

# 2023 Corn Markets & Cost-Returns

## 'Winning-The-Game' Grain Marketing Workshop

Wichita, Kansas

February 1, 2023

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EXTENSION AGRICULTURAL ECONOMIST

**KANSAS STATE**  
UNIVERSITY

Department of Agricultural Economics



## Corn Market Perspective

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**KANSAS STATE**  
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Department of Agricultural Economics

# Corn Market Outlook <sup>2023</sup> in Kansas, the U.S. & Globally

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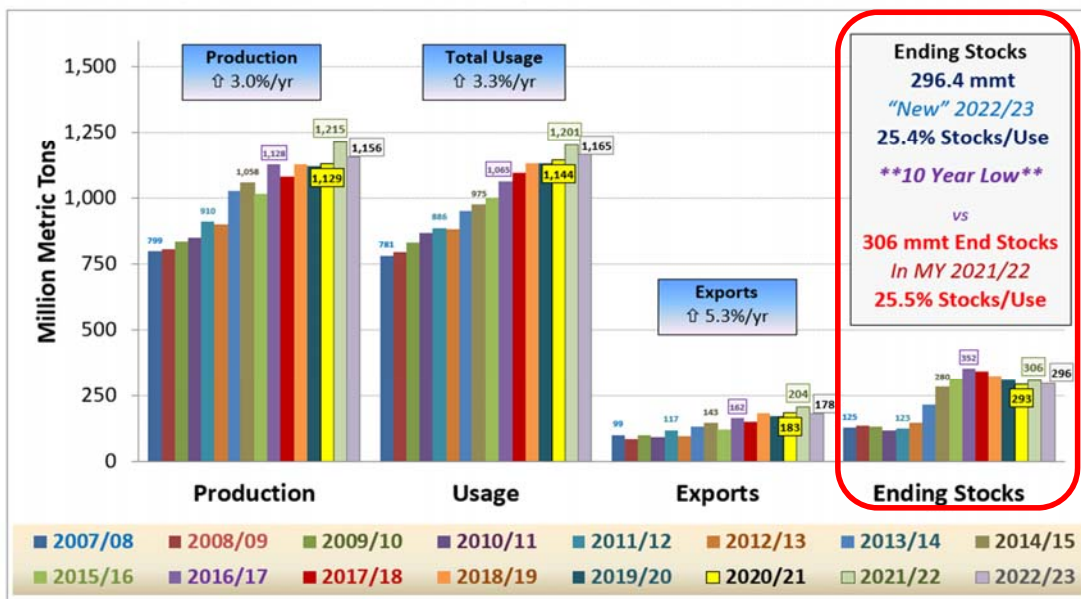
## 1) “Tight!” 2023 Global Corn, Oilseed & Wheat Stocks

- *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

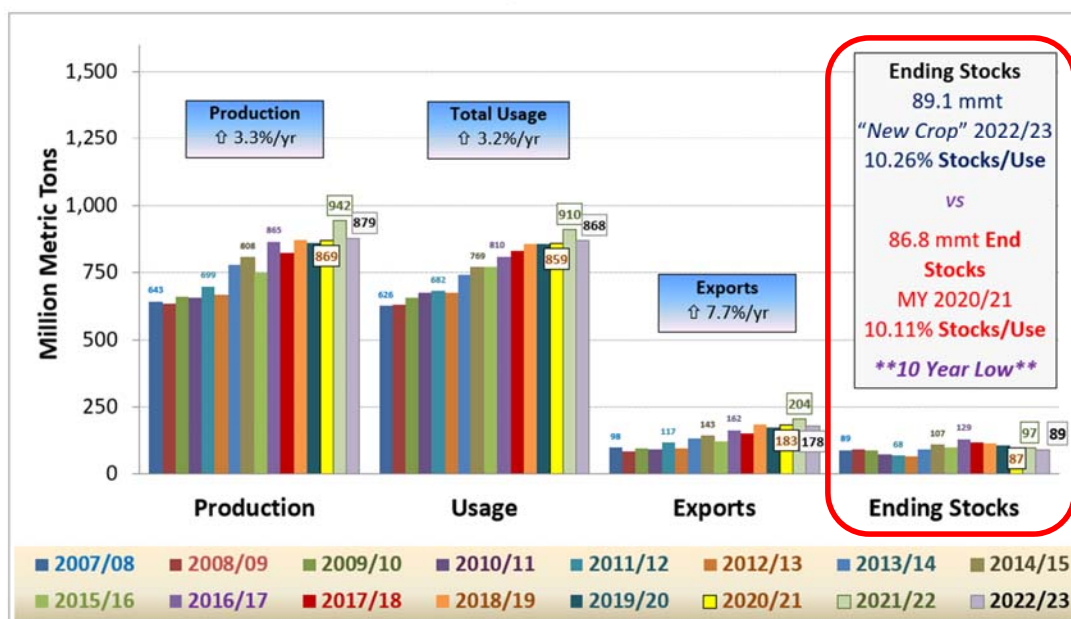
4

MY 2007/08 – “Current” MY 2022/23 as of the January 12, 2023 USDA WASDE Report



## **“World Less-China” Corn Supply-Demand**

MY 2007/08 – “Current” MY 2022/23, as of the January 12, 2023 USDA WASDE Report



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

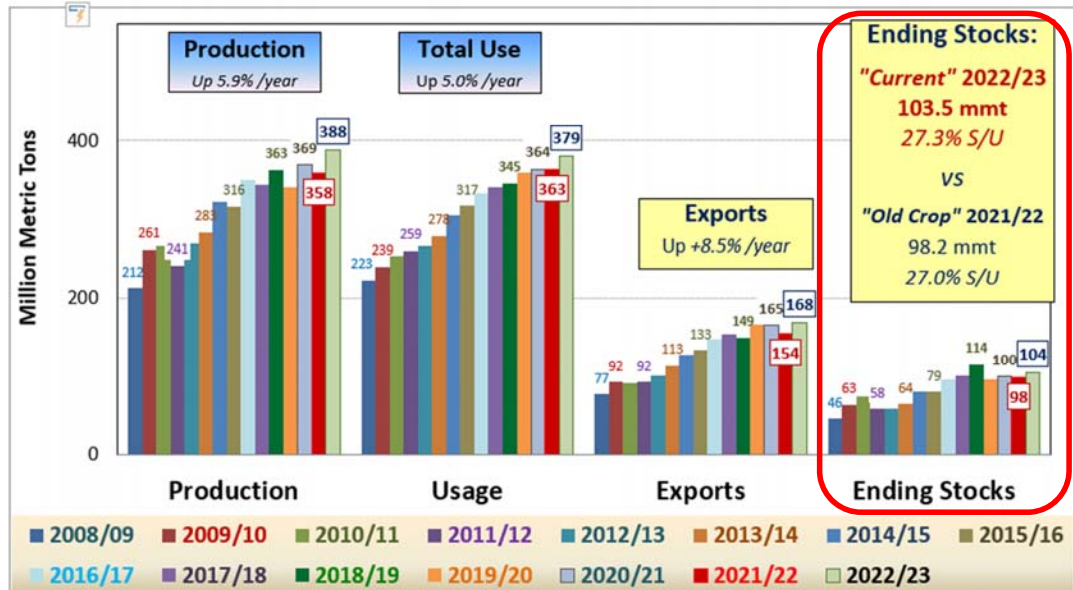
MY 2007/08 through “New” MY 2022/23, as of the January 12, 2023 USDA WASDE report.



# World Soybean Usage & Ending Stocks

7

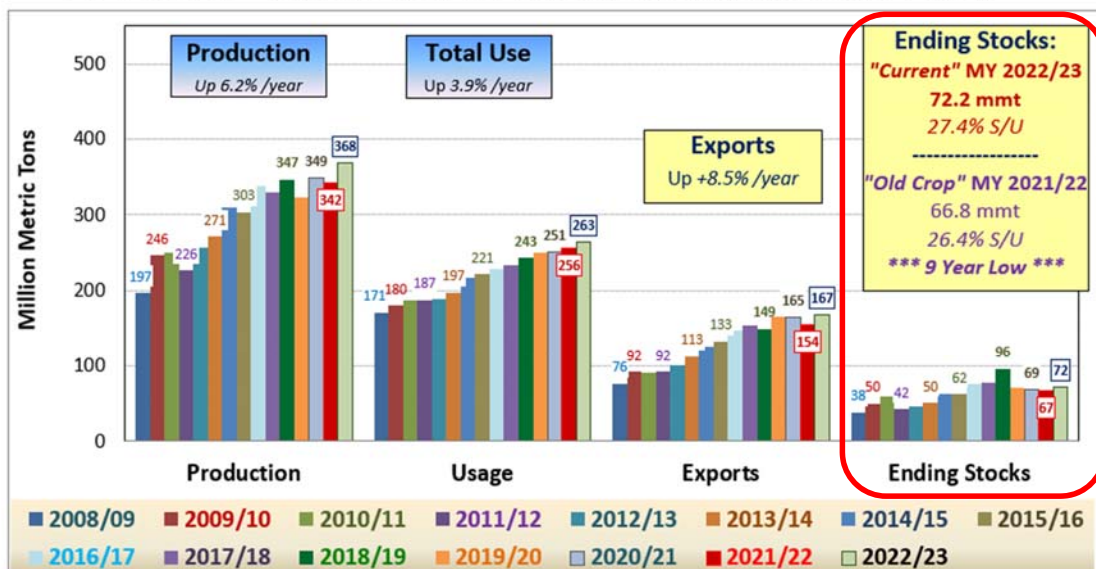
MY 2008/09 thru "Current" MY 2022/23 as of the January 12, 2023 WASDE Report



# "World Less-China" Soybean Use & Ending Stocks

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MY 2008/09 - "Current" MY 2022/23 as of the January 12, 2023 WASDE Report





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

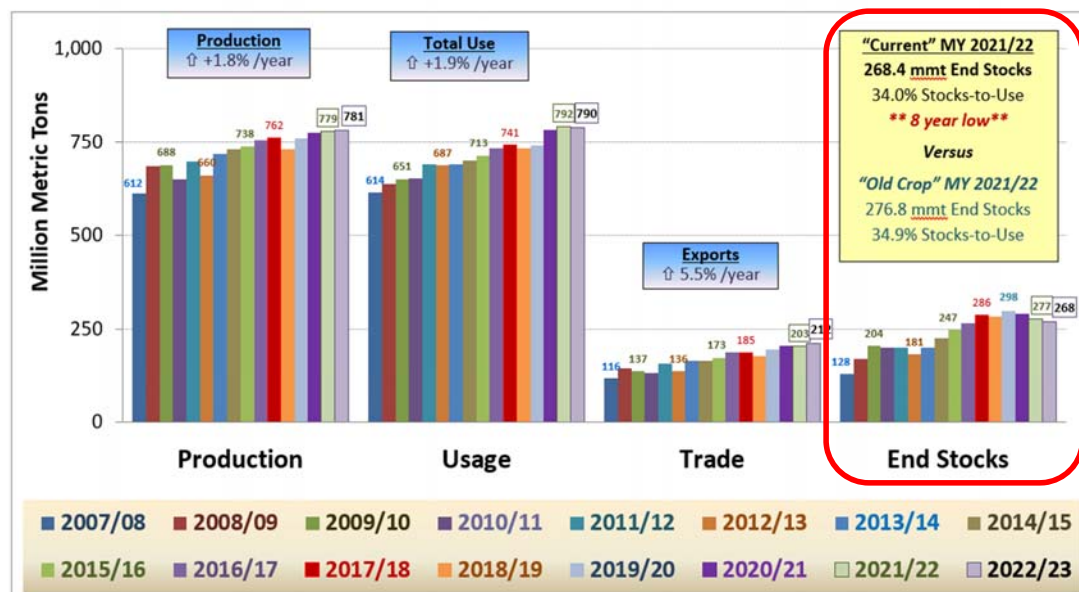
MY 2007/08 through "Current" MY 2022/23, as of the January 12, 2023 USDA WASDE report



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## World Wheat Usage & Ending Stocks

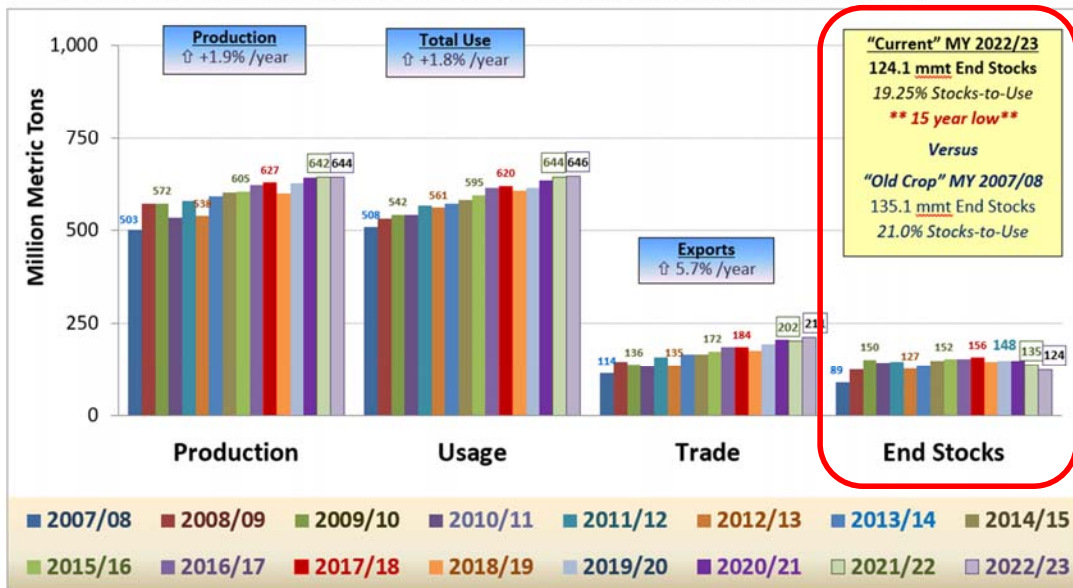
MY 2007/08 - "Current" 2022/23 as of the January 12, 2023 USDA WASDE Report



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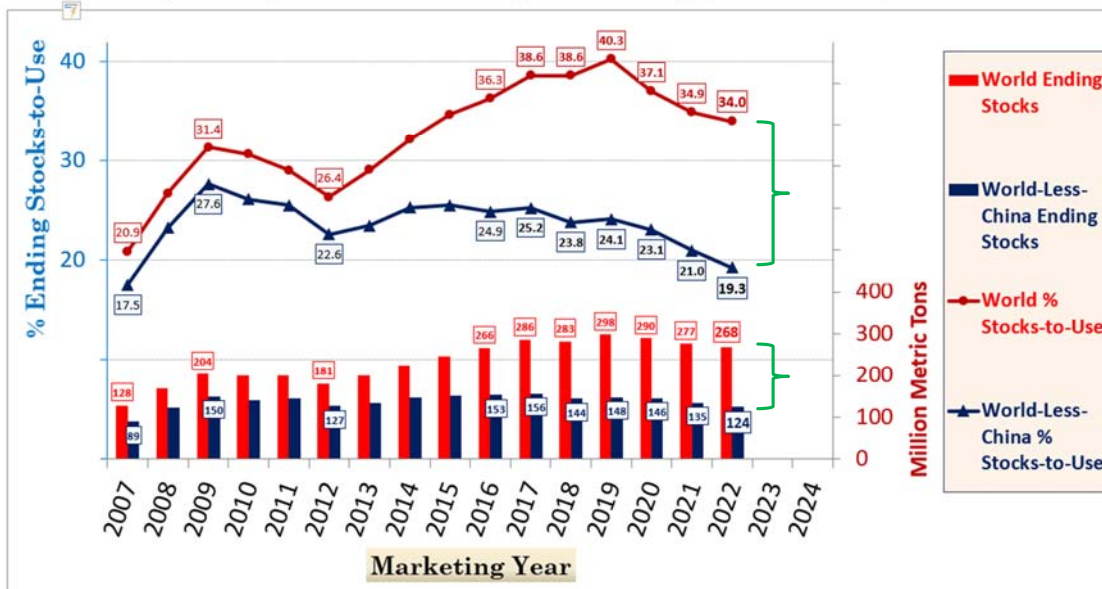
## **“World Less-China” Wheat Usage & Ending Stocks**

MY 2007/08 through “Current” MY 2022/23, as of the January 12, 2023 USDA WASDE Report



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

MY 2007/08 through “Current” MY 2022/23 as of the January 12, 2023 USDA WASDE report



### 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 <sup>2023</sup> – Dry subsoils in many areas*





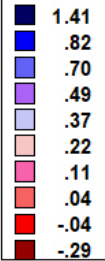
## Corn Basis, 01-25-2023

Basis = Cash Price - Nearby Futures Price

15

CBT Mar  
Futures  
Price: \$6.75

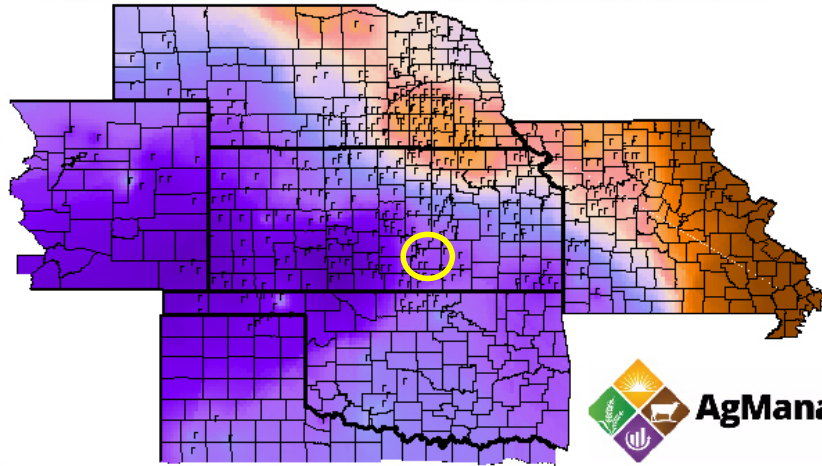
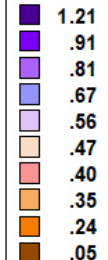
\$/Bushel



## Corn Basis Deviation, 01-25-2023

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

\$/Bushel

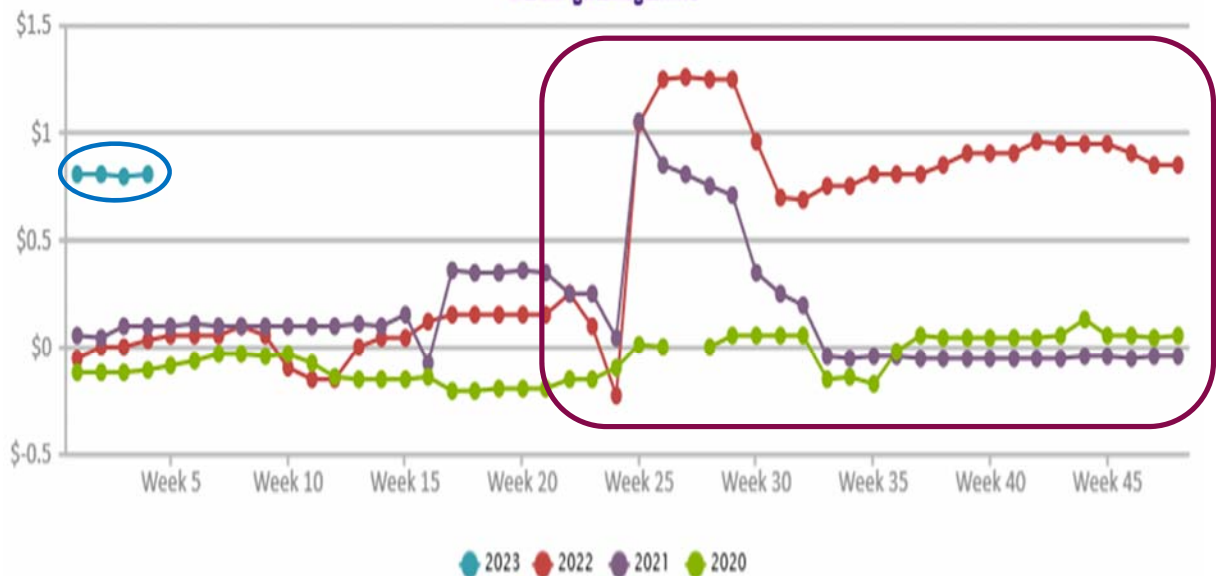


AgManager  
info

## COLWICH, KS: Corn Basis - KANZA COOP-EAST

www.AgManager.info

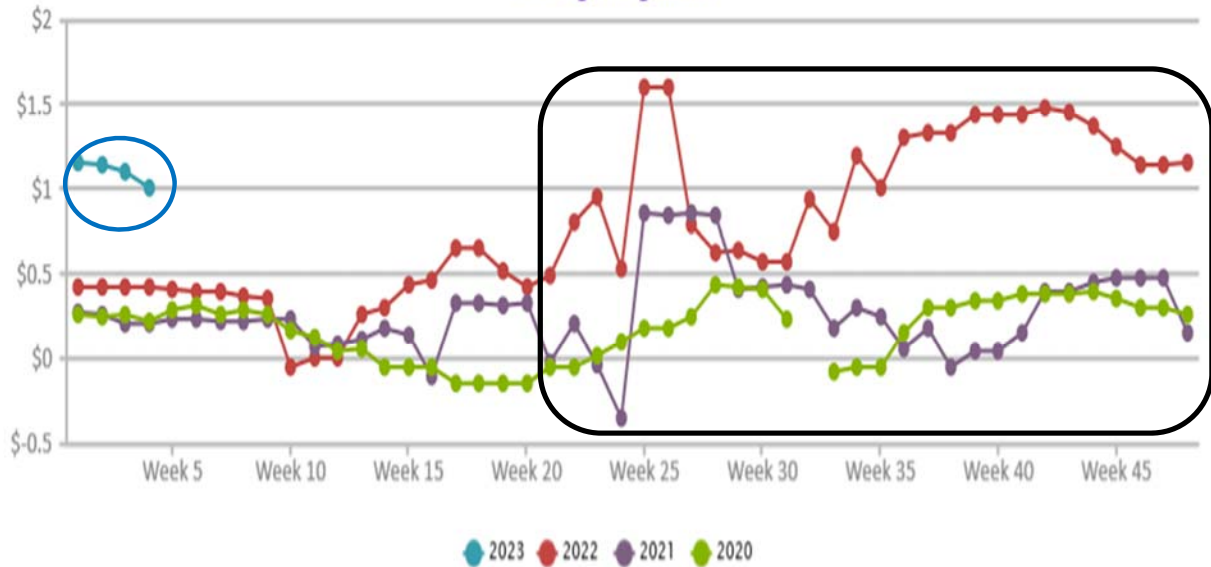
16





## COLWICH, KS: Corn Basis - THE ANDERSONS

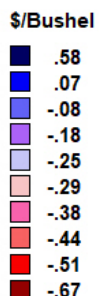
www.AgManager.info



## Soybean Basis, 01-25-2023

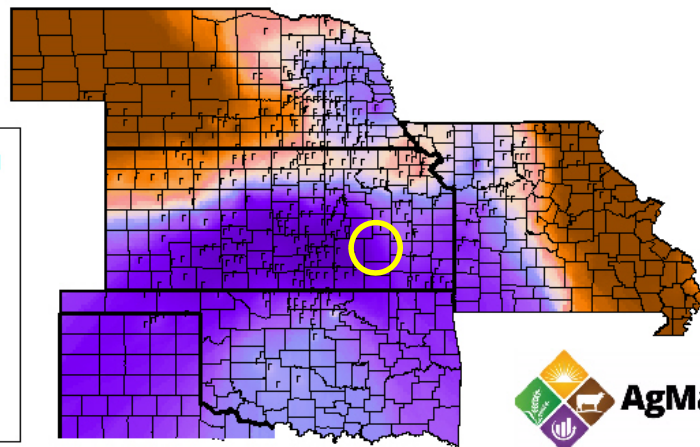
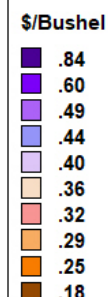
Basis = Cash Price - Nearby Futures Price

CBT Mar  
Futures  
Price: \$15.03



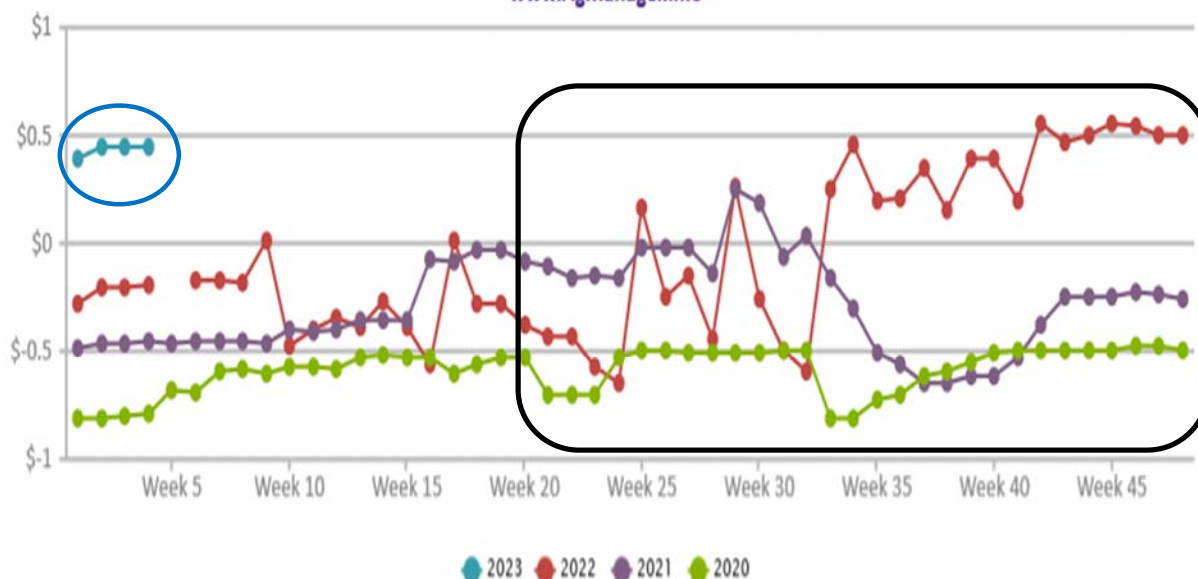
## Soybean Basis Deviation, 01-25-2023

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



## WICHITA, KS: Soybeans Basis - MID KANSAS COOP

www.AgManager.info



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## Grain Market Outlook 2023 .....

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### 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.”

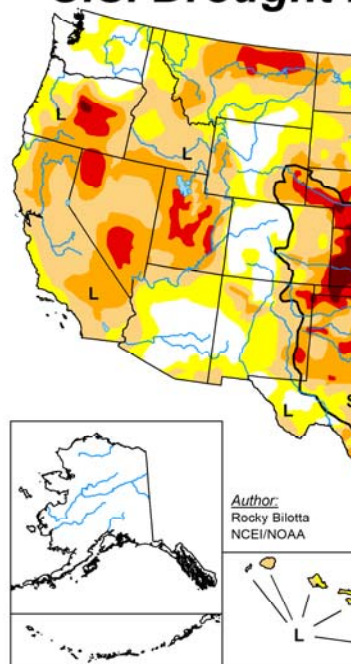
*U.S. Climate Prediction Center / NCEP January 3, 2023*

- “La Nina is breaking down, and an El Nino is forecast to emerge in 2023. Returning after several years, an El Nino can completely change the weather patterns for the weather seasons of 2023 & 2024.”

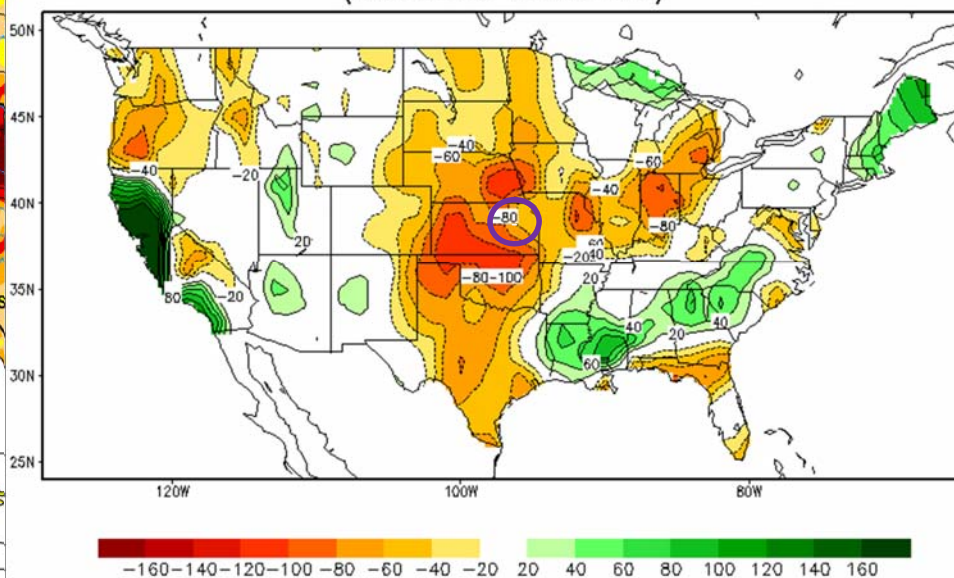
*Severe Weather Europe, Andrej Flis January 11, 2023*

# U.S. Drought Monitor

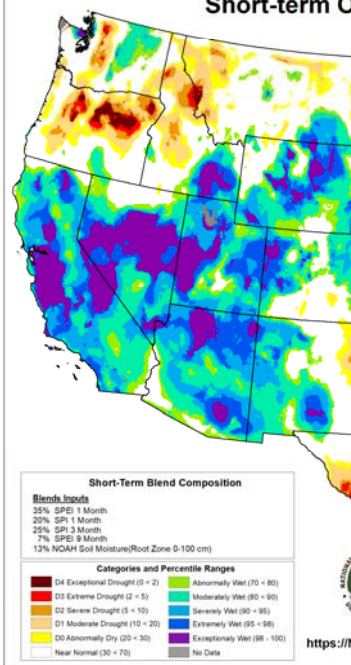
January 24, 2023  
(Released Thursday, Jan. 26, 2023)  
Valid 7 a.m. EST



## Predicted Soil Moisture Anomaly (mm) (31Jan2023–07Feb2023)

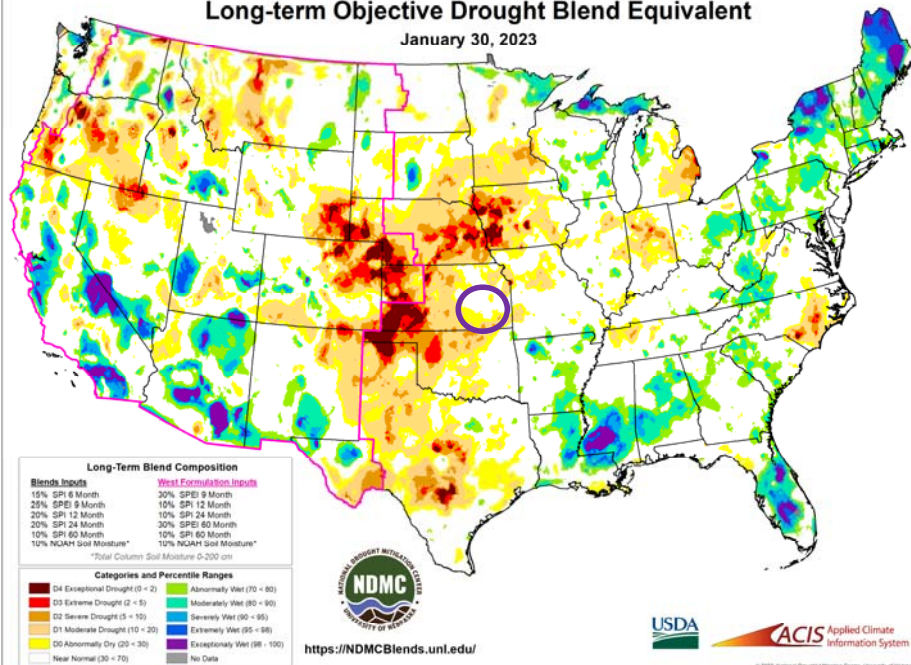


## Short-term Objective Drought Blend Equivalent

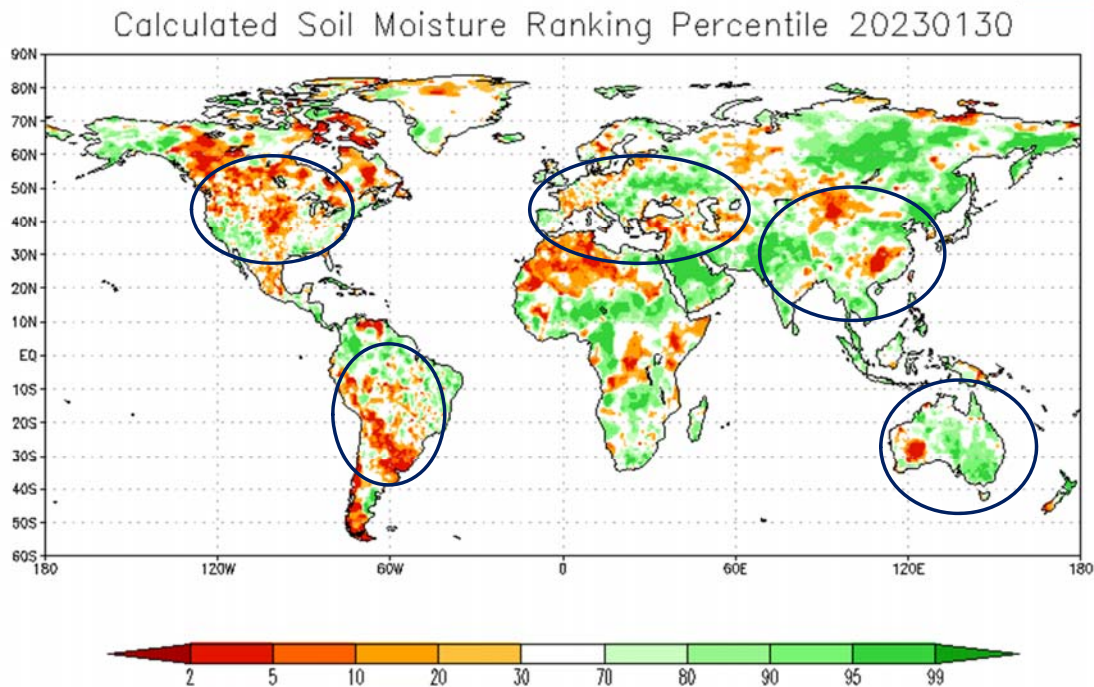


## Long-term Objective Drought Blend Equivalent

January 30, 2023







## Grain Market Outlook <sup>2023</sup> .....

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### 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 –  $\approx$  92 million acres in 2023**
  - 88.6 million acres in 2022
  - 93.3 million acres in 2021
  - 90.7 million acres in 2020

# \$NATGAS Natural Gas - Continuous Contract (EOD) CME

31-Jan-2023

Open 2.72 High 2.77 Low 2.61 Close 2.68 Volume 28.6M Chg -0.16 (-5.79%)

© StockCharts.com

\$NATGAS (Weekly) 2.68

MA(3) 2.90

MA(9) 4.24

MA(18) 5.23



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## Illinois Production Cost Report

AMS Livestock, Poultry and Grain Market News  
IL Dept. of Ag Market News

January 26, 2023

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### Fertilizer<sup>1</sup>

Distributor (Dollars Per Ton)

Product	Sale Type	Price Range	Average	Change
Anhydrous Ammonia	Ask - FOB	1190.00-1490.00	1301.11	DN 7.22
Urea 46-0-0	Ask - FOB	670.00-700.00	686.67	DN 23.33
Liquid Nitrogen 28-0-0	Ask - DELV(Applied)	550.00-710.00	605.17	DN 9.33
DAP (Diammonium Phosphate 18%N 46%P)	Ask - FOB	800.00-850.00	822.50	DN 9.17
MAP (Monoammonium Phosphate 11%N 52%P)	Ask - FOB	790.00-925.00	870.00	UP 18.00
Potash (Potassium)	Ask - FOB	625.00-850.00	696.67	DN 17.46

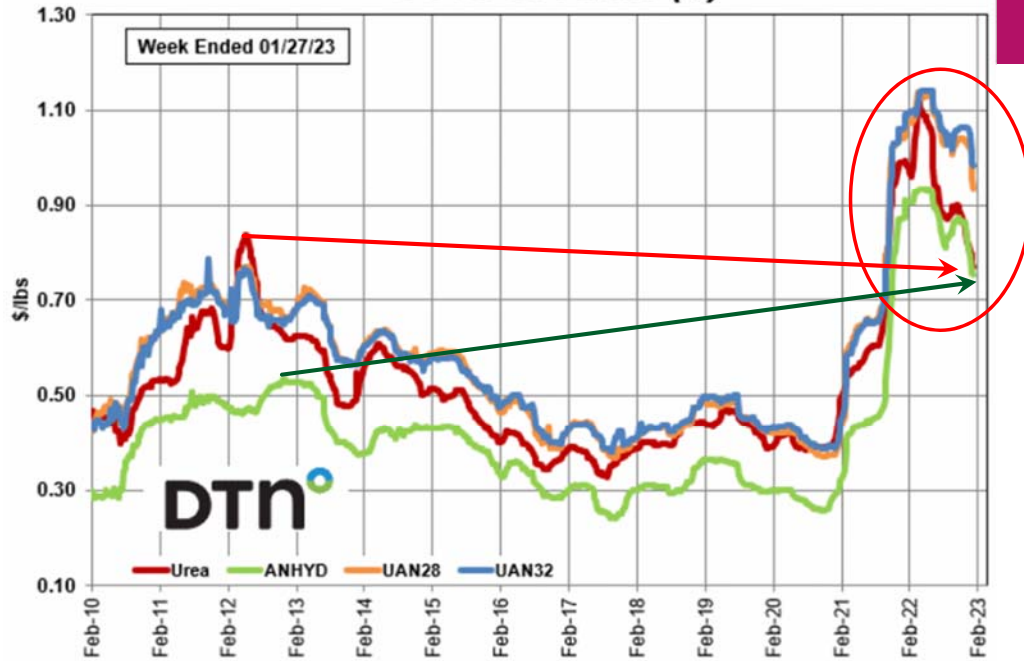
### Fuel

Distributor(Dollars Per Gallon)

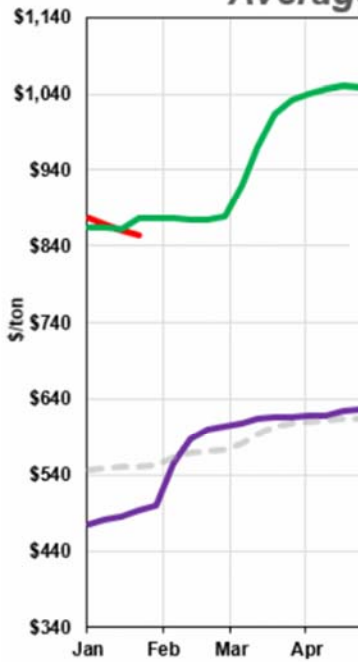
Farm Diesel < 1000 gallons	Ask- FOB	3.76-4.34	4.03	UP 0.49
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## Cost of N/lb. (\$)

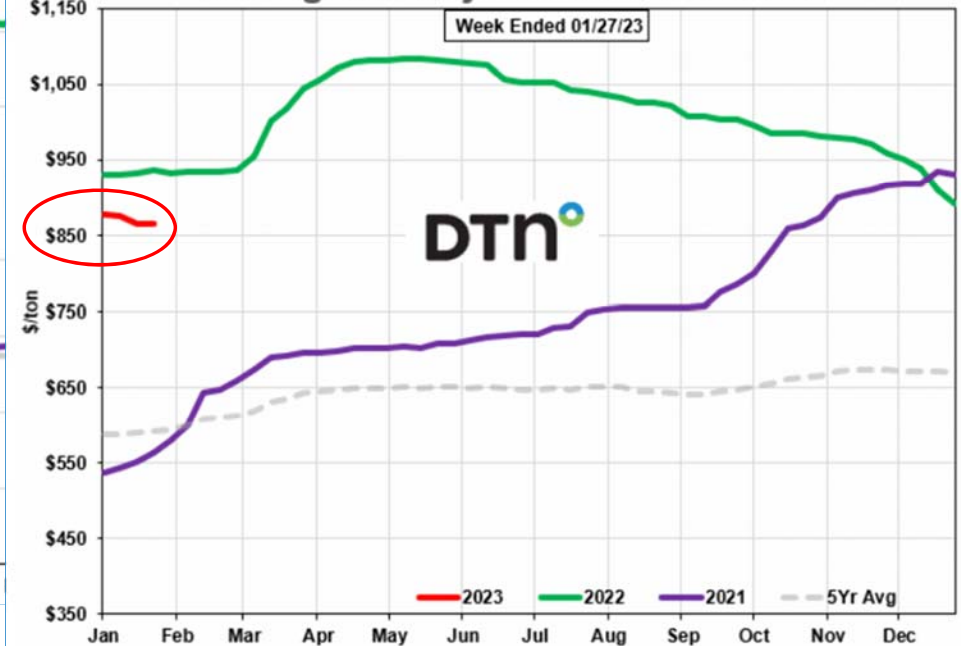
27



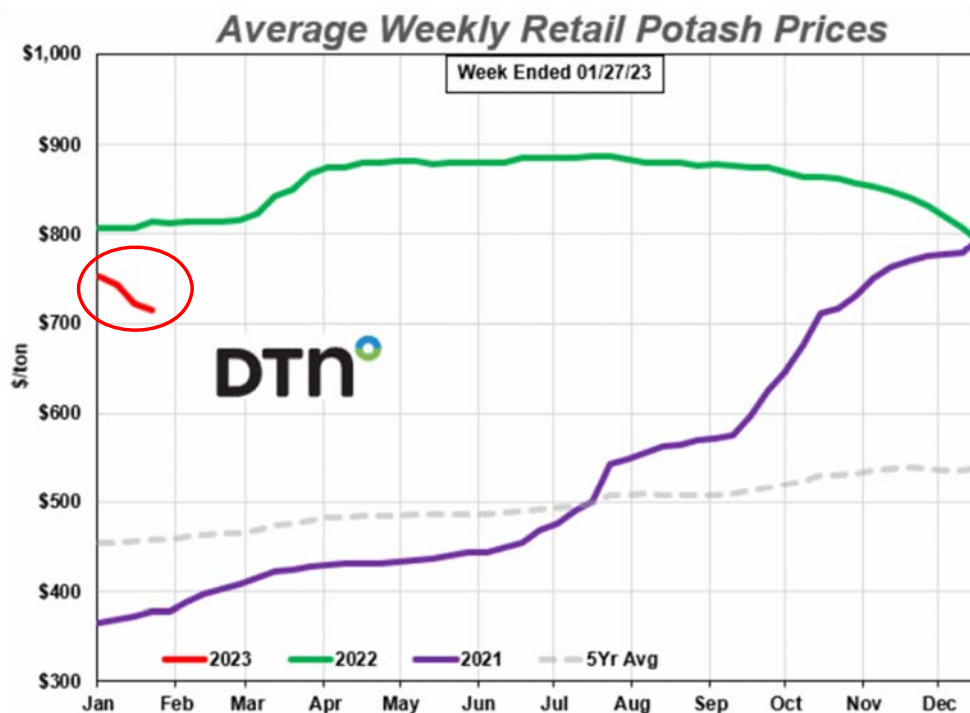
## Average Weekly Retail DAP Prices



## Average Weekly Retail MAP Prices







## Grain Market Outlook 2023

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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

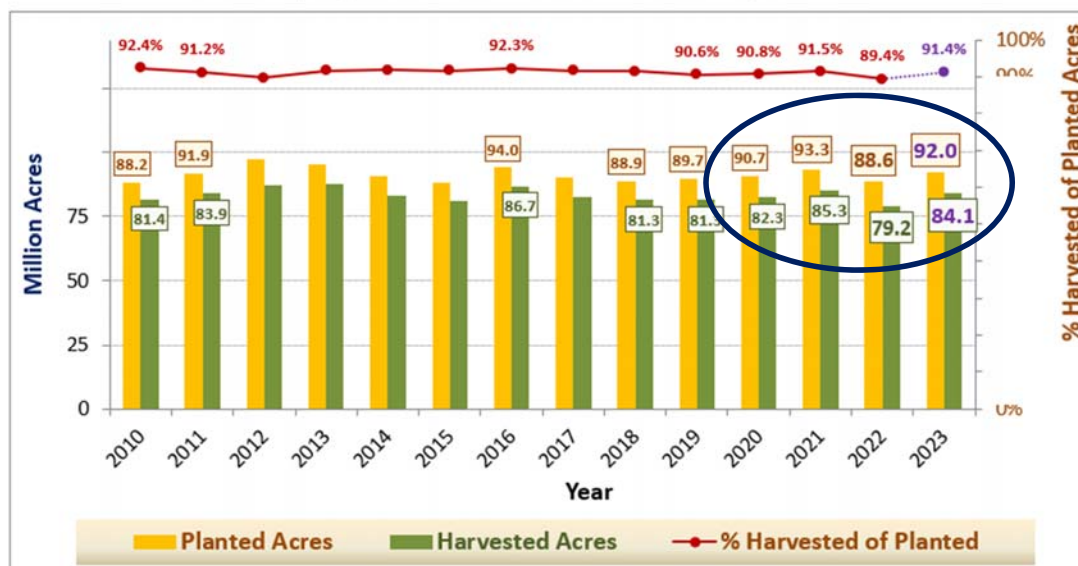
## What to anticipate in Year 2023 (1st of 3)

### □ 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
    - NOV<sup>2023</sup> Soybean futures @ \$13.60 <sup>3</sup>/<sub>4</sub> /bu 1/30/2023 p.m.
    - DEC<sup>2023</sup> Corn futures @ \$5.88 <sup>3</sup>/<sub>4</sub> /bu 1/30/2023 p.m.
    - 2023 “New Crop” Soy/Corn \$ Ratio =  $\$13.60 \frac{3}{4} \div \$5.88 \frac{3}{4} = 2.31$  (vs 2.52 Avg)
- ++ *Corn*
- Strong “new crop” price competition likely for 2023 planted acres between Feedgrains & Oilseeds ⇒ *Likely in March-May 2023*

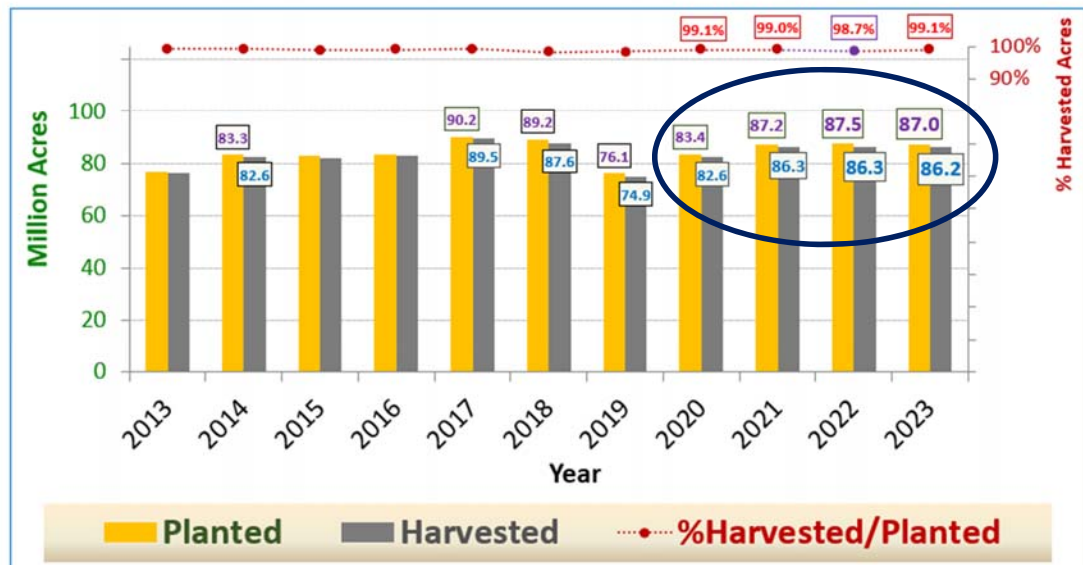
## U.S. Corn Acreage for 2010-2023

As of the January 12, 2023 USDA NASS & WASDE Reports



# U.S. Soybean Acreage for 2013-2023

Years 2013-2023 as of the January 12, 2023 USDA WASDE & NASS Reports



## Grain Market Outlook 2023 .....

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### 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 – Summer<sup>2023</sup> & on into Fall harvest<sup>2023</sup>
- 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 August<sup>2023</sup>

## South America Corn-Soybean Calendar

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

#### • Brazil & Argentina Corn & Soybean Crop Calendar

##### ○ Brazil

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

##### ○ Argentina

- Corn: *Planting* – mid September-December ⇒ Harvest: mid March-early June
- Soybeans: 1<sup>st</sup> crop *Planting* – November-December ⇒ Harvest: Late March-early May
- Soybeans: 2<sup>nd</sup> 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 <sup>2023</sup> 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-Nov<sup>2023</sup> Quarter *IF* a short crop happens in 2023 ⇒ What are the odds?

# Corn Market Prices

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## Corn Futures *CME* – Tuesday, 2/1 9:20 p.m. Central

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### ELEC. CORN (@C) [10]

Month	Last	Chg	High	Low
Mar-23	676'6	-3'0	679'2	676'2
May-23	674'6	-2'6	677'2	674'2
Jul-23	662'4	-2'6	665'0	662'2
Sep-23	605'6	0'2	606'6	604'2
Dec-23	591'4	0'6	592'2	589'2
Mar-24	598'0	0'2	598'0	597'0
May-24	601'4	0'4	601'4	601'0
Jul-24	600'0s	1'2	602'6	599'2



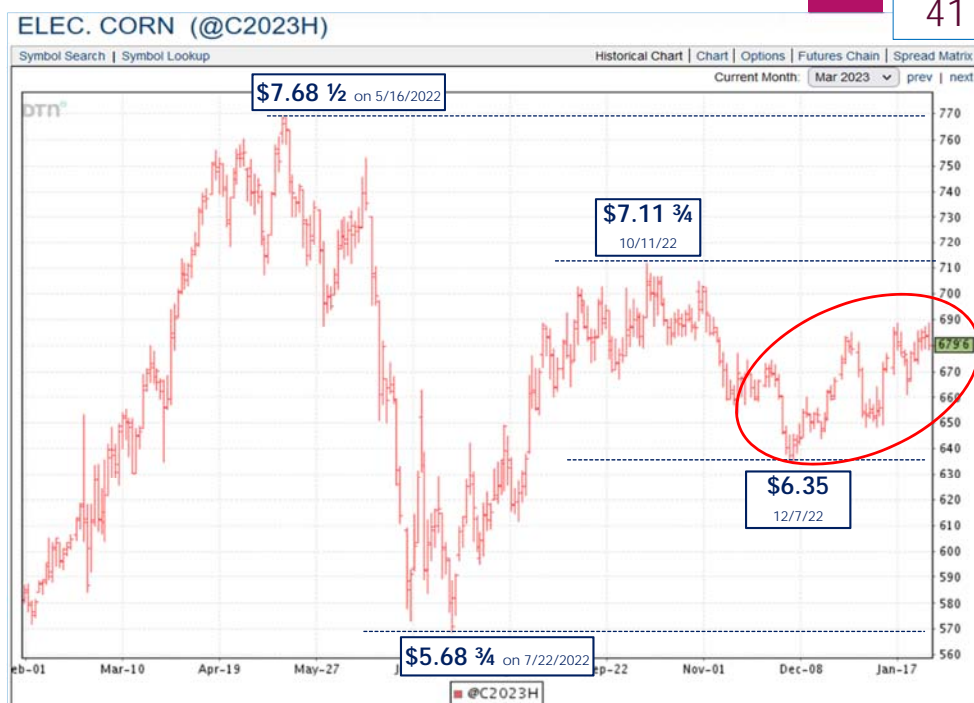
## CME Corn Futures

*"Old Crop"*  
**MARCH 2023**  
OHLCs

**\$6.79  $\frac{3}{4}$  /bu**

Trade at 9:15 p.m.

Tuesday,  
1/31/2023



## CME Corn Futures

*"New Crop"*  
**DEC 2023**  
OHLCs

**\$5.90  $\frac{3}{4}$  /bu**

Trade at 9:15 p.m.

Tuesday,  
1/31/2023



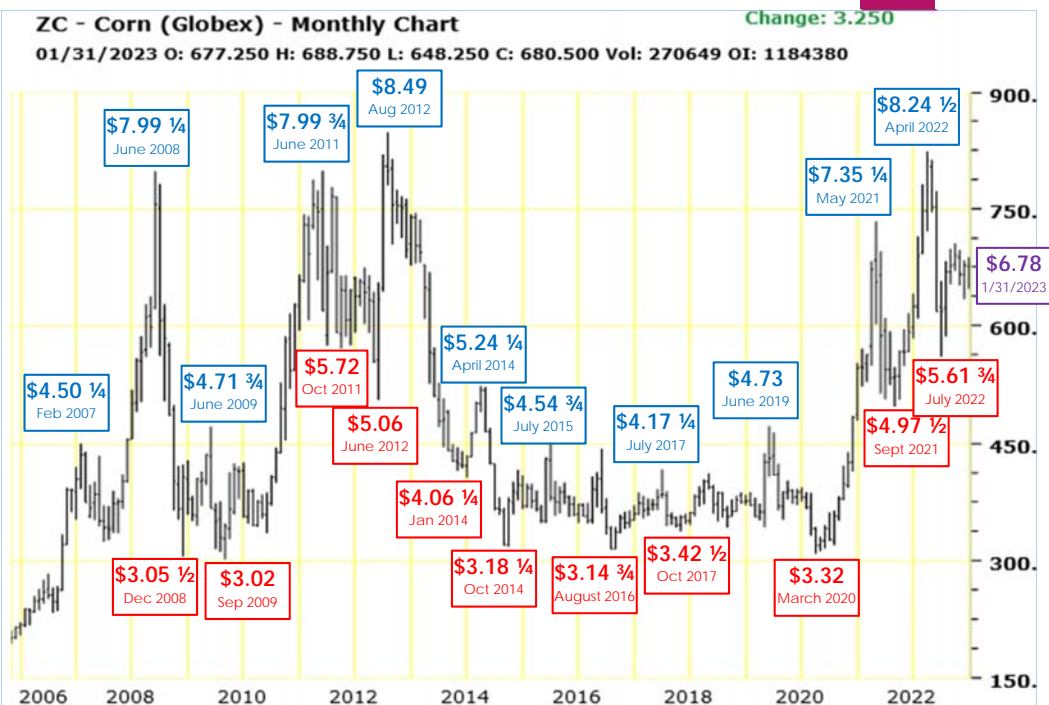
# CME Corn Futures *Continuous Weekly to 1/31/2023*



## CME Corn Futures

Monthly  
"Continuous"  
OHLCs

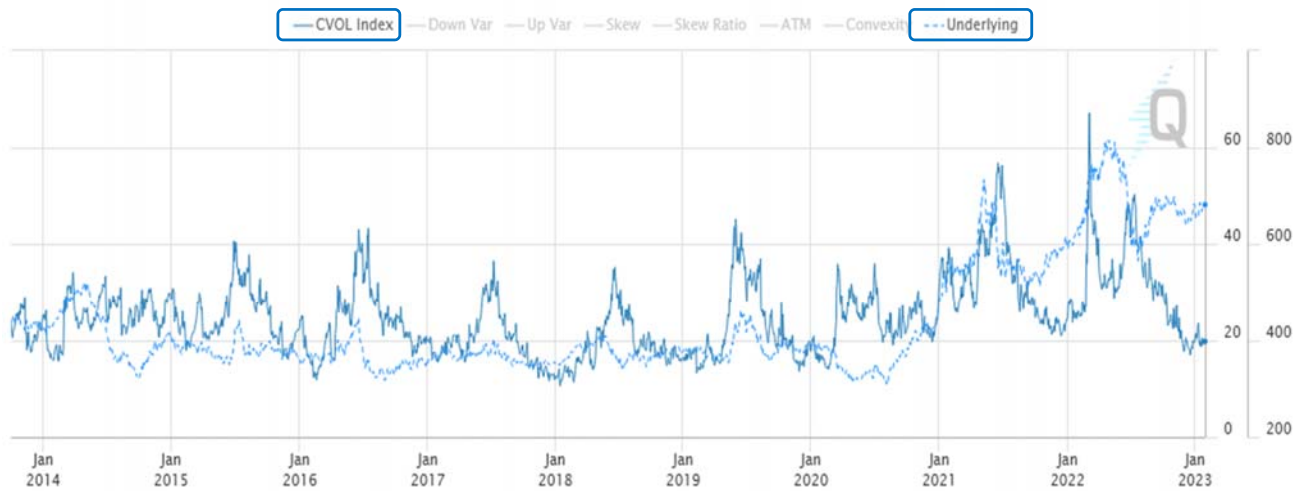
Dec<sup>2005</sup>  
to  
Jan<sup>2023</sup>



## CORN CVOL HISTORY (CVL)

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

Oct 1, 2013 → Jan 31, 2023



## U.S. Corn Supply and Demand

Item	2021/2022 estimate	2022/2023 forecast	Change from December 9	Change from 2021/2022
Planted area (million acres)	93.3	88.6	**	-4.7
Harvested area (million acres)	85.3	79.2	-1.6	-6.1
Yield (bushels per acre)	176.7	173.3	1.0	-3.3
----- Million bushels -----				
Beginning stocks	1,235	1,377	**	142
Production	15,074	13,730	-200	-1,344
Imports	24	50	--	26
Total supply	16,333	15,157	-200	-1,176
Feed and residual	5,718	5,275	-25	-443
Food, seed, and industrial	6,766	6,715	-10	-51
Ethanol	5,326	5,275	--	-51
Domestic use	12,484	11,990	-35	-494
Exports	2,471	1,925	-150	-546
Total use	14,956	13,915	-185	-1,041
Ending stocks	1,377	1,242	-15	-135
----- Percent -----				
Stocks to use ratio	9.2	8.9	**	-0.3
----- Dollars per bushel -----				
Average market price	6.00	6.70	--	0.70

-- No change. \*\* Rounds to zero.

January 12, 2023

## World Corn Production

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Country or Region	2021/2022		2022/2023		
	Estimate	Change from December 9	Forecast	Change from December 9	Change from 2021/2022

----- Million Tons -----

World	1,214.9	-2.0	1,155.9	-5.9	-58.9
United States	382.9	--	348.8	-5.1	-34.1
Foreign	832.0	-2.0	807.2	-0.8	-24.8
Argentina	49.5	-2.0	52.0	-3.0	2.5
Brazil	116.0	--	125.0	-1.0	9.0
Mexico	26.8	--	27.6	--	0.8
Canada	14.0	--	14.5	--	0.6
European Union	71.0	--	54.2	--	-16.8
Serbia	6.0	--	5.4	--	-0.6
FSU-12	63.7	--	46.3	--	-17.4
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	3.2	4.6
India	33.6	--	32.0	--	-1.6

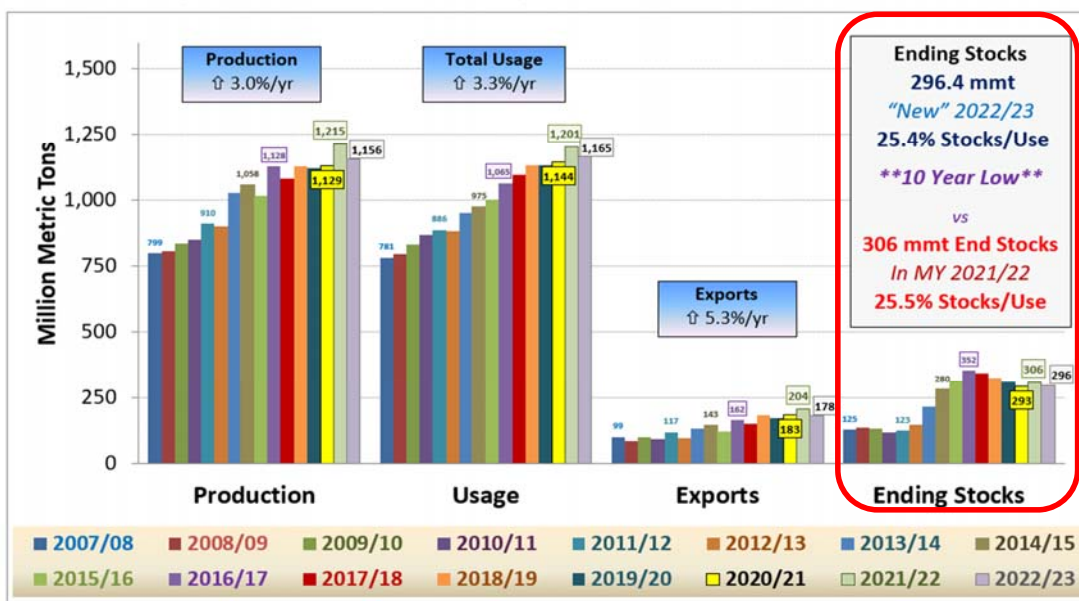
-- No change.

January 12, 2023

## World Corn Supply-Demand

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MY 2007/08 – “Current” MY 2022/23 as of the January 12, 2023 USDA WASDE Report

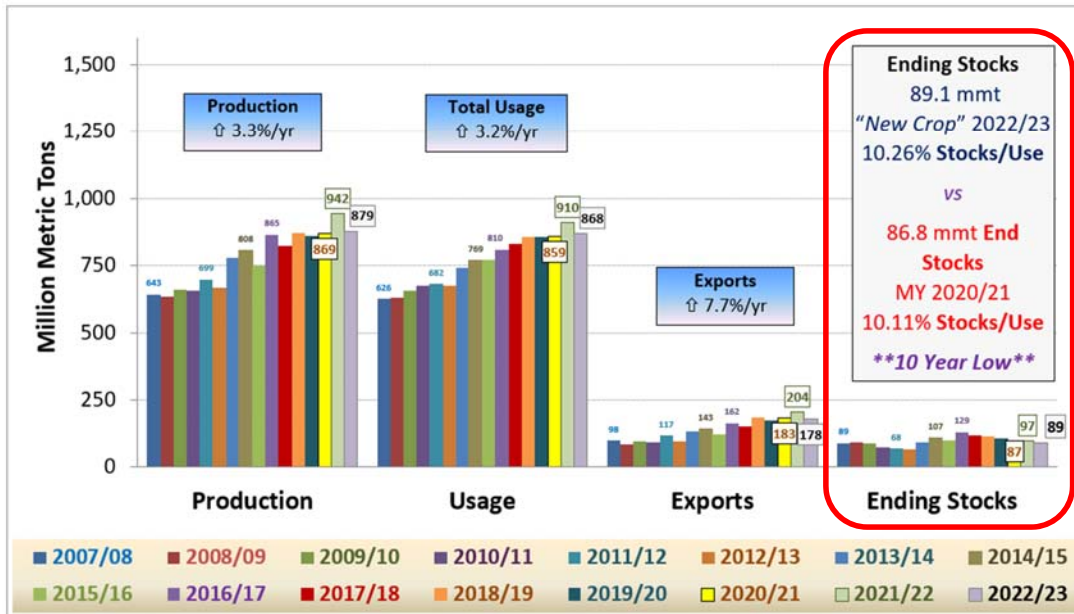




## "World Less-China" Corn Supply-Demand

49

MY 2007/08 – "Current" MY 2022/23, as of the January 12, 2023 USDA WASDE Report



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

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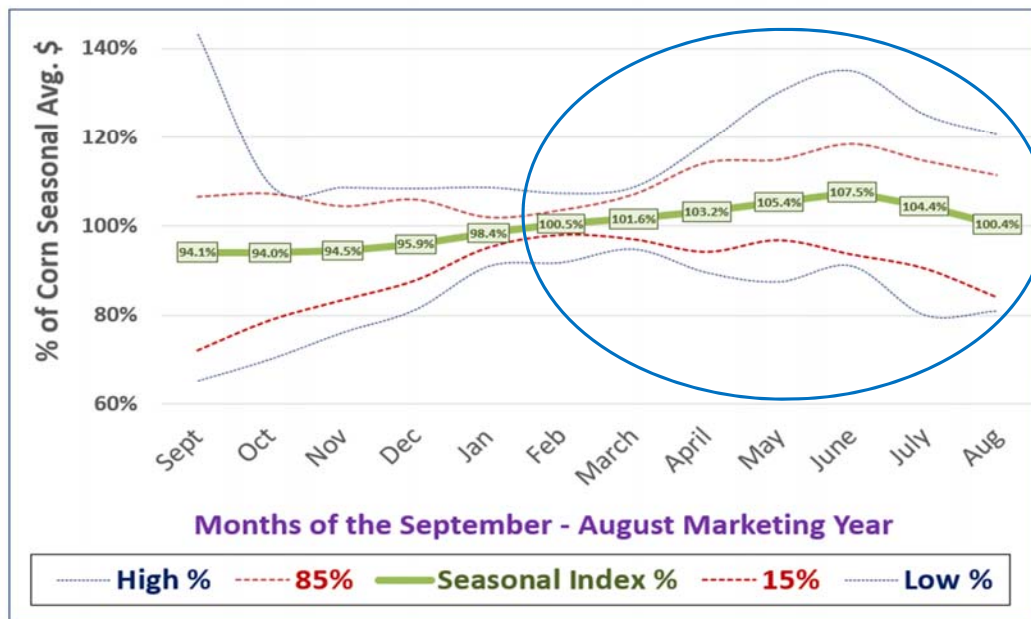
MY 2007/08 through "Current" MY 2022/23, as of the January 12, 2023 USDA WASDE report.



# Corn Seasonal Price Index *South Central KS*

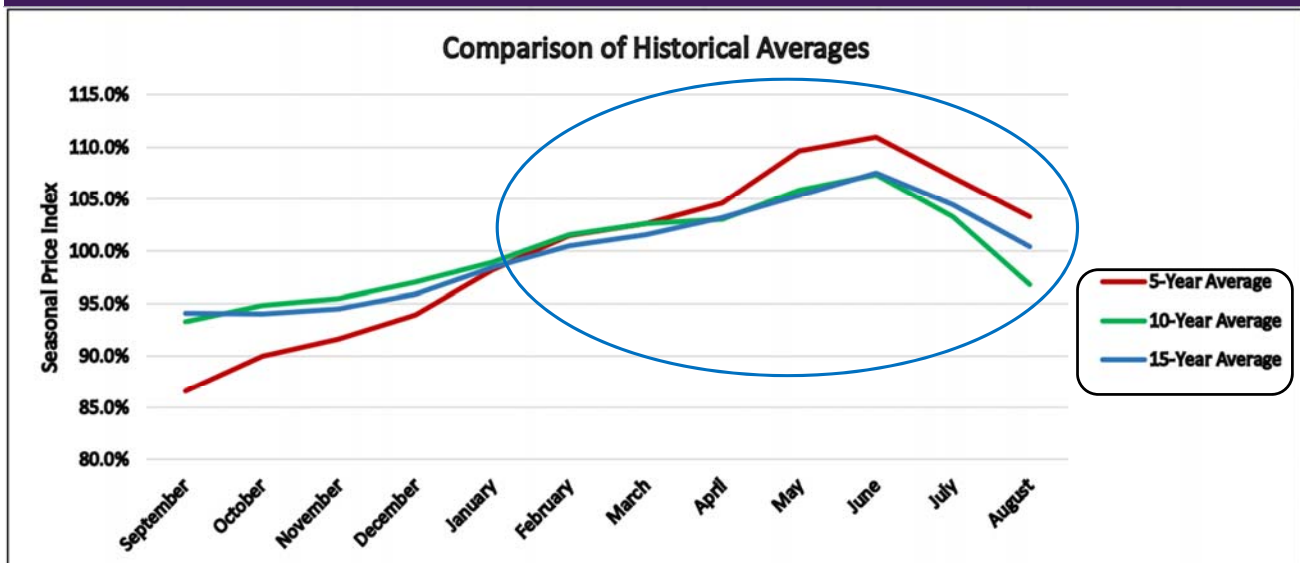
51

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



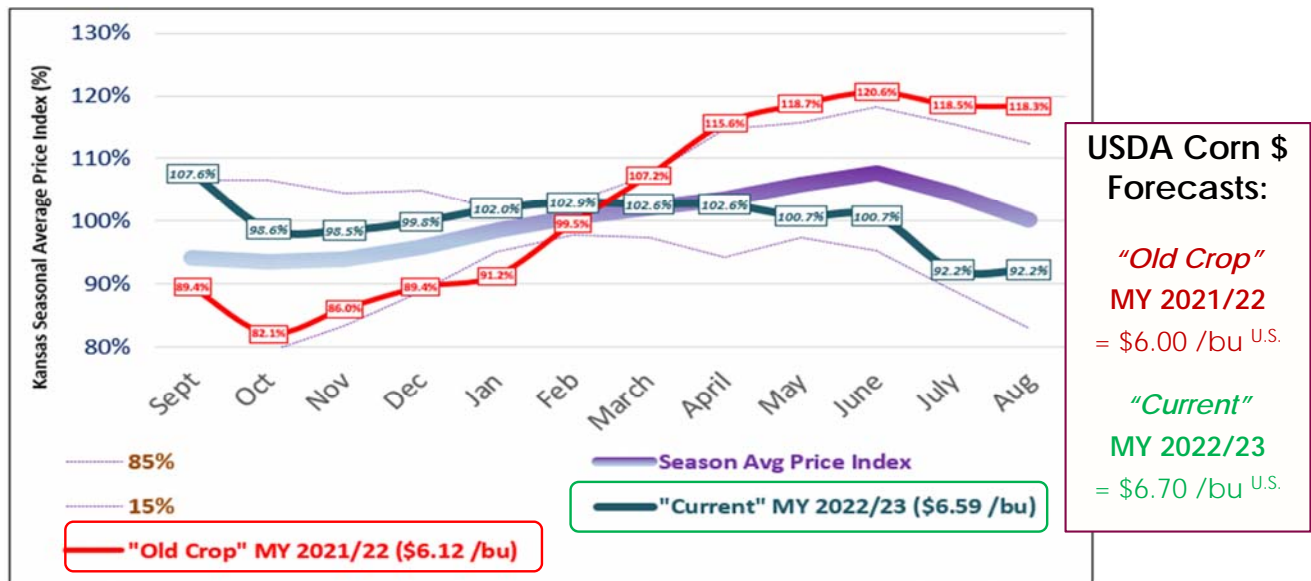
## Corn: Seasonal Average Price Index

For the last 5, 10, & 15 Years in South Central Kansas



# Corn Seasonal Prices *Kansas-U.S.*

Long Term Seasonal \$ Trends + MY 2021/22 & "Current" MY 2022/23 As of 1/31/2023



## My DTN Cash Bids

My DTN Cash Bids for Postal Code 64473, Radius 300 miles

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Elevator/Location	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
THE ANDERSONS COLWICH, KS	7.62	7.77	7.77	7.89	7.89	7.72	7.72	6.27	6.27	6.32	6.37
KANZA COOP-EAST COLWICH, KS	7.57	---	---	---	---	---	---	---	---	---	---
KANZA COOP-EAST ANDALE, KS	7.57	---	---	---	---	---	---	---	---	---	---
FARMERS COOP ELEVATOR CO-BENTLEY SEDGWICK, KS	7.57	---	---	---	---	---	---	---	---	5.74	---
KANZA COOP SEDGWICK, KS	7.57	---	---	---	---	---	---	---	---	---	---
FARMERS COOP ELEVATOR CO MOUNT HOPE, KS	7.57	---	---	---	---	---	---	---	---	5.74	---
GARDEN PLAIN COOP GARDEN PLAIN, KS	7.57	---	---	---	---	---	---	---	---	5.72	---
FARMERS COOP ELEVATOR CO-PATTERSON BURRTON, KS	7.57	---	---	---	---	---	---	---	---	5.72	---
GARDEN PLAIN COOP VIOLA, KS	7.57	---	---	---	---	---	---	---	---	5.72	---
FARMERS COOP ELEVATOR COMPANY-EAST HALSTEAD, KS	7.57	---	---	---	---	---	---	---	---	5.72	---

Ethanol Plant FC Basis:  
\$0.40 to \$0.45 over DEC<sup>23</sup>

Elevator FC Basis:

\$0.18 to \$0.20 under DEC<sup>23</sup>

Tuesday, January 31, 2023  
As of 9:45 p.m.

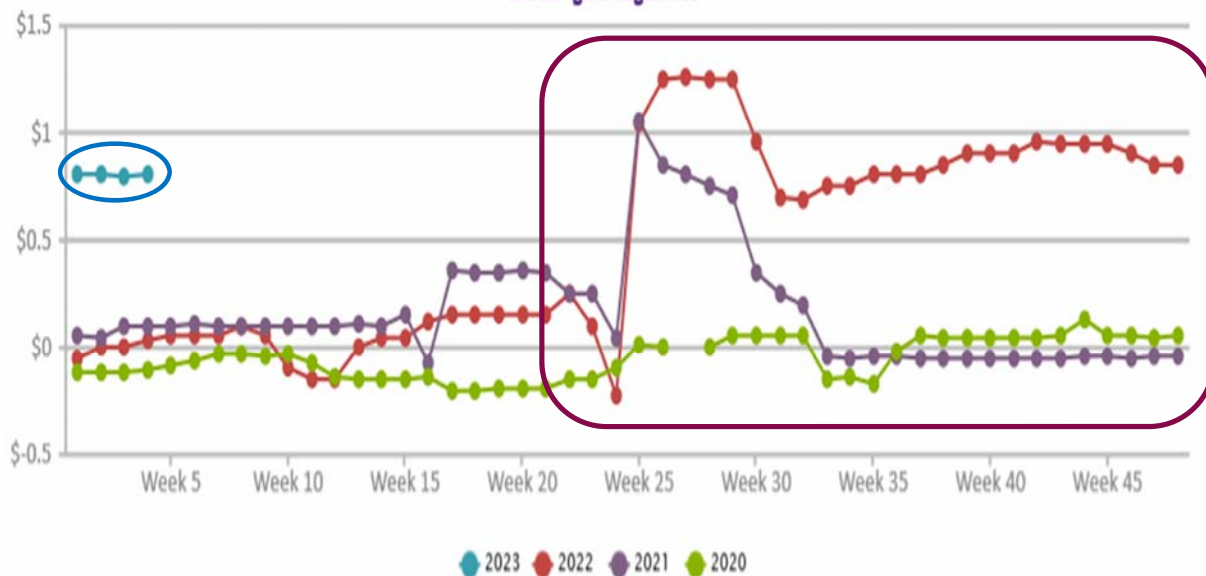
### US #2 Yellow Corn -Bulk

#### Ethanol Plant

State/Province/Region	Sale Type	Basis (¢/bu)	Basis Change	Price (\$/Bu)	Price Change	Average
Illinois	Bid	-15.00H to 40.00H	UNCH	6.6875-7.2375	UP 0.0075	6.9025
Indiana	Bid	-20.00H to 17.00H	UNCH	6.6375-7.0075	UP 0.0075	6.8942
Iowa East	Bid	-20.00H to 13.00H	UNCH-DN 2	6.6375-6.9675	UP 0.0075-DN 0.0125	6.8075
Iowa West	Bid	3.00H to 52.00H	UNCH	6.8675-7.3575	UP 0.0075	7.1420
Kansas	Bid	50.00H to 85.00H	UNCH	7.3375-7.6875	UP 0.0075	7.5375
Michigan	Bid	-30.00H to -17.00H	UNCH	6.5375-6.6675	UP 0.0075	6.5975
Minnesota	Bid	-25.00H to 33.00H	UNCH	6.5875-7.1675	UP 0.0075	6.9208
Missouri	Bid	5.00H to 55.00H	UNCH	6.8875-7.3875	UP 0.0075	7.0600
Nebraska	Bid	25.00H to 90.00H	UNCH	7.0875-7.7375	UP 0.0075	7.2783
Ohio	Bid	-15.00H to 12.00H	UNCH	6.6875-6.9575	UP 0.0075	6.8475
South Dakota	Bid	-12.00H to 50.00H	UNCH	6.7175-7.3375	UP 0.0075	6.9729
Wisconsin	Bid	-45.00H to -21.00H	UNCH	6.3875-6.6275	UP 0.0075	6.5025

### COLWICH, KS: Corn Basis - KANZA COOP-EAST

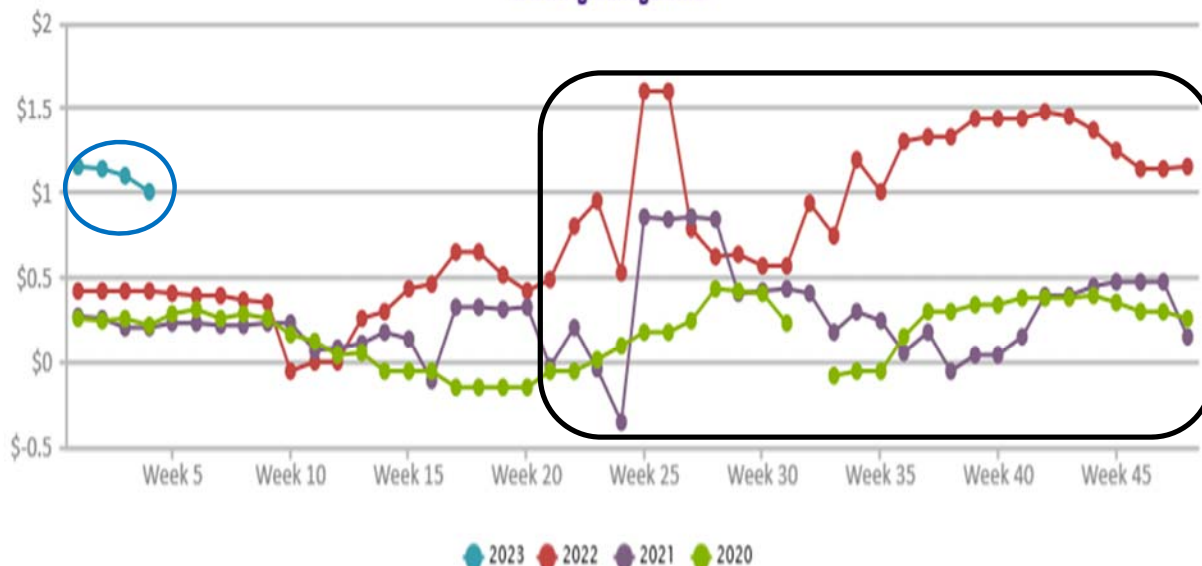
www.AgManager.info





## COLWICH, KS: Corn Basis - THE ANDERSONS

www.AgManager.info



## U.S. Corn Supply-Demand Balance Sheet

"Current" MY 2022/23 & Proj. "New Crop" MY 2023/24 as of the 1/13/2023 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% <sup>KSUest</sup>	35% <sup>KSUest</sup>	65% <sup>KSUest</sup>
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	1,242	1,242
Production (million bu.)	13,730	15,265	14,802
Imports (million bu.)	50.0	25.0	25.0
Total Supply (million bu.)	15,157	16,531	16,094
Ethanol for fuel Use (million bu.)	5,275	5,325	5,325
Food & Industrial Use (million 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.)	13,915	14,750	14,750
Ending Stocks (million bu.)	1,242	1,781	1,344
% Ending Stocks-to-Use	8.93%	12.07%	8.94%
Days of Supply (% S/U x 365 days)	32.6 days	44.1 days	32.6 days
U.S. Corn Average Farm Price (\$/bushel)	\$6.70 <sup>USDA</sup> \$6.46 <sup>KSU</sup>	\$5.70 <sup>USDA</sup>	\$6.45 <sup>KSU</sup>

## U.S. Corn End Stocks & % Stocks-to-Use

59

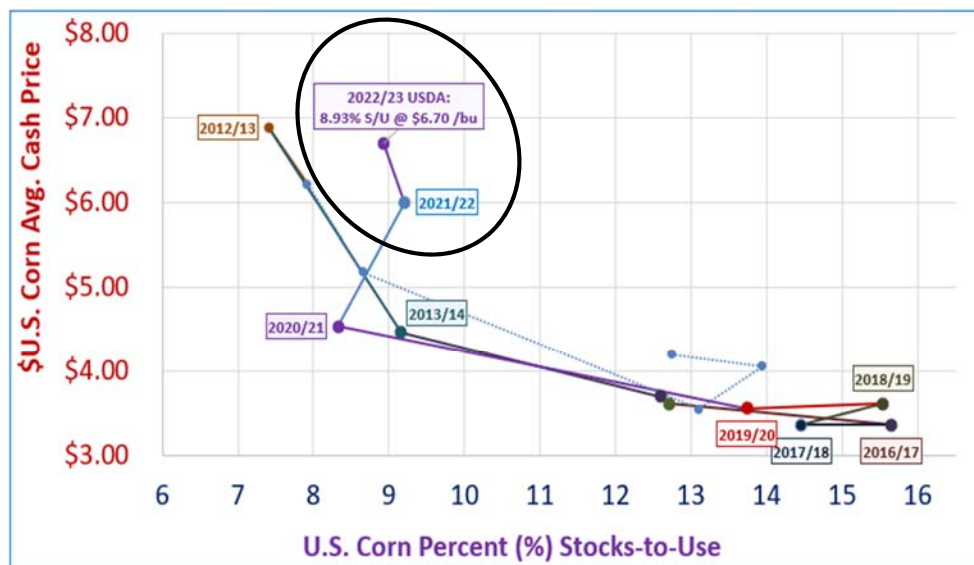
MY 2012/13 thru "New Crop" MY 2023/24<sup>Est</sup> as of the January 12, 2023 USDA Reports



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

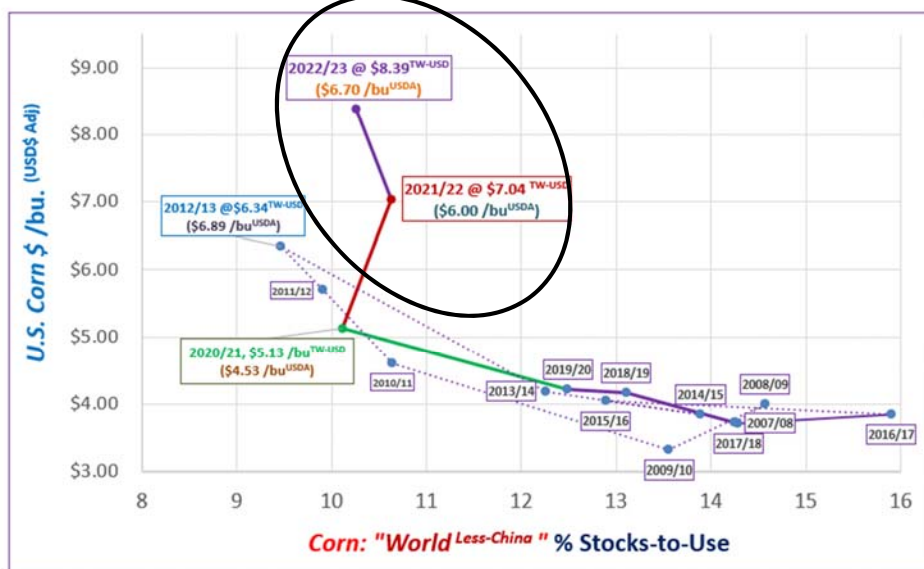
60

MY 2007/08 - "Current" MY 2022/23 as of the January 12, 2023 USDA Reports



## U.S. Corn \$<sup>USD\$ Adj.</sup> vs "World<sup>Less-China</sup>" % S/U

MY 2007/08 – "Current" MY 2022/23 as of the January 12, 2023 USDA WASDE Report



## 2023 Corn Cost-Return Budget in South Central Kansas

-----Average yields

62

Item	unit	price	quantity	amount	Sub-total
<b>INCOME</b>					
Product					
Corn - South Central KS	bu	\$6.08	110.00	\$668.80	\$668.80
--TOTAL INCOME--					\$668.80
<b>DIRECT EXPENSES</b>					
Additional labor					\$0.00
Crop insurance					\$0.75
Custom Operations					\$24.58
Diesel					\$19.32
Fertilizers					\$20.61
Herbicides					\$130.53
Miscellaneous					\$65.60
Operator labor					\$7.26
Repair & Maintenance					\$6.08
Seeds					\$16.89
Interest on operating capital	8% percent on direct expenses				\$65.45
--TOTAL DIRECT EXPENSES--					\$14.36
-----Total direct expenses per bu					\$373.43
<b>FIXED EXPENSES</b>					
Cash rent					\$50.00
Capital recovery (depreciation + interest)					\$62.51
--TOTAL FIXED EXPENSES--					\$112.51
-----Total expenses per bu					\$295.37
RETURNS ABOVE DIRECT EXPENSES					\$295.37
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$182.86

### 2023 Corn Costs South Central KS

Yield = 110 bu /ac

Total Direct Expenses  
= \$3.39 /bu

Total of ALL Expenses  
= \$4.42 /bu



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

## -----South Central Kansas (Average yields)

63

Item	unit	price	quantity	amount	Sub-total
<b>INCOME</b>					
Product					
Corn - South Central KS	bu	\$6.08	240.00	\$1,459.20	\$1,459.20
<b>--TOTAL INCOME--</b>					\$1,459.20
<b>DIRECT EXPENSES</b>					
Additional labor					\$0.00
Crop insurance					\$0.81
Custom Operations					\$17.53
Diesel					\$29.76
Fertilizers					\$22.91
Herbicides					\$265.29
Irrigation energy (NG)					\$110.63
Irrigation labor					\$53.20
Miscellaneous					\$8.10
Operator labor					\$12.10
Repair & Maintenance					\$8.39
Seeds					\$23.50
Interest on operating capital		8% percent on direct expenses			\$133.02
<b>--TOTAL DIRECT EXPENSES--</b>					\$27.41
-----Total direct expenses per bu \$2.97					\$712.66
<b>FIXED EXPENSES</b>					
Cash rent					\$175.00
Capital recovery (depreciation + interest)					\$251.62
<b>--TOTAL FIXED EXPENSES--</b>					\$426.62
-----Total expenses per bu \$4.75					
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$746.54
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$319.92

## 2023 Irrigated Corn South Central KS

Yield = 240 bu /ac

Total Direct Expenses  
= \$2.97 /bu

Total of ALL Expenses  
= \$4.75 /bu

13.5 acre-inches of water applied  
150 foot well depth  
\$ 3.94 fuel cost per acre-inch of water applied  
.4 Mcf of natural gas per acre-inch of water applied  
\$ 9.75 per Mcf for cost of natural gas  
5.46 Mcf of fuel used in total

# 2023 Preharvest Marketing Plan

64



**KANSAS STATE**  
UNIVERSITY

Department of Agricultural Economics



## Preharvest Marketing Plan



**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



66

**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?**

**WINNING THE GAME**

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

Fifteen Years: CME December Corn Futures

	2008/22	Jan 1 Price	Preharvest Max Price	Change	Percent Change
33% of the time; prices rise \$2.00 or more (>40%)	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%
67% of the time; prices rise \$0.40 or more (>10%)	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%
87% of the time; prices rise \$0.17 or MORE	2015	\$4.20	\$4.52	\$0.32	8%
	2017	\$3.84	\$4.15	\$0.31	8%
	2009	\$4.56	\$4.73	\$0.17	4%
13% of the time; there was no change	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

**WINNING THE GAME**

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/ \$6.00 c, or by 3/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.40 f/ \$6.25 c, or by 4/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.65 f/ \$6.50 c, or by 5/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.90 f/ \$6.75 c, or by 6/1/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.15 f/ \$7.00 c, or by 6/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.40 f/ \$7.25 c, or by 7/15/23, 2023, using FC, Hedge, Basis Contract

Plan starts on February 1, 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

1

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/ \$6.00 c, or by 3/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.40 f/ \$6.25 c, or by 4/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.65 f/ \$6.50 c, or by 5/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$6.90 f/ \$6.75 c, or by 6/1/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.15 f/ \$7.00 c, or by 6/15/23, 2023, using FC, Hedge, Basis Contract

Price 10,000 bushels at \$ \$7.40 f/ \$7.25 c, or by 7/15/23, 2023, using FC, Hedge, Basis Contract

Plan starts on February 1, 2023. Completed by July 15, 2023.

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

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# Questions?

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