post harvest: 25%-100%

## Pricing into market rallies

- Price incrementally (5-10% of production for each 25-cent increase in the market)
- Adhere to limits (don't over price relative to expected production for the time of year)

# 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

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# THANK YOU

