

Managing Price Risk Entering Harvest

August 9, 2023

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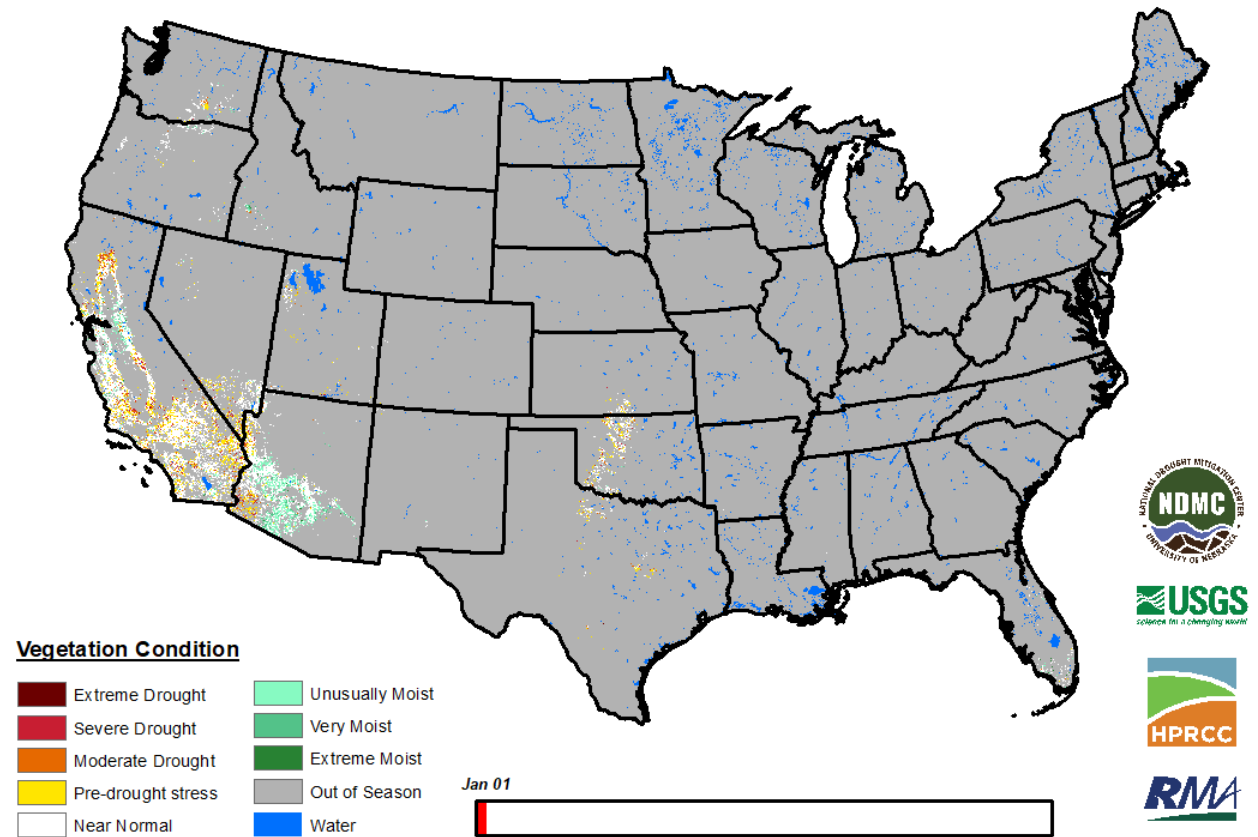
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Overview

- Weather market coming to a close
- Supply and demand
- Production projections and price risk management
- Interest rates and the cost to carry grain in storage

2023 Vegetation Drought Response Index (VegDRI)



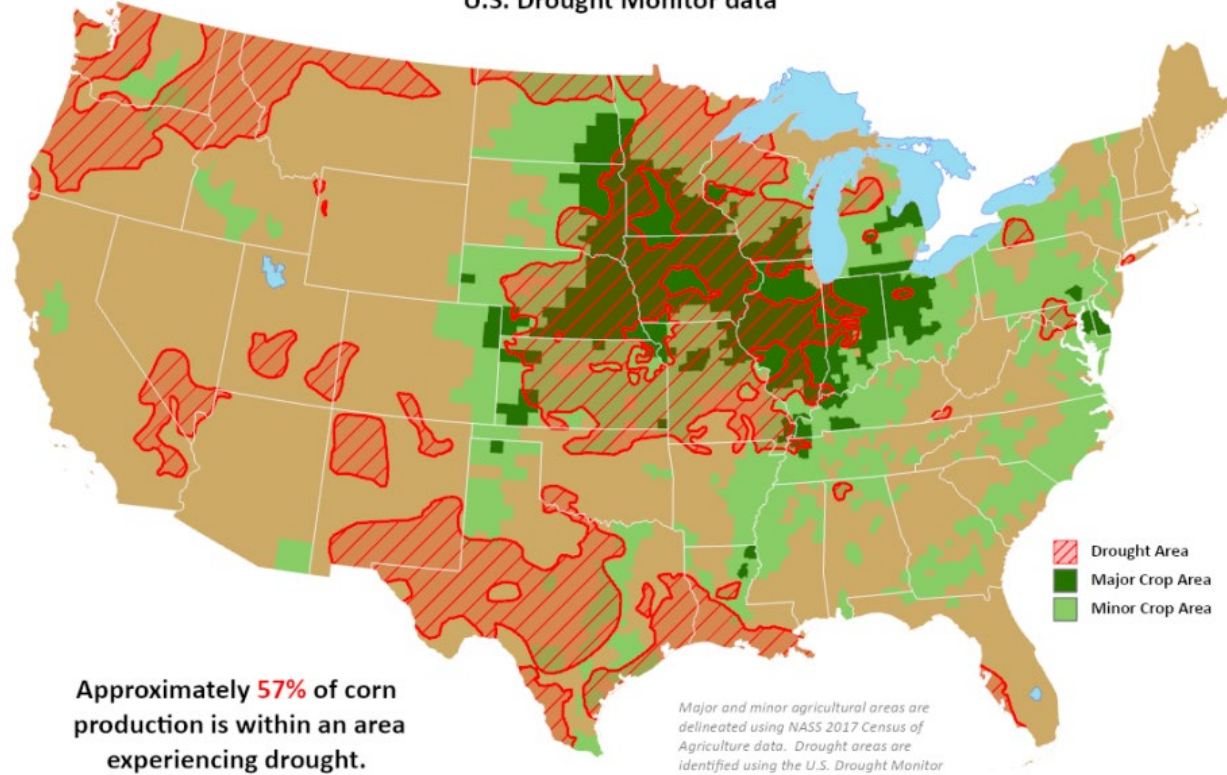


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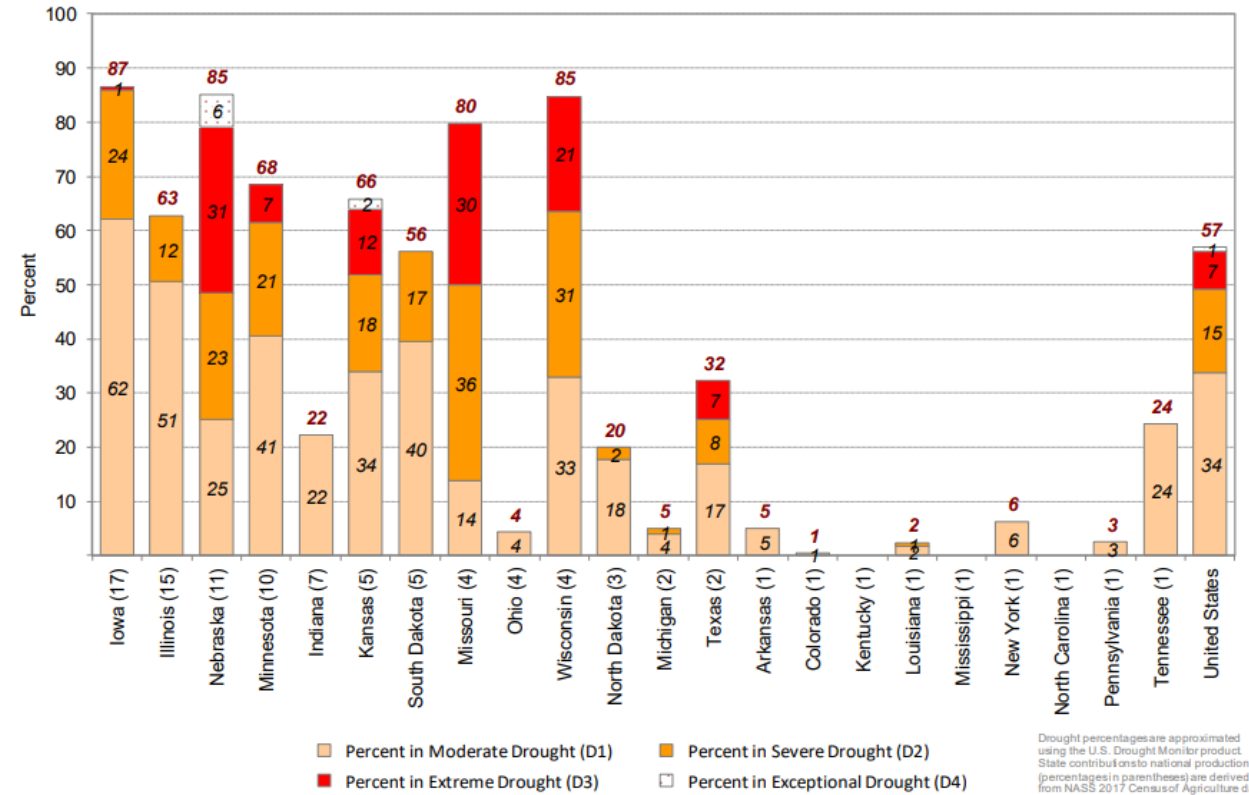
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Corn Areas in Drought

Reflects **August 1, 2023**
U.S. Drought Monitor data



Percent of Corn Located in Drought August 1, 2023



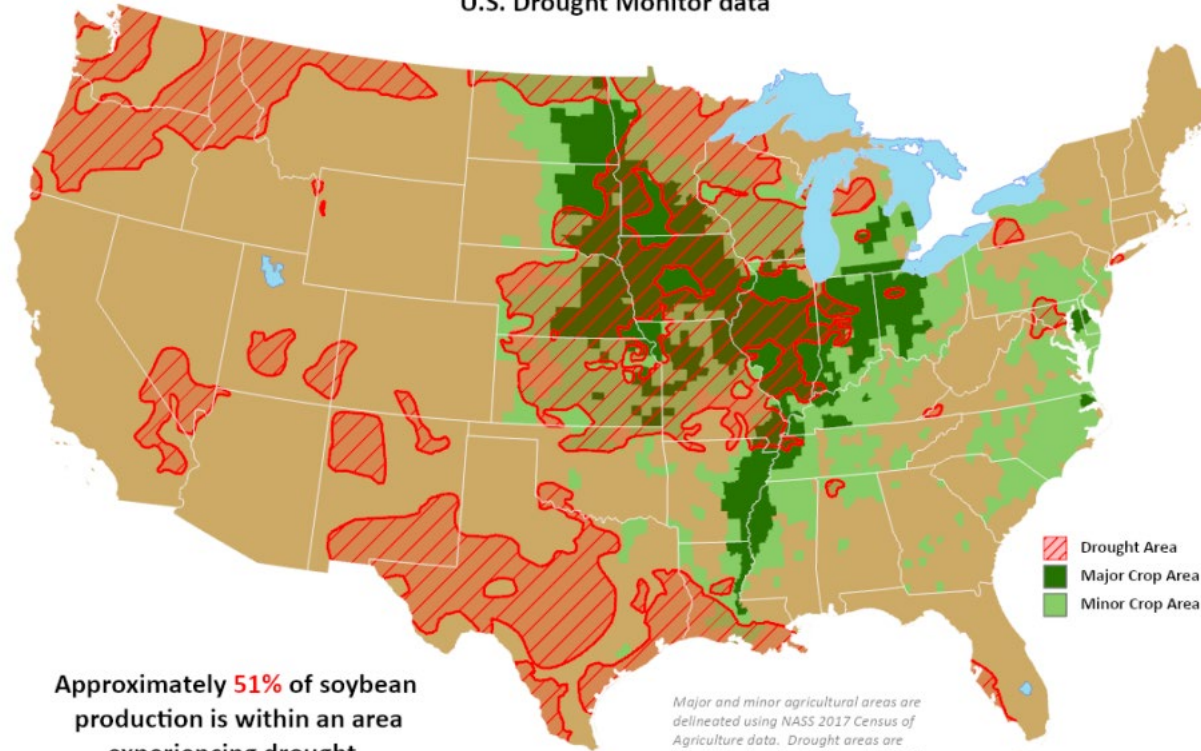


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Soybean Areas in Drought

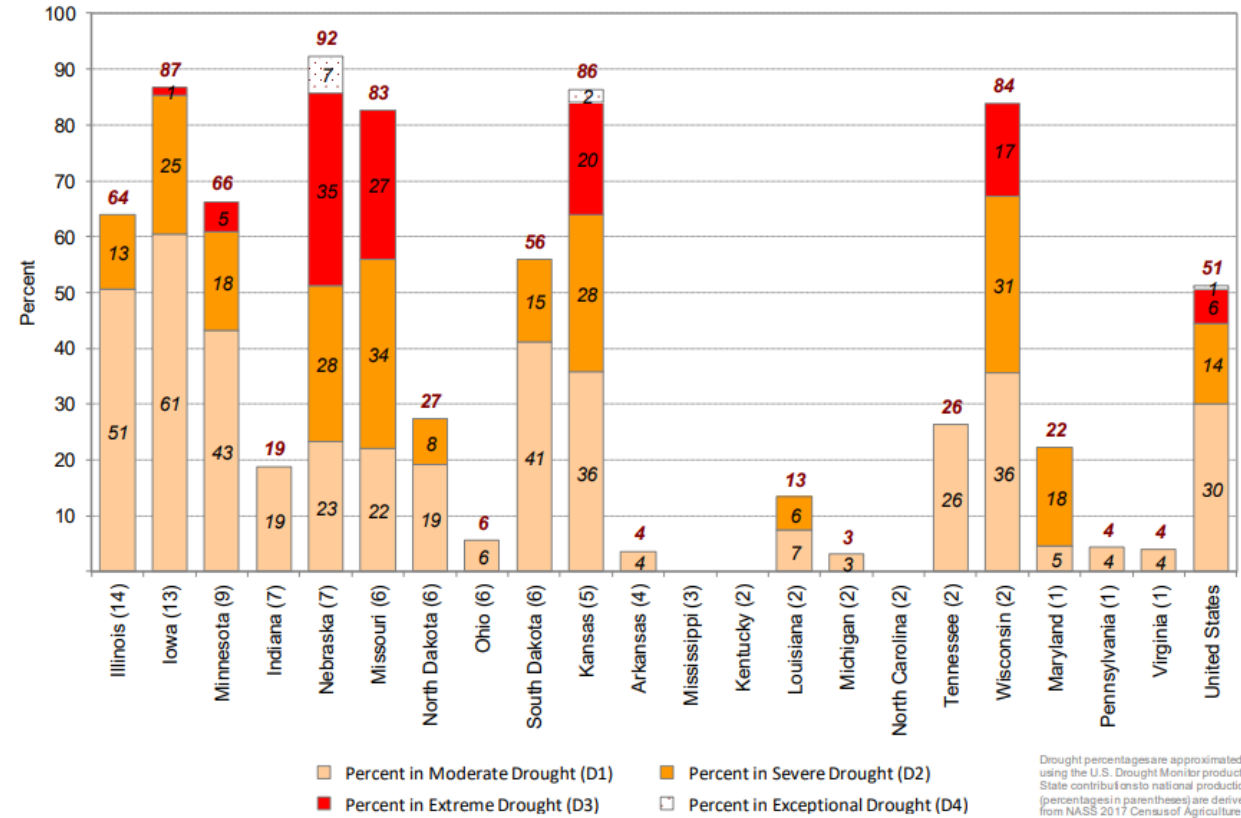
Reflects **August 1, 2023**
U.S. Drought Monitor data



Approximately **51%** of soybean
production is within an area
experiencing drought.

Major and minor agricultural areas are
delineated using NASS 2017 Census of
Agriculture data. Drought areas are
identified using the U.S. Drought Monitor
product.

Percent of Soybeans Located in Drought August 1, 2023



Drought percentages are approximated
using the U.S. Drought Monitor product.
State contributions to national production
(percentages in parentheses) are derived
from NASS 2017 Census of Agriculture data.

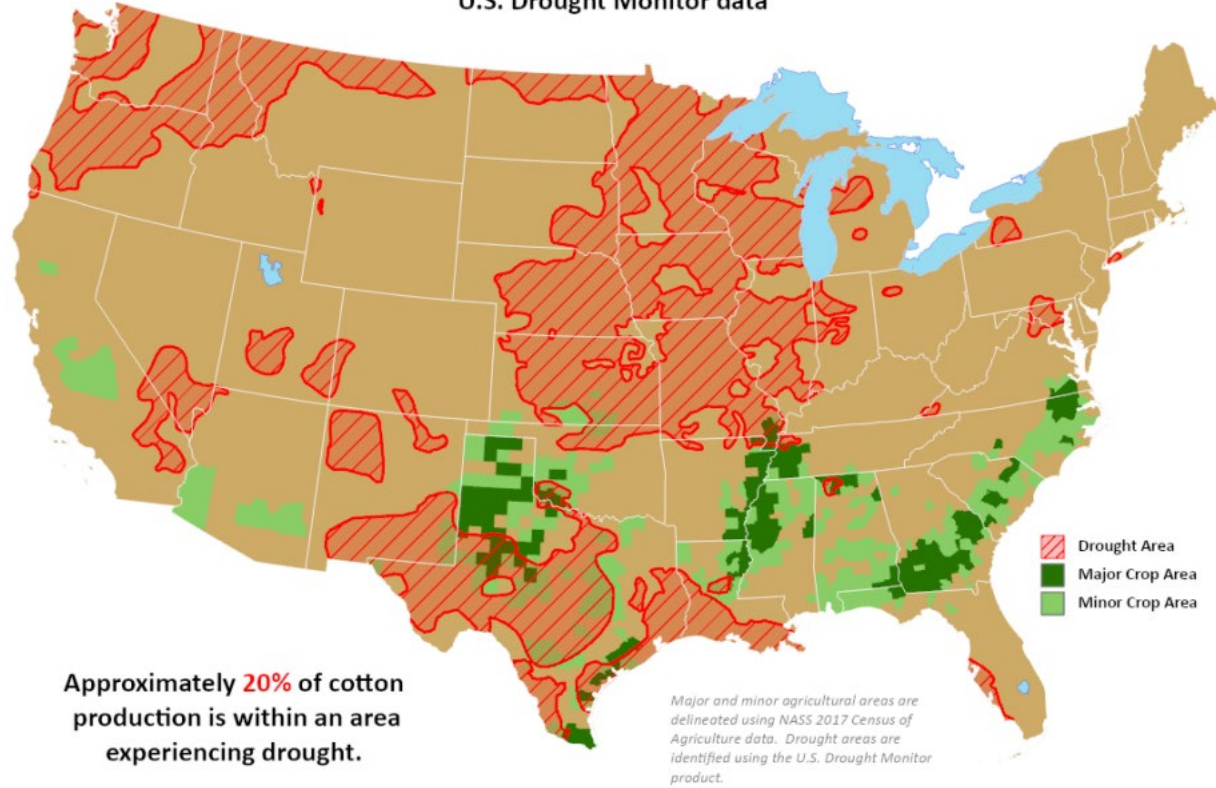


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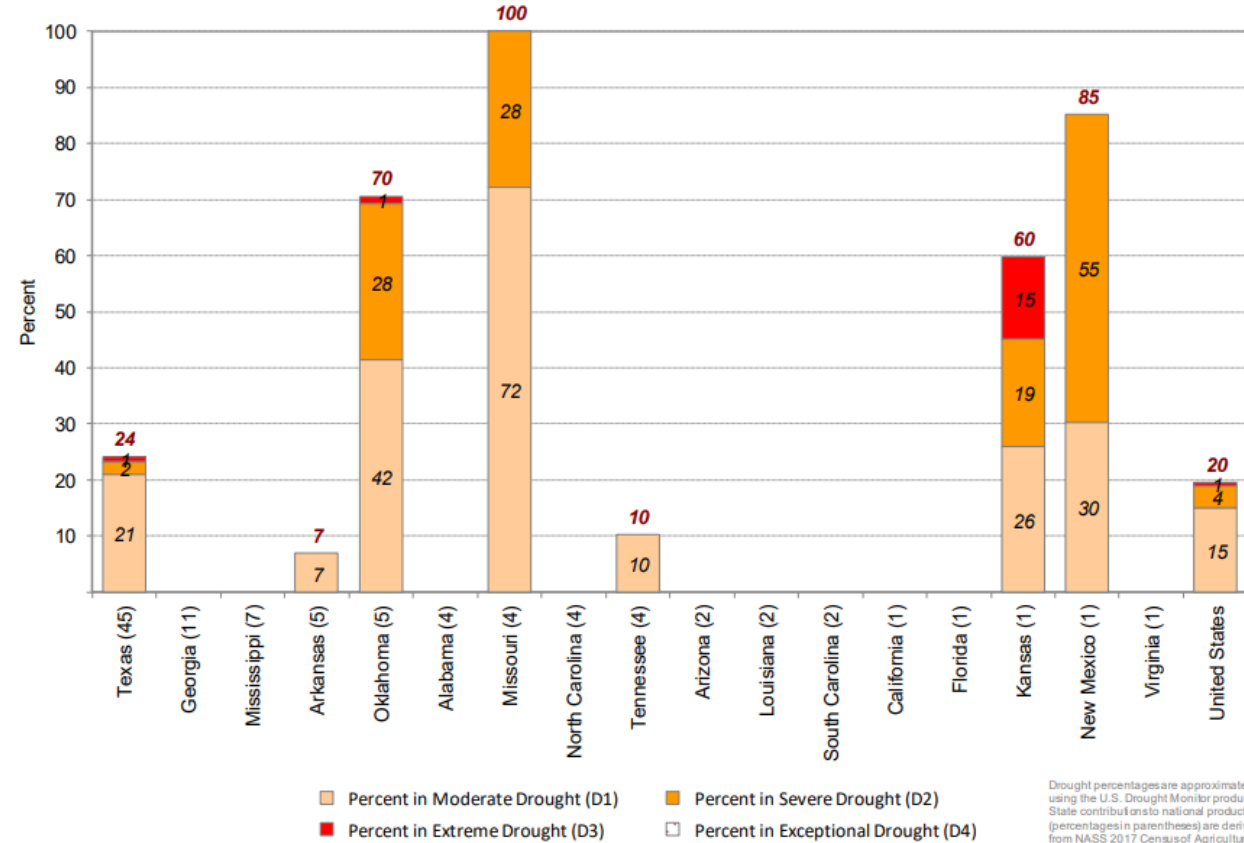
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Cotton Areas in Drought

Reflects **August 1, 2023**
U.S. Drought Monitor data



Percent of Cotton Located in Drought August 1, 2023



Corn

	2019/20	2020/21	2021/22	2022/23 Est.	2023/24 Projected June	2023/24 Projected July	2023/24 Change Previous Month	Change 2023/24- 2022/23
	<u>Planted and Harvested Acres & Yield</u>							
Planted	89.7	90.7	93.3	88.6	92	94.1	2.1	5.5
Harvested	81.3	82.3	85.3	79.2	84.1	86.3	2.2	7.1
U.S. Avg. Yield	167.5	171.4	176.7	173.3	181.5	177.5	-4.0	4.2
	<u>Supply (Million Bushels)</u>							
Beg. Stocks	2,221	1,919	1,235	1,377	1,452	1,402	-50	25
Production	13,620	14,111	15,074	13,730	15,265	15,320	55	1,590
Imports	42	24	24	25	25	25	0	0
Total Supply	15,883	16,055	16,333	15,132	16,742	16,747	5	1,615
	<u>Use & Ending Stocks (Million Bushels)</u>							
Feed and Residual	5,900	5,607	5,719	5,425	5,650	5,650	0	225
Ethanol	4,857	5,028	5,326	5,225	5,300	5,300	0	75
Food, Seed & Industrial	1,429	1,439	1,438	1,430	1,435	1,435	0	5
Exports	1,777	2,747	2,472	1,650	2,100	2,100	0	450
Total Use	13,963	14,821	14,956	13,730	14,485	14,485	0	755
U.S. Ending Stocks	1,919	1,235	1,377	1,402	2,257	2,257	5	860
Foreign Stocks	10,142	10,294	10,822	10,263	10,104	10,104	1	-158
	<u>Price and Stocks to Use Ratio</u>							
U.S. Avg. Season Price	\$3.56	\$4.53	\$6.00	\$6.60	\$4.80	\$4.80	\$0.00	-\$1.80
U.S. Stocks/Use	13.74%	8.33%	9.21%	10.21%	15.58%	15.62%	0.03%	5.40%

Soybean

	2019/20	2020/21	2021/22	2022/23 Est.	2023/24 Projected June	2023/24 Projected July	2023/24 Change from Previous Month	Change 2023/24- 2022/23
<u>Planted and Harvested Acres & Yield</u>								
Planted	76.1	83.4	87.2	87.5	87.5	83.5	-4.0	-4.0
Harvested	74.9	82.6	86.3	86.3	86.7	82.7	-4.0	-3.6
U.S. Avg. Yield	47.4	51.0	51.7	49.5	52	52	0.0	2.5
<u>Supply (Million Bushels)</u>								
Beg. Stocks	909	525	257	274	230	255	25	-19
Production	3,552	4,216	4,465	4,276	4,510	4,300	-210	24
Imports	15	20	16	25	20	20	0	-5
Total Supply	4,476	4,761	4,738	4,576	4,760	4,575	-185	-1
<u>Use & Ending Stocks (Million Bushels)</u>								
Crushing	2,165	2,141	2,204	2,220	2,310	2,300	-10	80
Exports	1,679	2,266	2,152	1,980	1,975	1,850	-125	-130
Seed and Residual	108	97	108	120	126	126	0	6
Total Use	3,952	4,504	4,464	4,320	4,411	4,276	-135	-44
U.S. Ending Stocks	525	257	274	255	350	300	-50	45
Foreign Stocks	3,034	3,430	3,368	3,526	4,183	4,146	-37	620
<u>Price and Stocks to Use Ratio</u>								
U.S. Average Season Price	\$8.57	\$10.80	\$13.30	\$14.20	\$12.10	\$12.40	\$0.30	-\$1.80
U.S. Stocks/Use	13.28%	5.71%	6.14%	5.90%	7.93%	7.02%	-0.92%	1%

Cotton

	2018/19	2019/20	2020/21	2021/22	2022/23 Est.	2023/24 Projected June	2023/24 Projected July	2022/23 Change from Previous Month	Change 2023/24- 2022/23
Planted and Harvested Acres & Yield									
Planted (Million)	14.1	13.74	12.09	11.22	13.76	11.26	11.09	-0.17	-2.67
Harvested (Million)	9.99	11.5	8.22	10.27	7.31	9.41	9.53	0.12	2.22
U.S. Average Yield (lb/acre)	882	831	853	819	950	841	831	-10	-119
Supply (Million 480 Pound Bales)									
Beg. Stocks	4.2	4.85	7.25	3.15	3.75	3.2	3.25	0.05	-0.5
Production	18.37	19.91	14.61	17.52	14.47	16.5	16.5	0	2.03
Imports	0	0	0	0.01	0.01	0.01	0.01	0	0
Total Supply	22.57	24.77	21.86	20.68	18.22	19.71	19.76	0.05	1.54
Use and Stocks (Million 480 Pound Bales)									
Domestic	2.98	2.15	2.4	2.55	2.05	2.2	2.2	0	0.15
Exports	14.84	15.51	16.35	14.48	12.9	14	13.75	-0.25	0.85
Total Use	17.81	17.66	18.75	17.03	14.95	16.2	15.95	-0.25	1
U.S. Ending Stocks	4.85	7.25	3.15	3.75	3.25	3.5	3.8	0.3	0.55
Foreign Stocks	75.1	89.8	83.15	82.29	90.7	89.29	90.72	1.43	0.02
Chinese Stocks	35.67	36.9	37.79	38.56	38.99	38.04	38.64	0.6	-0.35
Price and Stocks to Use Ratio									
U.S. Avg. Season Price (\$/lb)	\$0.703	\$0.596	\$0.663	\$0.914	\$0.82	\$0.77	\$0.76	-\$0.01	-\$0.06
U.S. Stocks/Use	27%	41%	16.8%	22%	22%	22%	24%	2.22%	2.09%
Chinese Stocks/Use	90%	112%	92.2%	114%	107%	101%	104%	2.99%	-2.39%

Wheat

	2019/20	2020/21	2021/22	2022/23 Est.	2023/24 Projected June	2023/24 Projected July	2023/24 Change from Previous Month	Change 2023/24- 2022/23
<u>Planted and Harvested Acres & Yield</u>								
Planted (Million)	45.5	44.5	46.7	45.7	49.9	49.6	-0.3	3.9
Harvested (Million)	37.4	36.8	37.1	35.5	37.1	37.7	0.6	2.2
U.S. Avg. Yield (Bu/Acre)	51.7	49.7	44.3	46.5	44.9	46.1	1.2	-0.4
<u>Supply (Million Bushels)</u>								
Beg. Stocks	1,080	1,028	845	698	598	580	-18	-118
Production	1,932	1,828	1,646	1,650	1,665	1,739	74	89
Imports	104	100	96	122	135	130	-5	8
Total Supply	3,116	2,956	2,588	2,470	2,399	2,449	50	-21
<u>Use & Ending Stocks (Million Bushels)</u>								
Food	962	961	972	975	977	977	0	2
Seed	62	64	58	70	65	65	0	-5
Feed	95	93	64	86	70	90	20	4
Exports	969	994	796	759	725	725	0	-34
Total Use	2,087	2,111	1,889	1,890	1,837	1,857	20	-33
U.S. Ending Stocks	1,028	845	698	598	562	592	30	-6
Foreign Stocks	9,879	9,676	9,318	9,315	9,385	9,201	-184	-114
<u>Price and Stocks to Use Ratio</u>								
U.S. Avg. Season Price (\$/Bu)	\$4.58	\$5.05	\$7.63	\$8.83	\$7.70	\$7.50	-\$0.20	-\$1.33
U.S. Stocks/Use	49.26%	40.03%	36.95%	31.89%	30.59%	31.88%	1.29%	-0.01%

Crop Insurance

Commodity	Projected Price	Trend Yield	75% RP Revenue Guarantee	Current or Harvest Price	Yield Trigger
Wheat	\$8.40	75 bu/acre	\$472.50	\$6.60	71.6
Cotton	\$0.84	1,100 lb/acre	\$693.00	\$0.85	813.4
Corn	\$5.91	175 bu/acre	\$775.69	\$4.98	155.8
Soybeans	\$13.76	50 bu/acre	\$516.00	\$13.06	39.5

Will there be crop insurance payments?

Seems unlikely for many producer with current projected Tennessee yields unless substantial price declines occur.

Projected Profit (Loss)

	Cotton	Soybeans	Corn	Wheat/Soybeans
Yield	1,130	53	180	75 /50
Harvest Price (as of 8/7/2023)	\$0.85	\$13.05	\$5.20	\$6.50/\$13.05
Revenue	\$961	\$692	\$936	\$1,140
Variable Expenses	\$625	\$340	\$600	\$665
Returns Over Variable	\$336	\$352	\$336	\$475
Land Costs	\$175	\$175	\$175	\$175
Returns Over Variable and Land Costs	\$161	\$177	\$161	\$300
Fixed Costs (Capital Recovery and Management Labor)	\$195	\$130	\$145	\$245
Returns Over Specified Costs	(\$35)	\$47	\$16	\$55
Breakeven Price at Estimated Yield and Specified Cost	\$0.88	\$12.17	\$5.11	\$6.99/\$12.76

December 2023 Corn Futures



September 2023 Wheat Futures



November 2023 Soybean Futures



December 2023 Cotton Futures



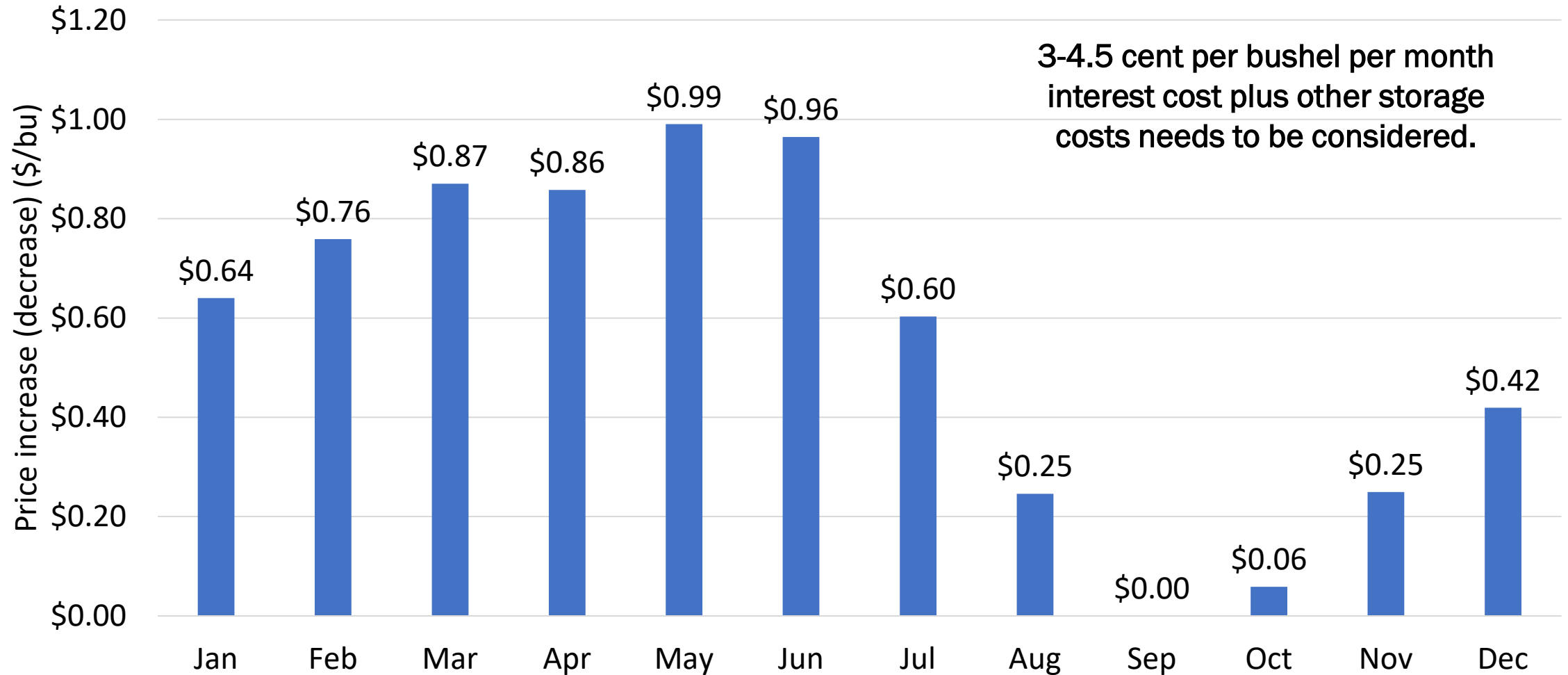
Market Factors

- Corn
 - National Yield > 175 bu/acre would result in +2-billion-bushel carryover into next marketing year
- Soybeans
 - South America production past year and next year
- Cotton
 - Supply disruptions can only take prices so high; need an improvement in global demand
- Wheat
 - Global export movements out of Ukraine and Russia; global stocks and production

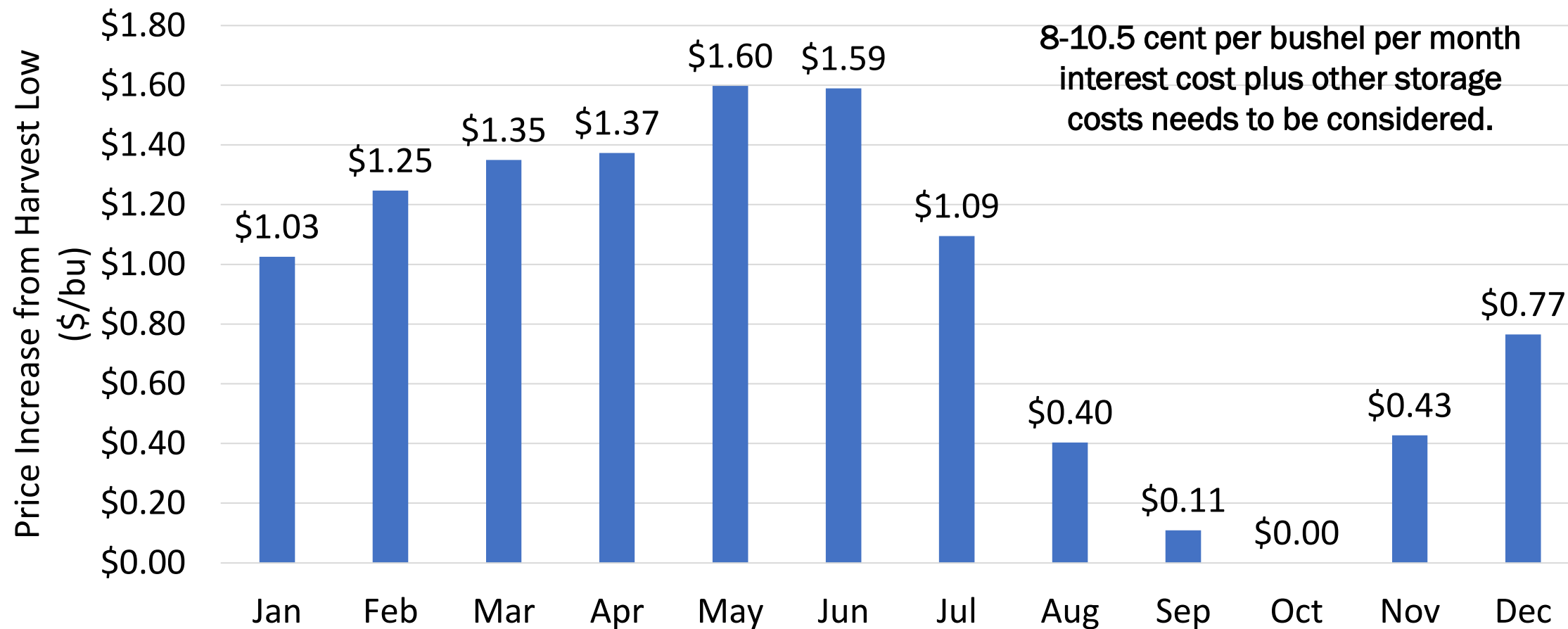
Current Futures Prices

- March Corn Futures at \$5.13/bu
- March Soybean Futures at \$13.24/bu
- Cotton prices above 86 cents consider some sales.
 - March cotton at \$0.85/lb
- Liquidity/interest requirements to maintain positions

10-Year Average Tennessee Corn Price Improvement from September by Month at Elevators and Barge Points



10-Year Average Tennessee Soybean Price Improvement from September by Month at Elevators and Barge Points



Take Home Message

- Bias is for further price weakness.
- National acreage estimates and projected yields.
- Know your cost of production and breakeven prices for projected yields.
- Identify price risk and seek mitigating strategies.
- Evaluate storage capacity relative to production (consider the interest costs of storing grain)



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THANK YOU