

Grain Market Outlook for 2023-24

“Winning-the-Game” Grain Marketing Webinar

Kansas State University

July 19, 2023

DANIEL O'BRIEN

EXTENSION AGRICULTURAL ECONOMIST

KANSAS STATE
UNIVERSITY

Department of Agricultural Economics

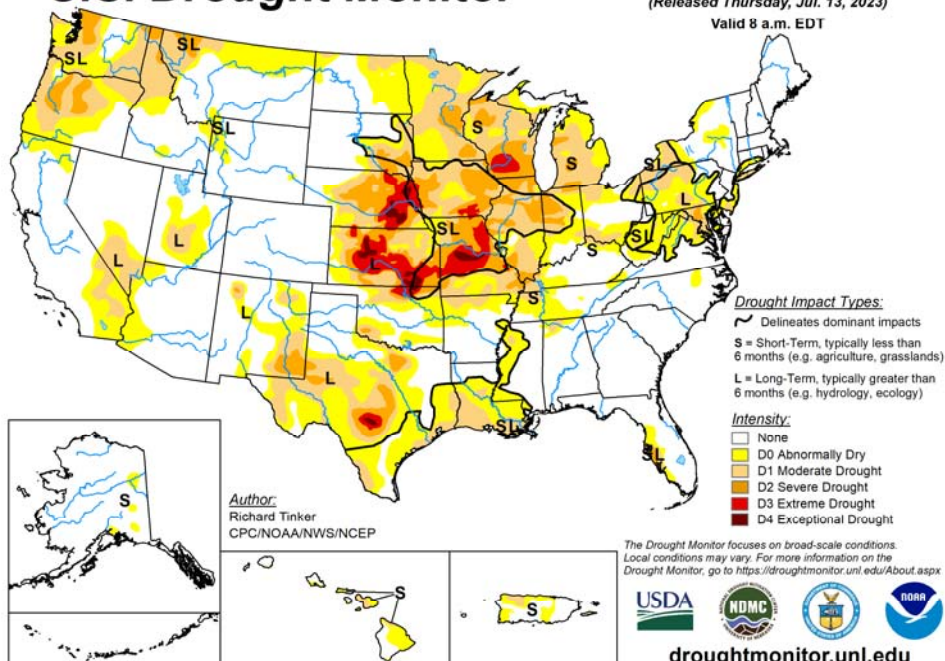


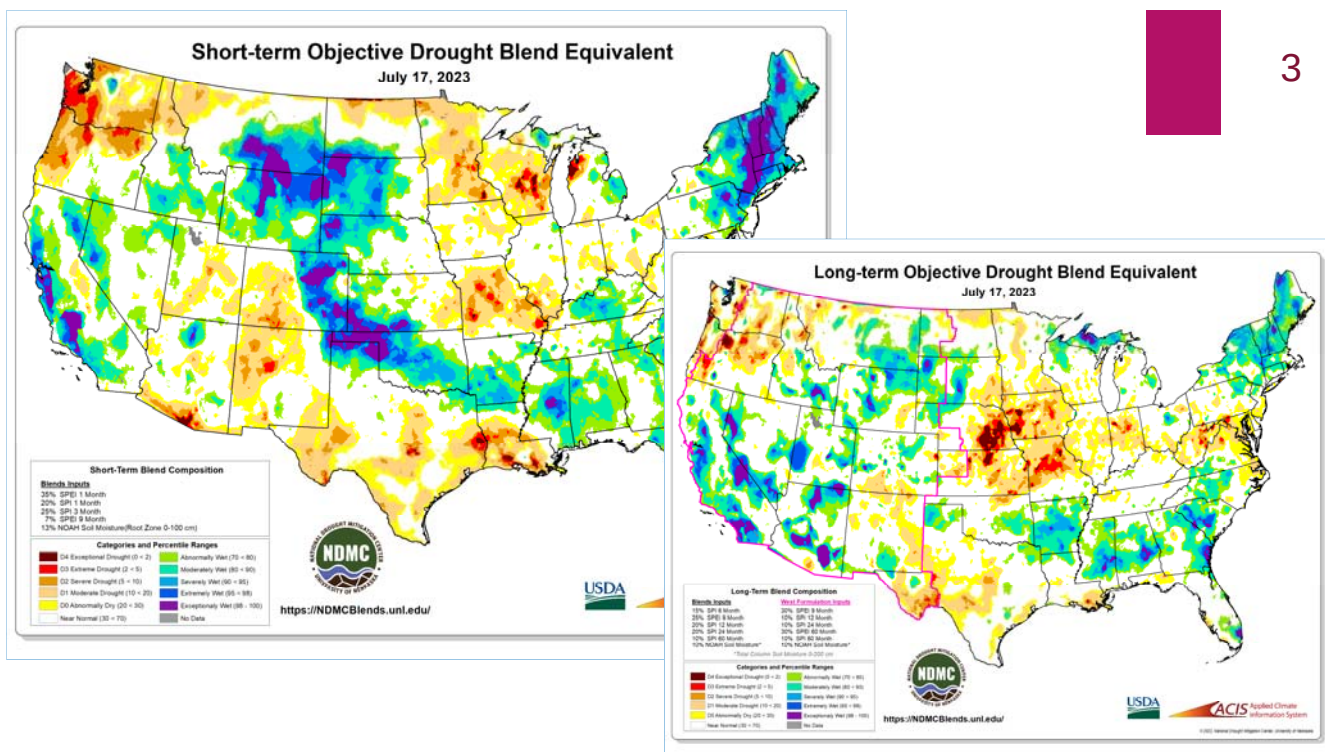
U.S. Drought Monitor

July 11, 2023

(Released Thursday, Jul. 13, 2023)

Valid 8 a.m. EDT

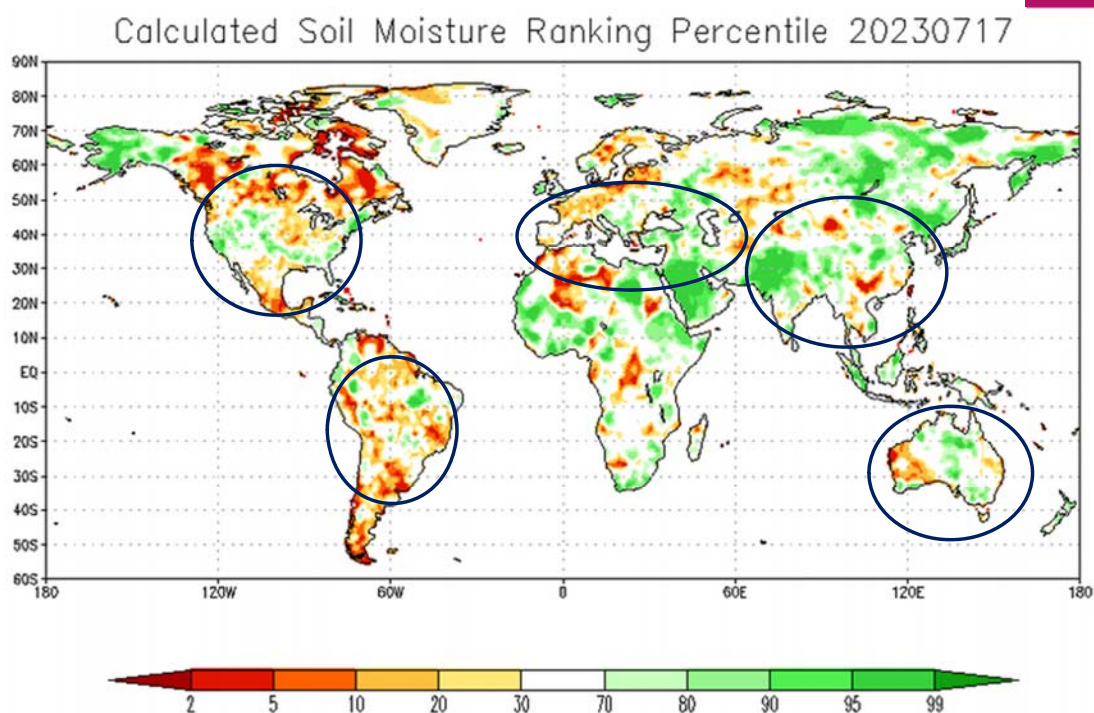
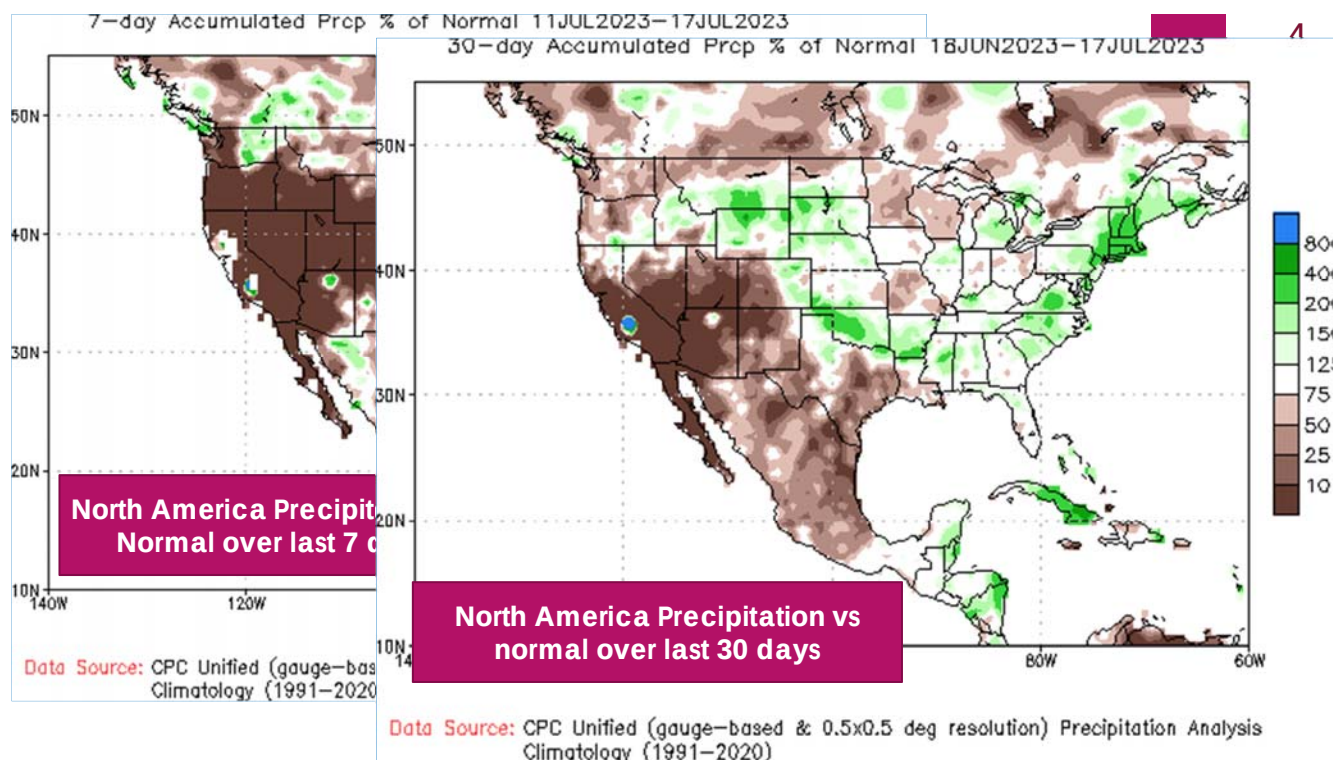




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Dan O'Brien, 7/19/2023



Feedgrain Markets

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Kansas Cash & Futures Prices						
Date						
7/19/2023 - Early a.m.	Cash Grain & Harvest Contract Prices @ Kansas Grain Elevators					
Representing the highest bids available at each location						
Cash Market Spot & FC Bids	Colby ^{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\$	\$6.00	\$5.86	\$6.14	\$6.34	\$6.07	\$6.32
Corn Spot Cash Basis	\$0.56	\$0.42	\$0.69	\$0.90	\$0.63	\$0.88
Corn Harvest FC\$: Fall ²⁰²³	\$5.46	\$5.33	\$5.42	\$5.81	\$5.21	\$5.36
Corn Harvest FC\$ Basis	(\$0.05)	(\$0.18)	(\$0.09)	\$0.30	(\$0.30)	(\$0.15)
Grain Sorghum Spot Cash\$	\$5.60	\$5.70	\$5.80	\$5.59	\$5.54	\$5.78
Sorghum Spot Cash Basis	\$0.15	\$0.26	\$0.36	\$0.15	\$0.09	\$0.34
Grain Sorghum Harvest FC\$: Fall ²⁰²²	\$5.17	\$5.43	\$5.22	\$5.11	\$5.21	\$5.07
Sorghum Harvest FC\$ Basis	(\$0.34)	(\$0.08)	(\$0.29)	(\$0.40)	(\$0.30)	(\$0.44)
"Spot Cash" Soybean vs Corn \$ Ratio	2.45	2.53	2.41	2.31	2.44	2.39
"New Crop" Soybean vs Corn \$ Ratio	2.42	2.54	2.52	2.28	2.60	2.53

CME Corn Futures *Continuous Weekly to 7/18/2023*

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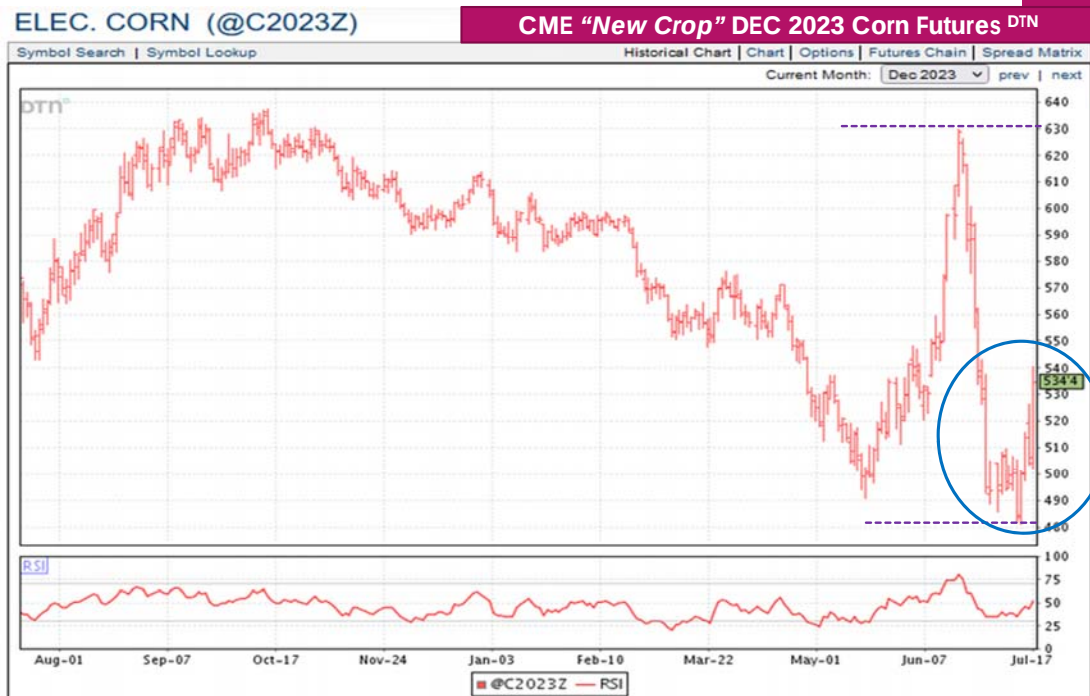


ELEC. CORN (@C2023U)

CME "Old Crop" SEPT 2023 Corn Futures DTN

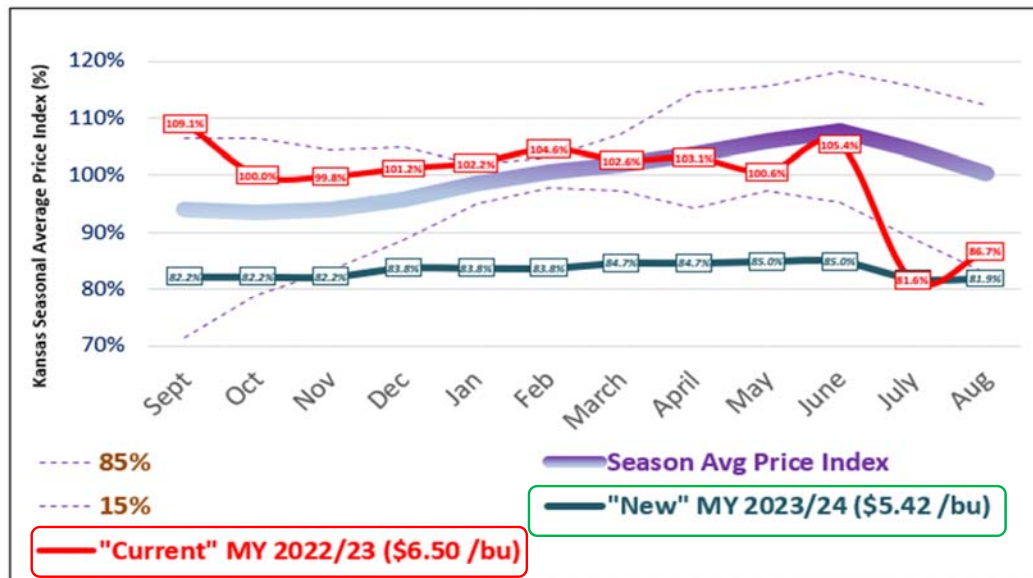
9





Corn Seasonal Prices *Kansas-U.S.*

Long Term Seasonal \$ Trends + MY 2022/23 & "Next" MY 2023/24 As of 7/18/2023



USDA Corn \$ Forecasts:

"Current"
MY 2022/23
= \$6.60 /bu U.S.

"New Crop"
MY 2023/24
= \$4.80 /bu U.S.

U.S. Corn Supply and Demand

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Item	2022/2023		2023/2024		
	Estimate	Change from June 9	Forecast	Change from June 9	Change from 2022/2023
Planted area (million acres)	88.6	--	94.1	2.1	5.5
Harvested area (million acres)	79.2	--	86.3	2.2	7.1
Yield (bushels per acre)	173.3	--	177.5	-4.0	4.1
<i>Million bushels</i>					
Beginning stocks	1,377	--	1,402	-50	25
Production	13,730	--	15,320	55	1,590
Imports	25	--	25	--	--
Total supply	15,132	--	16,747	5	1,615
Feed and residual	5,425	150	5,650	--	225
Food, seed, and industrial	6,655	-25	6,735	--	80
Ethanol	5,225	-25	5,300	--	75
Domestic use	12,080	125	12,385	--	305
Exports	1,650	-75	2,100	--	450
Total use	13,730	50	14,485	--	755
Ending stocks	1,402	-50	2,262	5	860
<i>Percent</i>					
Stocks to use ratio	10.2	-0.4	15.6	**	5.4
<i>Dollars per bushel</i>					
Average market price	6.60	--	4.80	--	-1.80

-- No change. ** Rounds to zero.

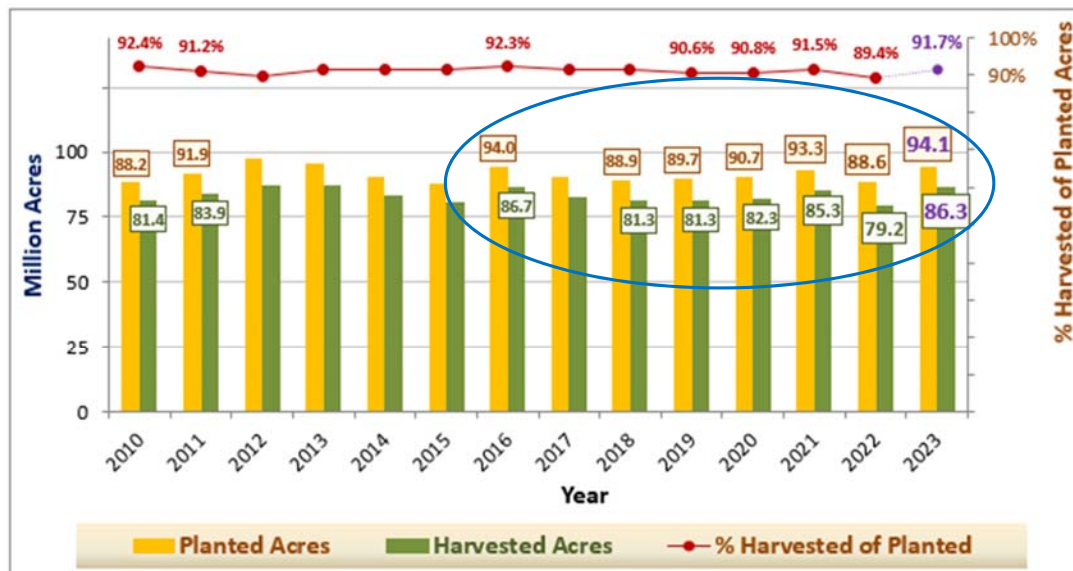
July 12, 2023



U.S. Corn Acreage for 2010-2023

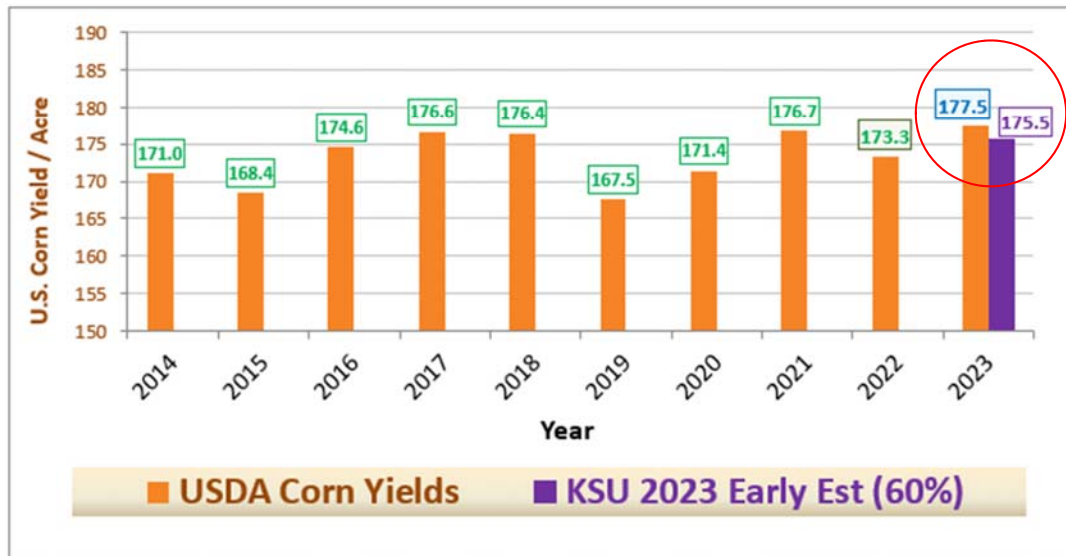
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Sources: USDA Crop Production & WASDE 7/12/2023 Reports



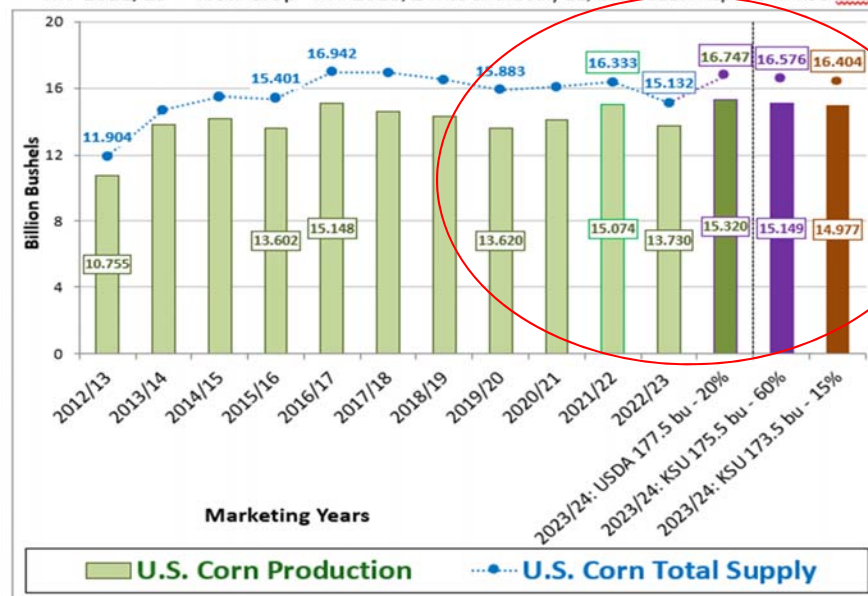
U.S. Corn Yields for 2014-2023

Through USDA reports on July 12, 2023 + K-State Yield Estimate 7/12/2023



U.S. Corn Production & Total Supplies

MY 2012/13 - "New Crop" MY 2023/24: as of the July 12, 2023 USDA Reports w. KSU Ests.



U.S. Corn Supply-Demand Balance Sheet

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"Current" MY 2022/23 & "New Crop" MY 2023/24 as of the 7/12/2023 USDA WASDE + KSU Estimates

Item	A. USDA Adjusted "New Crop" MY 2023/24 "Record High Yields" = 177.5 bu/ac 15,320 bb crop	B. KSU #1 Adjusted "New Crop" MY 2023/24 "Average Yields" = 175.5 bu/ac 15,149 bb crop	B. KSU #2 "New Crop" MY 2023/24 "Lower Yields" = 173.5 bu/ac 14,977 bb crop	B. KSU #3 "New Crop" MY 2023/24 "Short Yields" = 171.5 bu/ac 14,804 bb crop
% Probability of Occurring (KSU)	20% ^{KSUest}	60% ^{KSUest}	15% ^{KSUest}	5% ^{KSUest}
Planted Area (million acres)	94,096	94,096	94,096	94,096
Harvested Area (million acres)	86,322	86,322	86,322	86,322
% Harvested/Planted Area	91.74%	91.74%	91.74%	91.74%
Yield / harvested acre (bu/ac)	177.5	175.5	173.5	171.5
Million Bushels				
Beginning Stocks (million bushels)	1,402	1,402	1,402	1,402
Production (million bu.)	15,320	15,149	14,977	14,804
Imports (million bu.)	25.0	25.0	25.0	25.0
Total Supply (million bu.)	16,747	16,576	16,404	16,231
Ethanol for fuel Use (million bu.)	5,300	5,300	5,300	5,300
Food & Industrial Use (million bu.)	1,404	1,404	1,404	1,404
Seed Use (million bu.)	31	31	31	31
Exports (million bu.)	2,100	2,100	2,100	2,100
Feed & Residual Use (million bu.)	5,650	5,650	5,650	5,650
Total Use (million bu.)	14,485	14,485	14,485	14,485
Ending Stocks (million bu.)	2,262	2,091	1,919	1,746
% Ending Stocks-to-Use	15.62%	14.44%	13.25%	12.05%
Days of Supply (% S/U x 365 days)	57.0 days	52.7 days	48.4 days	44.0 days
U.S. Corn Average Farm Price (\$/bushel)	\$4.80 ^{USDA} \$5.42 ^{KSU 7/18/2023}	\$5.00 ^{KSU} \$5.42 ^{KSU 7/18/2023}	\$5.50 ^{KSU} \$5.42 ^{KSU 7/18/2023}	\$6.00 ^{KSU} \$5.42 ^{KSU 7/18/2023}

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

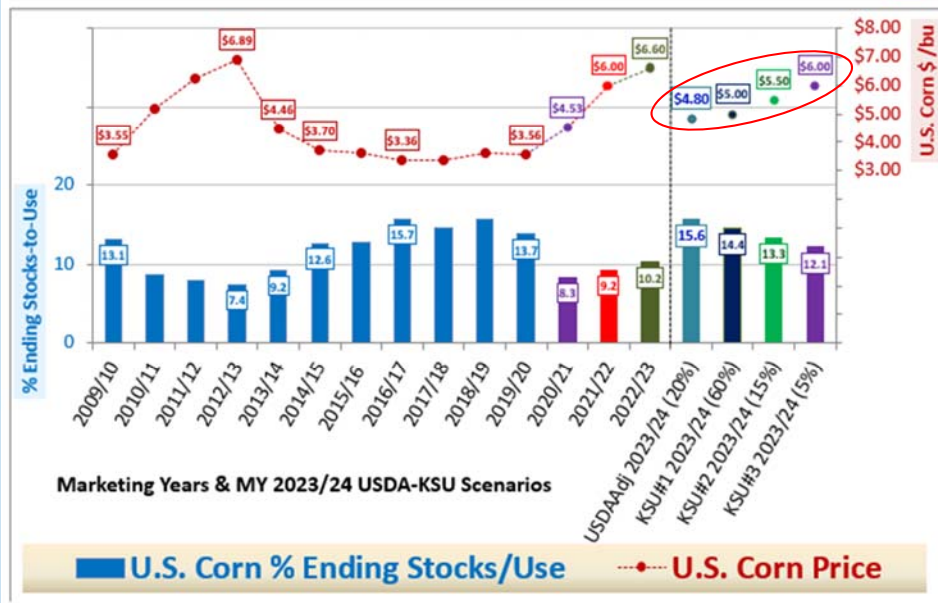
17

MY 2012/13 thru "New Crop" MY 2023/24^{KSU Est} as of the July 12, 2023 USDA + KSU Ests.



U.S. Corn % Stocks/Use vs Corn \$

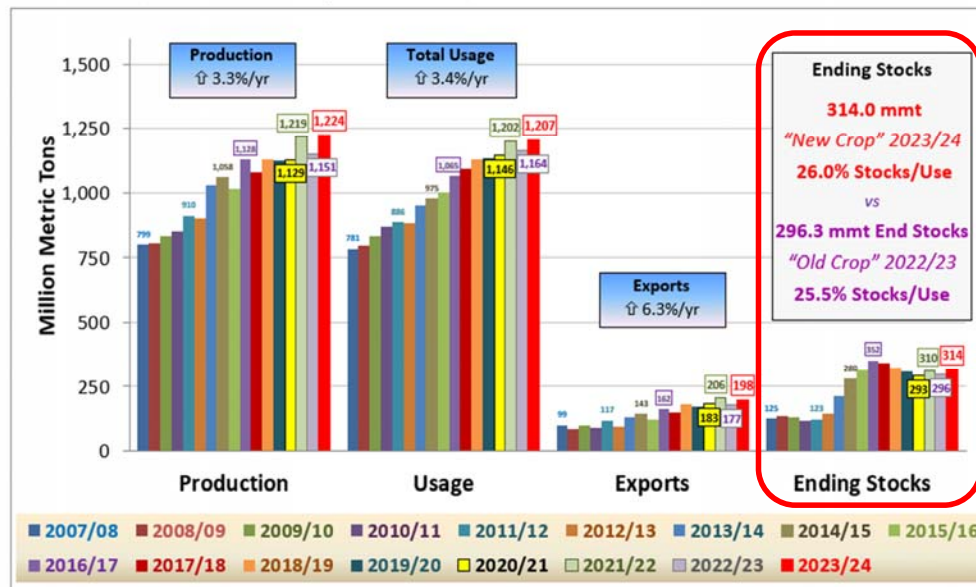
MY 2009/10 – “New Crop” MY 2023/24 as of the 7/12/2023 USDA Reports + KSU Ests.



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World Corn Supply-Demand

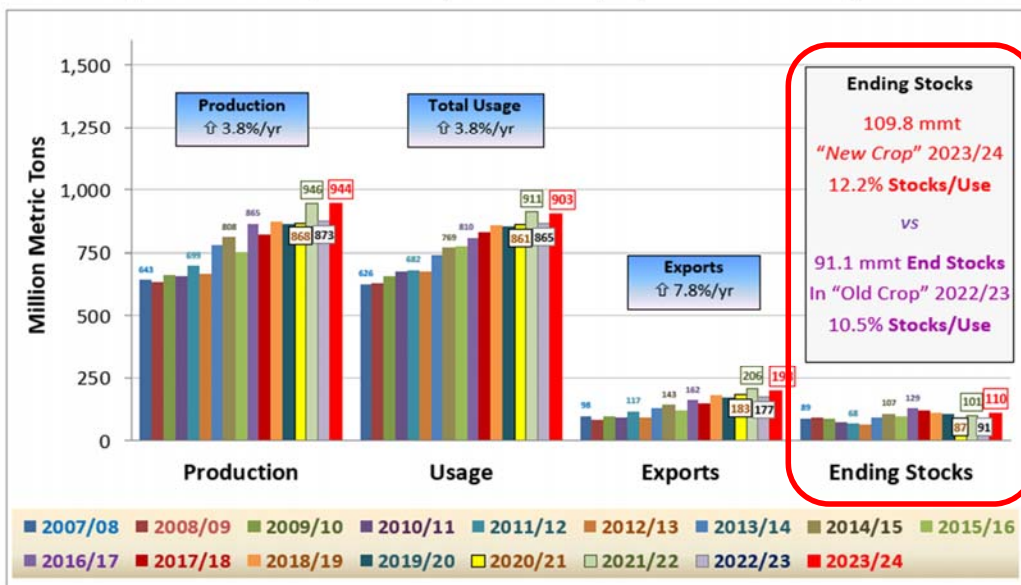
MY 2007/08 – “New Crop” MY 2023/24 as of the July 12, 2023 USDA WASDE Report



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"World Less-China" Corn Supply-Demand

MY 2007/08 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE Report



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

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



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Argentina Corn Supply-Demand

MY 2007/08 – “New Crop” 2023/24, as of the July 12, 2023 USDA WASDE report



Brazil Corn Supply-Demand

MY 2007/08 – “New Crop” MY 2023/24, as of the July 12, 2023 USDA WASDE report



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Ukraine Corn Supply-Demand

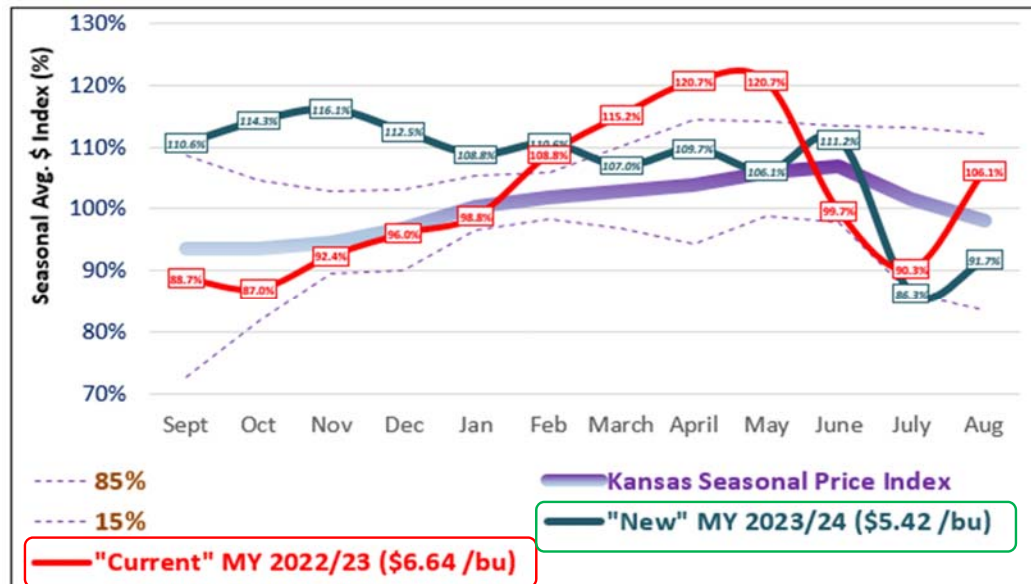
MY 2007/08 – “New Crop” 2023/24, as of the July 12, 2023 USDA WASDE report



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Sorghum Seasonal Prices *Kansas-U.S.*

Long Term Seasonal \$ Trends + MY 2022/23 & "Next" MY 2023/24 As of 7/18/2023



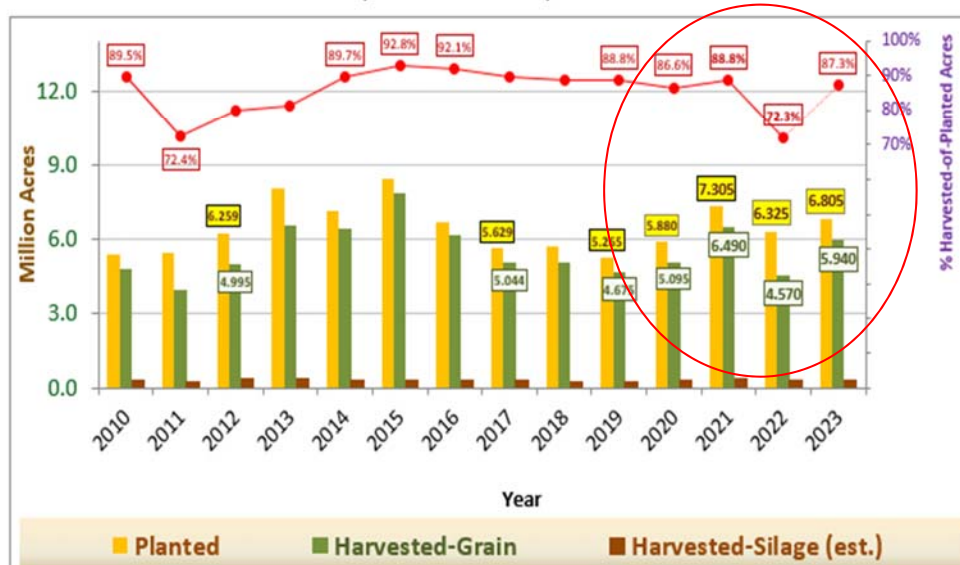
USDA Milo \$ Forecasts:

"Current"
MY 2022/23
= \$6.85 /bu ^{U.S.}

"New Crop"
MY 2023/24
= \$4.80 /bu ^{U.S.}

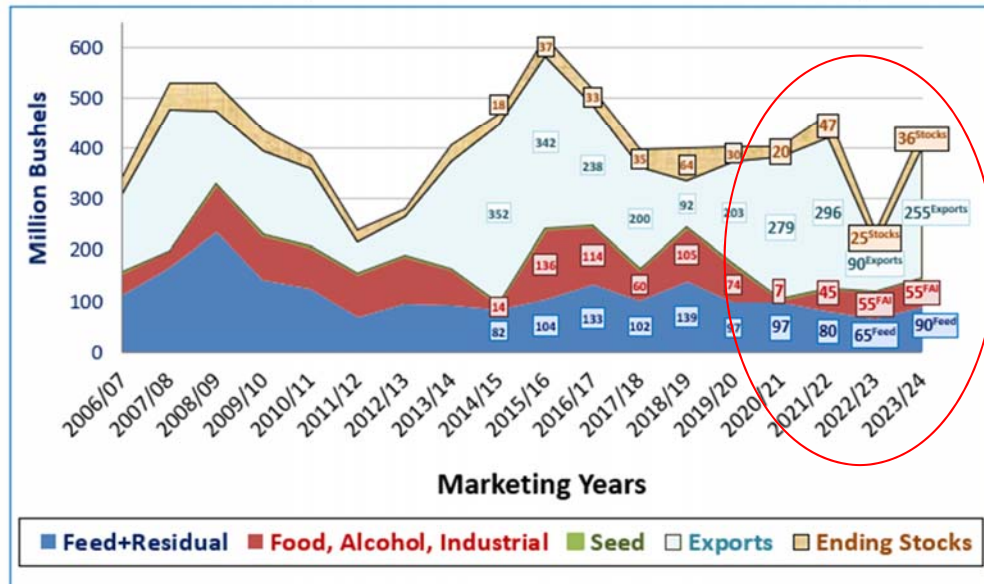
U.S. Sorghum Planted & Harvested Acres

Years 2010 – 2023 as of the July 12, 2023 USDA Reports

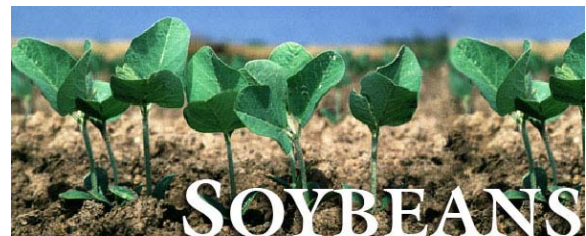


U.S. Sorghum Use & End Stocks

MY 2006/07 - "New Crop" MY 2023/24 as of USDA Information available on July 12, 2023



Soybean Markets



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Kansas Cash & Futures Prices						
Date		Cash Grain & Harvest Contract Prices @ Kansas Grain Elevators				
7/19/2023 - Early a.m.		Representing the highest bids available at each location				
Cash Market Spot & FC Bids	Colby ^{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
Soybean Spot Cash\$	\$14.67	\$14.81	\$14.77	\$14.66	\$14.84	\$15.12
Soybean Spot Cash Basis	(\$0.45)	(\$0.31)	(\$0.35)	(\$0.46)	(\$0.28)	(\$0.00)
Soybean Harvest FC\$: Fall ²⁰²²	\$13.21	\$13.52	\$13.67	\$13.25	\$13.54	\$13.56
Soybean Harvest FC\$ Basis	(\$0.95)	(\$0.65)	(\$0.49)	(\$0.91)	(\$0.63)	(\$0.60)
"Spot Cash" Soybean vs Corn \$ Ratio	2.45	2.53	2.41	2.31	2.44	2.39
"New Crop" Soybean vs Corn \$ Ratio	2.42	2.54	2.52	2.28	2.60	2.53

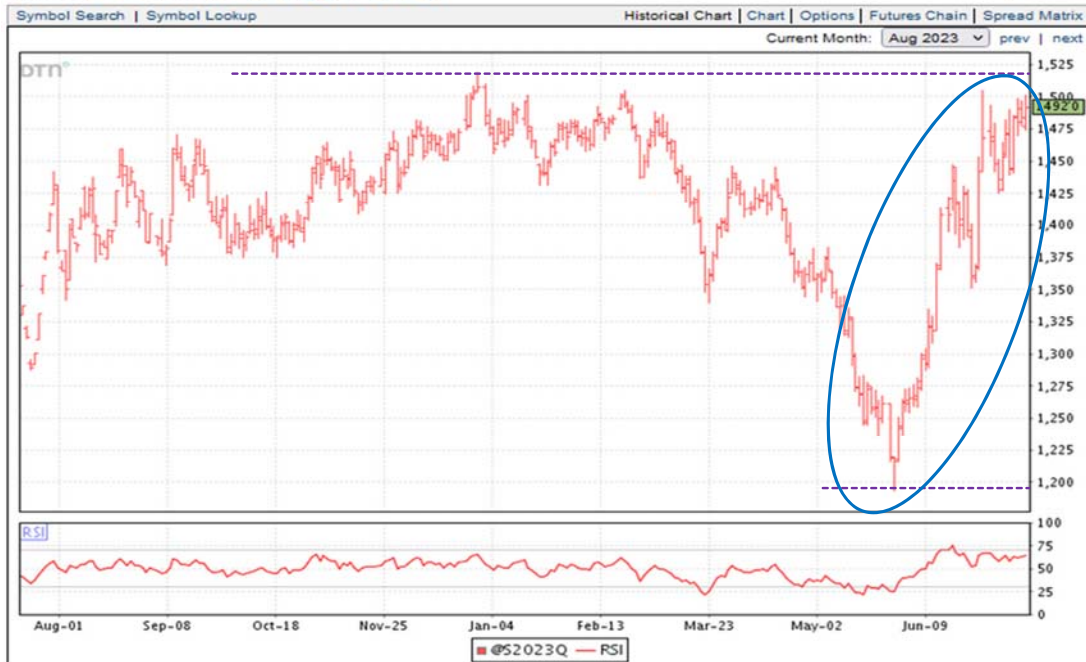
CME Soybean Futures Continuous Weekly to 7/18/2023



ELEC. SOYBEANS (@S2023Q)

CME "Old Crop" AUG 2023 Soybean Futures DTN

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ELEC. SOYBEANS (@S2023U)

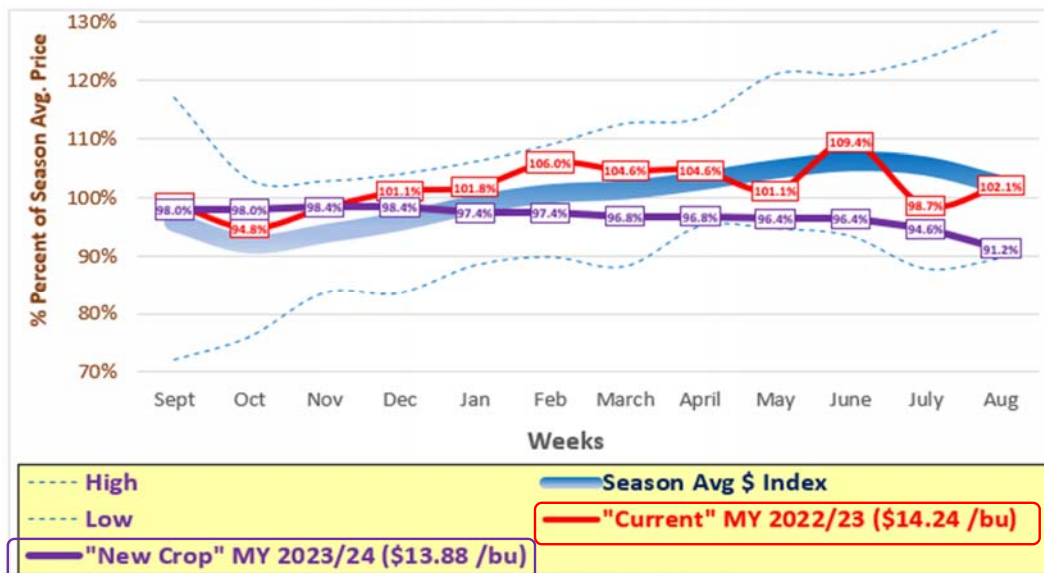
CME "New Crop" NOV 2023 Soybean Futures DTN

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Soybean Seasonal Prices *Kansas-U.S.*

Long Term Seasonal \$ Trends + MY 2022/23 & "Next" MY 2023/24 As of 7/18/2023



U.S. Prices for Soybeans USDA

"Current"
MY 2022/23
= \$14.20 /bu U.S.

"New Crop"
MY 2023/24
= \$12.40 /bu U.S.

U.S. Soybeans Supply and Demand

Item	2022/2023		2023/2024		
	Estimate	Change from June 9	Forecast	Change from June 9	Change from 2022/2023
Planted area (million acres)	87.5	--	83.5	-4.0	-3.9
Harvested area (million acres)	86.3	--	82.7	-4.0	-3.6
Yield (bushels per acre)	49.5	--	52.0	**	2.5
Million bushels					
Beginning stocks	274	--	255	25	-19
Production	4,276	--	4,300	-210	24
Imports	25	5	20	--	-5
Total supply	4,576	5	4,575	-185	0
Crush	2,220	--	2,300	-10	80
Seed and Residual	120	**	126	**	5
Domestic use	2,340	**	2,426	-10	85
Exports	1,980	-20	1,850	-125	-130
Total use	4,320	-20	4,276	-135	-45
Ending stocks	255	25	300	-50	44
Percent					
Stocks to use ratio	5.9	0.6	7.0	-0.9	1.1
Dollars per bushel					
Average market price	14.20	--	12.40	0.30	-1.80

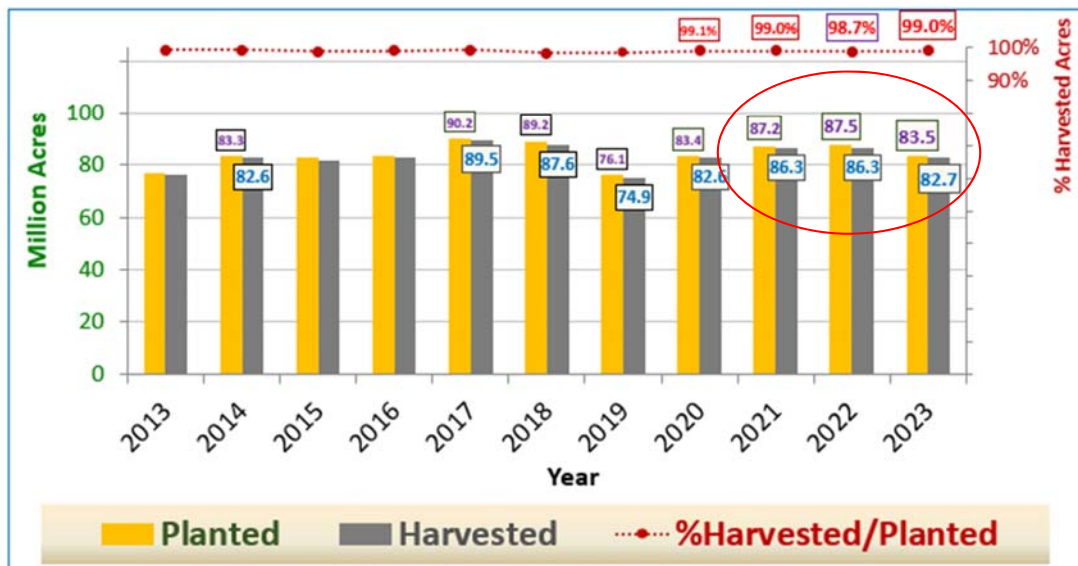
-- No change. ** Rounds to zero.

July 12, 2023

Office of the Chief Economist
United States Department of Agriculture

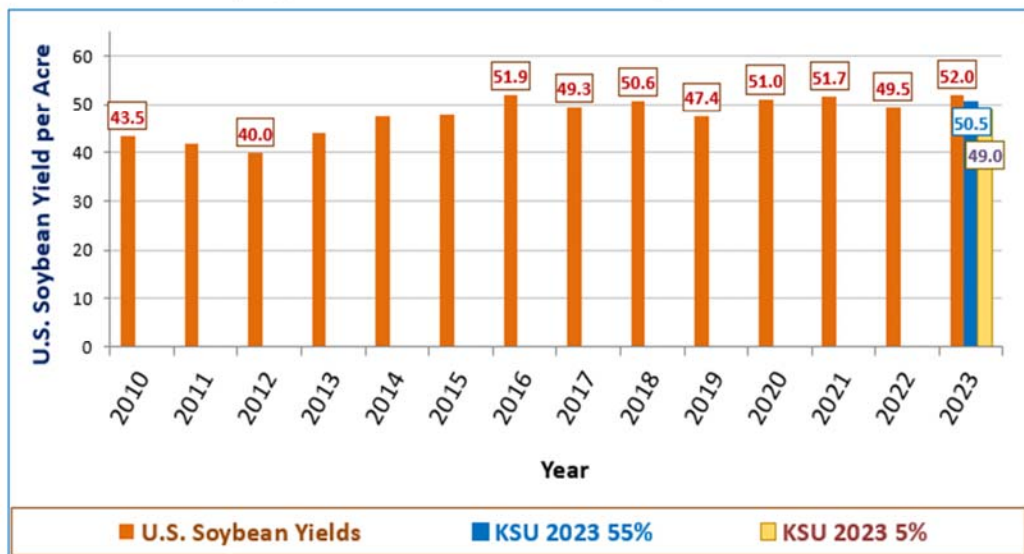
U.S. Soybean Acreage for 2013-2023

Years 2013-2023 as of the July 12, 2023 USDA Reports



U.S. Soybean Yields: 2010-2023

As of the July 12, 2023 USDA WASDE & ERS Reports + KSU Estimates



U.S. Soybean Production & Supply

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MY 2010/11 thru "New Crop" MY 2023/24 as of the June 30, 2023 USDA Reports



U.S. Soybean Supply-Demand Balance Sheet

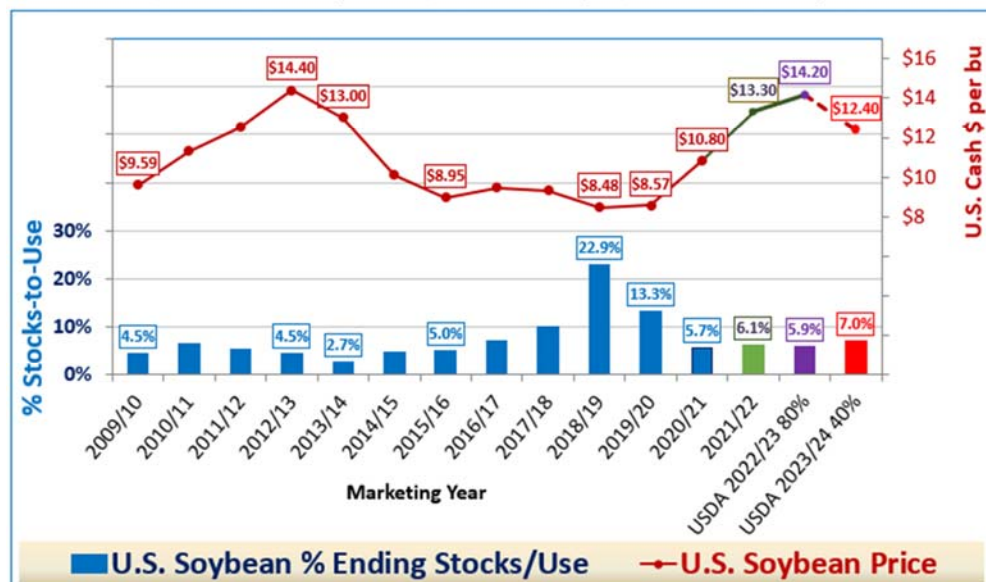
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"New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE Report + KSU Scenarios

Item	A. USDA Adjusted WASDE "New Crop" 2023/24 Using July 12, 2023 USDA Info. Yield: 52 bu/acre	B. KSU Scenario #1 "New Crop" 2023/24 Lower Yield: 50.5 bu/ac + Rationed Use (-2.0%)	C. KSU Scenario #2 "New Crop" 2022/23 Lower Yield: 50.5 bu/ac + USDA Usage #'s	D. KSU Scenario #3 "New Crop" 2022/23 Short Yield: 49.0 bu/ac + Rationed Use (-2.0%)
% Probability of Occurring (KSU)	40% ^{KSUest}	40% ^{KSUest}	15% ^{KSUest}	5% ^{KSUest}
Planted Area (million acres)	83.505	83.505	83.505	83.505
Harvested Area (million acres)	82.696	82.696	82.696	82.696
% Harvested/Planted Area	99.03%	99.03%	99.03%	99.03%
Yield / harvested acre (bu/ac)	52.0	50.5	50.5	49.0
Beginning Stocks (million bushels)	255	255	255	255
Production (million bu.)	4,300	(-2.9%) 4,176	(-2.9%) 4,176	(-5.8%) 4,052
Imports (million bu.)	20	20	20	20
Total Supply (million bu.)	4,575	(-2.7%) 4,451	(-2.7%) 4,451	(-5.4%) 4,327
Domestic Crushings	2,300	(-2.0%) 2,254	2,300	(-2.0%) 2,254
Exports	1,850	(-2.0%) 1,813	1,850	(-2.0%) 1,813
Seed	101	101	101	101
Residual	25	22	25	21
Total Use	4,276	(-2.0%) 4,190	4,276	(-2.0%) 4,190
Ending Stocks	300	261	175	137
% Ending Stocks-to-Use	7.02%	6.23%	4.09%	3.27%
Days of Supply (% S/U x 365 days)	25.6 days	22.7 days	14.9 days	11.9 days
U.S. Avg. Farm Price (\$/bu)	\$12.40 ^{USDA} \$13.88 ^{KSU 7/18/2023}	\$13.65 ^{KSU} \$13.88 ^{KSU 7/18/2023}	\$15.25 ^{KSU} \$13.88 ^{KSU 7/18/2023}	\$17.50 ^{KSU} \$13.88 ^{KSU 7/18/2023}

U.S. Soybean % Stocks/Use vs U.S. \$'s

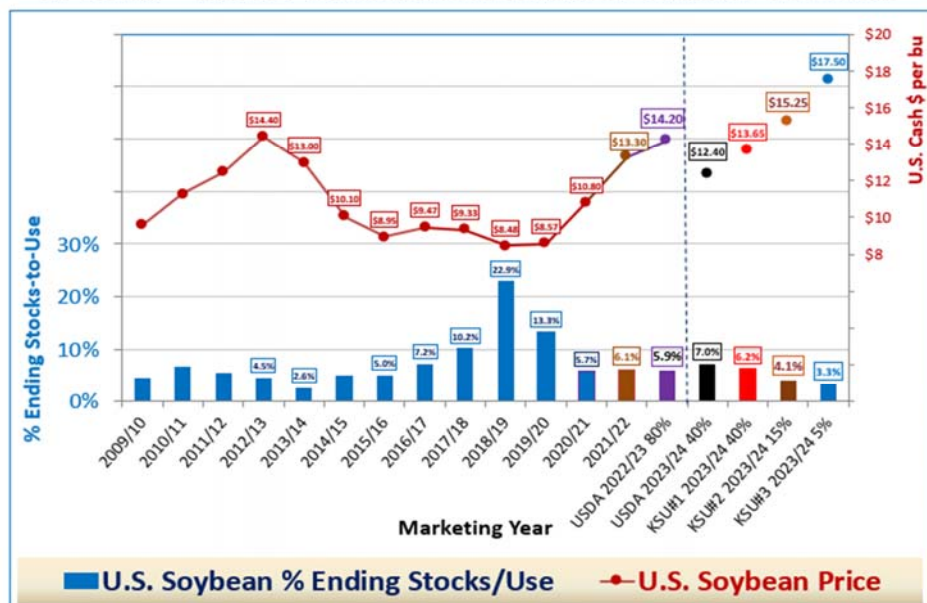
MY 2009/10 – “Next Crop” 2023/24 as of July 12, 2023 USDA Reports



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U.S. Soybean % Stocks/Use vs U.S. Cash \$

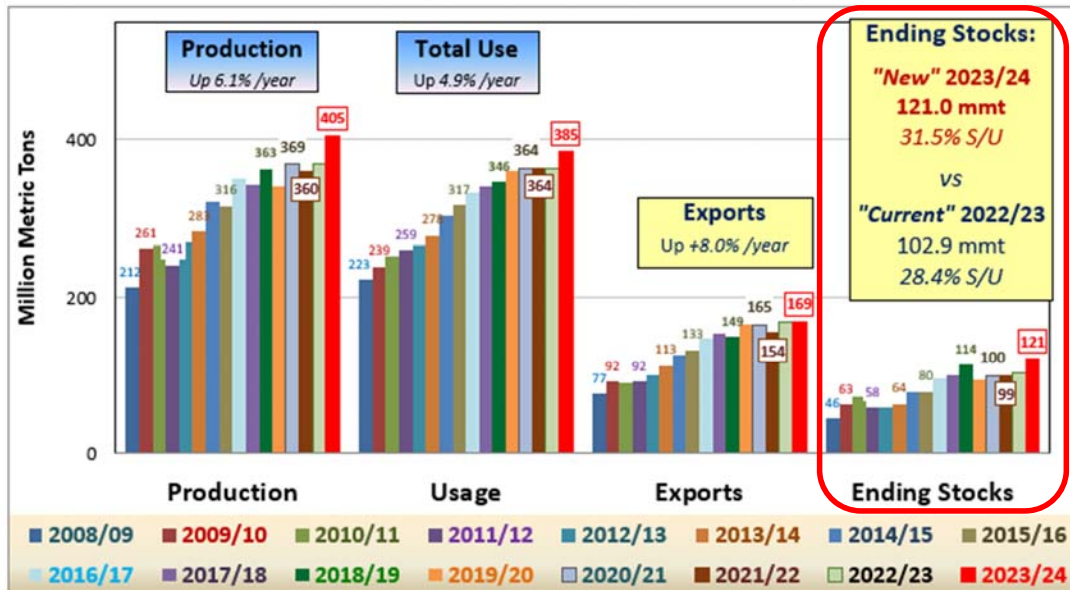
MY 2006/07 – “New Crop” MY 2023/24 as of the July 12, 2023 USDA WASDE + KSU Estimates



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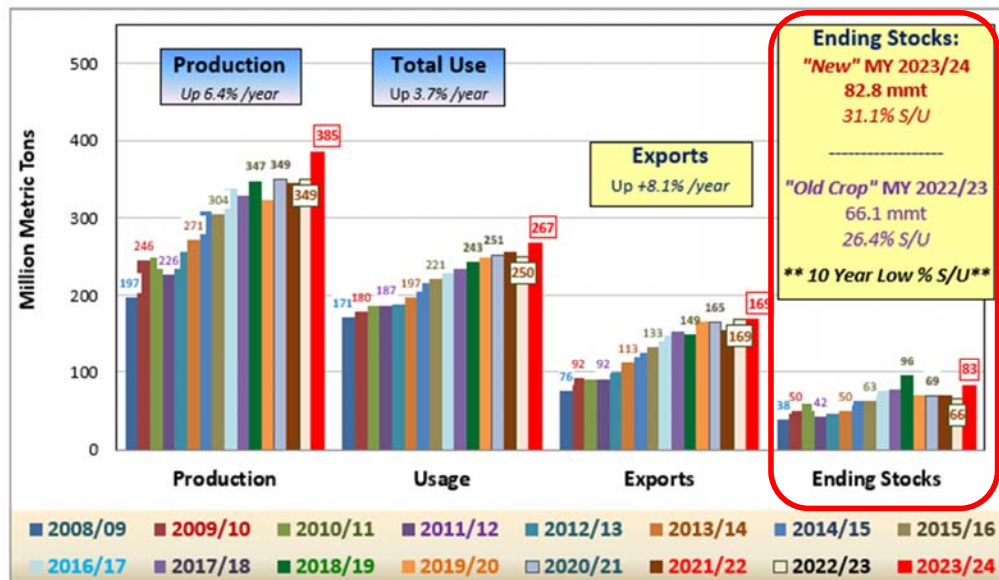
World Soybean Usage & End Stocks

MY 2008/09 thru "New Crop" MY 2023/24 as of the July 12, 2023 WASDE



World *Less-China* Soybean Use & End Stocks

MY 2008/09 - "New Crop" MY 2023/24 as of the July 12, 2023 WASDE



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

MY 2007/08 through "New Crop" MY 2023/24, as of the July 12, 2023 USDA WASDE report



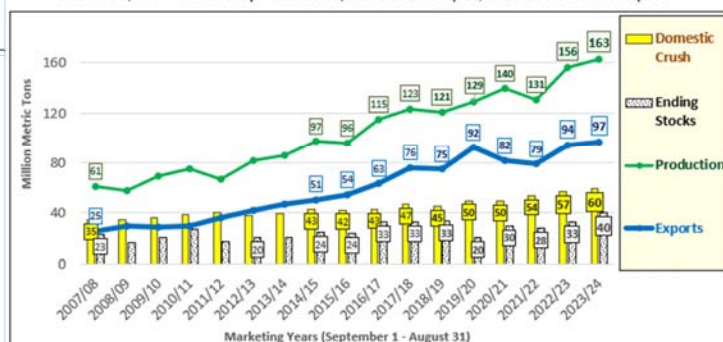
Argentina Soybean Supply-Demand

MY 2007/08 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE Report



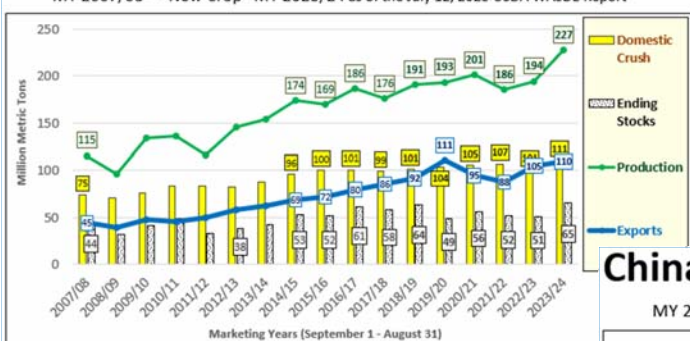
Brazil Soybean Supply-Demand

MY 2007/08 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE Report



South America Soybean Supply-Demand

MY 2007/08 – “New Crop” MY 2023/24 as of the July 12, 2023 USDA WASDE Report



China Soybean Supply-Demand

MY 2007/08 – “New Crop” MY 2023/24 as of the July 12, 2023 USDA WASDE Report



Wheat Markets



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Kansas Cash & Futures Prices						
Date						
7/19/2023 - Early a.m.	Cash Grain & Harvest Contract Prices @ Kansas Grain Elevators					
	Representing the highest bids available at each location					
Cash Market Spot & FC Bids	Colby ^{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
KC HRW Wheat Harvest Spot Cash\$	\$7.94	\$8.49	\$8.29	\$7.99	\$8.48	\$8.10
HRW Wheat Pre-Harvest Spot Cash Basis	(\$0.50)	\$0.05	(\$0.15)	(\$0.45)	\$0.04	(\$0.34)
KC HRW Wheat FC\$ - Next Harvest ²⁰²⁴	\$7.58	\$8.18	\$7.93	\$7.78	\$7.63	\$7.53
HRW Wheat Harvest FC\$ Basis	(\$0.60)	\$0.00	(\$0.25)	(\$0.40)	(\$0.55)	(\$0.65)
"Cash" HRW Wheat vs Corn \$ Ratio	1.32	1.45	1.35	1.26	1.40	1.28

CME HRW Wheat Futures *Continuous Weekly to 7/18/2023*

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KE - Wheat (Kansas) (Electronic) - Weekly Chart

Change: 19.750

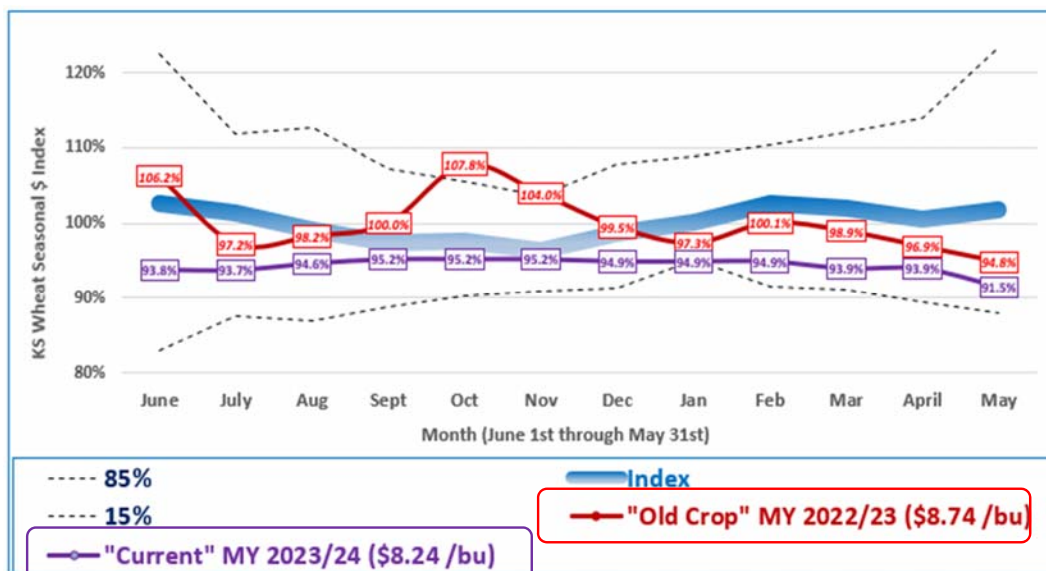
07/19/2023 O: 829.000 H: 855.000 L: 806.500 C: 848.750 Vol: 26855 OI: 166609





HRW Wheat Seasonal Prices *Kansas-U.S.*

Long Term Seasonal \$ Trends + MY 2022/23 & "New" MY 2023/24 As of 7/18/2023



**U.S. Prices for
Wheat** USDA

"Current"
MY 2022/23
= \$8.83 /bu U.S.

"Next"
MY 2023/24
= \$7.50 /bu U.S.

U.S. Wheat Supply and Demand

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Item	2022/2023		2023/2024		
	Estimate	Change from June 9	Forecast	Change from June 9	Change from 2022/2023
Planted area (million acres)	45.7	--	49.6	-0.2	3.9
Harvested area (million acres)	35.5	--	37.7	0.6	2.2
Yield (bushels per acre)	46.5	--	46.1	1.2	-0.4
Million bushels					
Beginning stocks	698	--	580	-18	-118
Production	1,650	--	1,739	74	89
Imports	122	-3	130	-5	8
Total supply	2,470	-3	2,449	51	-21
Food use	975	--	977	--	2
Seed	70	--	65	--	-5
Feed and residual	86	31	90	20	4
Domestic use	1,131	31	1,132	20	1
Exports	759	-16	725	--	-34
Total use	1,890	15	1,857	20	-33
Ending stocks	580	-18	592	31	12
Percent					
Stocks to use ratio	30.7	-1.2	31.9	1.3	1.2
Dollars per bushel					
Average market price	8.83	-0.02	7.50	-0.20	-1.33

-- No change.

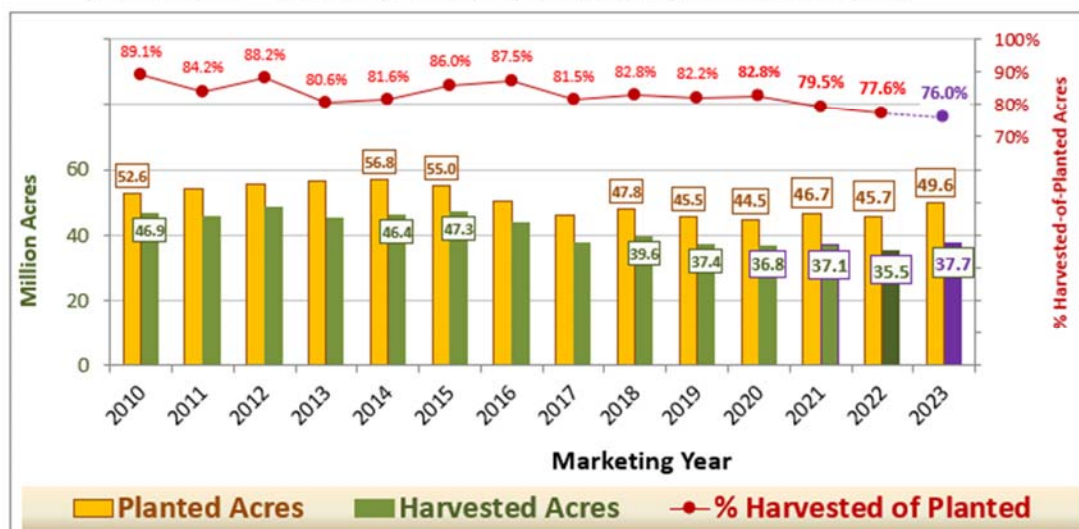
USDA Office of the Chief Economist
United States Department of Agriculture

July 12, 2023

U.S. Wheat Planted & Harvested Acreage

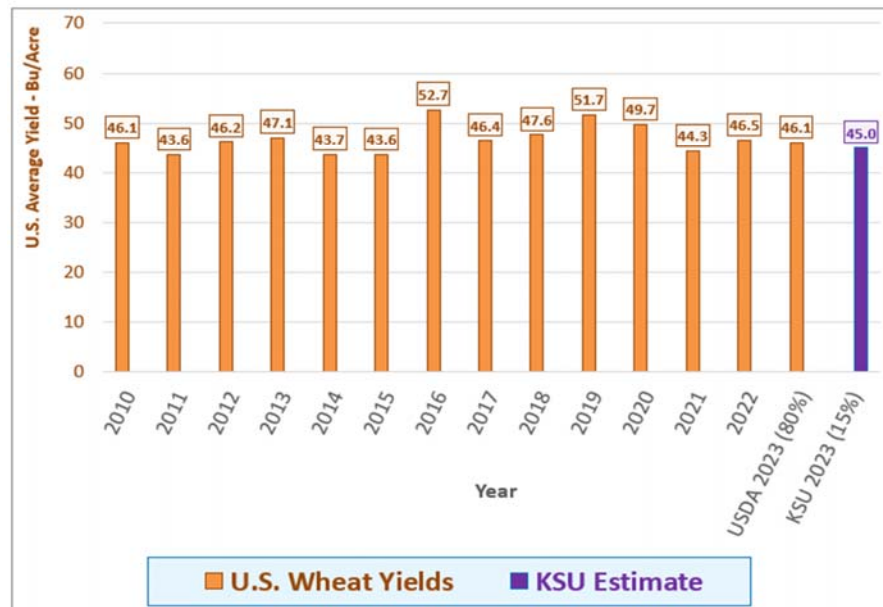
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(MY 2010/11 – “New Crop” 2023/24) as of July 12, 2023 USDA Reports



U.S. Wheat Yield

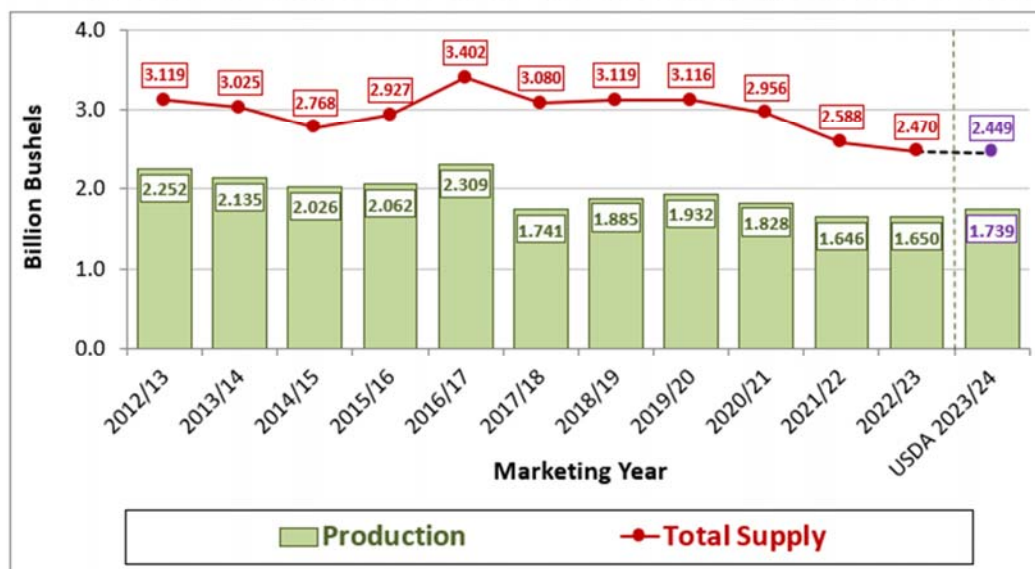
(Years 2010-2023) as of the July 12, 2023 USDA Reports



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U.S. Wheat Total Supplies

MY 2012/13 – Projected MY 2023/24 as of the July 12, 2023 USDA WASDE



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U.S. Wheat Market Outcomes for MY 2023/24^{KSU}

USDA & KSU Projections based on the July 12, 2023 USDA Report + KSU Scenarios

Item	USDA "New Crop" 2023/24 July 12, 2023 USDA	KSU Scenario #1 "New" 2023/24 KSU: 700 mb Exports 34.6% Stocks/Use	KSU Scenario #2 "New" 2023/24 KSU: 45.0 bu/ac KSU: 700 mb Exports	KSU Scenario #3 "New" 2023/24 KSU: 43.5 bu/ac KSU: 700 mb Exports
% Probability of Happening^{KSU est.}	40% prob	40% prob.	15% prob	5% prob.
Planted Area (million acres)	49.628	49.628	49.628	49.628
Harvested Area (million acres)	37.722	37.722	37.722	37.722
% Harvested/Planted Area	76.01%	76.01%	76.01%	76.01%
Yield / harvested acre (bu/ac)	46.1	46.1	44.5	43.0
Beginning Stocks	580	580	580	580
Production	1,739	1,739	1,679	1,613
Imports	130	130	130	130
Total Supply (million bushels)	2,449	2,449	2,389	2,325
Food Use	977	977	977	977
Seed Use	65	65	65	65
Exports	725	700	700	700
Feed & Residual Use	90	90	90	90
Total Use (million bushels)	1,857	1,832	1,832	1,832
Ending Stocks (million bushels)	592	617	557	493
% Ending Stocks-to-Use	31.88%	33.68%	30.40%	26.91%
Days of Supply (% S/U x 365 days)	116 days	123 days	111 days	98 days
U.S. Wheat Avg. Farm Price (\$/bushel)	\$7.50	\$7.10	\$8.90	\$9.60

U.S. Wheat Ending Stocks & % S/U

MY 2006/07 thru "New Crop" MY 2023/24 – July 12, 2023 USDA Reports



U.S. Wheat % Stocks/Use vs Cash \$'s

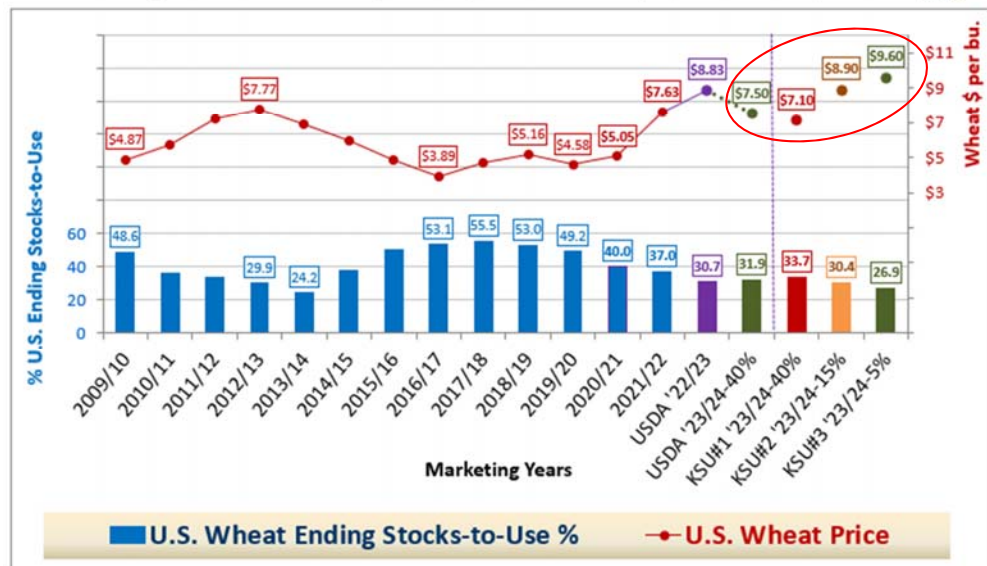
MY 2009/10 thru "New Crop" MY 2023/24 – As of the July 12, 2023 USDA Reports



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U.S. Wheat % Stocks/Use vs U.S. Cash \$'s

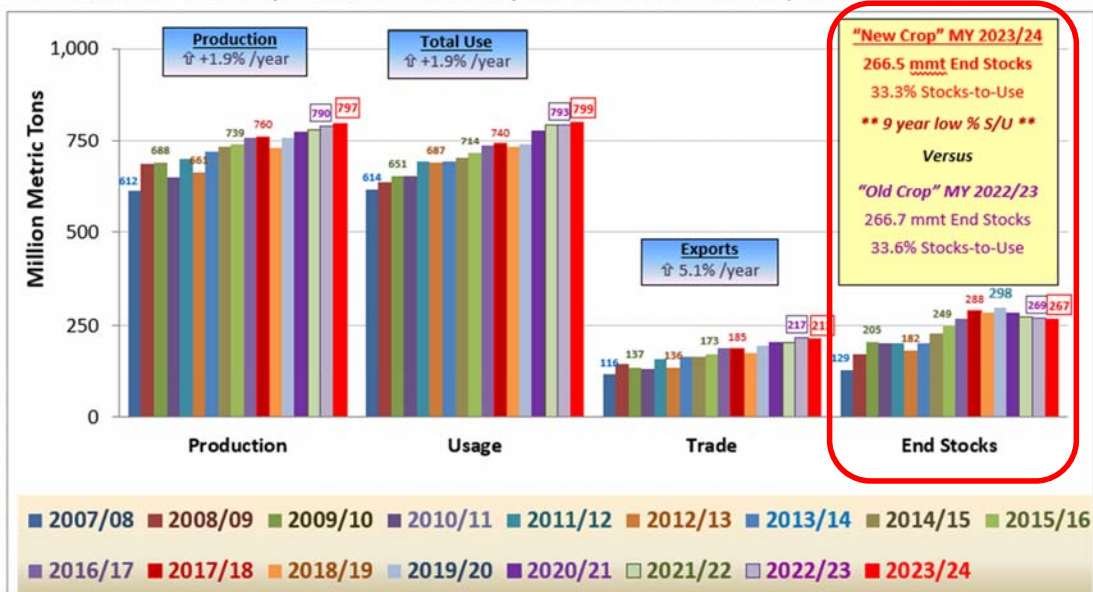
MY 2009/10 thru "New Crop" 2023/24 – As of the July 12, 2023 USDA Reports + KSU Ests.



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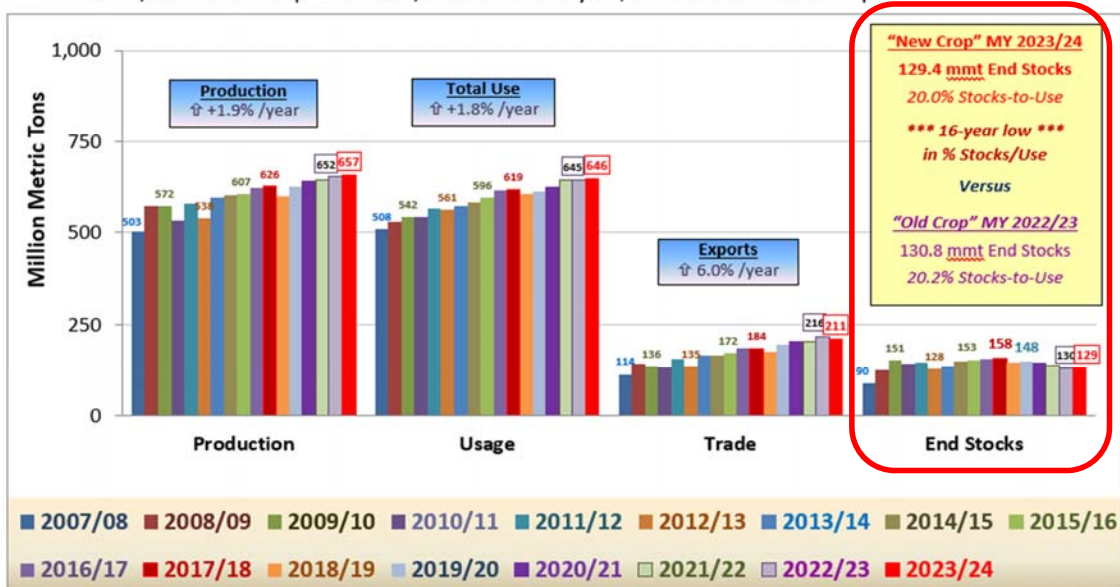
World Wheat Usage & Ending Stocks

MY 2007/08 - "New Crop" 2023/24 as of the July 12, 2023 USDA WASDE Report



"World Less-China" Wheat Usage & Ending Stocks

MY 2007/08 - "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE Report



World vs "World Less-China" Wheat Stocks & % S/U

MY 2007/08 through "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report



Ukraine Wheat Supply-Demand

MY 2013/14 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report



Russia Wheat Supply-Demand

MY 2013/14 – "New Crop" 2023/24 as of the July 12, 2023 USDA WASDE report



Canada Wheat Supply-Demand Trends

MY 2013/14 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report



Australia Wheat Supply-Demand Trends

MY 2013/14 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report



Argentina Wheat S-D Trends

MY 2013/14 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report



European Union Wheat S-D Trends

MY 2013/14 – "New Crop" MY 2023/24 as of the July 12, 2023 USDA WASDE report





Questions?

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