

2023 Corn Markets & Cost-Returns

'Winning-The-Game' Grain Marketing Workshop

Plainville, Kansas

Tuesday, February 21, 2023

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Corn Market Perspective

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UNIVERSITY

Department of Agricultural Economics

Corn Market Outlook ²⁰²³ in Kansas, the U.S. & Globally

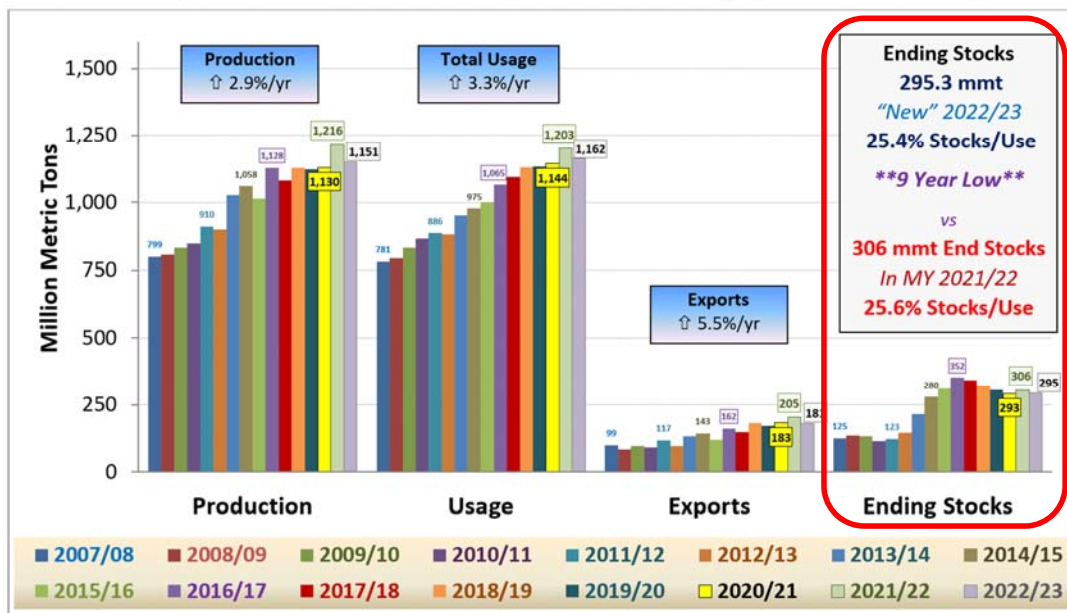
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1) “Tight!” 2023 Global Corn, Oilseed & Wheat Stocks

- *The importance of South America’s 2023 corn & soybean crops!!*
- Occurring &/or Anticipated in 2023:
 - Drought in Argentina
 - Smaller Crops & Exports from Ukraine

World Corn Supply-Demand

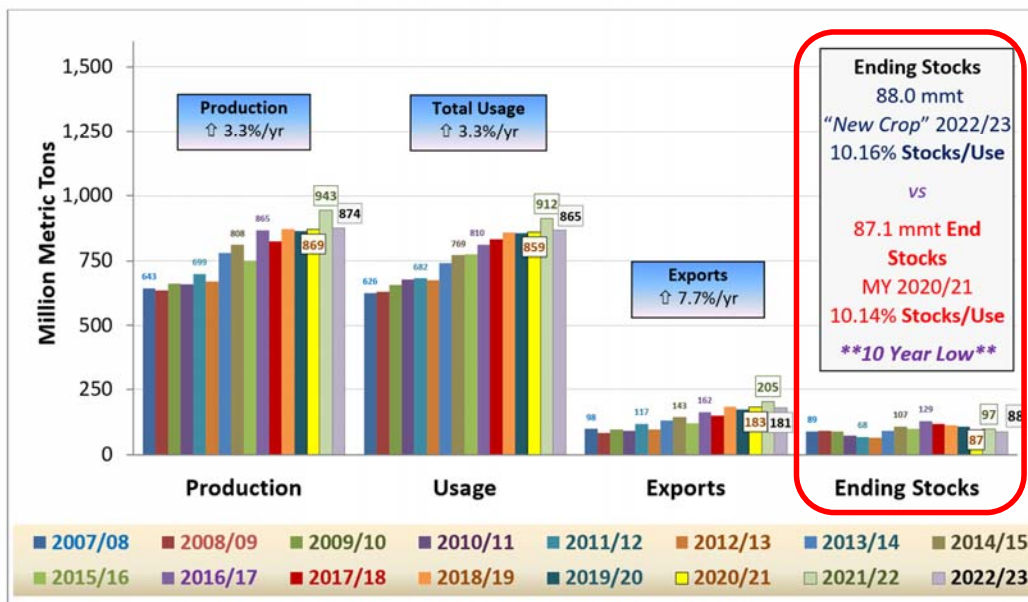
MY 2007/08 – “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE Report



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“World Less-China” Corn Supply-Demand

MY 2007/08 – “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE Report



World vs “World Less-China” Corn % Stocks-to-Use

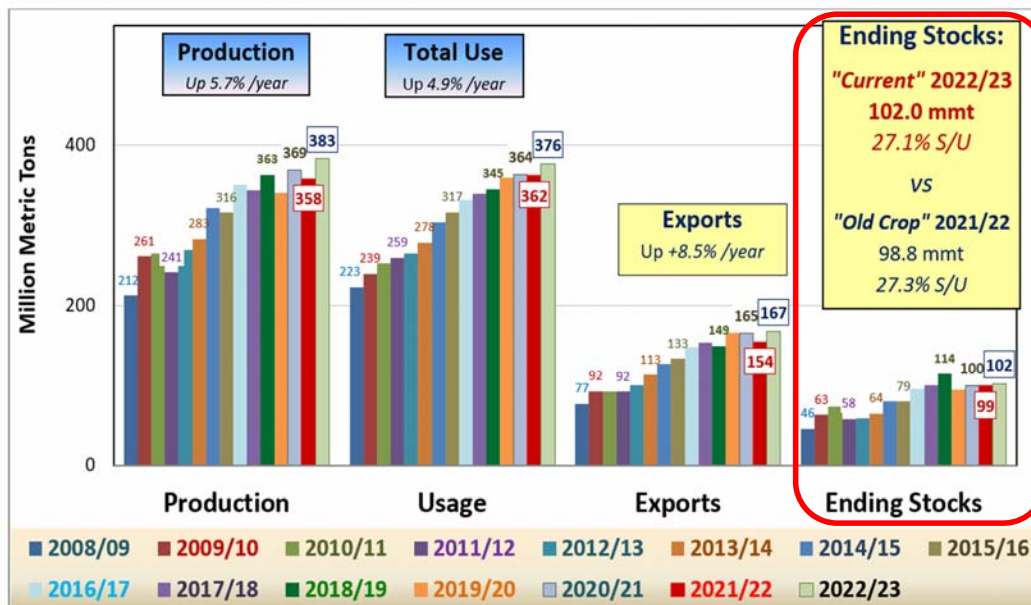
MY 2007/08 through “Current” MY 2022/23, as of the February 8, 2023 USDA WASDE report.



World Soybean Usage & Ending Stocks

7

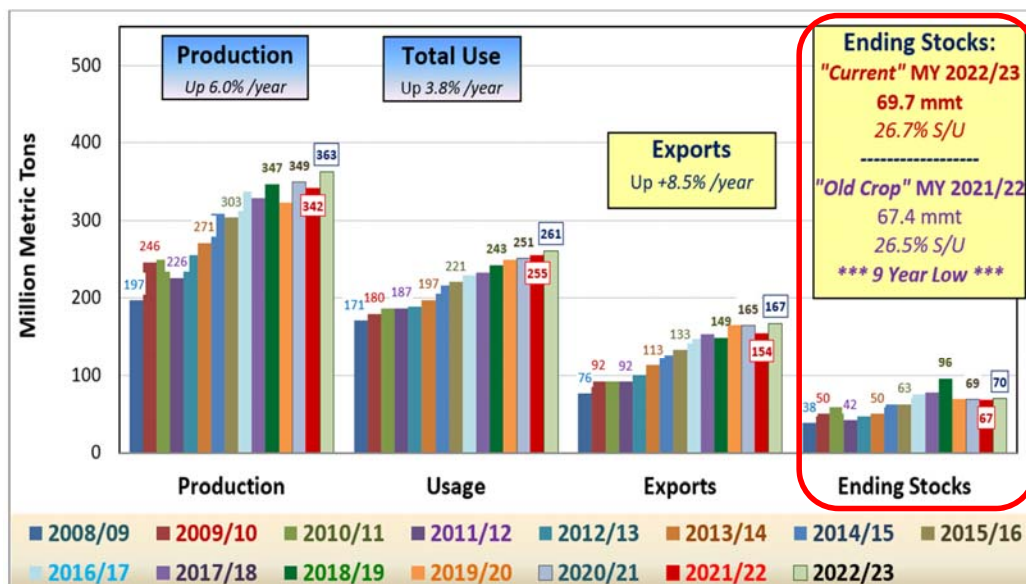
MY 2008/09 thru "Current" MY 2022/23 as of the February 8, 2023 WASDE Report



"World Less-China" Soybean Use & End Stocks

8

MY 2008/09 - "Current" MY 2022/23 as of the February 8, 2023 WASDE Report



World vs % "World Less-China" Soybean Stocks-to-Use

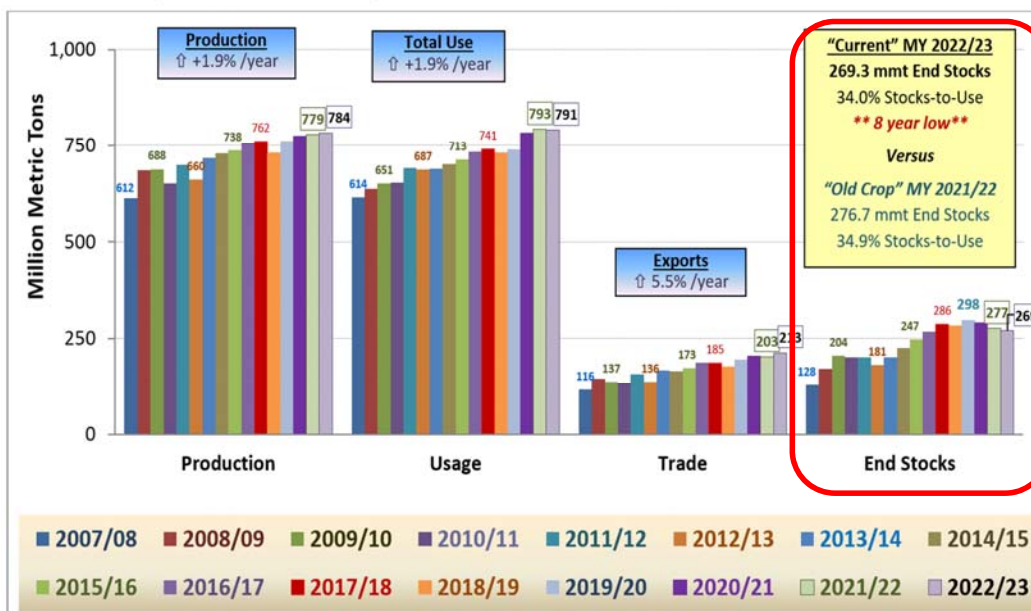
MY 2007/08 through "Current" MY 2022/23, as of the February 8, 2023 USDA WASDE report



9

World Wheat Usage & Ending Stocks

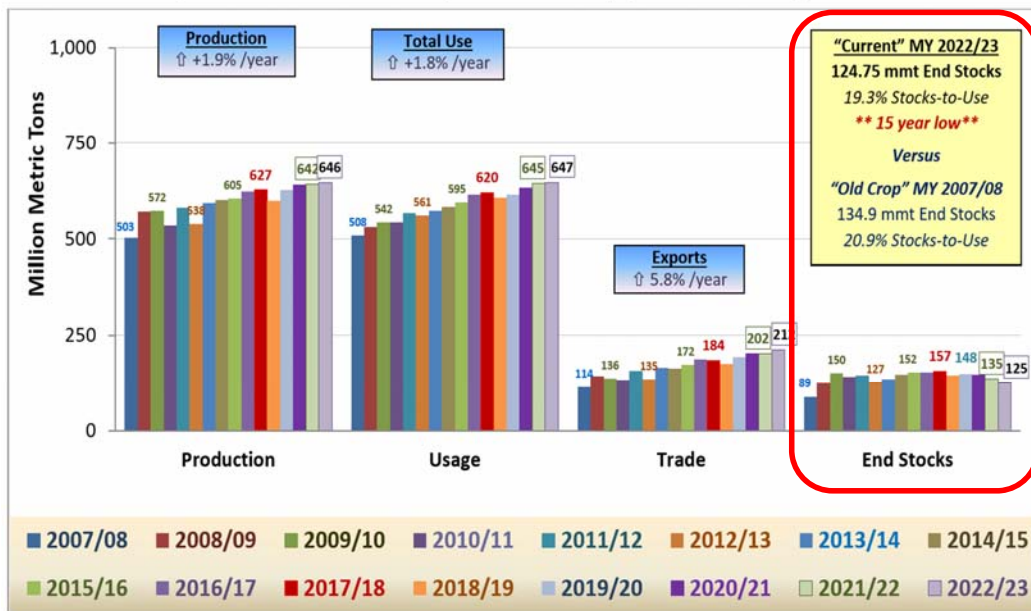
MY 2007/08 - "Current" 2022/23 as of the February 8, 2023 USDA WASDE Report



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“World Less-China” Wheat Usage & Ending Stocks

MY 2007/08 - “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE Report



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World vs “World Less-China” End Stocks & % Stocks-to-Use

MY 2007/08 through “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE report



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2) Carryover impact of the Crop Production damage in the Western-Central Plains during 2022-2023

- *Western Kansas / OK / TX / NE*

→ Stronger Corn & Soybean **BASIS** throughout the U.S. Corn Belt

► Q? 2023 U.S. Corn, Soybean & Wheat Production?

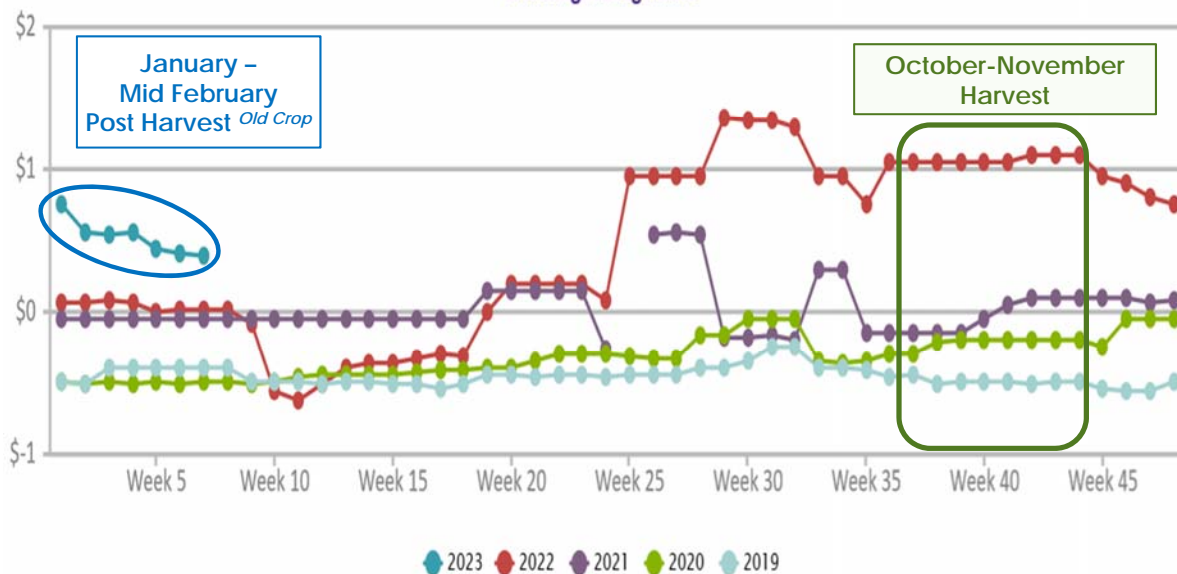
→ *Seasonal risk in Spring-Summer ²⁰²³ – Dry subsoils in many areas*



Kansas Cash & Futures Prices						
Date						
2/17/2023 (Market Closes)						
Grain Futures Contracts		Closing \$				
MAR 2023 Corn <small>(2023 Lead contract)</small>		\$6.7775				
DEC 2023 Corn <small>(2023 Harvest Contract)</small>		\$5.9675				
2/17/2023 (Market Closes)		Cash Grain & Harvest Contract Prices @ Kansas Grain Elevators				
Representing the highest bids available at each location						
Cash Market Spot & FC Bids	Plainville ^{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
Corn Spot Cash\$	\$7.27	\$7.34	\$7.12	\$8.03	\$7.63	\$7.63
Corn Spot Cash Basis	\$0.49	\$0.56	\$0.34	\$1.25	\$0.85	\$0.85
Corn Harvest FC\$: Fall ²⁰²³	\$5.66	\$5.81	\$5.65	\$6.41	\$5.96	\$5.71
Corn Harvest FC\$ Basis	(\$0.31)	(\$0.16)	(\$0.32)	\$0.44	(\$0.01)	(\$0.26)
Grain Sorghum Spot Cash\$	\$7.07	\$7.12	\$7.17	\$7.18	\$7.22	\$6.83
Sorghum Spot Cash Basis	\$0.29	\$0.34	\$0.39	\$0.40	\$0.44	\$0.05
Grain Sorghum Harvest FC\$: Fall ²⁰²²	\$5.65	\$5.71	\$5.66	\$5.86	\$5.70	\$5.51
Sorghum Harvest FC\$ Basis	(\$0.32)	(\$0.26)	(\$0.31)	(\$0.11)	(\$0.27)	(\$0.46)

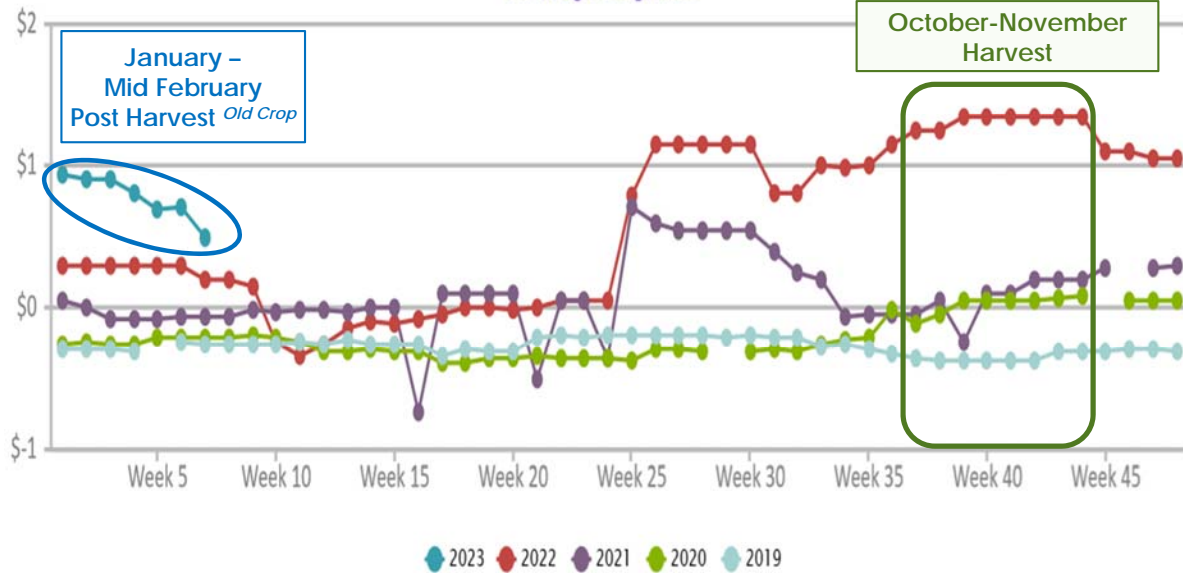
PLAINVILLE, KS: Corn Basis - MIDLAND MARKETING

www.AgManager.info



WAKEENEY, KS: Corn Basis - CARGILL

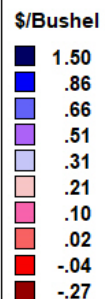
www.AgManager.info



Corn Basis, 02-15-2023

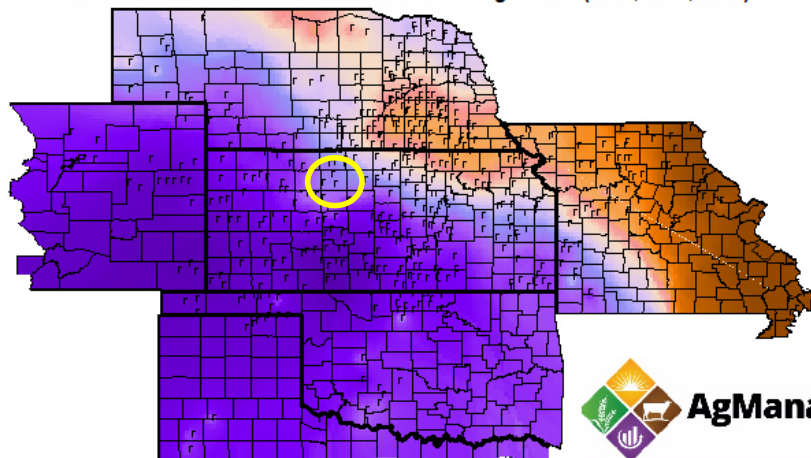
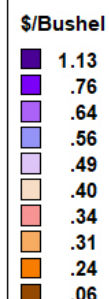
Basis = Cash Price - Nearby Futures Price

CBT Mar
Futures
Price: \$6.76



Corn Basis Deviation, 02-15-2023

Basis Deviation = Current Basis - 3 Year Average Basis (2020, 2021, 2022)



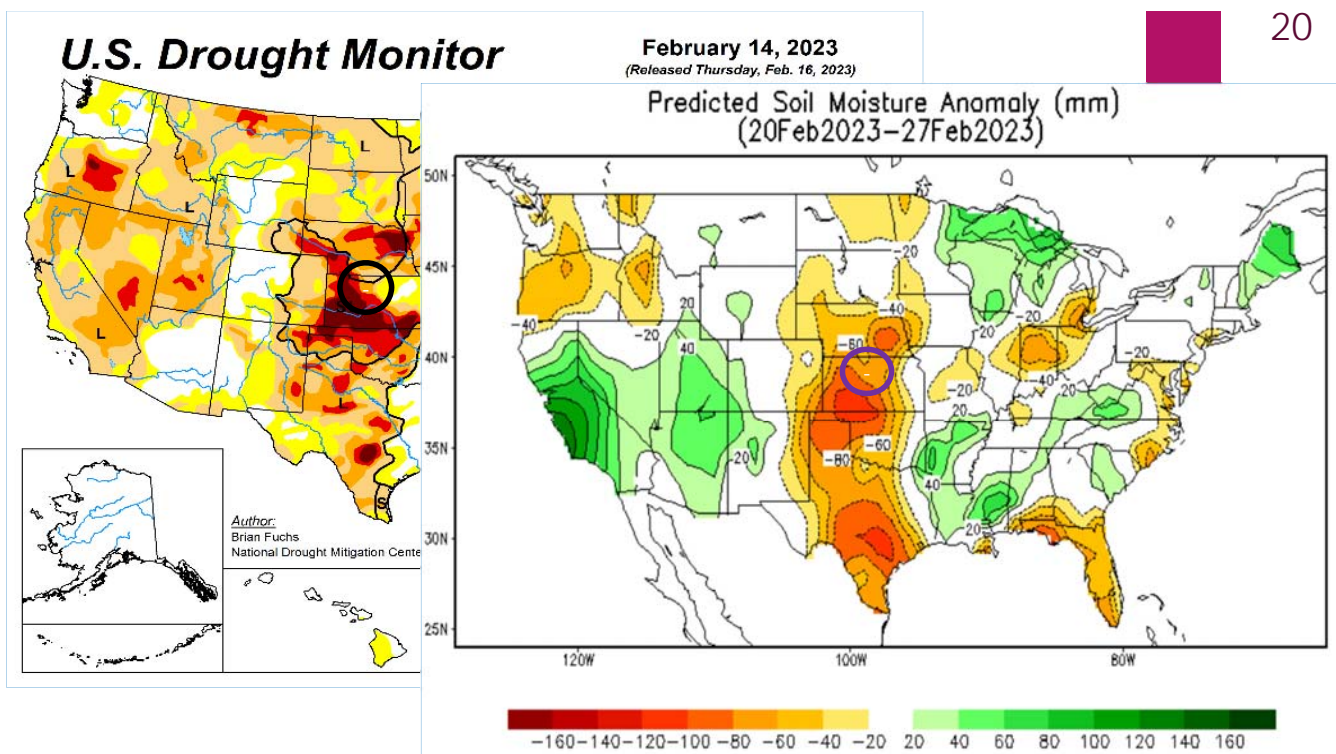
3) Continuance of dry La Nina Weather Pattern in 2023???

- “La Nina is expected to continue into winter, with equal chances of La Nina & ENSO-neutral during January-March 2023. In February-April 2023, there is a 71% Chance of ENSO-neutral.”

U.S. Climate Prediction Center / NCEP January 3, 2023

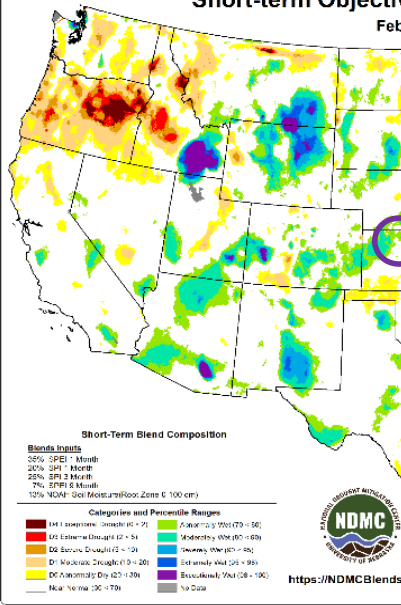
- “ENSO-neutral conditions are expected to begin within the next few months, & persist through the Northern Hemisphere spring & early summer.”

USDA Weekly Weather and Crop Bulletin February 9, 2023 ENSO Diagnostic Discussion



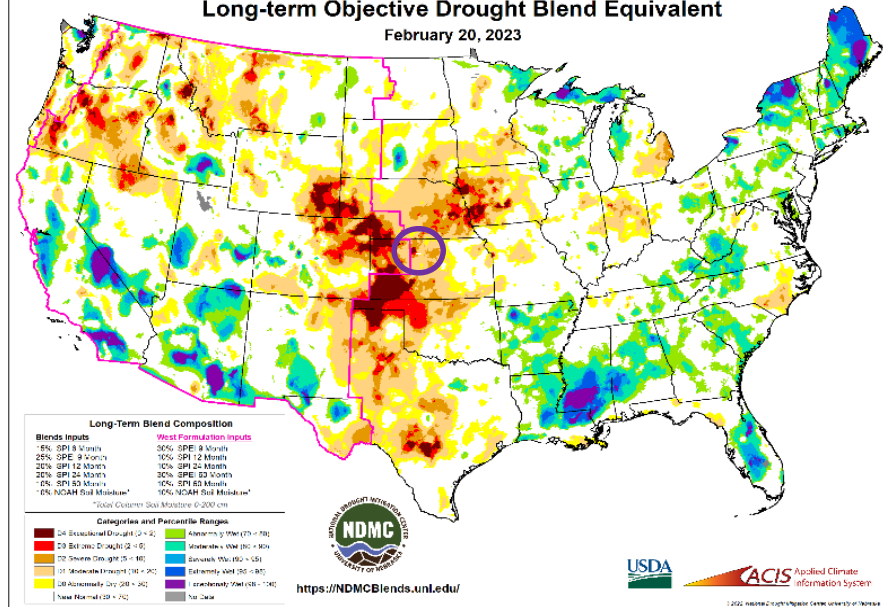
Short-term Objective Drought Blend Equivalent

February 20, 2023

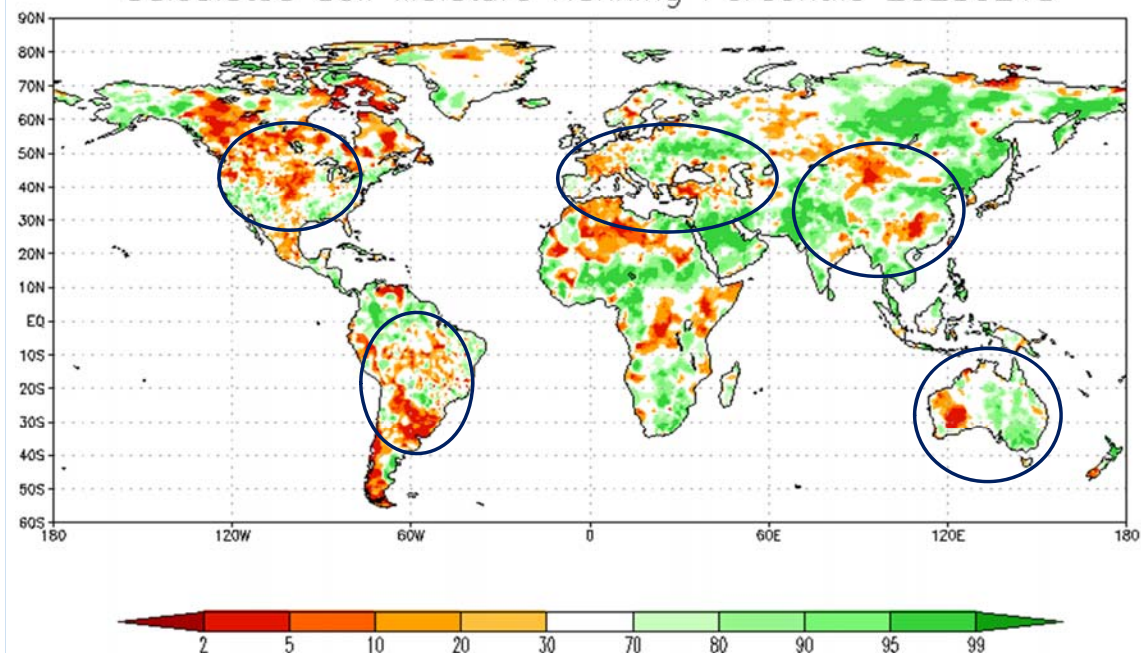


Long-term Objective Drought Blend Equivalent

February 20, 2023



Calculated Soil Moisture Ranking Percentile 20230218



4) Moderating prices for Fertilizer & other Crop Inputs –

(but still historically high!)

- Lower natural gas prices, w. but continued supply-chain challenges
- Lower fertilizer / crop input costs will encourage **2023 U.S. Corn Acres** – **≈ 92 million acres in 2023**
 - 88.6 million acres in 2022
 - 93.3 million acres in 2021
 - 90.7 million acres in 2020



**Fertilizer¹**

Distributor (Dollars Per Ton)

Product	Sale Type	Price Range	Average	Change
Anhydrous Ammonia	Ask - FOB	1135.00-1320.00	1255.00	DN 46.11
Urea 46-0-0	Ask - FOB	610.00-690.00	655.00	DN 31.67
Liquid Nitrogen 28-0-0	Ask - DELV(Applied)	550.00-620.00	571.03	DN 34.14
DAP (Diammonium Phosphate 18%N 46%P)	Ask - FOB	800.00-850.00	828.00	UP 5.50
MAP (Monoammonium Phosphate 11%N 52%P)	Ask - FOB	790.00-860.00	833.33	DN 36.67
Potash (Potassium)	Ask - FOB	625.00-775.00	665.83	DN 30.83

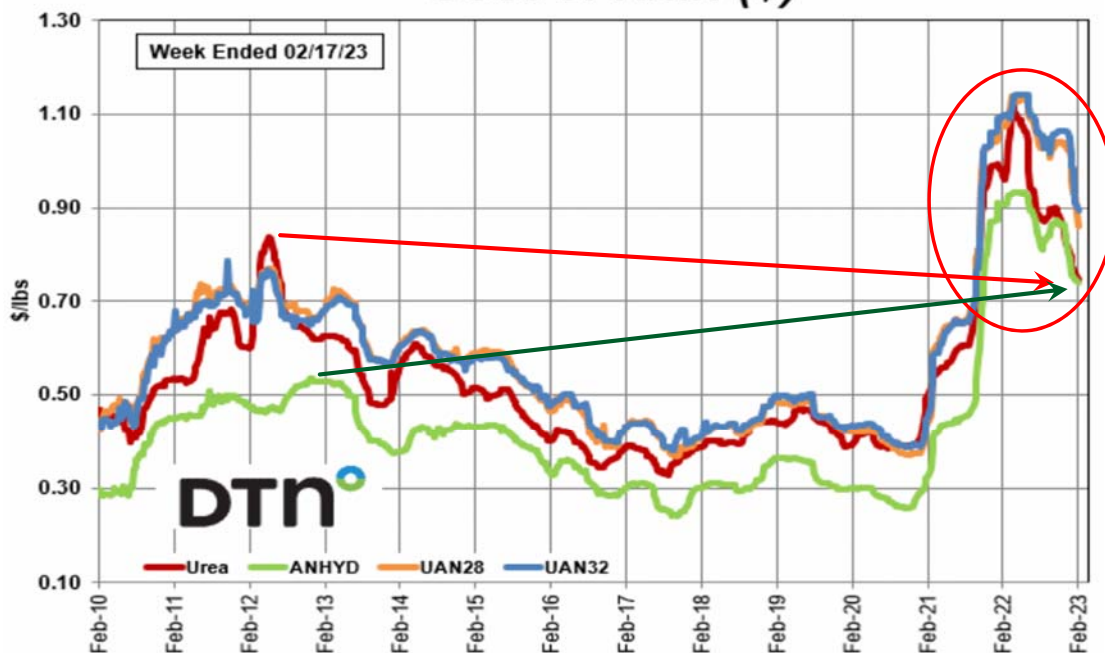
Fuel

Distributor(Dollars Per Gallon)

Farm Diesel < 1000 gallons	Ask- FOB	3.48-3.77	3.63	DN 0.40
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Cost of N/lb. (\$)

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5) U.S. & Foreign Ag response in 2023 to current crop prices?

- Crop Acres? Usually, \uparrow Prices \rightarrow \uparrow Crop Acres, **BUT ALL** crop \$'s are high (especially soybeans)
- Crop Costs? **IF** lower fertilizer & other crop costs, **THEN** it supports Corn acres & decreases Soybean acres in the U.S. Corn Belt 2023
- Rationing Grain Use: Evidence of reduced corn & soybean use....
- Cropland Markets & Cash Rents: High crop prices being reflected

What to anticipate in Year 2023 (1st of 3)

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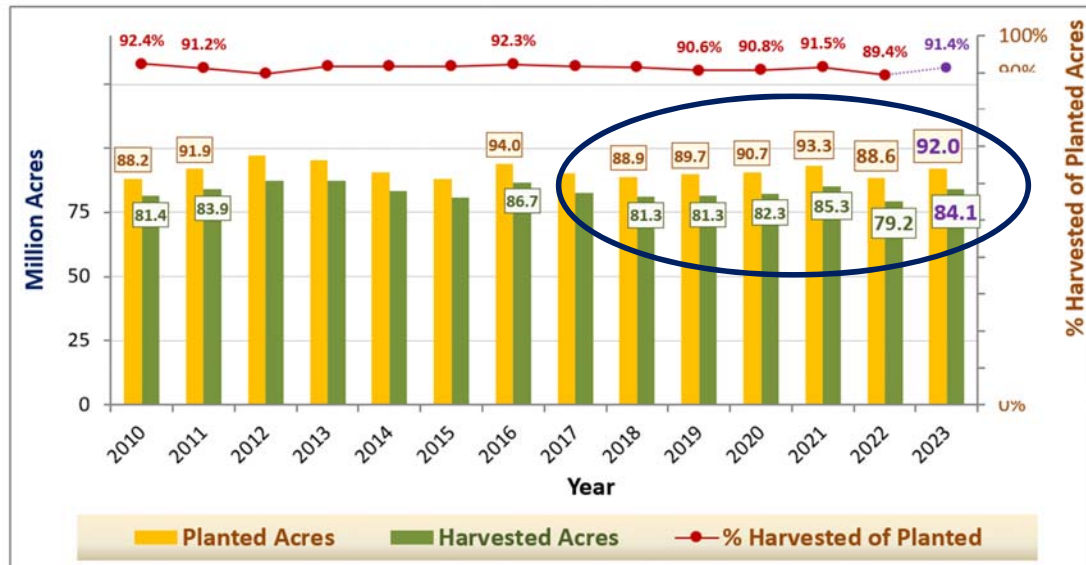
□ 2023 Spring Planting of Feedgrains & Oilseeds

- With tight stocks across crops – any threats to planting 2023 U.S. corn or soybeans could cause **STRONG** price volatility
 - NOV²⁰²³ Soybean futures @ \$13.86 ¼ /bu ^{2/17/2023 close}
 - DEC²⁰²³ Corn futures @ \$5.95 ¾ /bu ^{2/17/2023 close}
 - 2023 “New Crop” Soy/Corn \$ Ratio = $\$13.86 \frac{1}{4} \div \$5.95 \frac{3}{4} = 2.33$ (vs 2.52 Avg)
- Strong “new crop” price competition likely for 2023 planted acres between Feedgrains & Oilseeds \Rightarrow Likely in March-May 2023

++ Corn

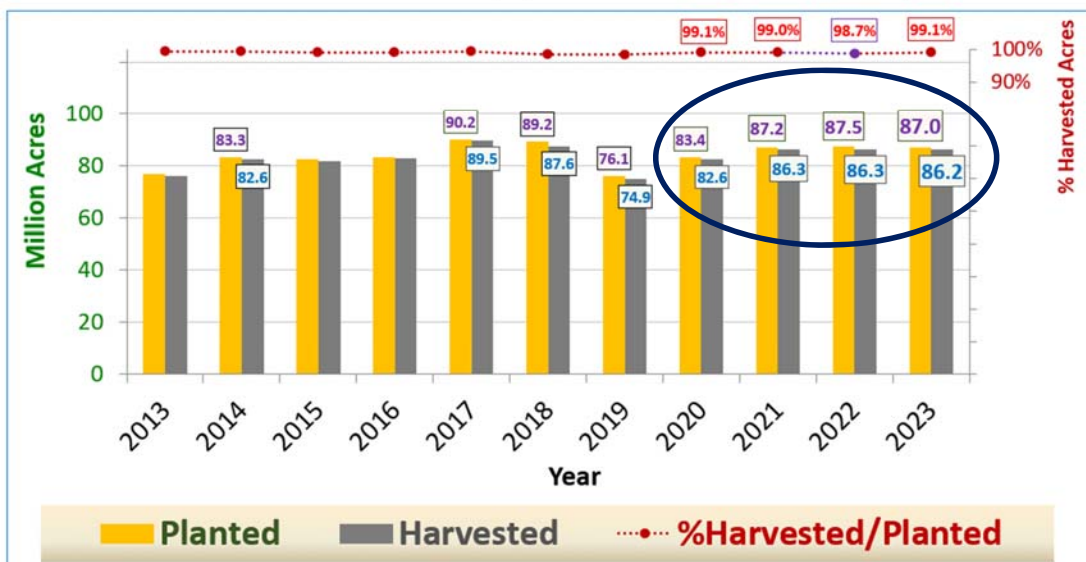
U.S. Corn Acreage for 2010-2023

As of the February 8, 2023 USDA NASS & WASDE Reports



U.S. Soybean Acreage for 2013-2023

Years 2013-2023 as of the February 8, 2023 USDA WASDE & NASS Reports



6) Impact of Ongoing & Possible Geopolitical Conflicts?? *In 2023*

- *Ukraine-Russia War???: Prospects for de-escalation & grain trade?*
- *China-Taiwan???* - *IF* this occurs, it would impact the global economy along with U.S. grain trade
 - *Impacting U.S. soybeans, grain sorghum, likely all U.S. agricultural commodities – including U.S. corn*

7) Overall Prospects for 2023 Crop Markets???

- U.S. Crop Prices supported @ Moderate-to-High Levels – *until* someday grain markets are confident of larger crops & rebuilding of stocks
 - “2023/24 ‘New Crop’ Forward Bids” are vulnerable to moderate declines in late Spring – Summer²⁰²³ & on into Fall harvest²⁰²³
- Ukraine-Russia War Effect: *Smaller* Ukraine corn, wheat crops+exports
- South America Impact: **Brazil** *(Positive++)* & **Argentina** *(Negative -)* crop prospects will effect U.S. prices through at least August²⁰²³

South America Corn-Soybean Calendar

□ South America Planting Influences ⇒ “*Bid for Acres*”

• Brazil & Argentina Corn & Soybean Crop Calendar

○ Brazil

- Corn: 1st crop *Planting* – October-December ⇒ Harvest: February-June
- Soybeans: *Planting* – October-December ⇒ Harvest: March-June
- Corn: 2nd crop *Planting* – January-February ⇒ Harvest: March-June

○ Argentina

- Corn: *Planting* – mid September-December ⇒ Harvest: mid March-early June
- Soybeans: 1st crop *Planting* – November-December ⇒ Harvest: Late March-early May
- Soybeans: 2nd crop *Planting* – December-early Jan. ⇒ Harvest: mid April – mid June

What to anticipate: Year 2023 (2nd of 3)

Q? Are grain markets *at risk* to fall sharply in the last ½ of 2023?

- With “tight” beginning stocks across these crops – less risk of major declines UNTIL at least late spring – early summer
- THEN the *risk* to grain sellers is that crop markets will discount the possibility of “short crops” in 2023

⇒ IF in Summer 2023 U.S. & Foreign crop prospects are “OK-to-Good”, THEN grain markets likely “slide” lower into Fall 2023

What to anticipate: Year 2023 *(3rd of 3)*

- ❑ USDA Reports ⇒ *Often a “driver” of grain market volatility*
 - WASDE: Jan. 12**, 2/8, 3/8, 4/8, 5/12, 6/9, 7/12, 8/11, 9/12.....
 - Planted Area: Prospective Plantings – May 31, Acreage – June 30
- ❑ “Strong” Demand-Pull for Feedgrains in the Western Corn Belt
 - Summer demand for “New Crop” supplies (i.e. “users scrambling!”)
 - *Possibility of “Inverted” futures & strong basis during Sep-Nov²⁰²³ Quarter* *IF* a short crop happens in 2023 ⇒ What are the odds?

Corn Market Prices



CME Corn Futures <i>2/17/2023 Closes</i>			
Month	Close	Change	Carry /mo
Mar^{Lead} 23	\$6.77 ³/₄	↑ \$0.01 ³/₄	---
May 23	\$6.77 ¹ / ₂	↑ \$0.02 ¹ / ₂	-\$0.00 ¹²⁵
July 23	\$6.66	↑ \$0.02	-\$0.05 ⁷⁵
Sept 23	\$6.10 ³ / ₄	↑ \$0.02	-\$0.27 ⁶²⁵
Dec^{Hvst} 23	\$5.95 ³/₄	↑ \$0.02 ¹/₄	-\$0.05
Mar 24	\$6.03	↑ \$0.02 ¹ / ₄	+\$0.02 ⁴¹⁷
May 24	\$6.06 ¹ / ₂	↑ \$0.02 ¹ / ₄	+\$0.01 ⁷⁵
July 24	\$6.06 ¹ / ₄	↑ \$0.02 ¹ / ₄	-\$0.00 ¹²⁵

CME Corn Futures

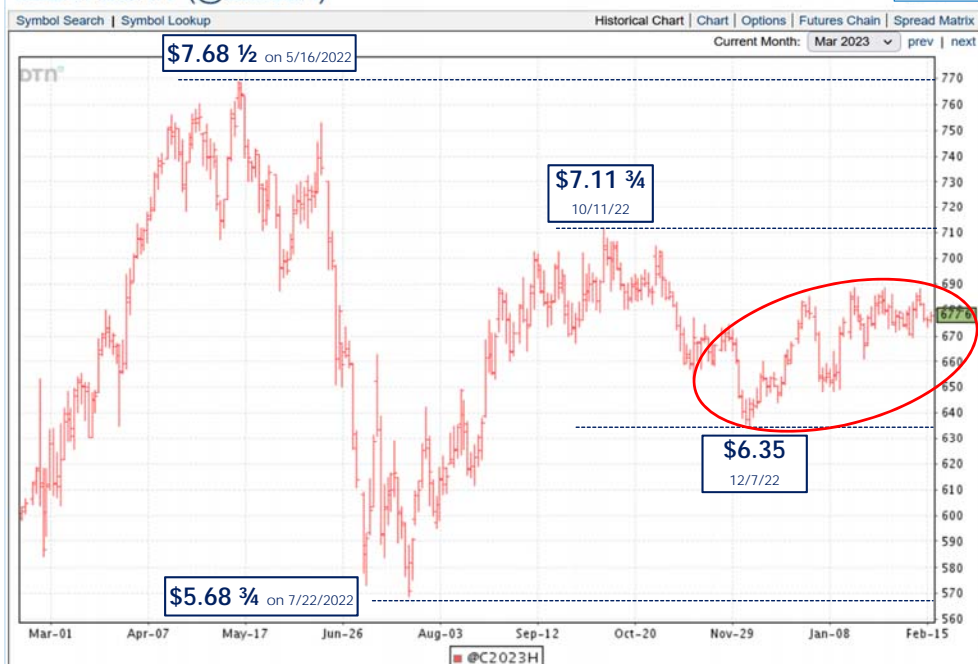
"Old Crop"
MARCH 2023
 OHLCs

\$6.77 ³/₄ /bu

Market Close

Friday,
 2/17/2023

ELEC. CORN (@C2023H)



CME Corn Futures

"New Crop"
DEC 2023
OHLCs

\$5.95 3/4 /bu

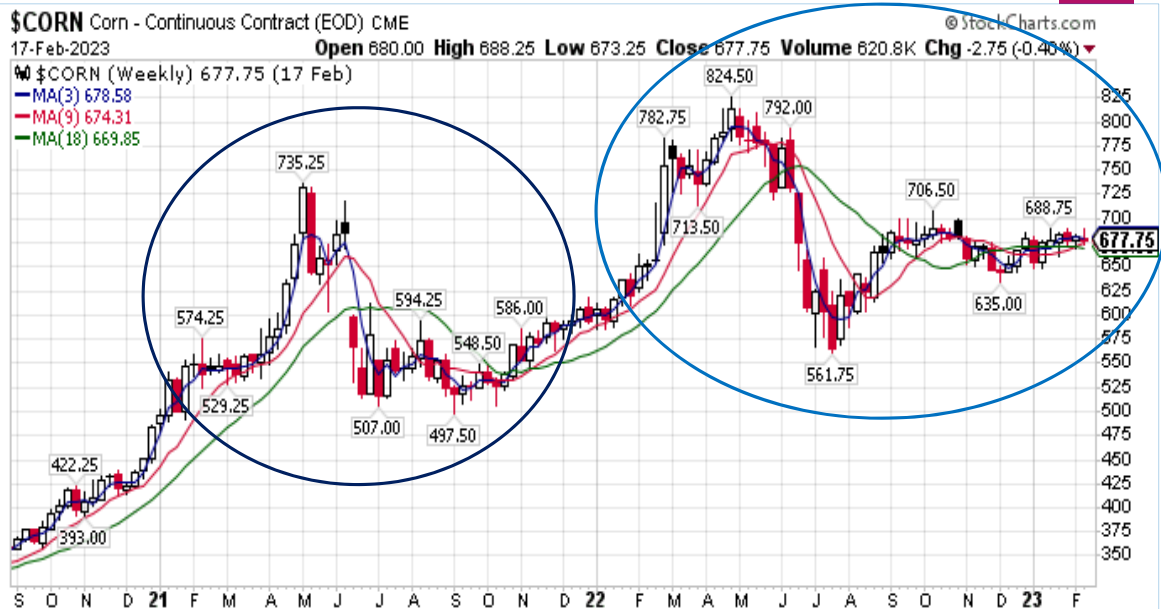
Market Close

Friday,
2/17/2023

ELEC. CORN (@C2023Z)



CME Corn Futures Continuous Weekly to 2/17/2023



CME Corn Futures

Monthly
"Continuous"
OHLCs

Dec²⁰⁰⁵
to
Feb²⁰²³



Corn Futures Seasonal \$'s & Volatility since 2014

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CORN CVOL HISTORY (CVL)

Zoom 1M 3M 6M 1Y 2Y 3Y 5Y YTD ALL

Oct 1, 2013 → Feb 17, 2023



U.S. Corn Supply and Demand

Item	2021/2022 estimate	2022/2023 forecast	Change from January 12	Change from 2021/2022
Planted area (million acres)	93.3	88.6	--	-4.7
Harvested area (million acres)	85.3	79.2	--	-6.1
Yield (bushels per acre)	176.7	173.3	--	-3.3
<i>----- Million bushels -----</i>				
Beginning stocks	1,235	1,377	--	142
Production	15,074	13,730	--	-1,344
Imports	24	50	--	26
Total supply	16,333	15,157	--	-1,176
Feed and residual	5,718	5,275	--	-443
Food, seed, and industrial	6,766	6,690	-25	-76
Ethanol	5,326	5,250	-25	-76
Domestic use	12,484	11,965	-25	-519
Exports	2,471	1,925	--	-546
Total use	14,956	13,890	-25	-1,066
Ending stocks	1,377	1,267	25	-110
<i>----- Percent -----</i>				
Stocks to use ratio	9.2	9.1	0.2	-0.1
<i>----- Dollars per bushel -----</i>				
Average market price	6.00	6.70	--	0.70

-- No change.

February 8, 2023

World Corn Production

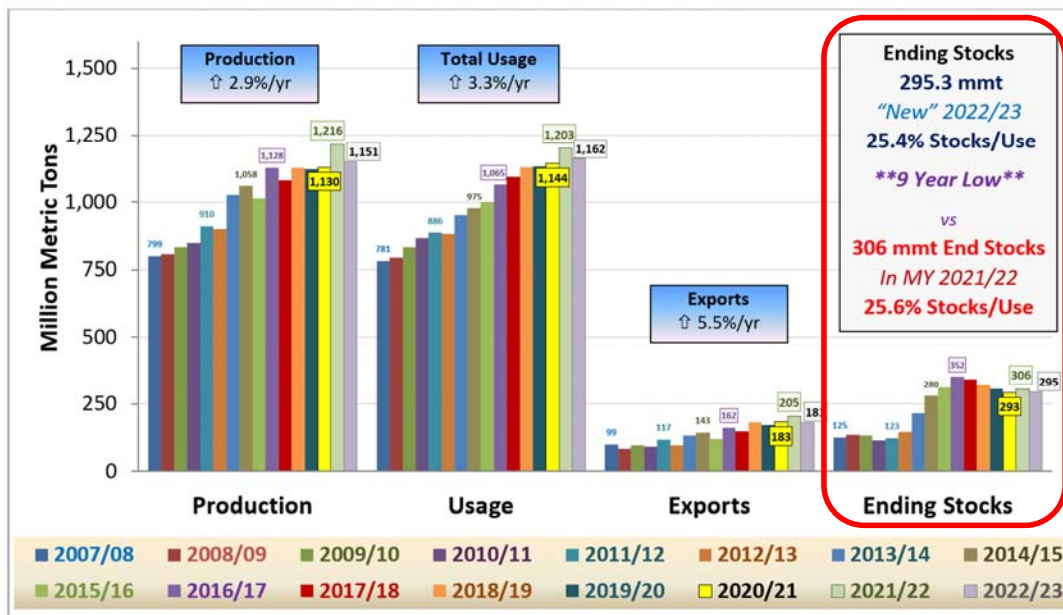
Country or Region	2021/2022 estimate	2022/2023 forecast	Change from January 12	Change from 2021/2022
<i>----- Million Tons -----</i>				
World	1,216.0	1,151.4	-4.6	-64.6
United States	382.9	348.8	--	-34.1
Foreign	833.1	802.6	-4.6	-30.5
Argentina	49.5	47.0	-5.0	-2.5
Brazil	116.0	125.0	--	9.0
Mexico	26.8	27.6	--	0.8
Canada	14.6	14.5	--	-0.1
European Union	71.0	54.2	--	-16.8
Serbia	6.0	5.4	--	-0.6
FSU-12	63.7	46.4	0.1	-17.3
Ukraine	42.1	27.0	--	-15.1
Russia	15.2	14.0	--	-1.2
South Africa	16.1	16.7	--	0.6
China	272.6	277.2	--	4.6
India	33.6	32.0	--	-1.6

-- No change.

February 8, 2023

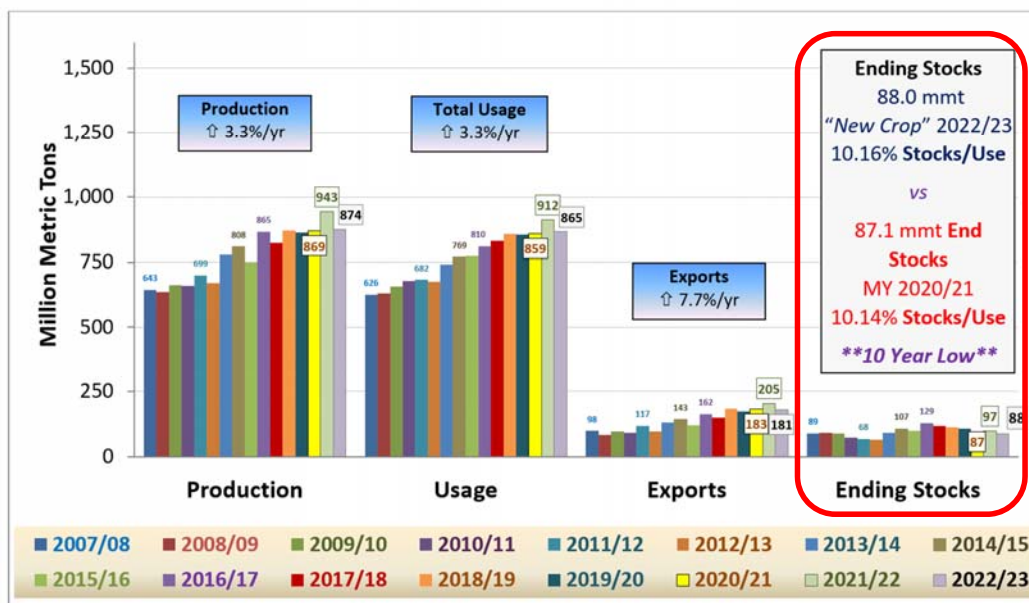
World Corn Supply-Demand

MY 2007/08 – “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE Report



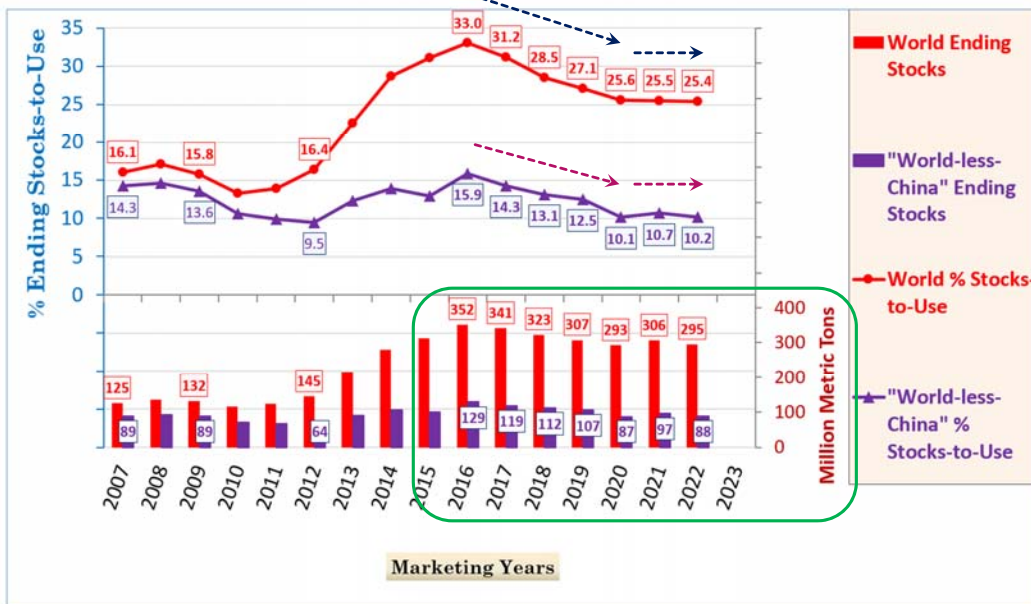
“World Less-China” Corn Supply-Demand

MY 2007/08 – “Current” MY 2022/23 as of the February 8, 2023 USDA WASDE Report



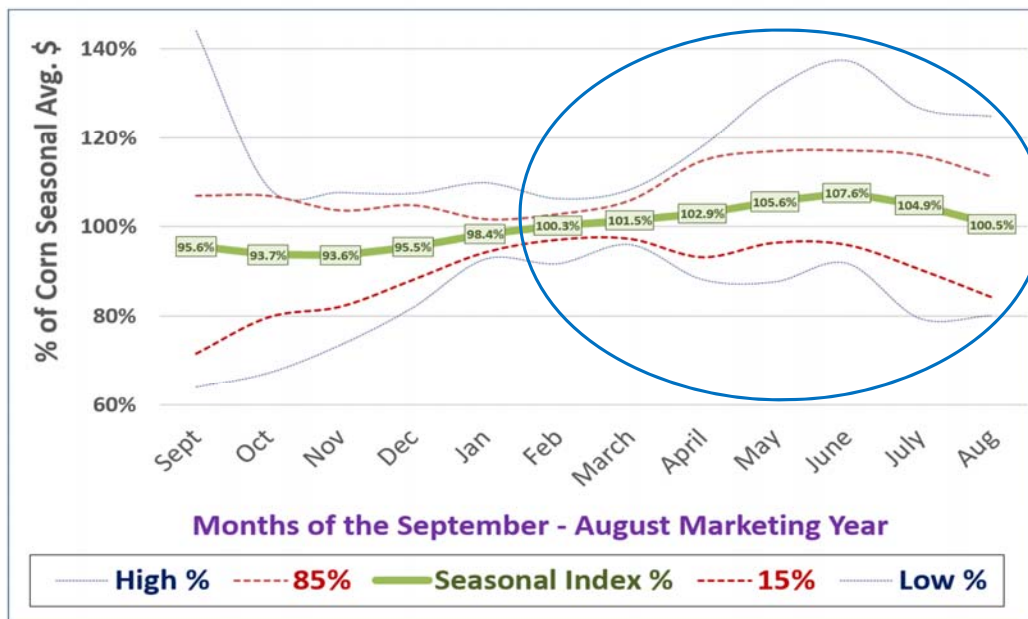
World vs "World Less-China" Corn % Stocks-to-Use

MY 2007/08 through "Current" MY 2022/23, as of the February 8, 2023 USDA WASDE report.



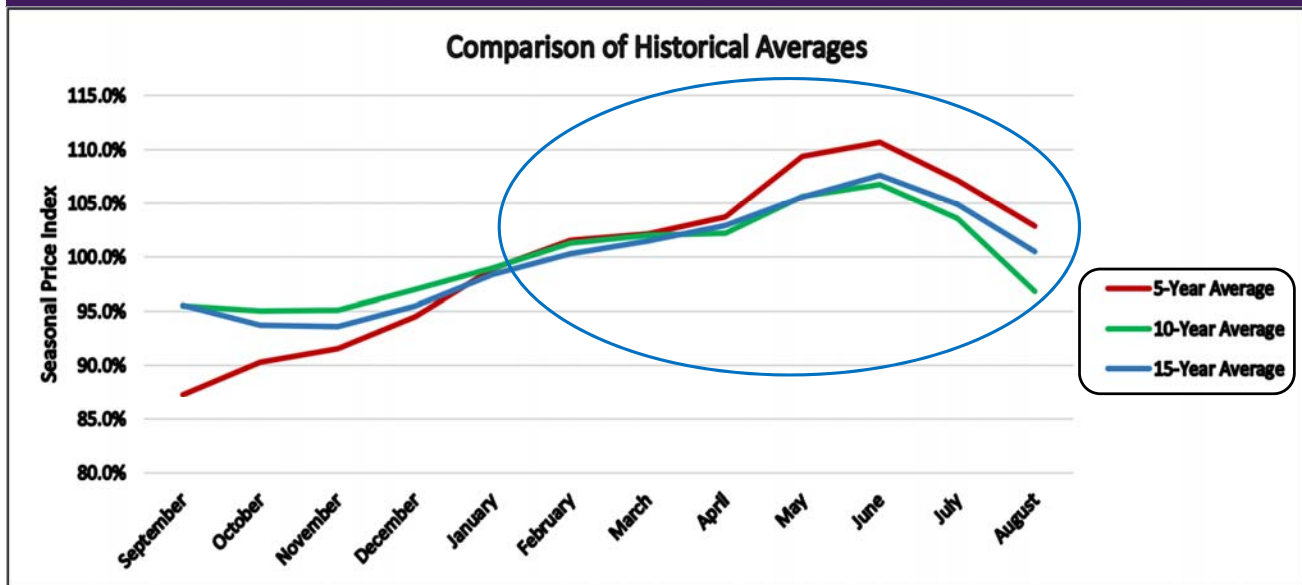
Corn Seasonal Price Index Northwest KS

Last 23 Marketing Years: 1999/2000 through 2021/2022



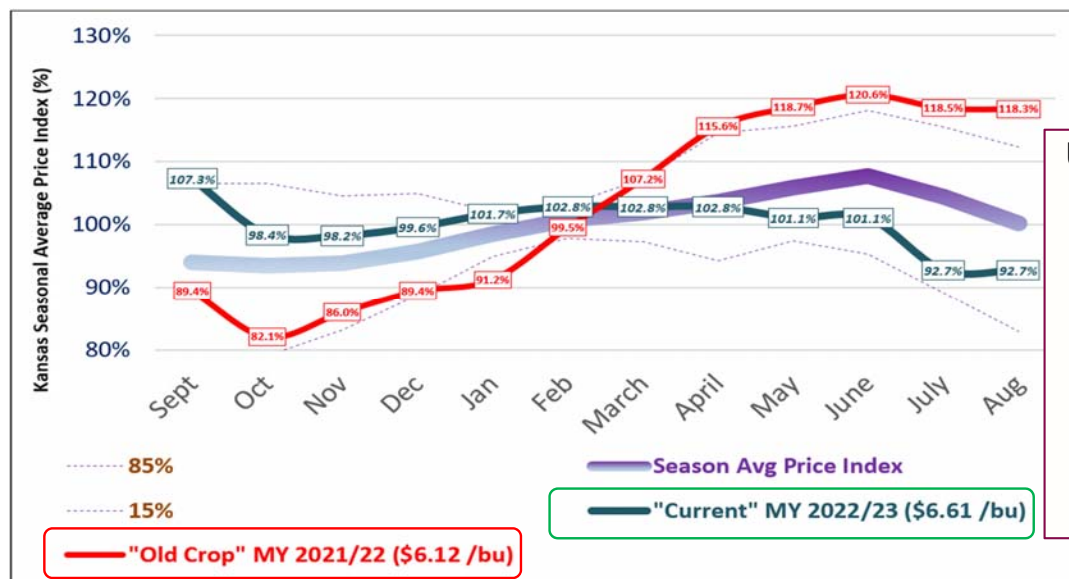
Corn: Seasonal Average Price Index

For the last 5, 10, & 15 Years in Northwest Kansas



Corn Seasonal Prices ^{Kansas-U.S.}

Long Term Seasonal \$ Trends + MY 2021/22 & "Current" MY 2022/23 As of 2/17/2023



USDA Corn \$ Forecasts:

"Old Crop"

MY 2021/22

= \$6.00 /bu U.S.

"Current"

MY 2022/23

= \$6.70 /bu U.S.

My DTN Cash Bids

My DTN Cash Bids for Postal Code 67663, Radius 300 miles

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Elevator/Location	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
MIDLAND MARKETING PLAINVILLE, KS	7.18	---	---	---	---	---	---	---	---	---	5.61
MIDLAND MARKETING ZURICH, KS	7.18	---	---	---	---	---	---	---	---	---	5.61
MIDLAND MARKETING PALCO, KS	7.18	---	---	---	---	---	---	---	---	---	5.61
MIDLAND MARKETING NATOMA, KS	7.18	---	---	---	---	---	---	---	---	---	5.61
FARMERS UNION ELEVATOR STOCKTON, KS	7.08	---	---	---	---	---	---	---	---	---	---
MIDLAND MARKETING YOCEMENTO, KS	7.18	---	---	---	---	---	---	---	---	---	5.66
CARGILL OGALLAH, KS	7.27	---	---	---	---	---	---	---	---	---	---
GOLDEN BELT COOP-RIGA ELLIS, KS	7.18	---	---	---	---	---	---	---	---	5.66	---
GOLDEN BELT COOPERATIVE ELLIS, KS	7.18	---	---	---	---	---	---	---	---	5.66	---
MIDLAND MARKETING HAYS, KS	7.18	---	---	---	---	---	---	---	---	---	5.72
MIDLAND MARKETING TOULON, KS	7.18	---	---	---	---	---	---	---	---	---	5.66
UNITED AG SERVICE GORHAM, KS	7.58	---	---	---	---	---	---	---	5.89	---	---

Friday, February 17, 2023

Elevator FC Basis:

\$0.07 to
\$0.35
Under
DEC²³



National Daily Ethanol Report

Agricultural Marketing Service
Livestock, Poultry, and Grain Market News

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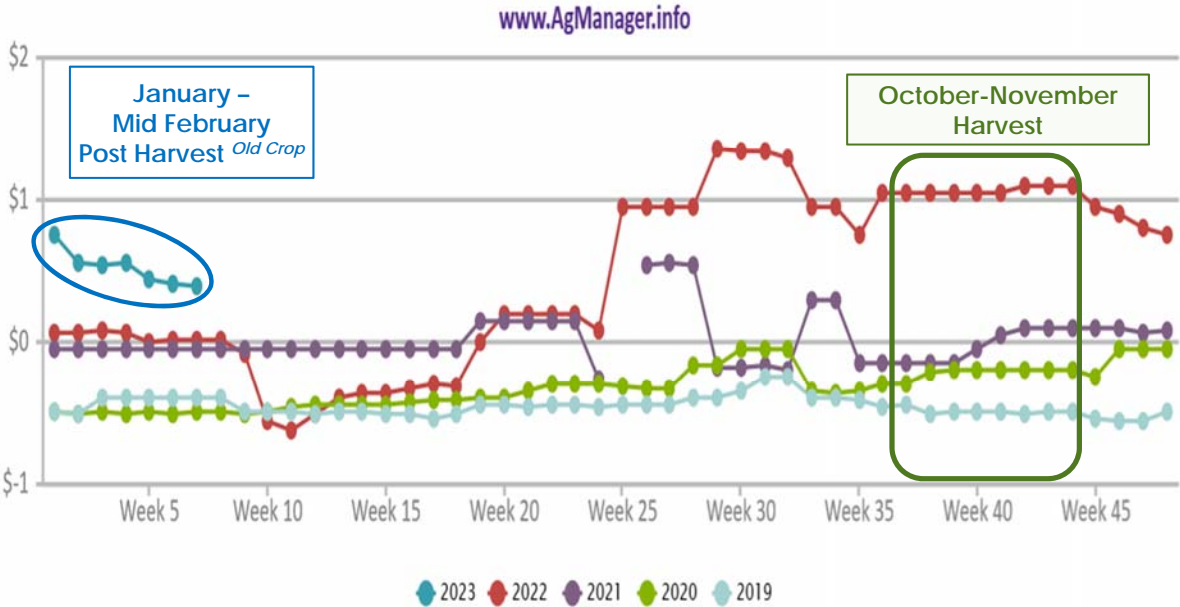
February 17, 2023

US #2 Yellow Corn -Bulk

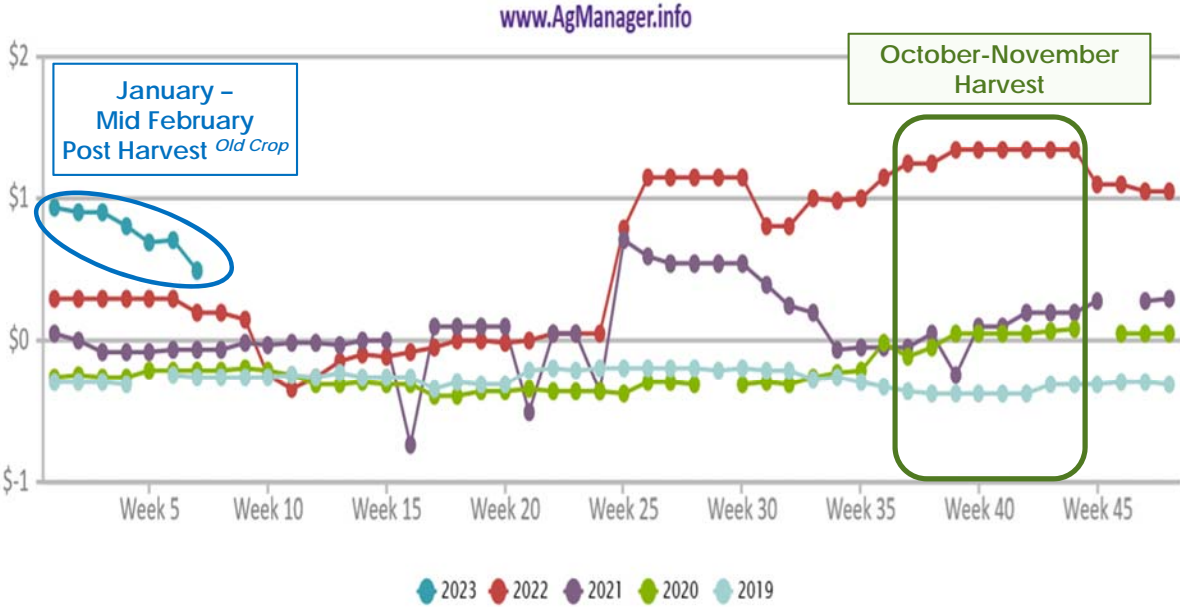
Ethanol Plant

State/Province/Region	Sale Type	Basis (¢/bu)	Basis Change	Price (\$/Bu)	Price Change	Average
Illinois	Bid	-13.00H to 40.00K	UNCH	6.6300-7.1500	DN 0.0025-UP 0.0100	6.8467
Indiana	Bid	-7.00H to 13.00H	UNCH	6.6900-6.8900	DN 0.0025	6.8178
Iowa East	Bid	-25.00H to 13.00K		6.5100-6.8800	DN 0.0300-UP 0.0100	6.7145
Iowa West	Bid	5.00H to 50.00H	UNCH	6.8100-7.2600	DN 0.0025	7.0632
Kansas	Bid	40.00H to 75.00H	UNCH-DN 10	7.1600-7.5100	DN 0.0025-DN 0.1025	7.3767
Michigan	Bid	-30.00H to -17.00H	UNCH	6.4600-6.5900	DN 0.0025	6.5175
Minnesota	Bid	-25.00H to 29.00H	UNCH-DN 2	6.5100-7.0500	DN 0.0025-DN 0.0225	6.8383
Missouri	Bid	0.00H to 40.00H	UNCH	6.7600-7.1600	DN 0.0025	6.9150
Nebraska	Bid	25.00H to 70.00H	UP 5-DN 15	7.0100-7.4600	UP 0.0475-DN 0.1525	7.1479
Ohio	Bid	-10.00H to 7.00H	UNCH	6.6600-6.8300	DN 0.0025	6.7467
South Dakota	Bid	-10.00H to 46.00H	UNCH	6.6600-7.2200	DN 0.0025	6.8915
Wisconsin	Bid	-45.00H to -17.00H	UNCH	6.3100-6.5900	DN 0.0025	6.4350

PLAINVILLE, KS: Corn Basis - MIDLAND MARKETING



WAKEENEY, KS: Corn Basis - CARGILL



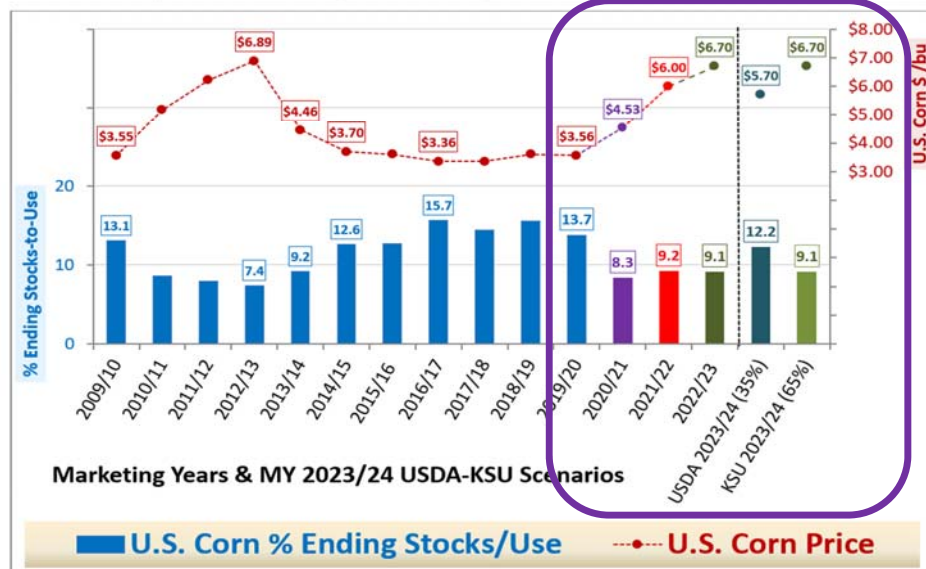
U.S. Corn Supply-Demand Balance Sheet

"Current" MY 2022/23 & Proj. "New Crop" MY 2023/24 as of the 2/8/2023 USDA WASDE + KSU Ests.

Item	USDA 2022/23 1/12/2023 WASDE 172.3 bu/ac 13.730 bb crop	A. USDA "New Crop" MY 2023/24 ^{Scenario #1} "High Yields" = 181.5 bu/ac 15.265 bb crop	B. USDA "New Crop" MY 2023/24 ^{Scenario #1} "Average Yields" = 176.0 bu/ac 14.802 bb crop
% Probability of Occurring (KSU)	75% ^{KSUest}	35% ^{KSUest}	65% ^{KSUest}
Planted Area (million acres)	88.579	92.000	92.000
Harvested Area (million acres)	79.207	84.100	84.100
% Harvested/Planted Area	89.42%	91.41%	91.41%
Yield / harvested acre (bu/ac)	172.3	181.5	176.0
Million Bushels			
Beginning Stocks (million bushels)	1,377	1,267	1,267
Production (million bu.)	13,730	15,265	14,802
Imports (million bu.)	50.0	25.0	25.0
Total Supply (million bu.)	15,157	16,556	16,094
Ethanol for fuel Use (million bu.)	5,250	5,325	5,325
Food & Industrial Use (mln bu.)	1,419.4	1,419.4	1,419.4
Seed Use (million bu.)	30.6	30.6	30.6
Exports (million bu.)	1,925	2,275	2,275
Feed & Residual Use (million bu.)	5,275	5,700	5,700
Total Use (million bu.)	13,890	14,750	14,750
Ending Stocks (million bu.)	1,267	1,806	1,344
% Ending Stocks-to-Use	9.12%	12.07%	9.11%
Days of Supply (% S/U x 365 days)	33.3 days	44.1 days	33.3 days
U.S. Corn Average Farm Price (\$/bushel)	\$6.70 ^{USDA} \$6.61 ^{KSU}	\$5.70 ^{USDA}	\$6.70 ^{KSU}

U.S. Corn % Stocks/Use vs Corn Price

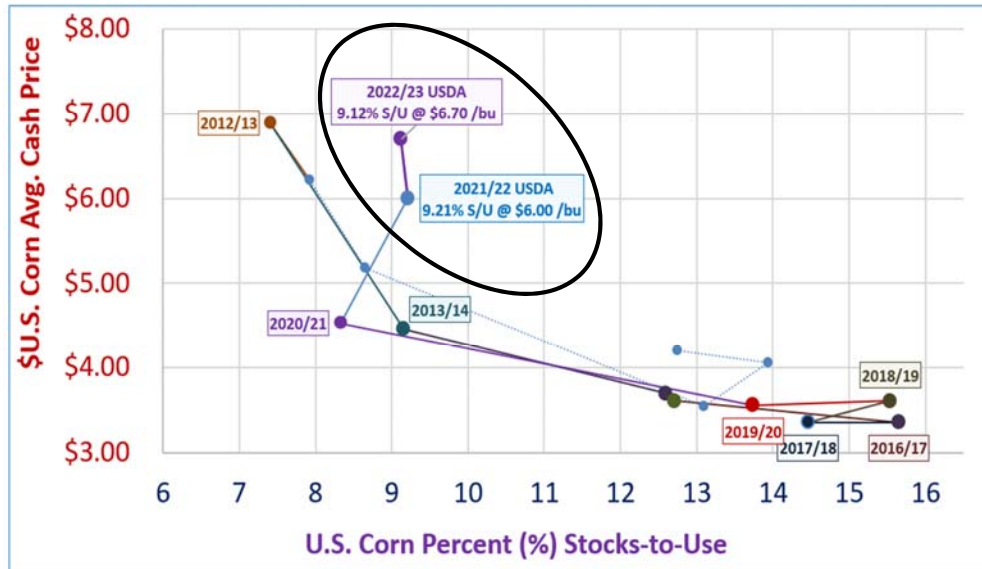
MY 2009/10 – "New Crop" MY 2023/24 as of the February 8, 2023 USDA WASDE



U.S. Corn Price vs U.S. % Stocks-to-Use

59

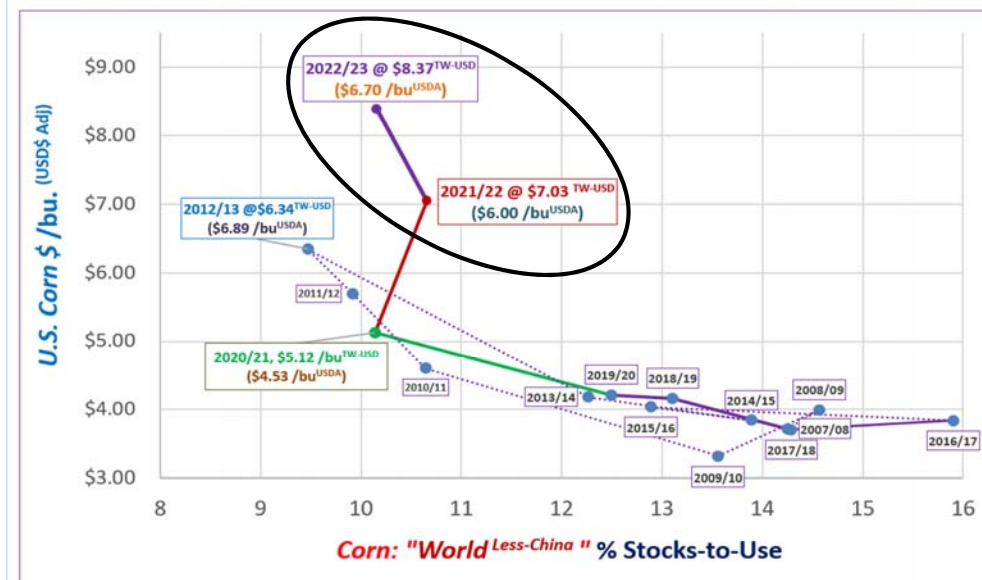
MY 2007/08 - "Current" MY 2022/23 as of the February 8, 2023 USDA Reports



U.S. Corn \$^{USD\$ Adj.} vs "World^{Less-China}" % S/U

60

MY 2007/08 - "Current" MY 2022/23 as of the February 8, 2023 USDA WASDE Report



2023 Corn Cost-Return Budget (W-C-F Rotation) in Northwest Kansas

61

Item	unit	price	quantity	amount	Sub-total
INCOME					
Product					
Corn - Northwest KS	bu	\$6.10	89.00	\$542.90	\$542.90
--TOTAL INCOME--					\$542.90
DIRECT EXPENSES					
Additional labor					\$0.83
Crop insurance					\$34.24
Diesel					\$16.77
Fertilizers					\$87.64
Herbicides					\$113.90
Miscellaneous					\$6.65
Operator labor					\$5.85
Repair & Maintenance					\$15.46
Seeds					\$49.87
Interest on operating capital	8% percent on direct expenses				\$13.25
--TOTAL DIRECT EXPENSES--					\$344.47
-----Total direct expenses per bu					\$3.87
FIXED EXPENSES					
Cash rent					\$105.00
Capital recovery (depreciation + interest)					\$55.16
--TOTAL FIXED EXPENSES--					\$160.16
-----Total expenses per bu					\$5.67
RETURNS ABOVE DIRECT EXPENSES					\$198.43
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$38.28

2023 Corn Costs Northwest KS

Yield = 89 bu /ac

Total Direct Expenses
= \$3.87 /bu

Total of ALL Expenses
= \$5.67 /bu

2023 Corn Cost-Return Budget in North Central Kansas

62

Item	unit	price	quantity	amount	Sub-total
INCOME					
Product					
Corn - North Central KS	bu	\$5.97	120.00	\$716.40	\$716.40
--TOTAL INCOME--					\$716.40
DIRECT EXPENSES					
Additional labor					\$0.00
Crop insurance					\$0.81
Custom Operations					\$29.44
Diesel					\$19.32
Fertilizers					\$16.51
Herbicides					\$140.99
Miscellaneous					\$85.36
Operator labor					\$7.86
Repair & Maintenance					\$5.77
Seeds					\$15.32
Interest on operating capital	8% percent on direct expenses				\$74.80
--TOTAL DIRECT EXPENSES--					\$412.04
-----Total direct expenses per bu					\$3.43
FIXED EXPENSES					
Cash rent					\$95.00
Capital recovery (depreciation + interest)					\$54.10
--TOTAL FIXED EXPENSES--					\$149.10
-----Total expenses per bu					\$4.68
RETURNS ABOVE DIRECT EXPENSES					\$304.36
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$155.26

2023 Corn Costs North Central KS

Yield = 120 bu /ac

Total Direct Expenses
= \$3.43 /bu

Total of ALL Expenses
= \$4.68 /bu

2023 Irrigated Corn (center-pivot) Cost-Return Budget

-----Northwest Kansas (ave yields)

63

item	unit	price	quantity	amount	Sub-total
INCOME					
Product					
Corn - Northwest KS	bu	\$6.10	240.00	\$1,464.00	\$1,464.00
--TOTAL INCOME--					\$1,464.00
DIRECT EXPENSES					
Additional labor					\$0.66
Crop consulting					\$7.57
Crop insurance					\$32.98
Diesel					\$21.77
Fertilizers					\$234.47
Fungicides					\$9.13
Herbicides					\$103.25
Insecticides					\$12.20
Irrigation energy (NG)					\$104.31
Irrigation labor					\$9.00
Miscellaneous					\$12.10
Operator labor					\$7.92
Repair & Maintenance					\$22.21
Seeds					\$141.89
Interest on operating capital		8% percent on direct expenses			\$28.78
--TOTAL DIRECT EXPENSES--					\$748.22
-----Total direct expenses per bu					\$3.12
FIXED EXPENSES					
Cash rent					\$218.00
Capital recovery (depreciation + interest)					\$298.37
--TOTAL FIXED EXPENSES--					\$516.37
-----Total expenses per bu					\$5.27
RETURNS ABOVE DIRECT EXPENSES					\$715.78
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$199.41

2023 Irrigated Corn Northwest KS

Yield = 240 bu /ac

Total Direct Expenses
= \$3.12 /bu

Total of ALL Expenses
= \$5.27 /bu

15 acre-inches of water applied
300 foot well depth
\$ 6.95 fuel cost per acre-inch of water applied
.71 Mcf of natural gas per acre-inch of water applied
\$ 9.75 per Mcf for cost of natural gas
10.7 Mcf of fuel used in total

2023 Irrigated Corn (center-pivot) Cost-Return Budget

-----North Central Kansas (Average yields)

64

item	unit	price	quantity	amount	Sub-total
INCOME					
Product					
Corn - North Central KS	bu	\$5.97	240.00	\$1,432.80	\$1,432.80
--TOTAL INCOME--					\$1,432.80
DIRECT EXPENSES					
Additional labor					\$0.81
Crop insurance					\$17.53
Custom Operations					\$29.76
Diesel					\$22.91
Fertilizers					\$265.29
Herbicides					\$110.63
Irrigation energy (NG)					\$53.20
Irrigation labor					\$8.10
Miscellaneous					\$12.10
Operator labor					\$8.28
Repair & Maintenance					\$23.50
Seeds					\$133.02
Interest on operating capital		8% percent on direct expenses			\$27.41
--TOTAL DIRECT EXPENSES--					\$712.66
-----Total direct expenses per bu					\$2.97
FIXED EXPENSES					
Cash rent					\$195.00
Capital recovery (depreciation + interest)					\$251.62
--TOTAL FIXED EXPENSES--					\$446.62
-----Total expenses per bu					\$4.83
RETURNS ABOVE DIRECT EXPENSES					\$720.14
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$273.52

2023 Irrigated Corn Northwest KS

Yield = 240 bu /ac

Total Direct Expenses
= \$2.97 /bu

Total of ALL Expenses
= \$4.83 /bu

15 acre-inches of water applied
300 foot well depth
\$ 6.95 fuel cost per acre-inch of water applied
.71 Mcf of natural gas per acre-inch of water applied
\$ 9.75 per Mcf for cost of natural gas
10.7 Mcf of fuel used in total

2023 Preharvest Marketing Plan

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**KANSAS STATE
UNIVERSITY**

Department of Agricultural Economics

Preharvest Marketing Plan

WINNING THE GAME

Objective: Buy crop insurance to protect my production risk and price ____% of my anticipated crop (based on APH yield) or _____ bushels.

Price _____ bushels at \$_____ cash price (\$_____ - _____ futures)
(contract month) using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Price _____ bushels at \$_____ f/ _____ c, or by _____, 2023, using _____

Plan starts on _____ . Completed by _____ .

Ignore decision dates and make no sale if prices are lower than \$_____ (month/commodity) futures / \$_____ local cash price.

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Sample Pre-Harvest Marketing Plan

Objective: Buy crop insurance to protect production risk and price 75% of our 67,000-bushel APH (**50,000 bu.**).

Using five, Increments

Price 10,000 bushels at \$4.30 December futures/\$4.15 cash
or by April 15

Price 10,000 bushels at \$4.50 fut./4.35 cash, or by May 15

Price 10,000 bushels at \$4.60 fut./4.45 cash, or by Jun 15

Price 10,000 bushels at \$4.75 fut./4.60 cash, or by Jul 15

Price 10,000 bushels at \$5.00 fut./4.85 cash, or by Aug 15

Plan starts on January 1, 2023.

Ignore decision dates and **make no sale if prices are lower than \$4.00 local cash price.**

Exit all options positions by October 1



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What Would YOU Change?

**50% is
Plenty!**

Objective: Buy crop insurance to protect production risk and price 75% of our 67,000-bushel APH (50,000 bu.).

Using five increments

Price 10,000 bushels at \$4.30 December futures/\$4.15 cash
or by April 15

Price 10,000 bushels at \$4.50 fut./4.35 cash, or by May 15

Price 10,000 bushels at \$4.60 fut./4.45 cash, or by Jun 15

Price 10,000 bushels at \$4.75 fut./4.60 cash, or by Jul 15

Price 10,000 bushels at \$5.00 fut./4.85 cash, or by Aug 15

Plan starts on January 1, 2022.

Ignore decision dates and make no sale if prices are lower than \$4.00 local cash price.

Exit all options positions by October 1

**Different prices,
increments, dates?**

**What's Your
Price Outlook?**



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✓ What's a Realistic Max Price Target?

Let's start with the seasonals

Preharvest: On average, 25% of KS corn is harvested by the last week of September; and 25% of KS milo by mid-October.

Fifteen Years: CME December Corn Futures				
2008/22	Jan 1 Price	Preharvest Max Price	Change	Percent Change
2008	\$4.80	\$7.88	\$3.08	64%
2009	\$4.56	\$4.73	\$0.17	4%
2010	\$4.45	\$5.22	\$0.77	17%
2011	\$5.53	\$7.75	\$2.23	40%
2012	\$5.90	\$8.39	\$2.49	42%
2013	\$5.92	\$5.94	\$0.01	0%
2014	\$4.48	\$5.13	\$0.65	14%
2015	\$4.20	\$4.52	\$0.32	8%
2016	\$3.77	\$4.49	\$0.72	19%
2017	\$3.84	\$4.15	\$0.31	8%
2018	\$3.87	\$4.27	\$0.40	10%
2019	\$3.98	\$4.69	\$0.70	18%
2020	\$4.05	\$4.05	\$0.00	0%
2021	\$4.35	\$6.37	\$2.02	46%
2022	\$5.48	\$7.66	\$2.18	40%

WINNING THE GAME

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2023	\$6.07	\$6.07	\$0.00	0%
------	--------	--------	--------	----

Let's put'em in order of "Change"

33% of the time;
prices rise \$2.00 or
more (>40%)

67% of the time;
prices rise \$0.40 or
more (>10%)

87% of the time;
prices rise \$0.17 or
MORE

13% of the time;
there was no change

Fifteen Years: CME December Corn Futures				
2008/22	Jan 1 Price	Preharvest Max Price	Change	Percent Change
2008	\$4.80	\$7.88	\$3.08	64%
2012	\$5.90	\$8.39	\$2.49	42%
2011	\$5.53	\$7.75	\$2.23	40%
2022	\$5.48	\$7.66	\$2.18	40%
2021	\$4.35	\$6.37	\$2.02	46%
2010	\$4.45	\$5.22	\$0.77	17%
2016	\$3.77	\$4.49	\$0.72	19%
2019	\$3.98	\$4.69	\$0.70	18%
2014	\$4.48	\$5.13	\$0.65	14%
2018	\$3.87	\$4.27	\$0.40	10%
2015	\$4.20	\$4.52	\$0.32	8%
2017	\$3.84	\$4.15	\$0.31	8%
2009	\$4.56	\$4.73	\$0.17	4%
2013	\$5.92	\$5.94	\$0.01	0%
2020	\$4.05	\$4.05	\$0.00	0%

WINNING THE GAME

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Preharvest Marketing Plan



Objective: Buy crop insurance to protect my production risk and price 50 % of my anticipated crop (based on APH yield) or 60,000 bushels.

Price 5,000 bushels at \$ \$5.90 cash price (\$ _____ - DEC 2023 futures) (contract month) using FC, Hedge, Basis Contract

Price 5,000 bushels at \$ \$6.15 f/ \$5.90 c, or by 3/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.40 f/ \$6.15 c, or by 4/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.65 f/ \$6.40 c, or by 5/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.90 f/ \$6.65 c, or by 6/1/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.15 f/ \$6.90 c, or by 6/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.40 f/ \$7.15 c, or by 7/15/23, 2023, using FC, Hedge, Basis Contract

Plan starts on February 22, 2023. Completed by July 15, 2023.

Ignore decision dates and make no sale if prices are lower than \$ \$5.00 Cost of Prodn. \$??? (month/commodity) futures / \$ \$??? local cash price.

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Sample Pre-Harvest Corn Marketing Plan



Objective: Buy up crop insurance coverage to 80% to protect production risk; and preharvest price 80% of APH.

Using five increments

Price 20% at \$6.10 December futures, or by March 15

Price 20% at \$6.30 December futures, or by April 15

Price 20% at \$6.90 December futures, or by May 15

Price 30% at \$7.50 December futures, or by June 15

Price 10% at \$8.25 December futures, or by July 15

Ignore decision dates and make no sale if prices are lower than **\$5.50 local cash** price.

Exit all options positions prior to Harvest



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Preharvest Marketing Plan



Objective: Buy crop insurance to protect my production risk and price 50 % of my anticipated crop (based on APH yield) or 60,000 bushels.

Price 5,000 bushels at \$ \$5.90 cash price (\$ _____ - DEC 2023 futures) (contract month) using FC, Hedge, Basis Contract

Price 5,000 bushels at \$ \$6.15 f/ \$5.90 c, or by 3/15/23 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.40 f/ \$6.15 c, or by 4/15/23 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.65 f/ \$6.40 c, or by 5/15/23 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.90 f/ \$6.65 c, or by 6/1/23 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.15 f/ \$6.90 c, or by 6/15/23 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.40 f/ \$7.15 c, or by 7/15/23 2023, using FC, Hedge, Basis Contract

Plan starts on February 22, 2023. Completed by July 15, 2023.

Ignore decision dates and make no sale if prices are lower than \$ \$5.00 Cost of Prodn. \$??? (month/commodity) futures / \$ \$??? local cash price.

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Questions?

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