Grain Market Outlook for 2020-21

2020 Kansas Crop Insurance Workshop

Salina, Kansas

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I. Grain Futures Closes, Changes & Carry on Friday, October 16, 2020

Corn Futures				Soybean Futures				Kansas HRW Wheat Futures			
Month	Close	Change	Carry /mo	Month	Close	Change	Carry /mo	Month	Close	Change	Carry /mo
Dec^{H} 20	**$4.02**	⇩ $0.0175	---	**Nov^{H} 20**	**$10.50**	⇩ $0.1225	---	**Dec^{L} 20**	**$5.58 ¾**	⇧ $0.0075	---
Mar 21	$4.07	⇩ $0.01	$0.01^{667}	Jan 21	$10.50 ¼	⇩ $0.1175	$0.00^{125}	Mar 21	$5.66 ¼	No Change	$0.02^{50}
May 21	$4.08 ½	⇩ $0.0075	$0.00^{75}	Mar 21	$10.37 ¾	⇩ $0.0775	No Carry	May 21	$5.72	⇩ $0.0025	$0.02^{875}
July 21	$4.08 ¾	⇩ $0.0050	$0.00^{125}	May 21	$10.33 ¼	⇩ $0.06	No Carry	**July^{H} 21**	**$5.75 ½**	⇩ $0.01	$0.01^{75}
Sept 21	$3.95	⇧ $0.0075	No Carry	July 21	$10.35 ¼	⇩ $0.0575	$0.02	Sept 21	$5.80 ¾	⇩ $0.0125	$0.02^{625}
Dec^{H} 21	**$3.95 ¾**	⇧ $0.01	$0.00^{25}	Aug 21	$10.26 ½	⇩ $0.0550	No Carry	Dec 21	$5.88 ½	⇩ $0.0225	$0.02^{583}
Mar 22	$4.03 ¼	⇧ $0.0075	$0.02^{50}	Sept 21	$9.95 ¾	⇩ $0.0425	No Carry	Mar 22	$5.93 ¼	⇩ $0.0175	$0.01^{583}
May 22	$4.05 ¾	⇧ $0.01	$0.00^{125}	**Nov^{H} 21**	**$9.70 ¼**	⇩ $0.0325	No Carry	May 22	$5.88 ¾	⇩ $0.0125	No Carry

Futures & Cash Price Ratios on October 16, 2020:

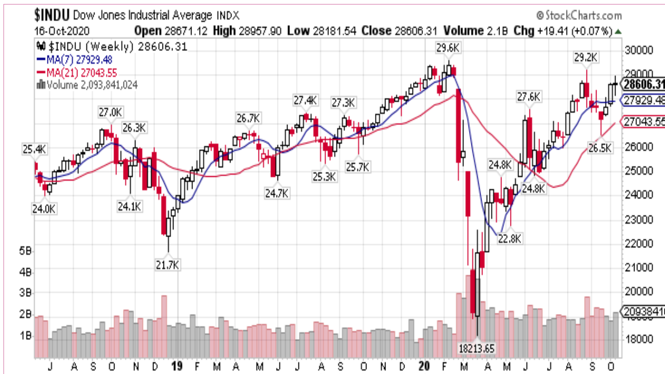
- "Current Crop$^{2020/21}$" ⇨ $NOV^{2020} Soybeans ÷ $DEC^{2020} Corn = $10.50 ÷ $4.02 = 2.61
- "Next Crop$^{2021/22}$" ⇨ $NOV^{2021} Soybeans ÷ $DEC^{2021} Corn = $ 9.70 ¼ ÷ $3.95 ¾ = 2.45
- "HRW Wheat/Corn$^{10/16/2020}$" ⇨ Wheat$^{\text{HRW-Garden City, KS}}$ ÷ Corn$^{\text{Garden City, KS}}$ = $ 5.29 ÷ $4.22 = 1.25 ***
- "Sorghum/Corn$^{10/16/2020}$" ⇨ Sorghum$^{\text{Garden City, KS}}$ ÷ Corn$^{\text{Garden City, KS}}$ = $ 4.97 ÷ $4.22 = 1.18 ***

Grain Market Supply-Demand Balances

Crop	Production	Ending Stocks	% Stocks/Use	U.S. Farm Price
Corn ☑	14.722 bb ⇧8%	2.167 bb ⇧9%	14.9% Vs 14.4% yr ago	$3.60 /bu Vs $3.56 yr ago
Soybeans ☑	4.268 bb ⇧20%	290 mb ⇩45%	6.4% Vs 13.2% yr ago	$9.80 /bu Vs $8.57 yr ago
All Wheat ☑	1.826 bb ⇩5%	883 mb ⇩14%	42.1% Vs 49.2% yr ago	$4.70 /bu Vs $4.58 yr ago
HRW Wheat ☑	659 mb ⇩22%	334 mb ⇩33%	40.0% Vs 59.0% yr ago	

Grain Market Supply-Demand Balances

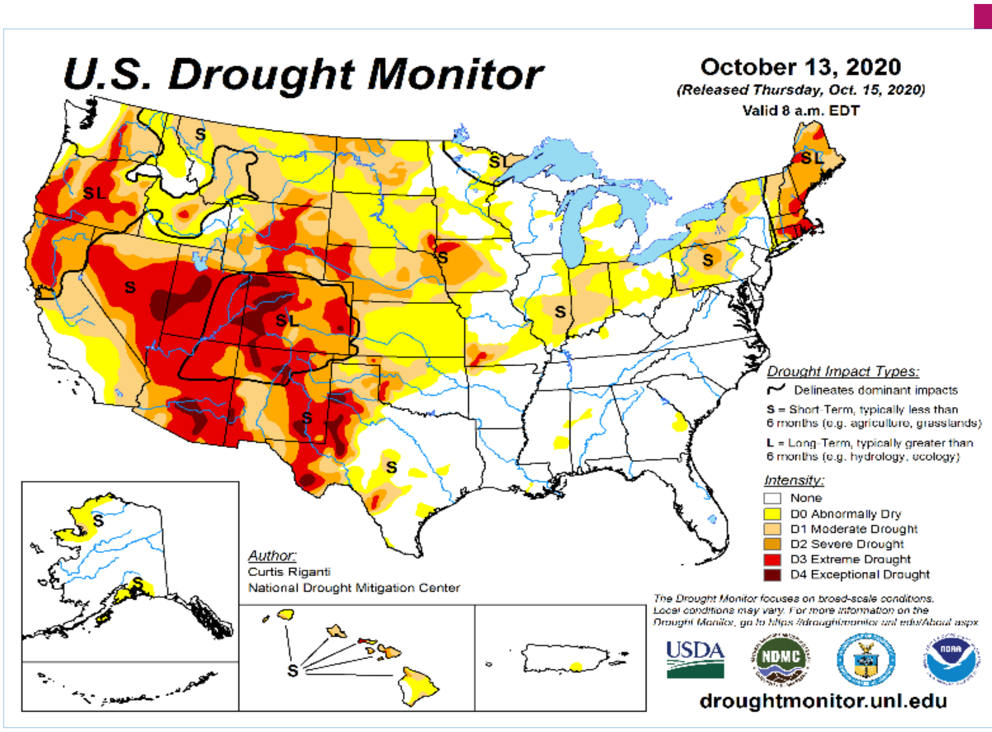
Crop	Production	Ending Stocks	% Stocks/Use	U.S. Farm Price
Grain Sorghum ☑	371 mb ⇧9%	30 mb ⇧3%	8.1% Vs 7.7% yr ago	$3.60 /bu Vs $3.34 yr ago
Cotton ☑	17.05 m-bales ⇩14%	7.2 m-bales ⇩0.7%	42.1% Vs 41.0% yr ago	$0.61 c/lb Vs $0.596 yr ago


$INDU Dow Jones Industrial Average INDX
©StockCharts.com
16-Oct-2020 Open 28671.12 High 28957.90 Low 28181.54 Close 28606.31 Volume 2.1B Chg +19.41 (+0.07%)
$INDU (Weekly) 28606.31
MA(7) 27929.48
MA(21) 27043.55
Volume 2,093,841,024


$USD US Dollar Index - Cash Settle (EOD) ICE
©StockCharts.com
16-Oct-2020 Open 93.11 High 93.93 Low 93.03 Close 93.68 Chg +0.61 (+0.66%)
$USD (Weekly) 93.68
MA(7) 93.48
MA(21) 94.84
Volume undef


$WTIC Light Crude Oil - Continuous Contract (EOD) CME
©StockCharts.com
16-Oct-2020 Open 40.40 High 41.57 Low 39.04 Close 41.12 Volume 152.4M Chg +0.52 (+1.28%)
$WTIC (Weekly) 41.12
MA(7) 39.63
MA(21) 39.96
Volume 152,444,992


$GASO Gasoline Unleaded - Continuous Contract (EOD) CME
©StockCharts.com
16-Oct-2020 Open 1.21 High 1.21 Low 1.12 Close 1.15 Volume 26.1M Chg -0.05 (-4.13%)
$GASO (Weekly) 1.15
MA(7) 1.16
MA(21) 1.19
Volume 26,136,900


U.S. Drought Monitor
October 13, 2020
(Released Thursday, Oct. 15, 2020)
Valid 8 a.m. EDT
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
Curtis Riganti
National Drought Mitigation Center
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx
USDA
NDMC
droughtmonitor.unl.edu

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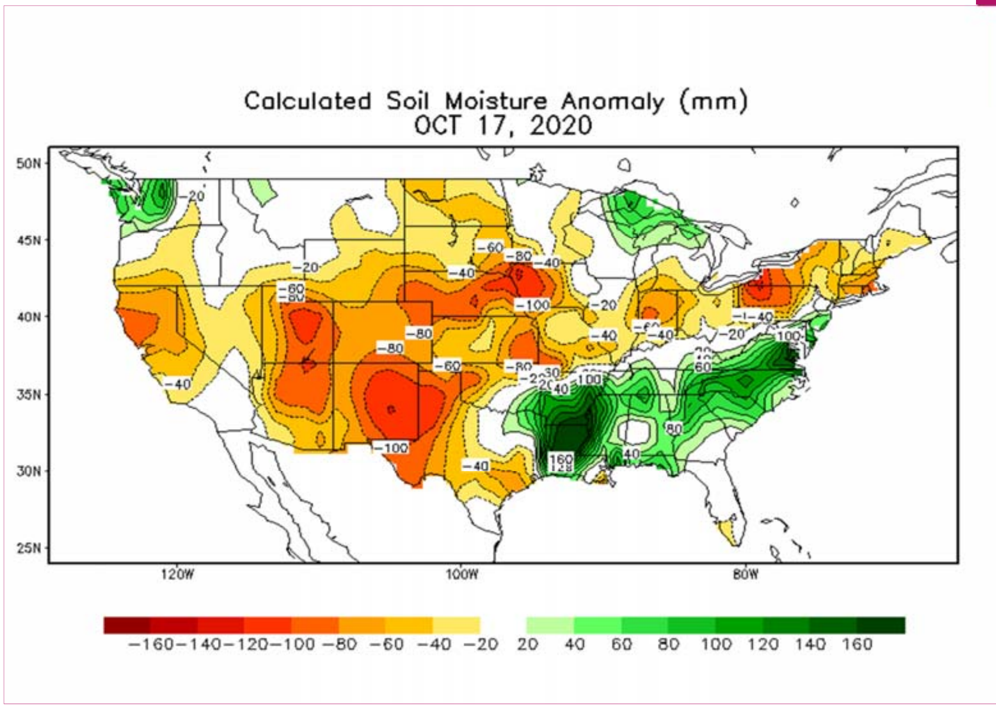
Calculated Soil Moisture Anomaly (mm)
OCT 17, 2020
50N
45N
40N
35N
30N
25N
120W
100W
80W
−160 −140 −120 −100 −80 −60 −40 −20 20 40 60 80 100 120 140 160

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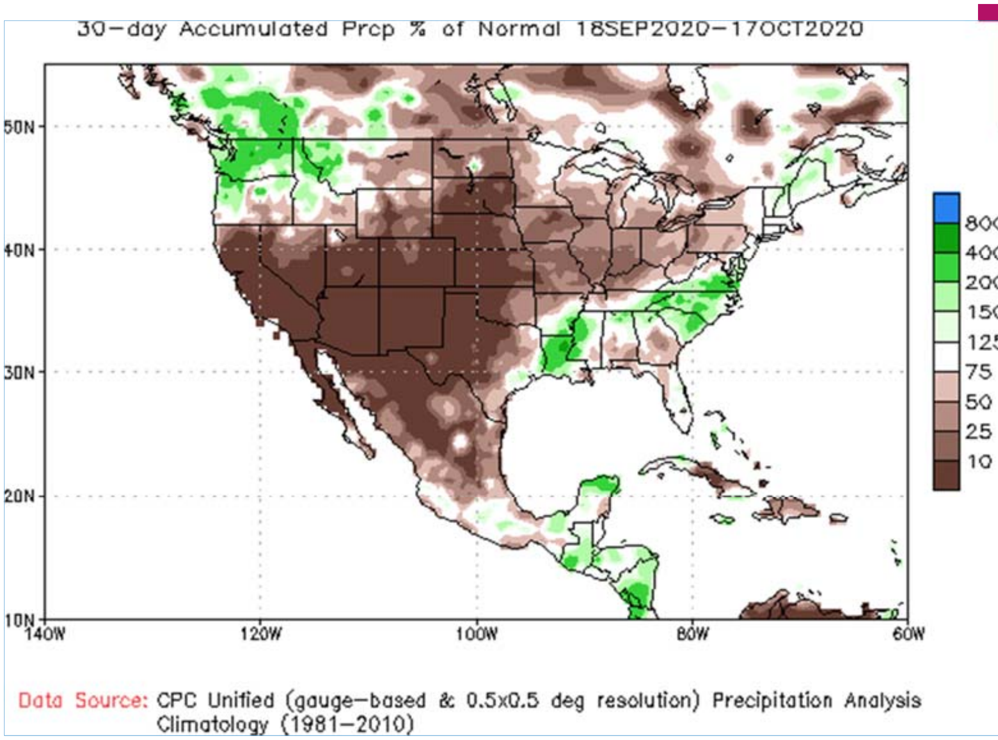

30−day Accumulated Prcp % of Normal 18SEP2020−17OCT2020
50N
40N
30N
20N
10N
140W
120W
100W
80W
60W
800
400
200
150
125
75
50
25
10
Data Source: CPC Unified (gauge−based & 0.5x0.5 deg resolution) Precipitation Analysis
Climatology (1981−2010)

Unpredictable Grain Markets in 2020-21

1) The *"Ups & Downs"* of U.S.- China Trade Relations

- **"Phase 1" Trade Agreement fulfillment**
  - o Strong U.S. Soybean & Sorghum Exports to China in MY 2020/21
- **Chinese Crop & Livestock Production problems**
  - o 2020 Flooding from excess rainfall & major storms in recent months
  - o *Recovery of swine industry from recent ASF disease, etc….*
- **@ *Risk* of Political Tensions Affecting U.S.-China Trade**
  - o Possible "***flash points***" of geopolitical conflict …..

CME Soybean Futures

Weekly Chart: January 2017 – October 19, 2020

Soybean Exports….

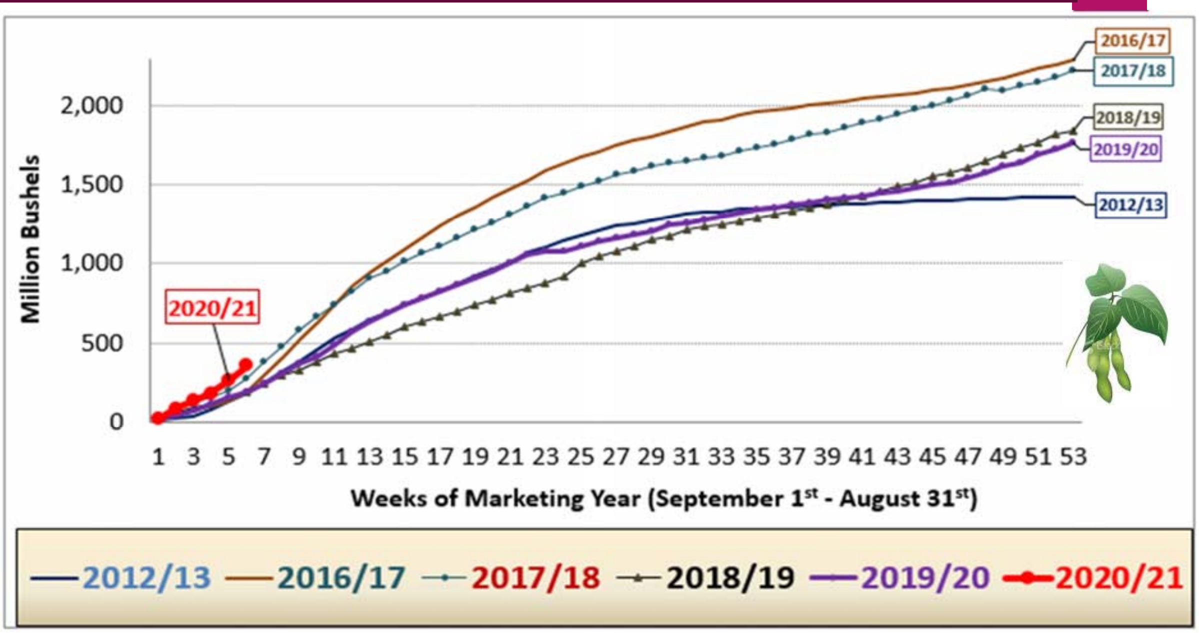
2) U.S. Soybean Exports *10/15/2020* *(wk 7/52 – 13.4% MktgYr)*

- **Shipments**10/15/2020: 432 mb of 2.200 bbUSDA *(69.7% to **China**)*
- **Forward Sales**10/8/2020: 1.257 bb of 2.200 bbUSDA *(50.9% to **China**)*

⇨ *Need **39.5 mb/wk** for USDAest for 47 weeks*

(or 79 mb for 24 weeks of remaining U.S. export "window")

U.S. Soybean Exports – Weekly thru October 8, 2020



Soybean Importer Purchases

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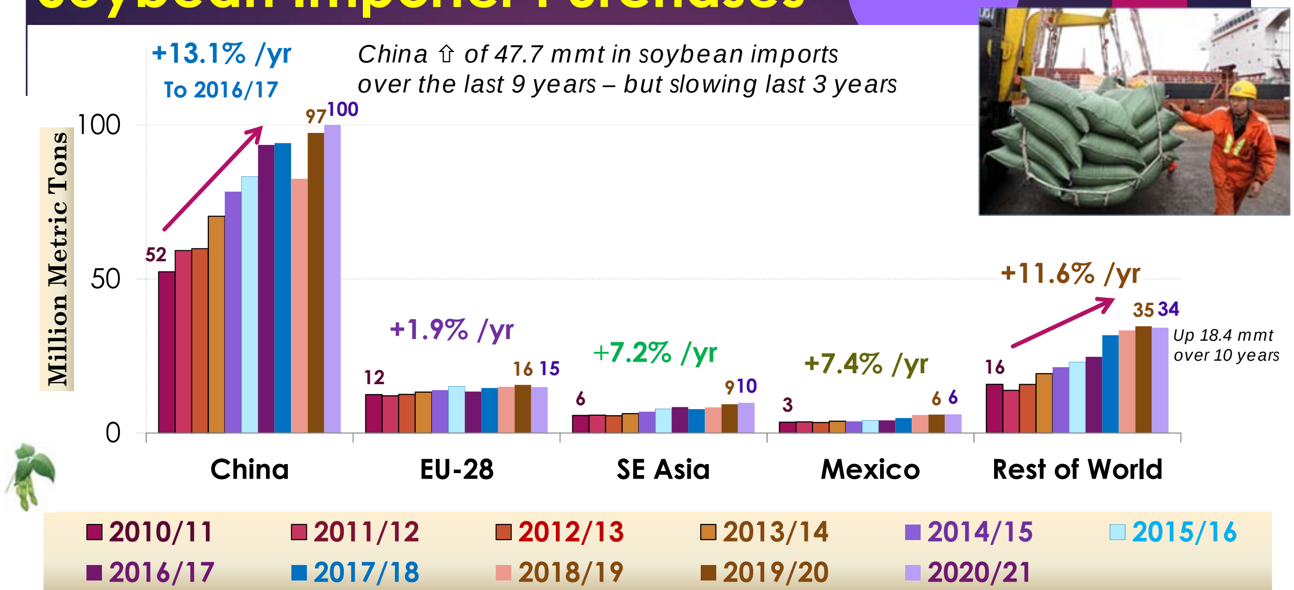

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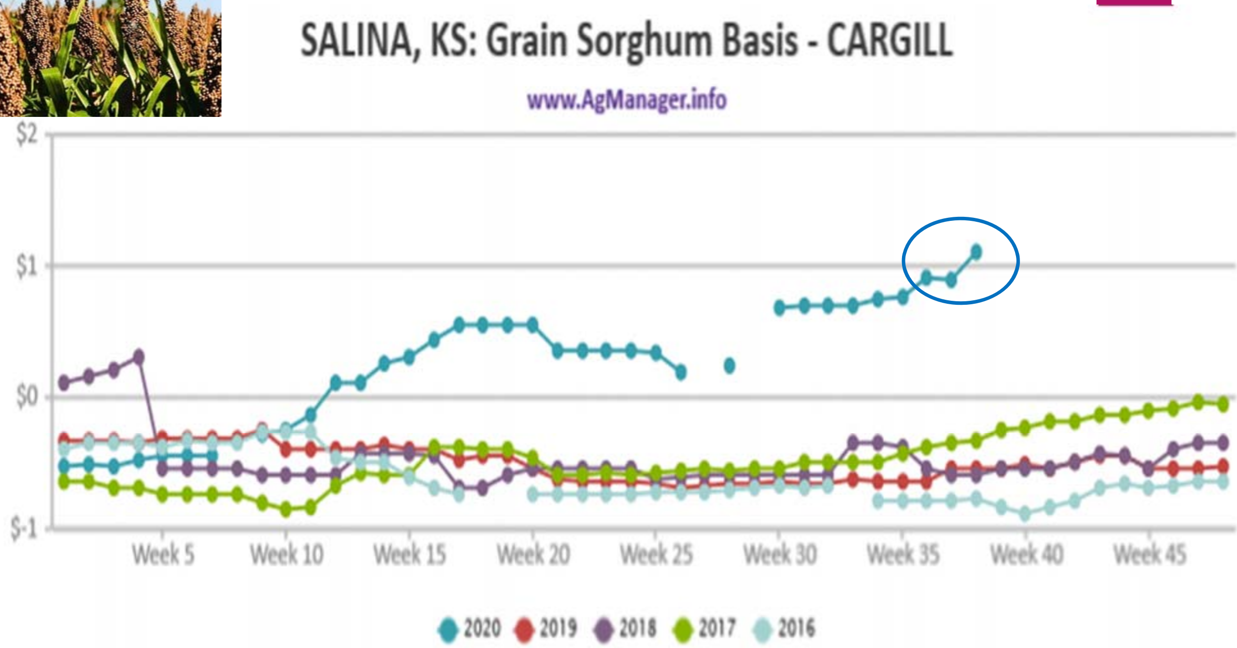


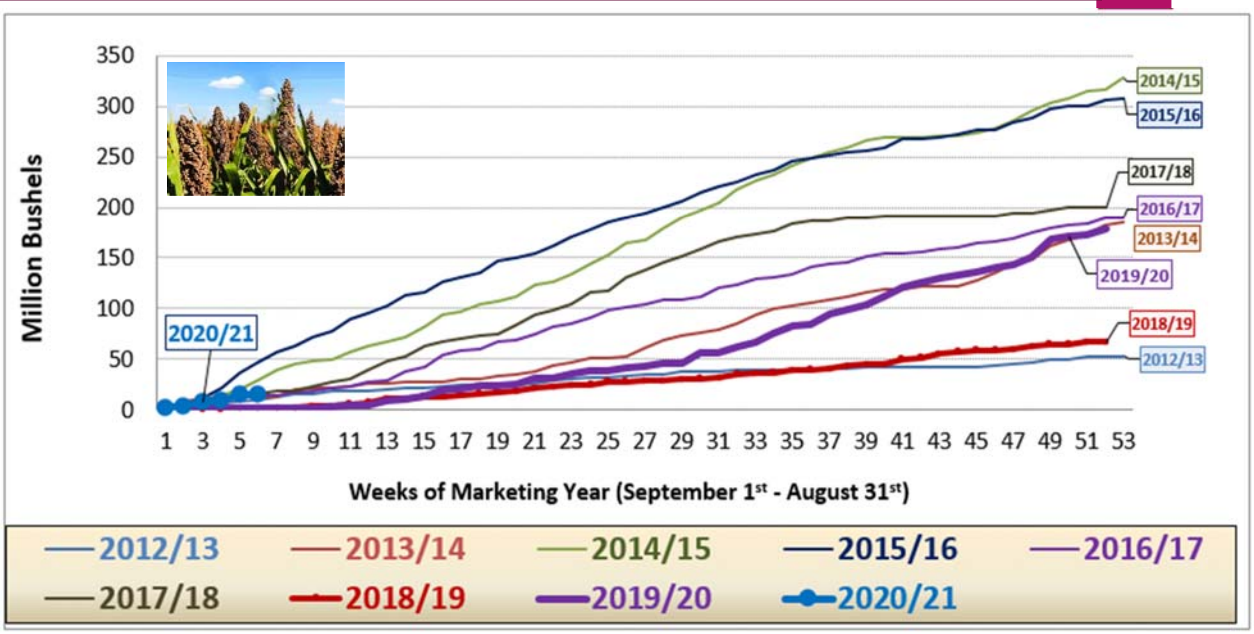
U.S. Sorghum Exports….

3) U.S. Sorghum Exports *10/15/2020* *(wk 7/52 – 13.4% MktgYr)*

- **Shipments 10/15/2020:** 21 mb of 260 mb USDA *(99.2% to **China**)*
- **Forward Sales 10/8/2020:** 100 mb of 260 mb USDA *(64.1% to **China**)*

⇨ *Need **5.3 mb/wk** for USDA est for 45 weeks*

U.S. Sorghum Exports – Weekly thru October 8, 2020



CME Corn Futures

TFC Commodity Charts

Weekly Chart: January 2017 – October 19, 2020

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U.S. Corn Exports….

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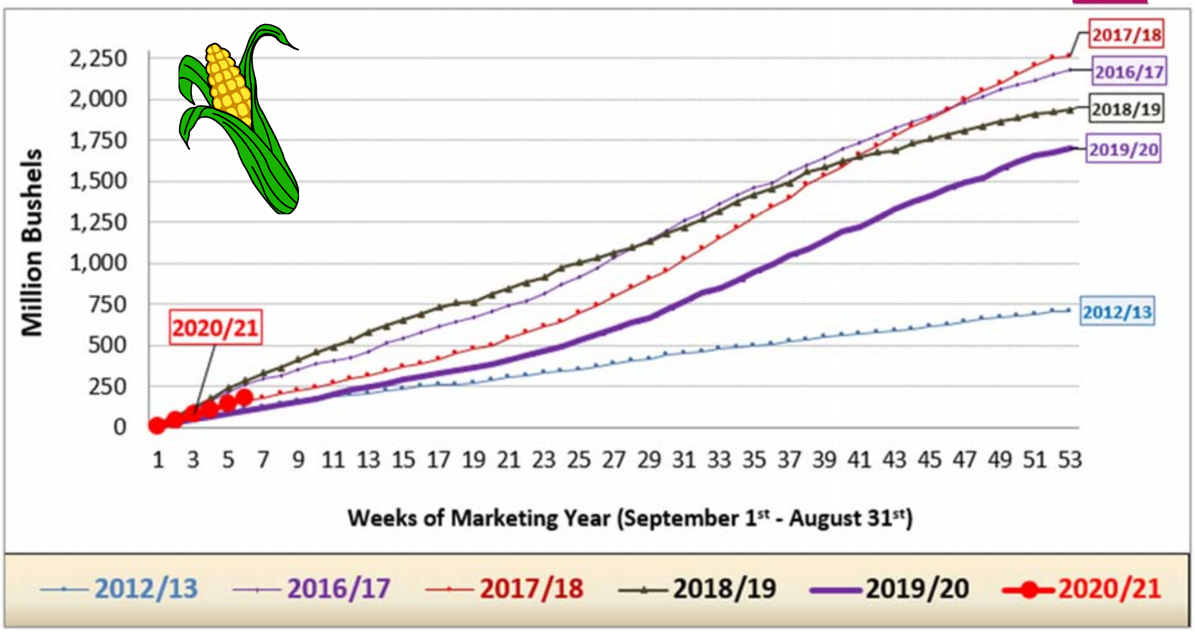
5) U.S. Corn Exports 10/15/2020 *(wk 7/52 – 13.4% MktgYr)*

- **Shipments**10/15/2020: 177 mb of 2.325 bbUSDA *(30.5% to **China**)*
- **Forward Sales**10/8/2020: 866 mb of 2.325 bbUSDA est *(39.7% to **China**)*

⇨ *Need **46.9 mb/wk** for USDAest for 45 weeks*

U.S. Corn Exports – Weekly thru October 8, 2020

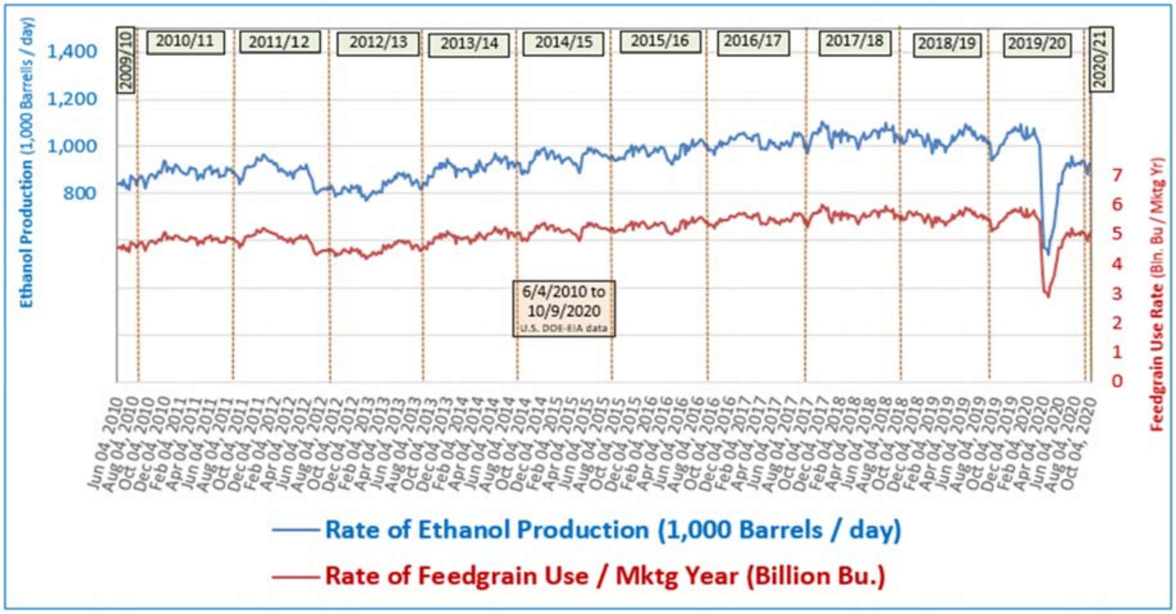


Corn Ethanol Production….

5) U.S. Corn Ethanol Production – *To 89% Pre-COVID-19*

- **Ethanol Corn Use** MY 2020/21: 5.050 bb USDA est
  - *vs 4.800 - 5.000 bb* KSU AgEcon

Figure 9a. Weekly U.S. Oxygenate Plant Production of Fuel Ethanol & Estimated Corn Use based on U.S. Department of Energy – Energy Information Agency data on U.S. Ethanol Industry Trends as of 10/9/2020



Corn Ethanol Production….

5) U.S. Corn Ethanol Production – To 89% Pre-COVID-19

- **Ethanol plant losses** = $0.03 /gallon in 1st 3 weeks of Sept.
  - ***-$0.19 /gallon*** *@ $3.50 / corn prices for 3rd week of Sept.*

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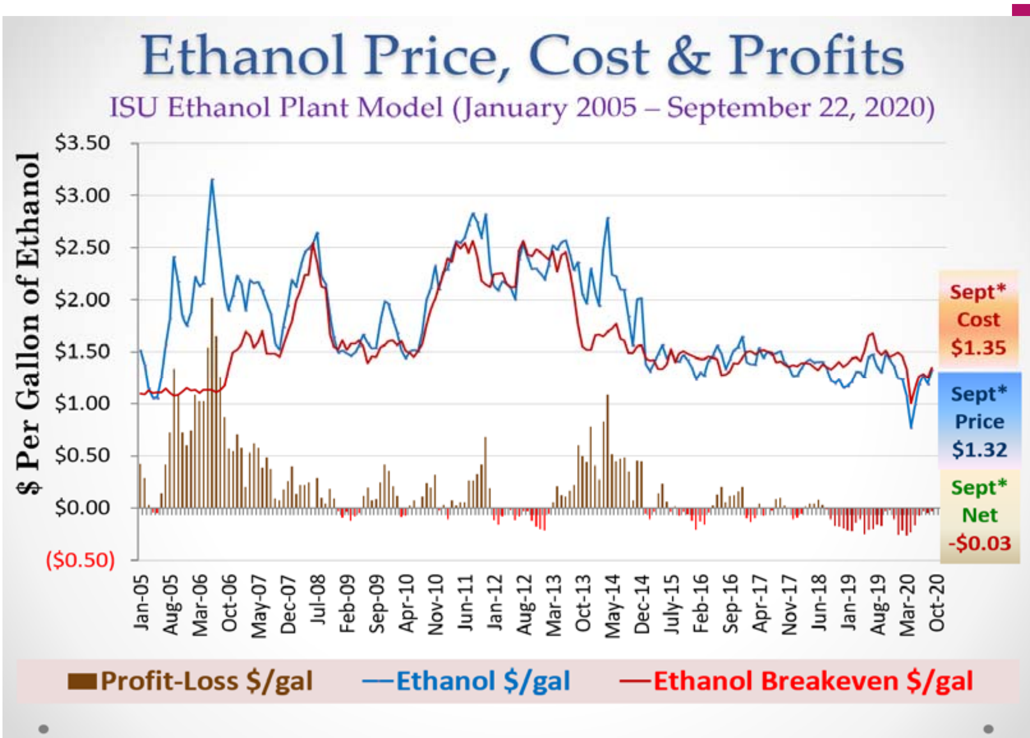

CME Kansas HRW Wheat Futures

Weekly Chart: January 2018 – October 19, 2020

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Wheat Market Factors….

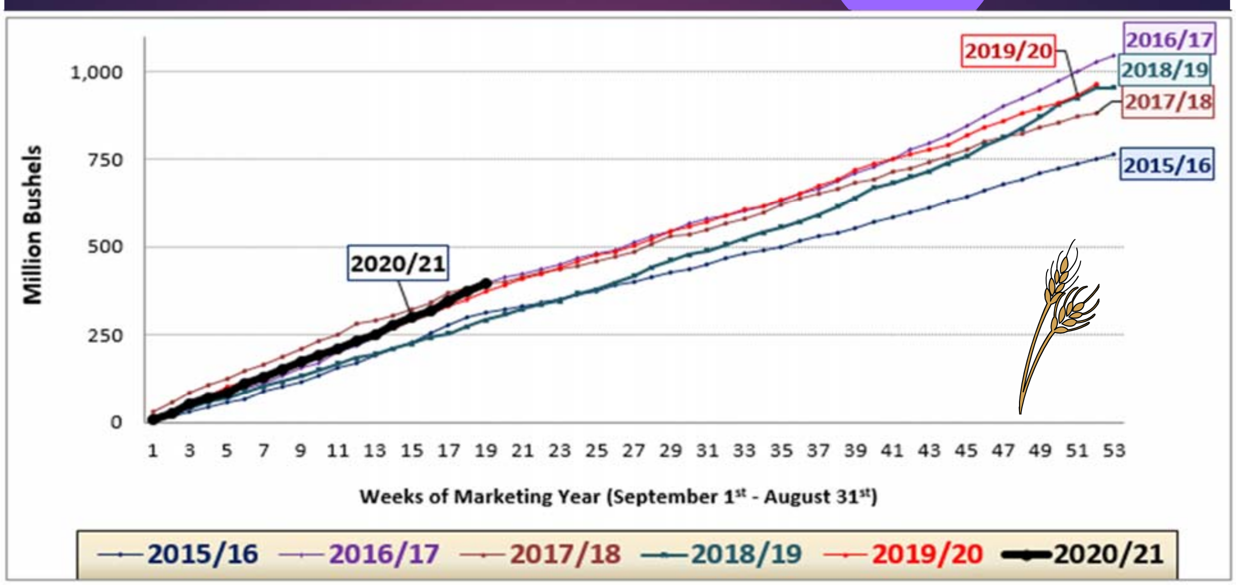
6) U.S. Wheat Exports *10/15/2020* *(wk 20/52 – 30.8%)*

- **Shipments** **10/15/2020**: 392 mb of 975 mb USDA *(12.3% to **China**)*
- **Forward Sales** **10/8/2020**: 186 mb of 975 mb USDA *(6.2% to **China**)*

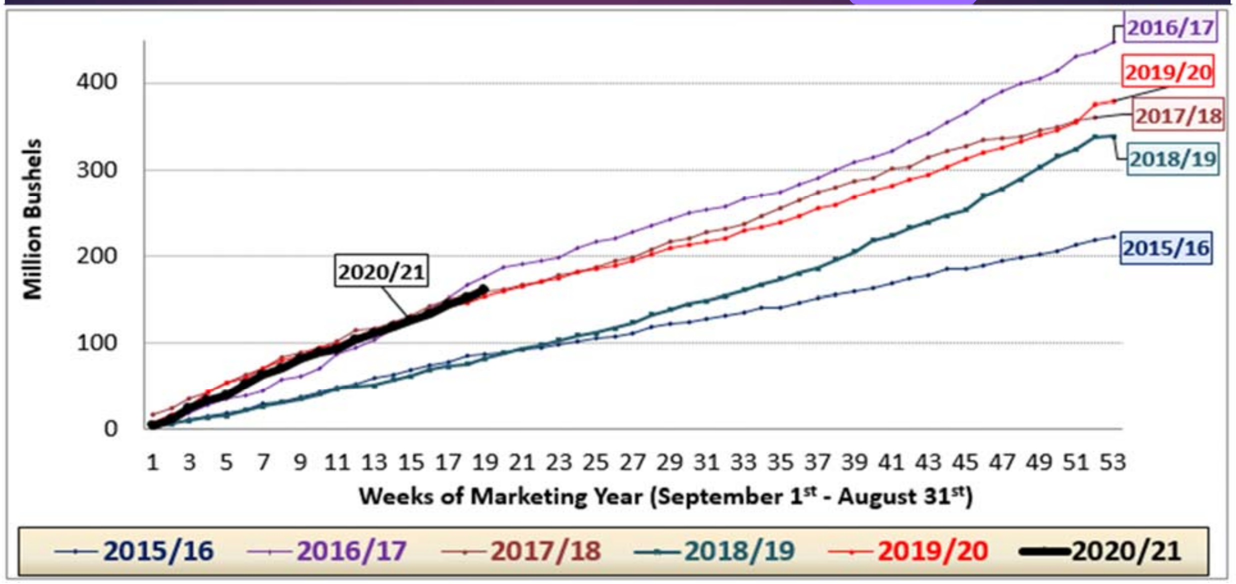
⇨ **All U.S. Wheat:** *Need 18.2 mb/wk for USDA est of **975 mb***

⇨ **U.S. HRW Wheat:** *Need 7.9 mb/wk for USDA est of **410 mb***

U.S. All Wheat Exports – Weekly thru October 8, 2020



U.S. HRW Wheat Exports – Weekly thru October 8, 2020



Major Export Competitor Issues….

7) Grain Export Production by U.S. Export Competitors in "*New Crop*" MY 2020/21

- **Soybeans** **So-Am 2021** ⇨ Production ***Up 6%*** & Exports ***Down 9%***
- **Corn** **So-Am + Ukraine 2021** ⇨ Production ***Up 3.7%*** & Exports ***Up 2.7%***

❑ **Argentina & Brazil:** *Drought, export taxes, weak currencies*

❑ **Ukraine & Russia:** *Drought, logistics, weak currencies*

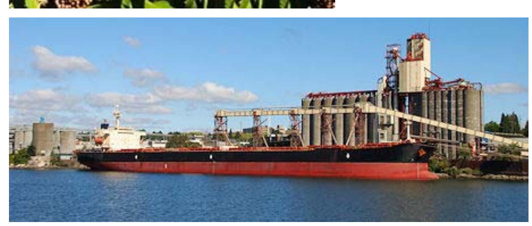
What to anticipate in early 2021…..

8) 2021 U.S. Spring Plantings

- **1st determine U.S. crops in fall 2020**
  - o *Short U.S. crops not emerging to datein Fall 2020* D. O'Brien

- **Soybeans** U.S 2021 *Up++* ➲ ⇧⇩ ≈ ***U.S.-China Trade Status***
- **Corn** U.S. 2021 ***Same?*** ➲ ⇧ ≈ ***U.S. Ethanol & Feed Demand***
- **Sorghum** U.S. 2021 **Up***** ➲ ⇧ ≈ **IF *China Imports <u>Continue</u>***

Corn & Sorghum Markets



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U.S. Corn & Sorghum Stocks…..

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- **Corn: "*Large*" Stocks & % S/U** @ $3.60 /bu U.S. Farm$
  - **End Stocks 2020/21** ⇨ 2.167 bln bu (vs ***1.995 bb*** *last year*)
  - **% Stocks/Use 2020/21** ⇨ 14.9% S/U (vs ***14.4%*** *S/U last year*)

- **Grain Sorghum: "*Strong*" Exports** @ $3.60 /bu U.S. Farm$
  - **End Stocks 2020/21** ⇨ 30 mln bu (⇧ *Exports* & ⇩ *Ethanol Use*)
  - **% Stocks/Use 2020/21** ⇨ 8.1% S/U (⇩ *vs* ***7.7%*** *S/U last year*)

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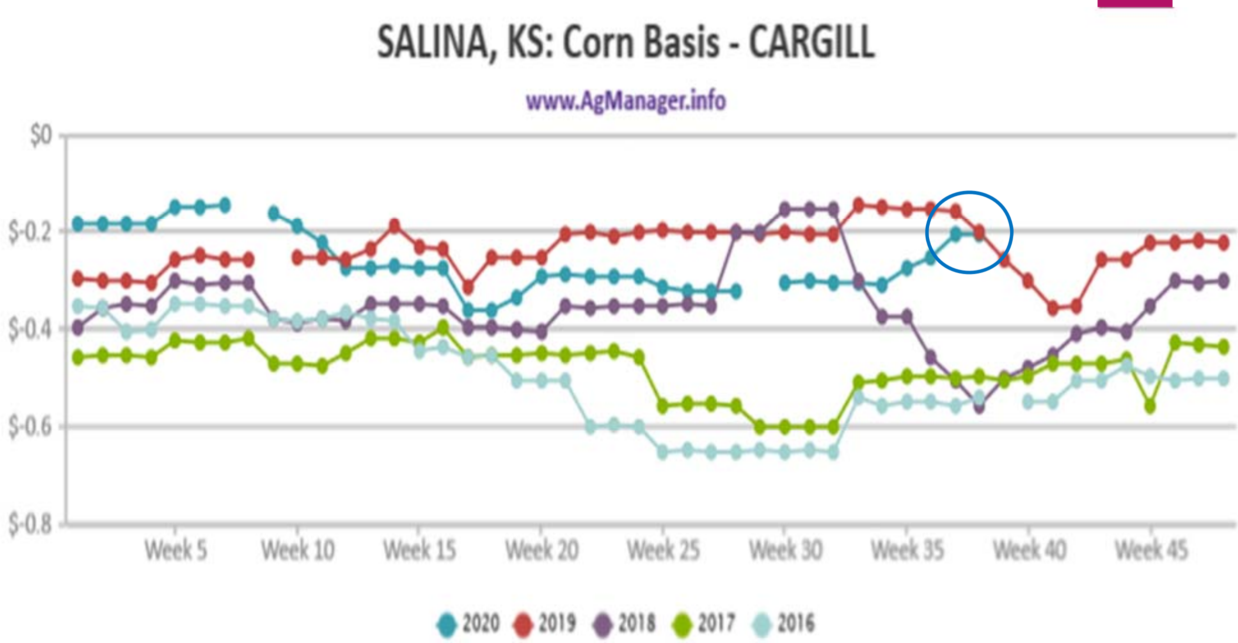
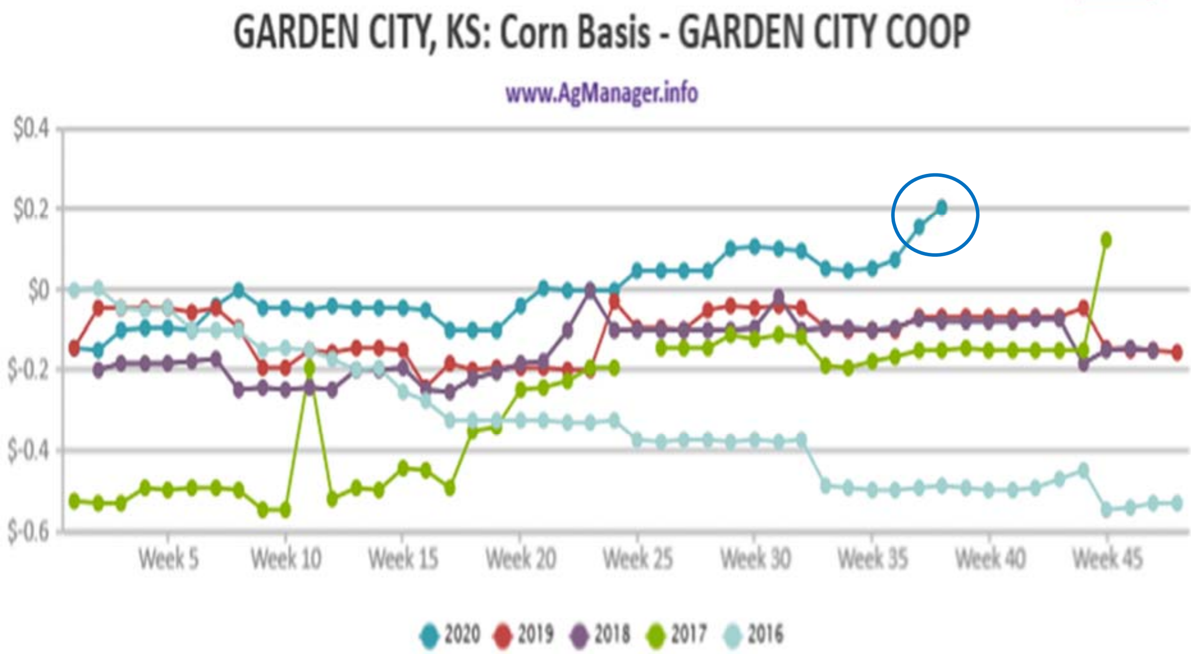
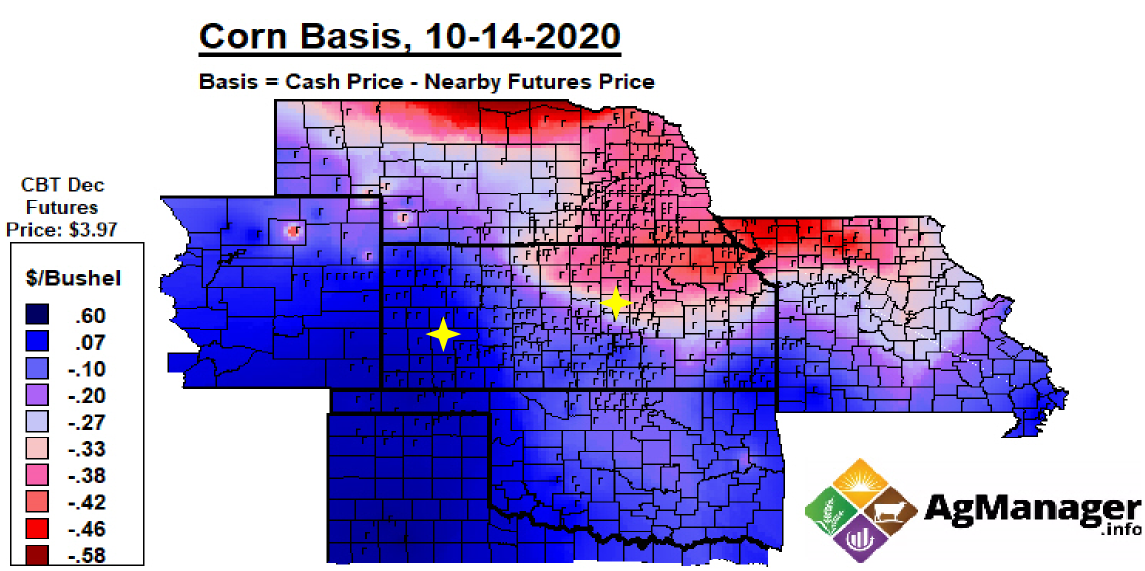



GARDEN CITY, KS: Corn Basis - GARDEN CITY COOP
www.AgManager.info
$0.4
$0.2
$0
$-0.2
$-0.4
$-0.6
Week 5
Week 10
Week 15
Week 20
Week 25
Week 30
Week 35
Week 40
Week 45
2020
2019
2018
2017
2016


Corn Basis, 10-14-2020
Basis = Cash Price - Nearby Futures Price
CBT Dec Futures Price: $3.97
$/Bushel
.60
.07
-.10
-.20
-.27
-.33
-.38
-.42
-.46
-.58
AgManager.info

U.S. Corn Supply and Demand

Item	2019/2020 estimate	2020/2021 forecast	Change from September 11	Change from 2019/2020
Planted area (million acres)	89.7	91.0	-1.0	1.2
Harvested area (million acres)	81.3	82.5	-0.9	1.2
Yield (bushels per acre)	167.5	178.4	-0.1	10.9
		------------ *Million bushels* ------------		
Beginning stocks	2,221	1,995	-258	-226
Production	13,620	14,722	-178	1,102
Imports	42	25	--	-17
Total supply	15,883	16,742	-436	859
Feed and residual	5,827	5,775	-50	-52
Food, seed, and industrial	6,282	6,475	-50	193
Ethanol	4,852	5,050	-50	198
Domestic use	12,109	12,250	-100	141
Exports	1,778	2,325	--	547
Total use	13,887	14,575	-100	688
Ending stocks	1,995	2,167	-336	172
		----------------- *Percent* -----------------		
Stocks to use ratio	14.4	14.9	-2.2	0.5
		------------ *Dollars per bushel* ------------		
Average market price	3.56	3.60	0.10	0.04

-- No change.

October 9, 2020

U.S. Corn Production & Supplies

U.S. Corn Use – By Category

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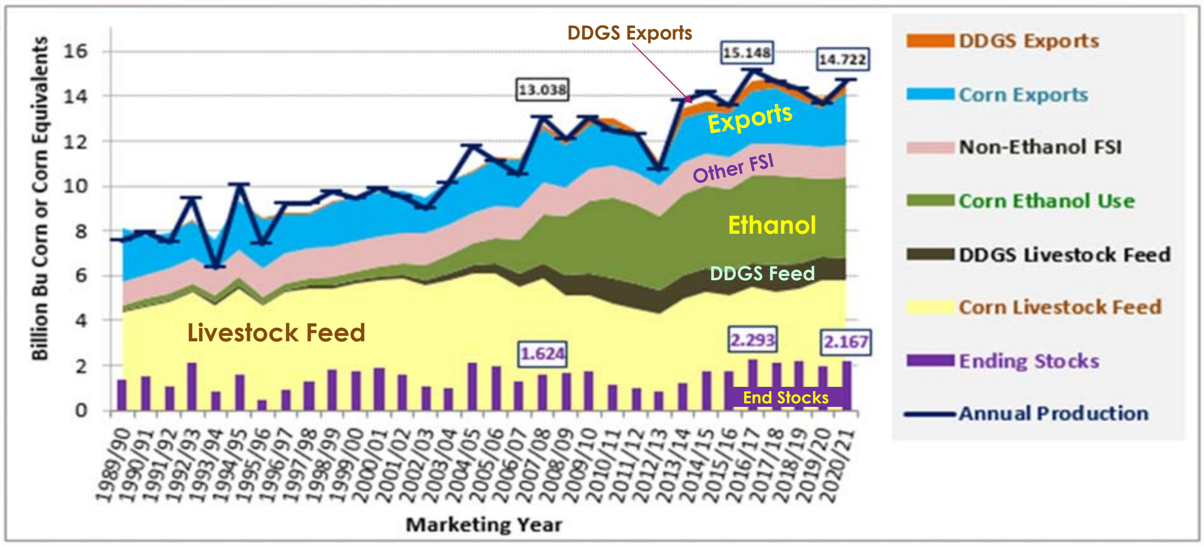

U.S. Corn Ending Stocks & % Stx/Use

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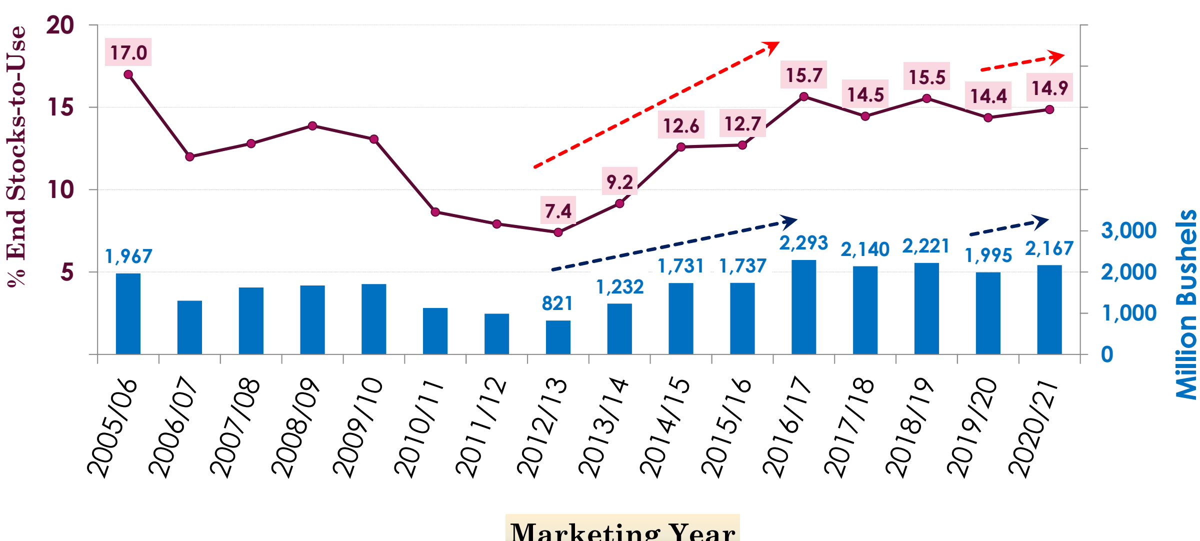
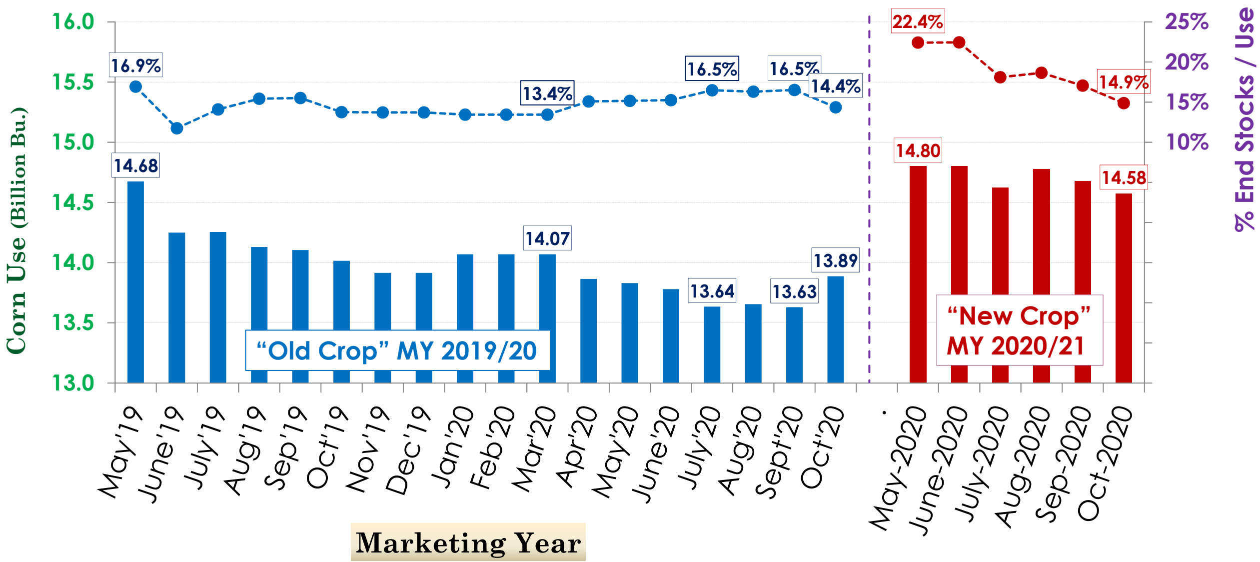


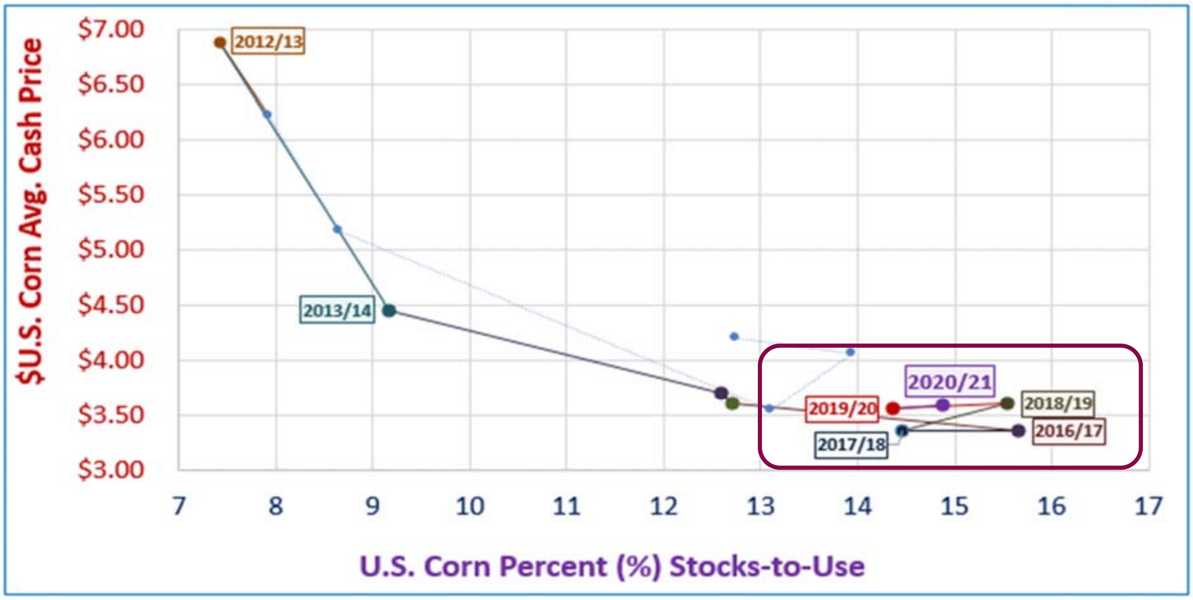
U.S. Corn Total Use Projections (USDA)

For "Old Crop" MY 2019/20 & "New Crop" MY 2020/21

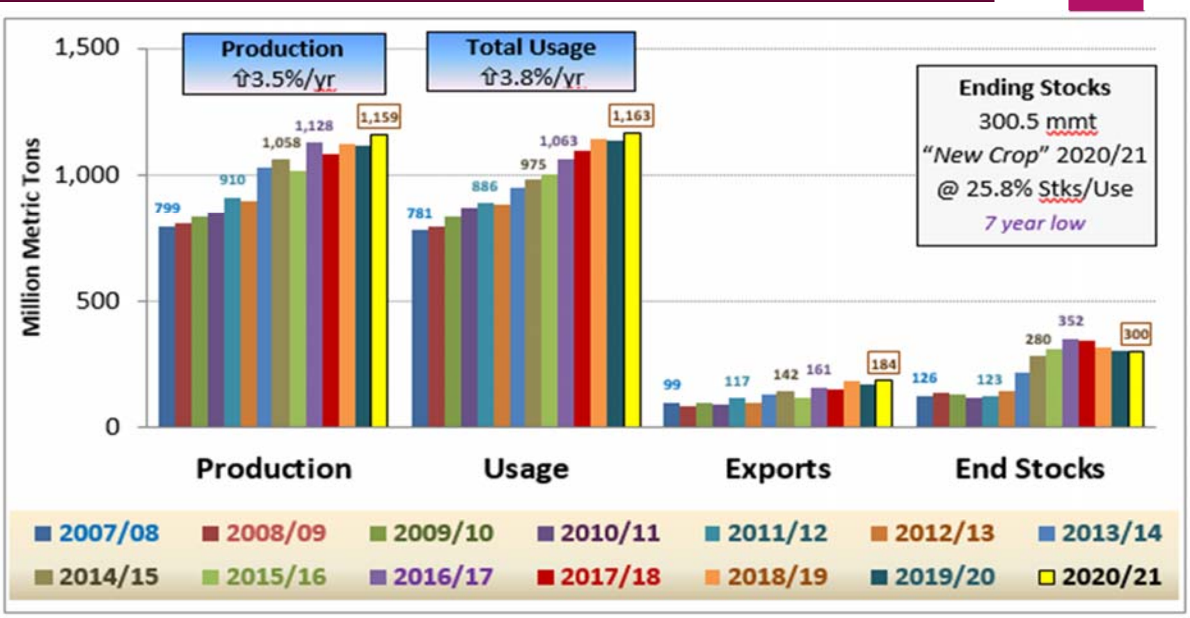


U.S. Corn % Stocks/Use vs Price$

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

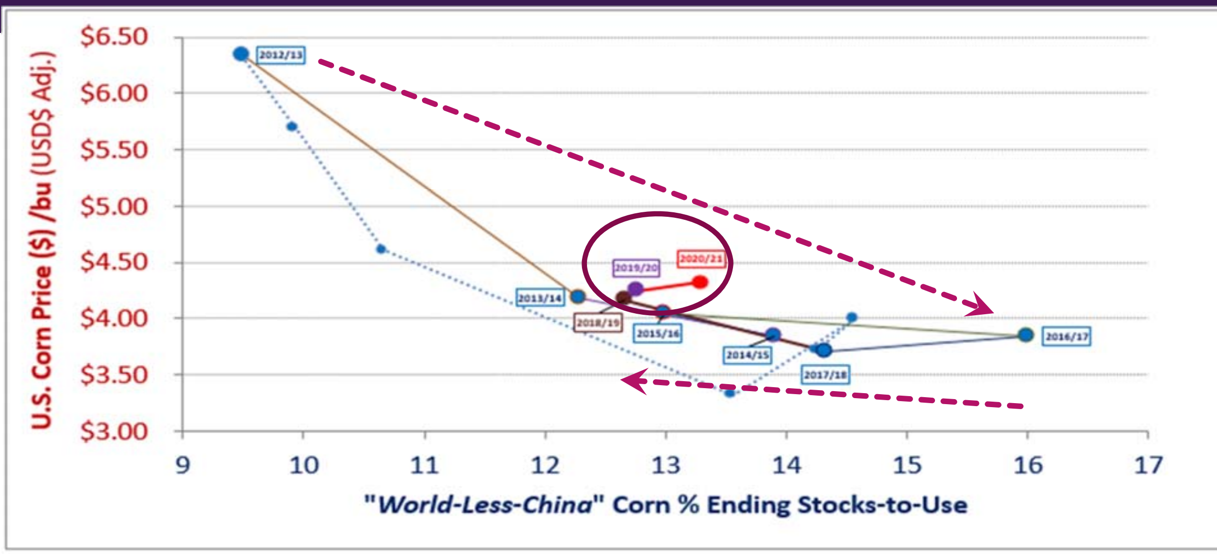


World Corn Supply, Use & Stocks



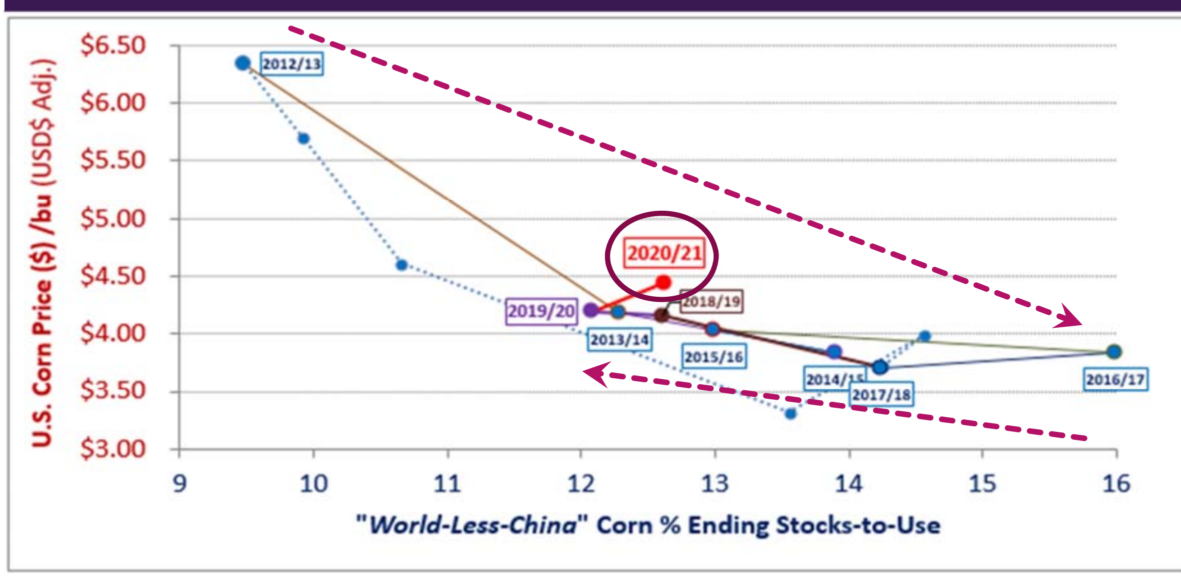
U.S. Corn $\$^{\text{USD-adj}}$ vs World$^{\text{Less China}}$ %Stx/Use

MY 2007/08 through "New Crop" MY 2020/21



U.S. Corn $\$^{\text{USD-adj}}$ vs World$^{\text{Less China}}$ %Stx/Use

MY 2007/08 through "New Crop" MY 2020/21



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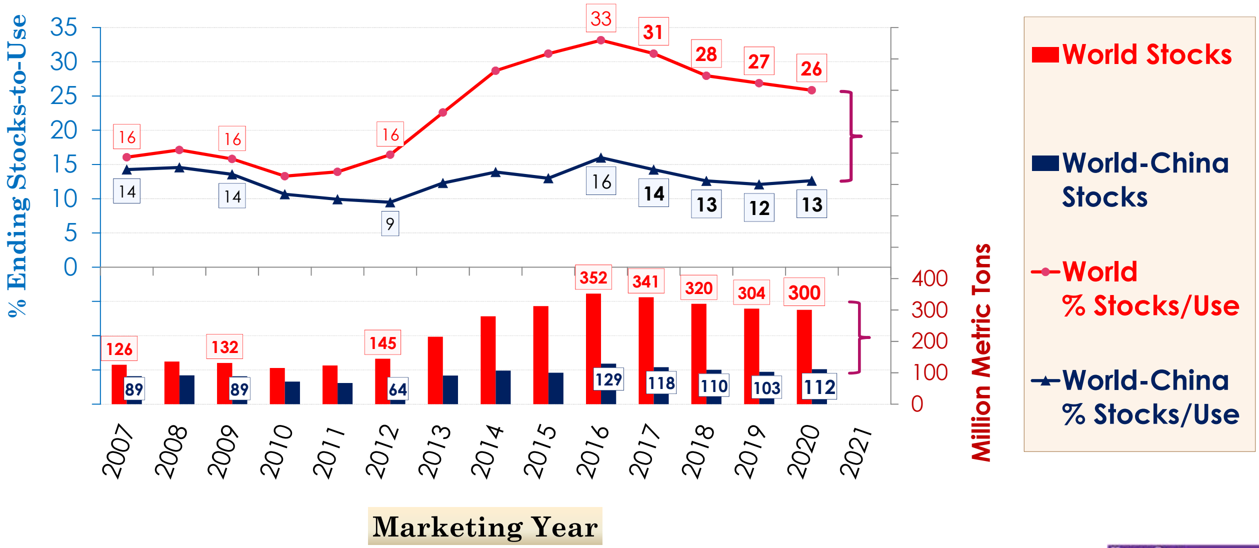
World & *World-less-China* CORN Stocks & %S/U



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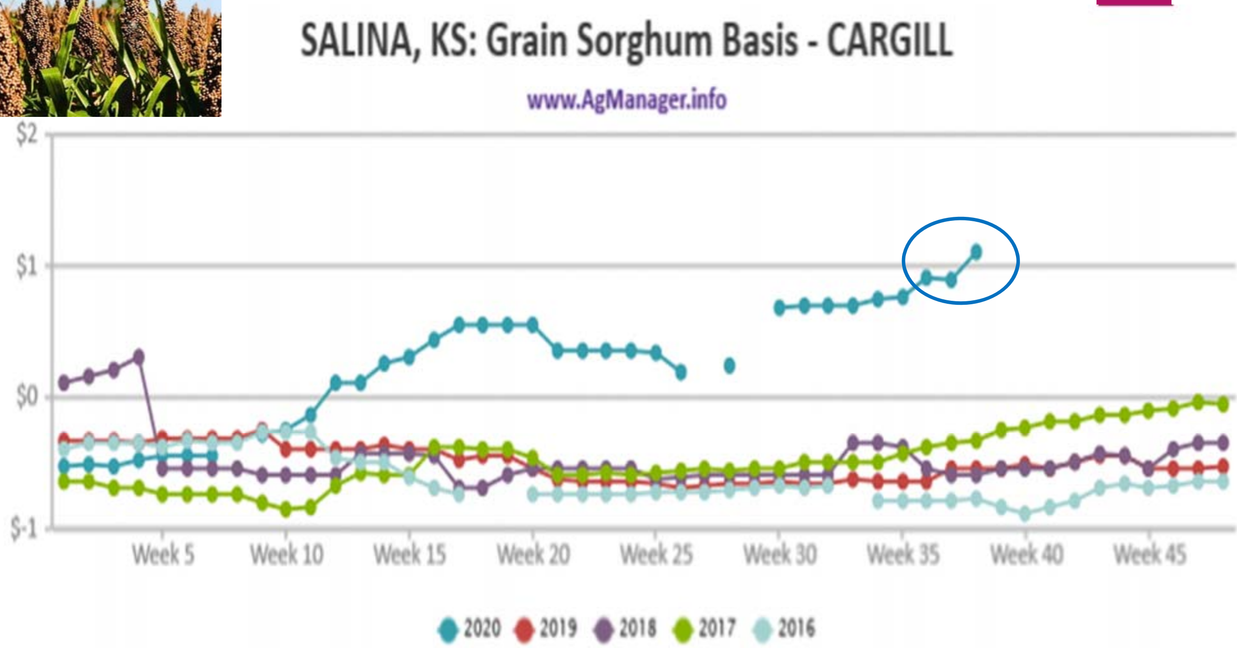

GARDEN CITY, KS: Grain Sorghum Basis - GARDEN CITY COOP

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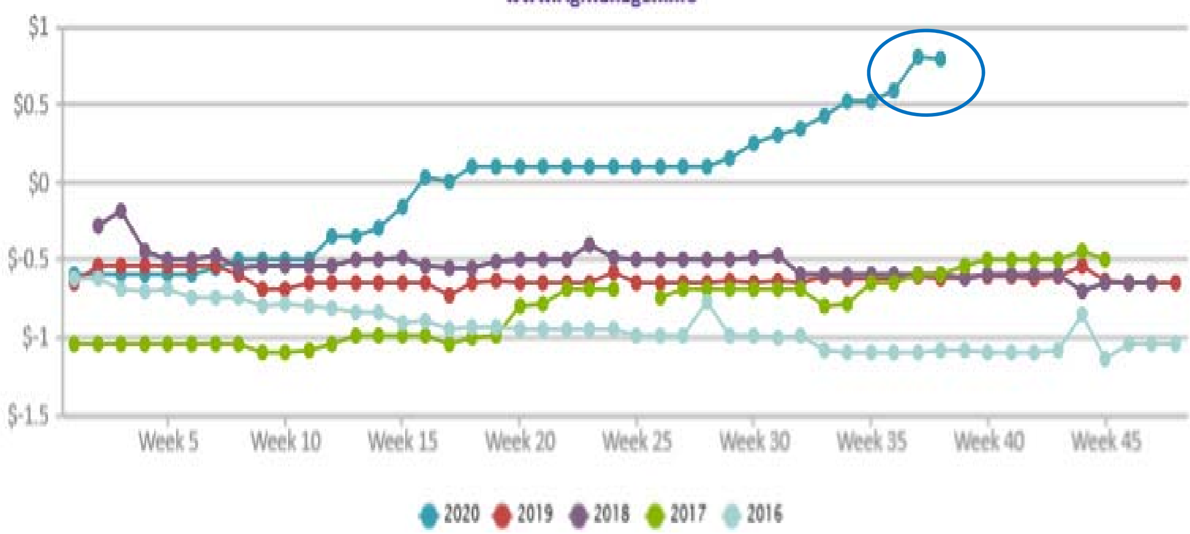
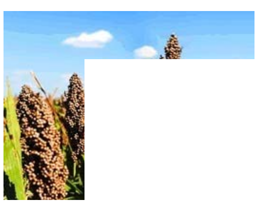
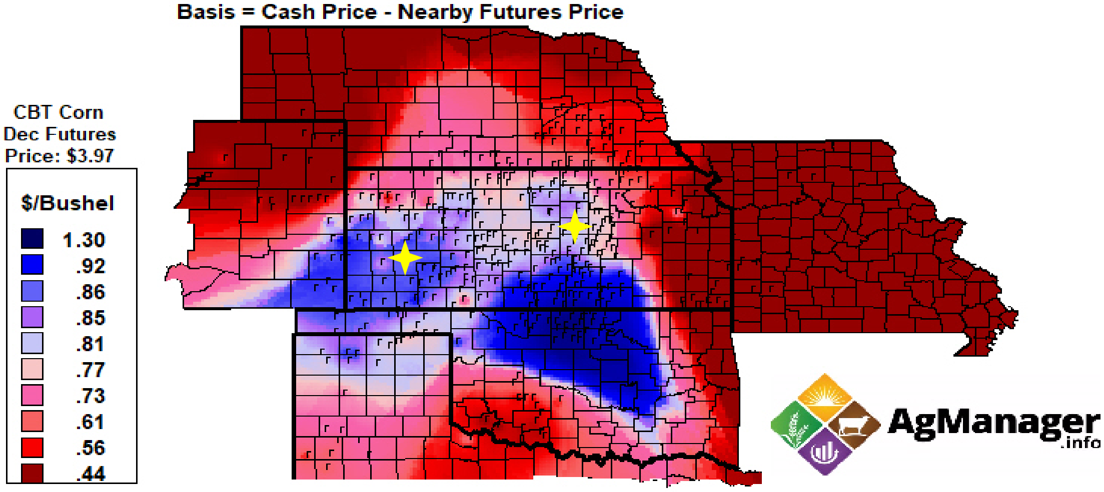




Grain Sorghum Basis, 10-14-2020

Basis = Cash Price - Nearby Futures Price



Wheat Markets

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U.S. Wheat Stocks…..

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- **<u>All U.S. Wheat</u>:** "*Large but Declining*" **Stocks**
  - **End Stocks** $^{2020/21}$ ⇨ 883 mln bu *(1.028 bb last year)*
  - **% Stocks/Use** $^{2020/21}$ ⇨ 42.1% S/U *(49.2% Stx/Use last year)*
- **<u>U.S. HRW Wheat</u>:** "*Large but trending Lower*" **Carryover**
  - **End Stocks** $^{2020/21}$ ⇨ 334 mln bu *(506 mb last year)*
  - **% Stocks/Use** $^{2020/21}$ ⇨ 40.0% S/U *(59.0% Stx/Use last year)*

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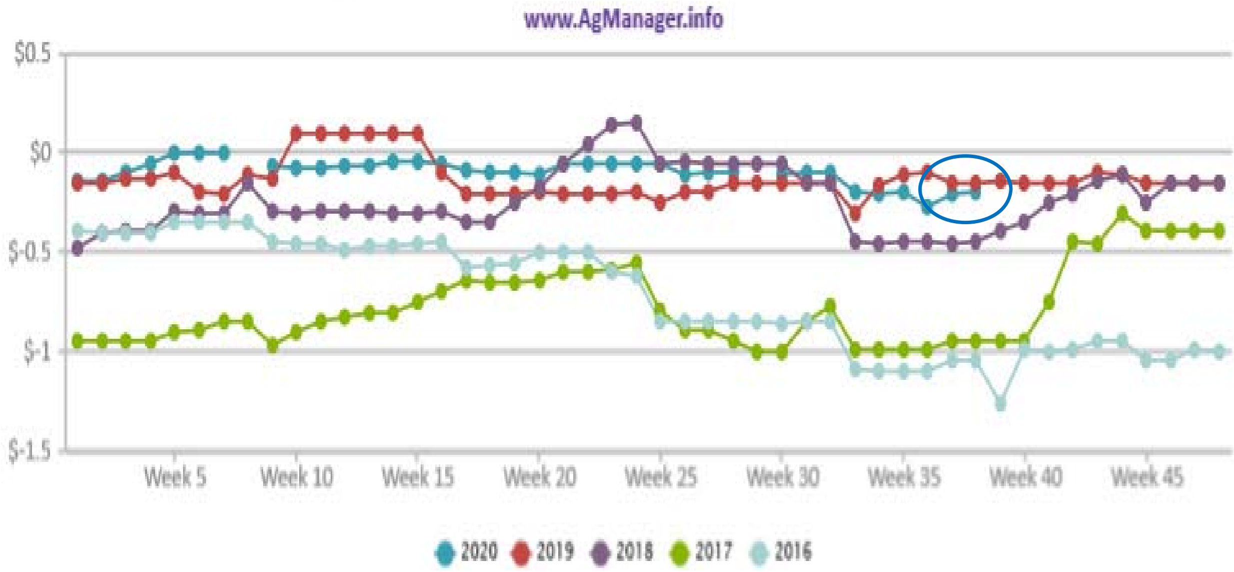
SALINA, KS: Hard Red Winter Wheat Basis - CARGILL



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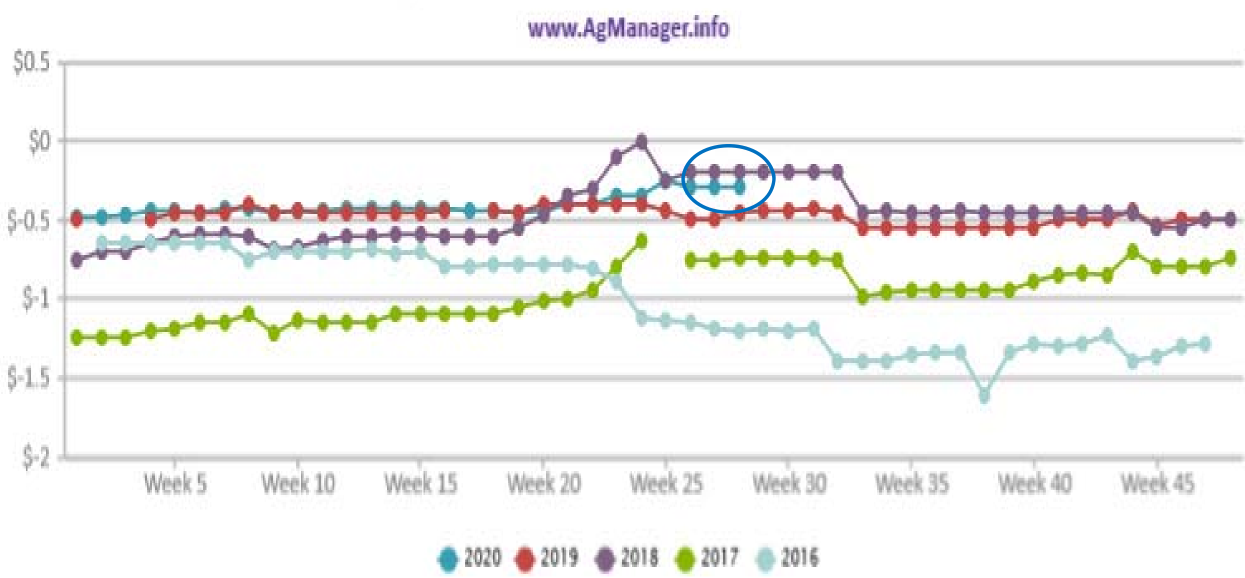
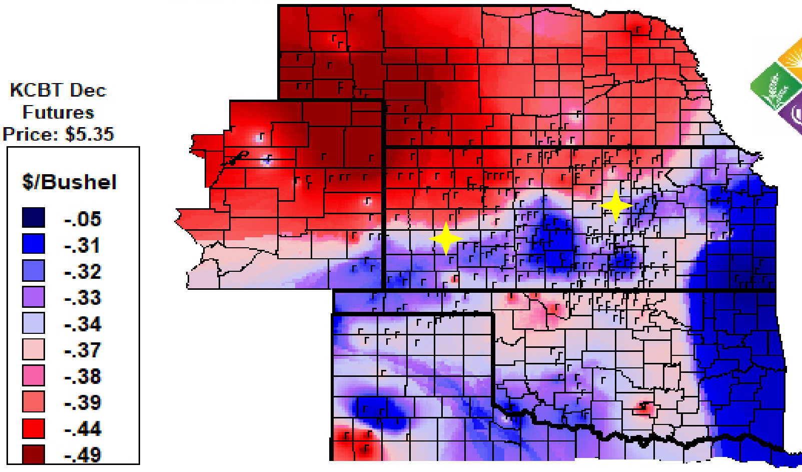
GARDEN CITY, KS: Hard Red Winter Wheat Basis - USDA



Wheat Basis, 10-14-2020

Basis = Cash Price - Nearby Futures Price



AgManager.info

U.S. Wheat Supply and Demand

Item	2019/2020 estimate	2020/2021 forecast	Change from September 11	Change from 2019/2020
Planted area (million acres)	45.5	44.3	0.1	-1.1
Harvested area (million acres)	37.4	36.7	0.1	-0.6
Yield (bushels per acre)	51.7	49.7	-0.4	-2.0
		------------ *Million bushels* ------------		
Beginning stocks	1,080	1,028	-16	-52
Production	1,932	1,826	-12	-106
Imports	105	125	-5	20
Total supply	3,117	2,979	-33	-138
Food use	962	960	--	-2
Seed	60	61	--	1
Feed and residual	102	100	10	-2
Domestic use	1,123	1,121	10	-2
Exports	965	975	--	10
Total use	2,089	2,096	10	7
Ending stocks	1,028	883	-43	-145
		----------------- *Percent* -----------------		
Stocks to use ratio	49.2	42.1	-2.2	-7.1
		------------ *Dollars per bushel* ------------		
Average market price	4.58	4.70	0.20	0.12

-- No change.

U.S. Wheat Production & Supplies

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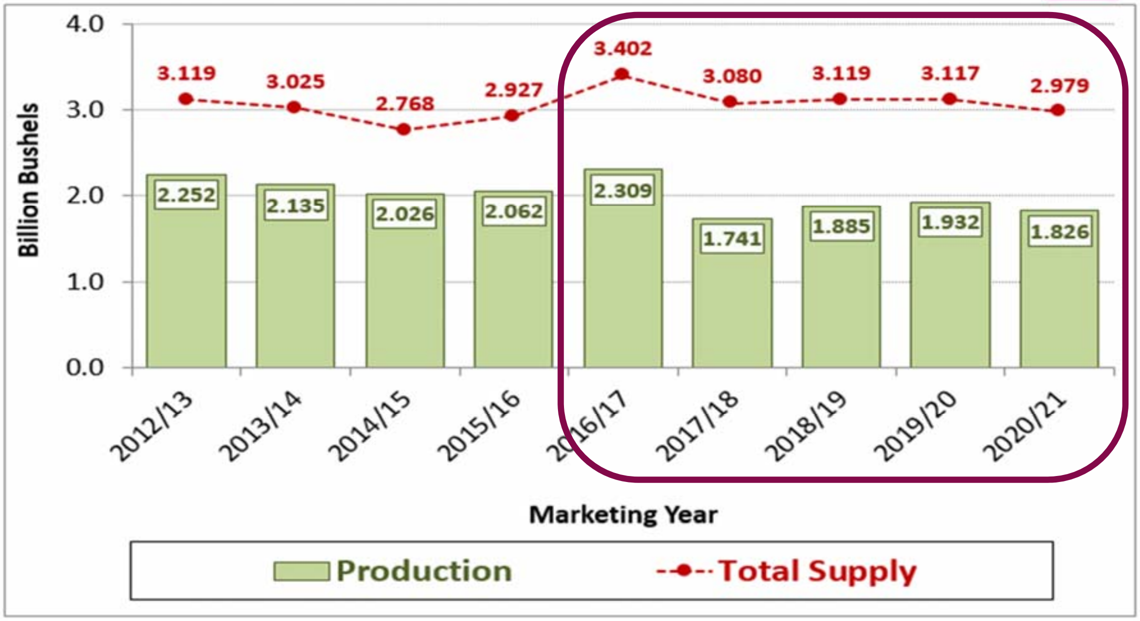
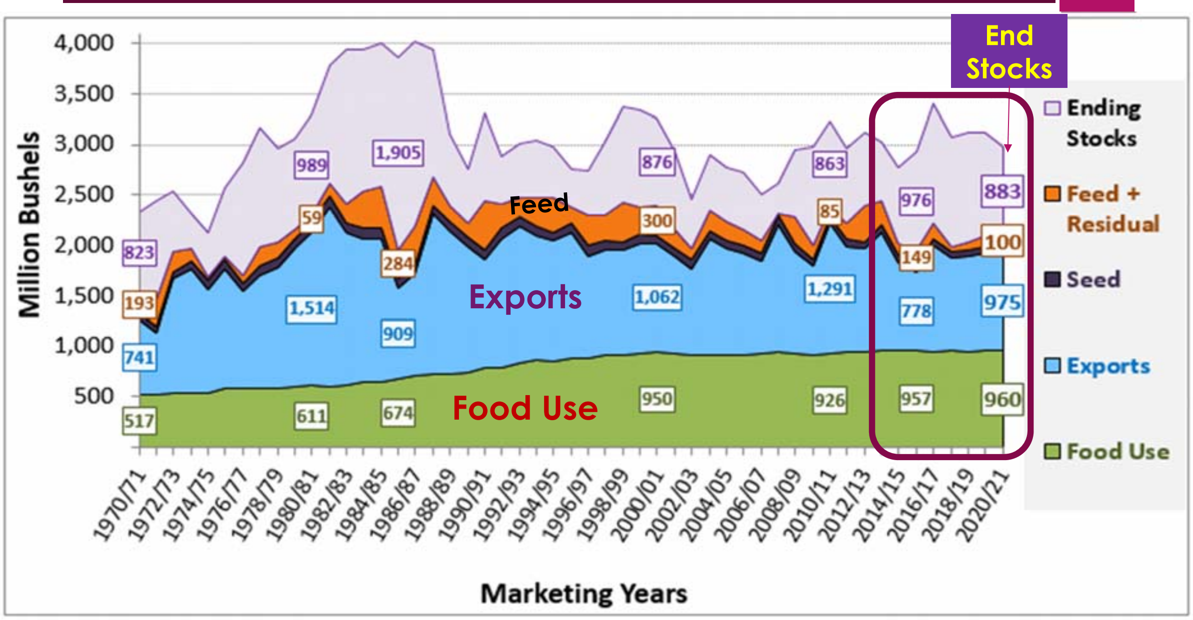


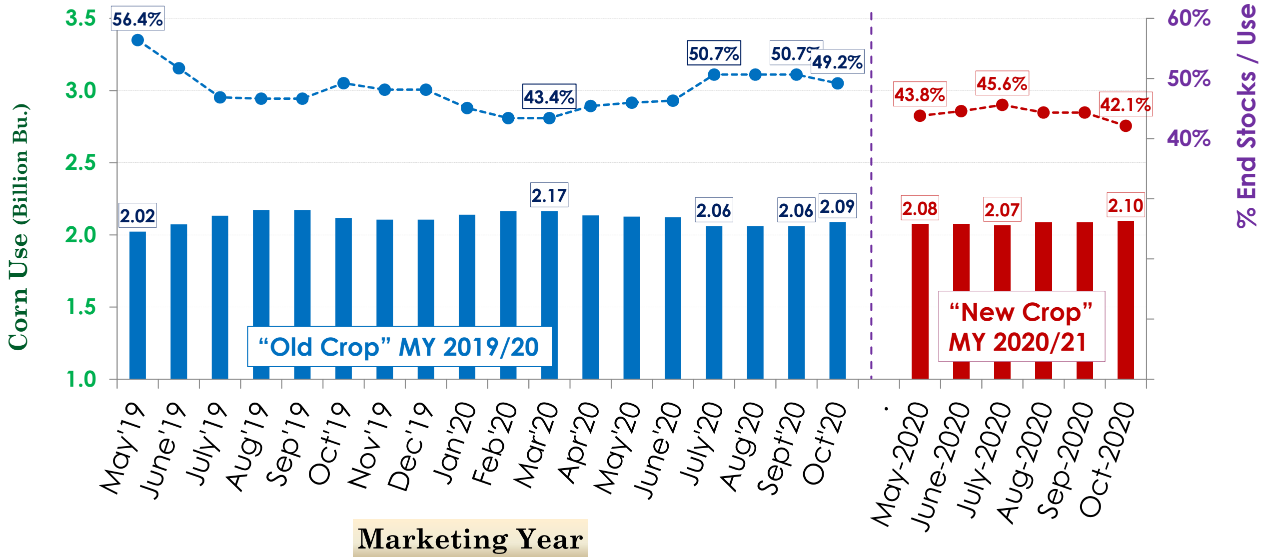
U.S. Wheat Use – By Category

56

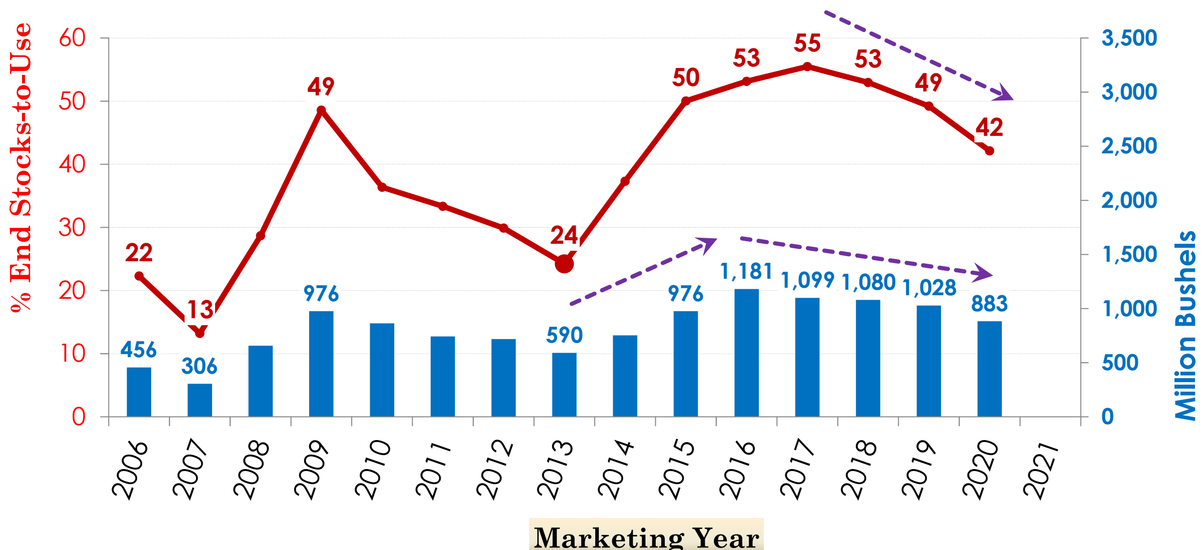


U.S. Wheat Total Use Projections (USDA)

For "Old Crop" MY 2019/20 & "New Crop" MY 2020/21

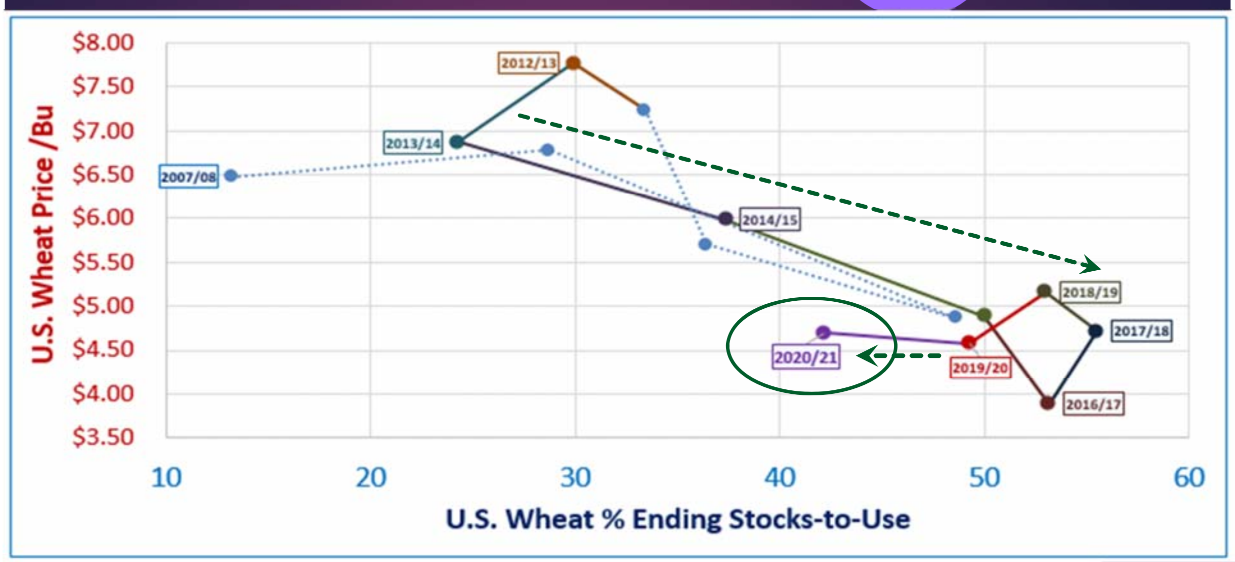


U.S. Wheat Ending Stocks & % Stx/Use

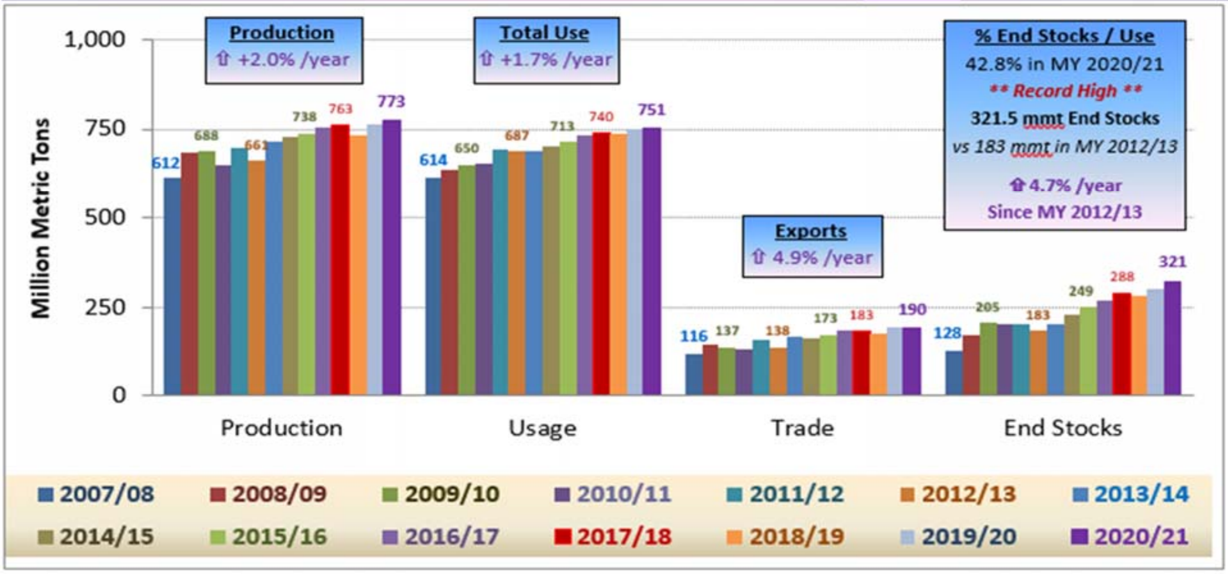


U.S. Wheat Ending Stocks/Use & Prices

U.S. Wheat Ending Stocks/Use & Prices

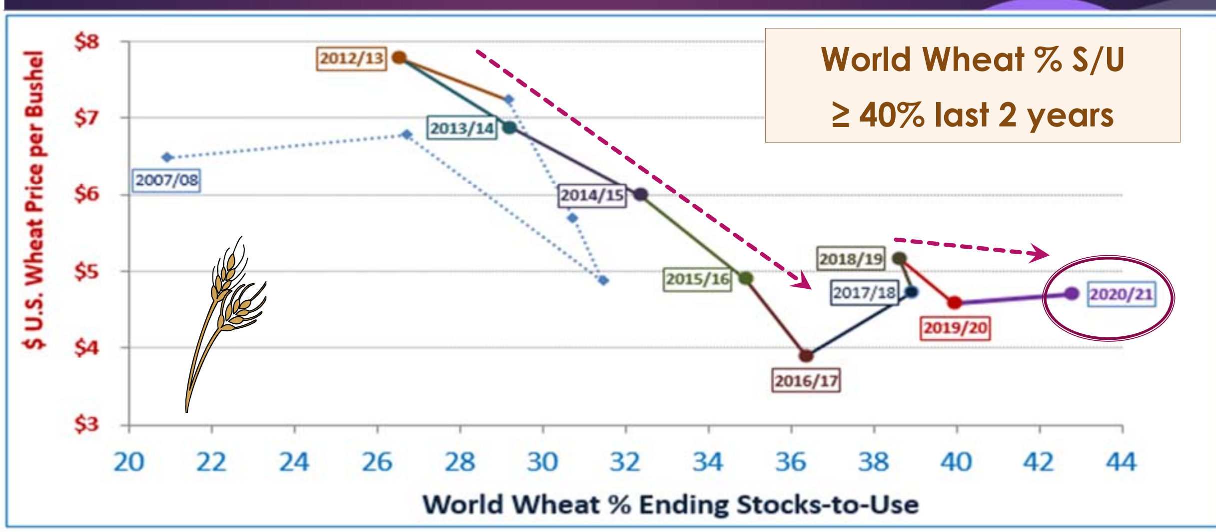


World Wheat Supply, Use & Stocks



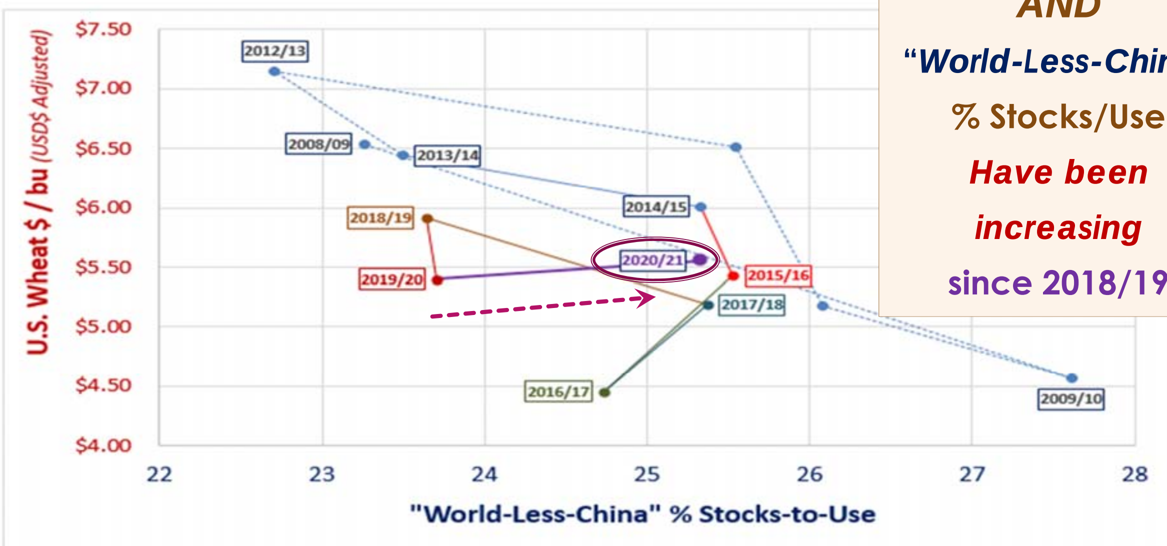
U.S. Wheat Price ($) vs World % Stx/Use

MY 2007/08 – "New Crop" MY 2020/21



U.S. Wheat$^{USD\text{-}Adj}$ $ vs Non-China % Stx/Use

MY 2008/09 – "New Crop" MY 2020/21



AND

"World-Less-China"

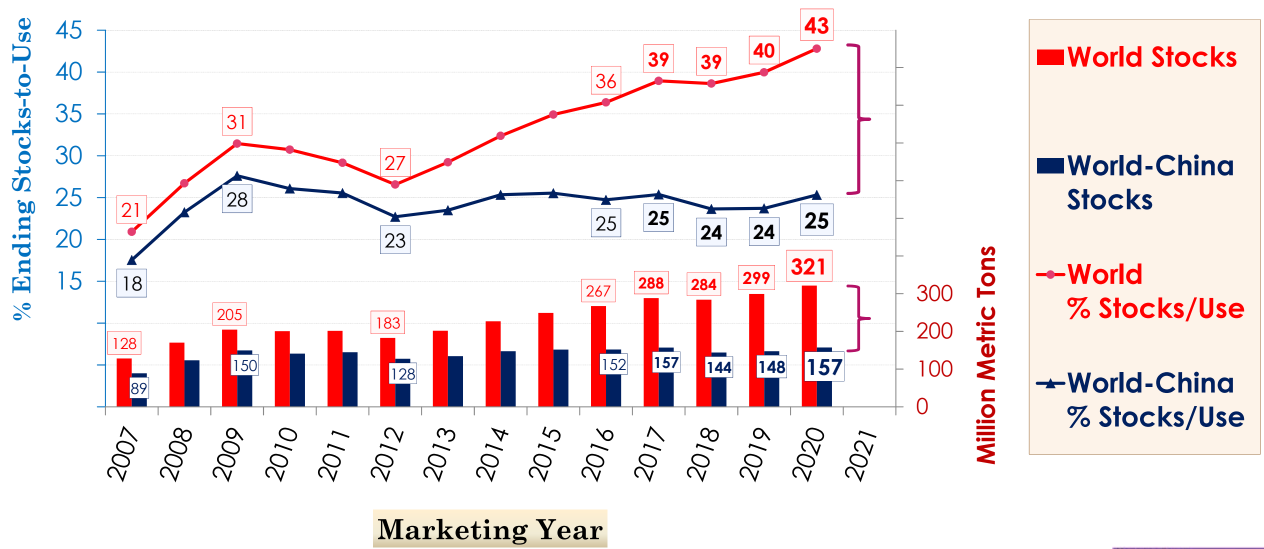
% Stocks/Use

Have been

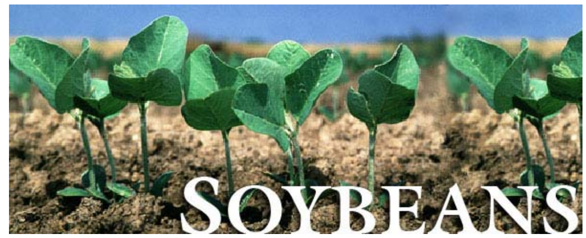
increasing

since 2018/19

World & *World-less-China* WHEAT Stocks & %S/U



Soybean & Cotton Markets



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U.S. Soybean Market Prospects in 2018-19

A. U.S.-China Trade Dispute

- ***HAD*** affected U.S. Soybean export shipments, forward purchases & prices, with recent positive negotiation news

B. BUT U.S. Exports forecast ***UP 26.5%+*** vs 1 year ago

- Aggressive buying *from* ***U.S.*** *&/or* ***South America*** *by China*

C. Market Focus in Fall-Winter 2020-21

- **2021 So. America** crops in response to 2020 China demand

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U.S. Soybean & Cotton Stocks…..

- **Soybean: "*Large*" Stocks & % S/U**
  - **End Stocks 2020/21** ⇨ 290 mln bu *(Down vs 523 mb last year)*
  - **% Stocks/Use 2020/21** ⇨ 6.4% S/U *(Down vs 13.2% last year)*
- **Cotton: *Large % Stocks/Use* & Lower $'s in MY 2020/21**
  - **Production 2020/21** ⇨ 17.05 mln bales *(19.9 & 18.4 mb last 2 years)*
  - **End Stocks 2020/21** ⇨ 7.2 mln bales *(7.25 & 4.85 mb last 2 years)*
  - **% Stocks/Use 2020/21** ⇨ 42.1% S/U *(41.0% & 27.2% last 2 years)*

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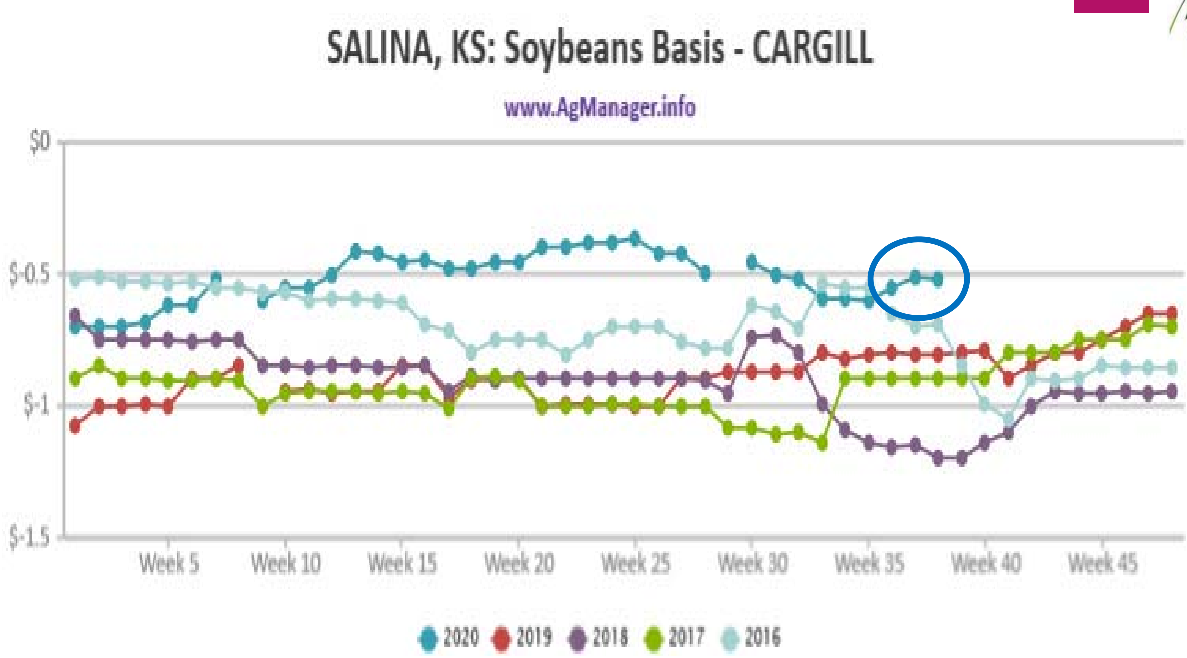
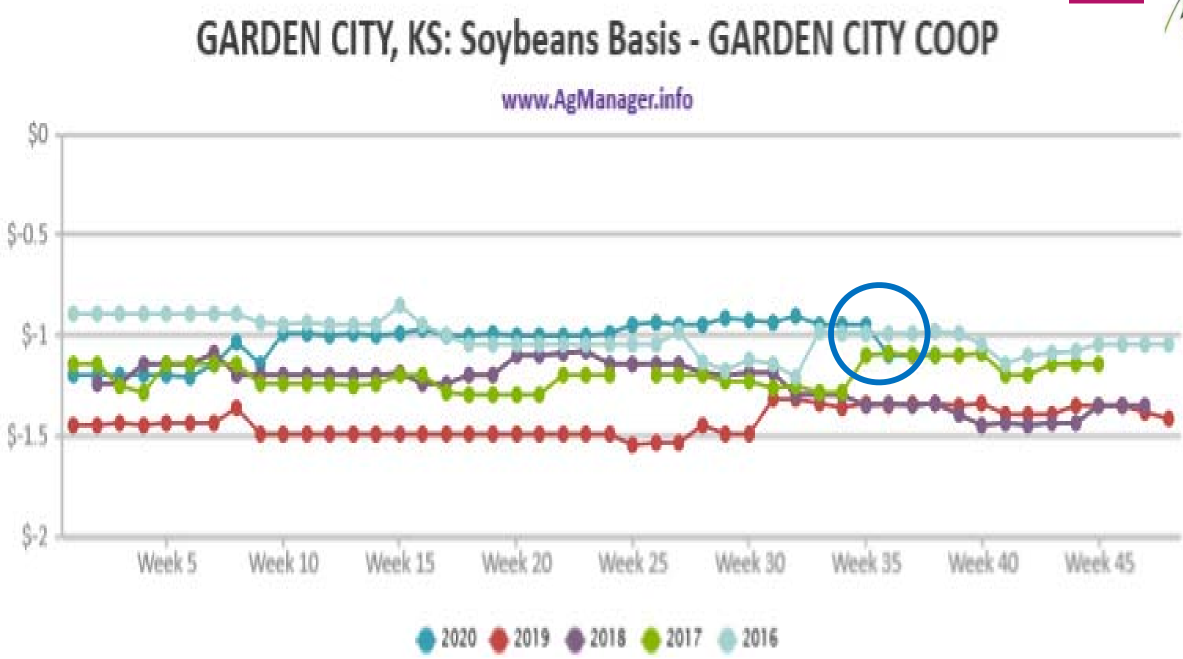
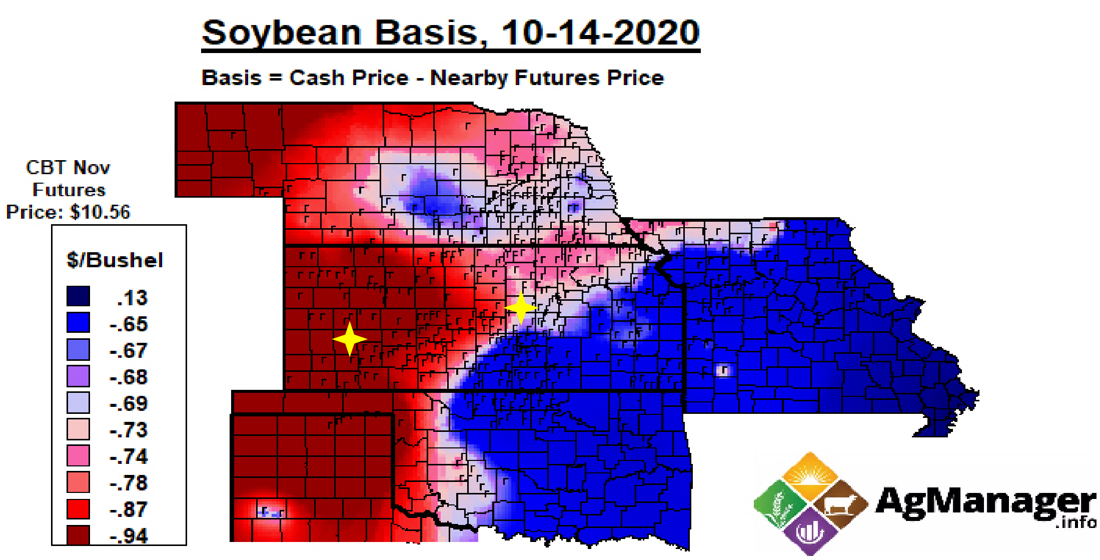



GARDEN CITY, KS: Soybeans Basis - GARDEN CITY COOP
www.AgManager.info
$0
$-0.5
$-1
$-1.5
$-2
Week 5
Week 10
Week 15
Week 20
Week 25
Week 30
Week 35
Week 40
Week 45
2020
2019
2018
2017
2016


Soybean Basis, 10-14-2020
Basis = Cash Price - Nearby Futures Price
CBT Nov Futures Price: $10.56
$/Bushel
.13
-.65
-.67
-.68
-.69
-.73
-.74
-.78
-.87
-.94
AgManager .info

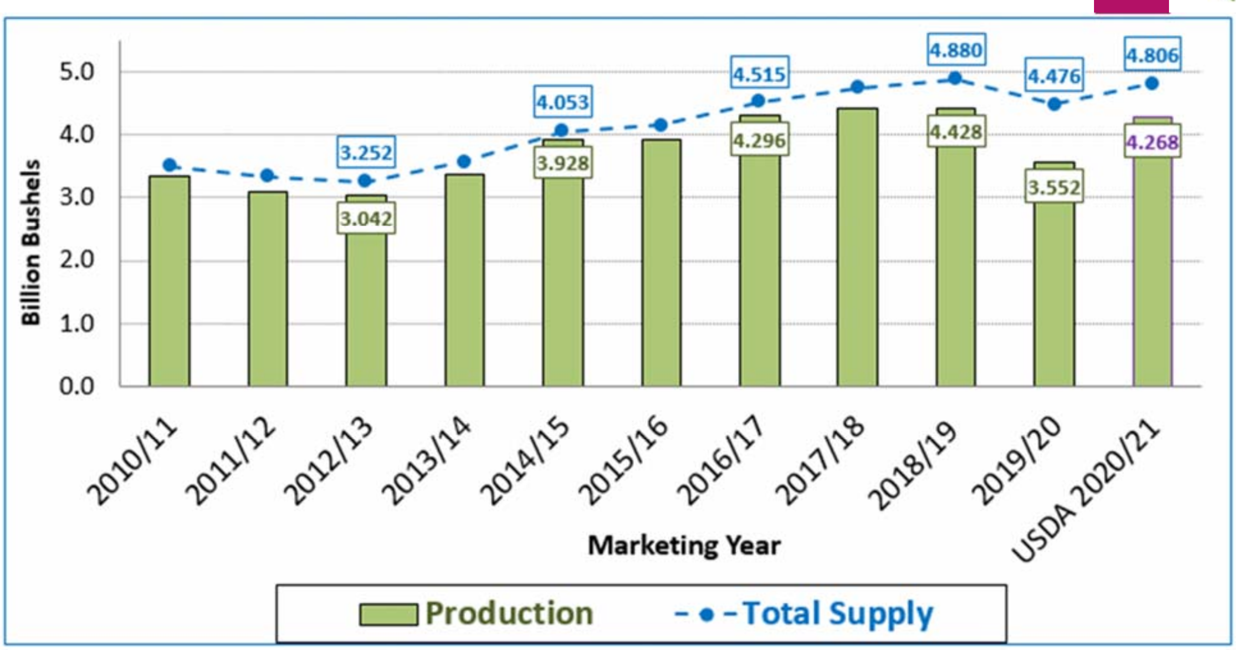
U.S. Soybeans Supply and Demand

Item	2019/2020 estimate	2020/2021 forecast	Change from September 11	Change from 2019/2020
Planted area (million acres)	76.1	83.1	-0.7	7.0
Harvested area (million acres)	74.9	82.3	-0.7	7.4
Yield (bushels per acre)	47.4	51.9	-0.1	4.5
	------------ *Million bushels* ------------			
Beginning stocks	909	523	-51	-386
Production	3,552	4,268	-45	716
Imports	15	15	--	0
Total supply	4,476	4,806	-96	330
Crush	2,165	2,180	--	15
Seed and Residual	112	136	-1	24
Domestic use	2,277	2,316	-1	39
Exports	1,676	2,200	75	524
Total use	3,953	4,516	74	563
Ending stocks	523	290	-170	-233
	------------ *Percent* ------------			
Stocks to use ratio	13.2	6.4	-3.9	-6.8
	------------ *Dollars per bushel* ------------			
Average market price	8.57	9.80	0.55	1.23

-- No change.

October 9, 2020

U.S. Soybean Production & Supplies



U.S. Soybean Use & End Stocks

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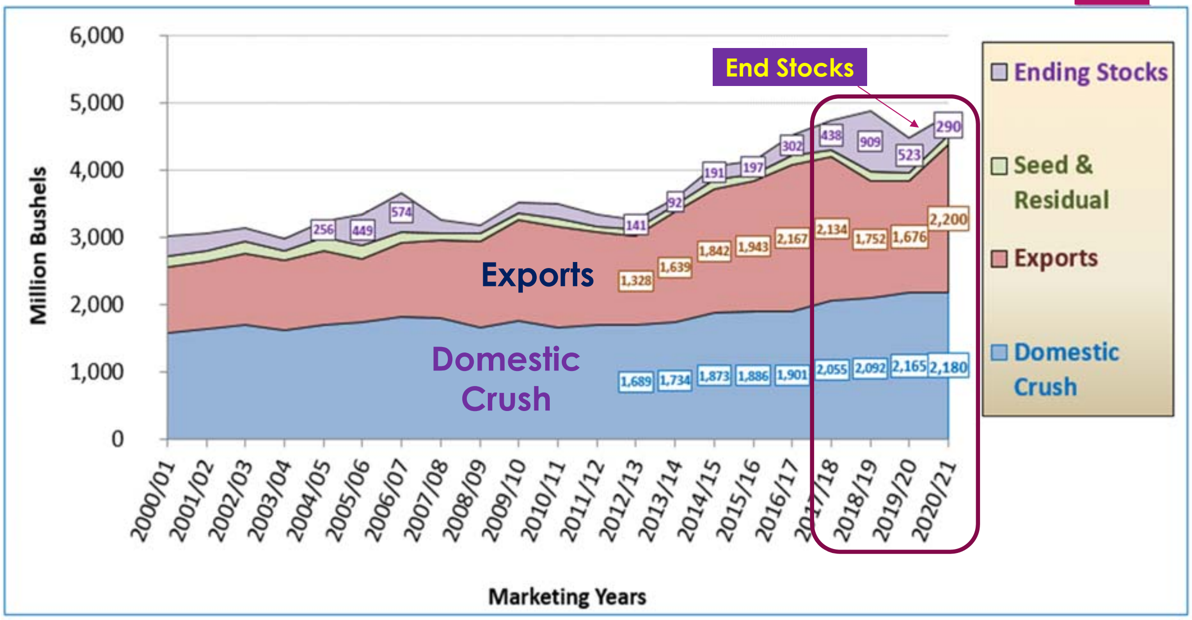
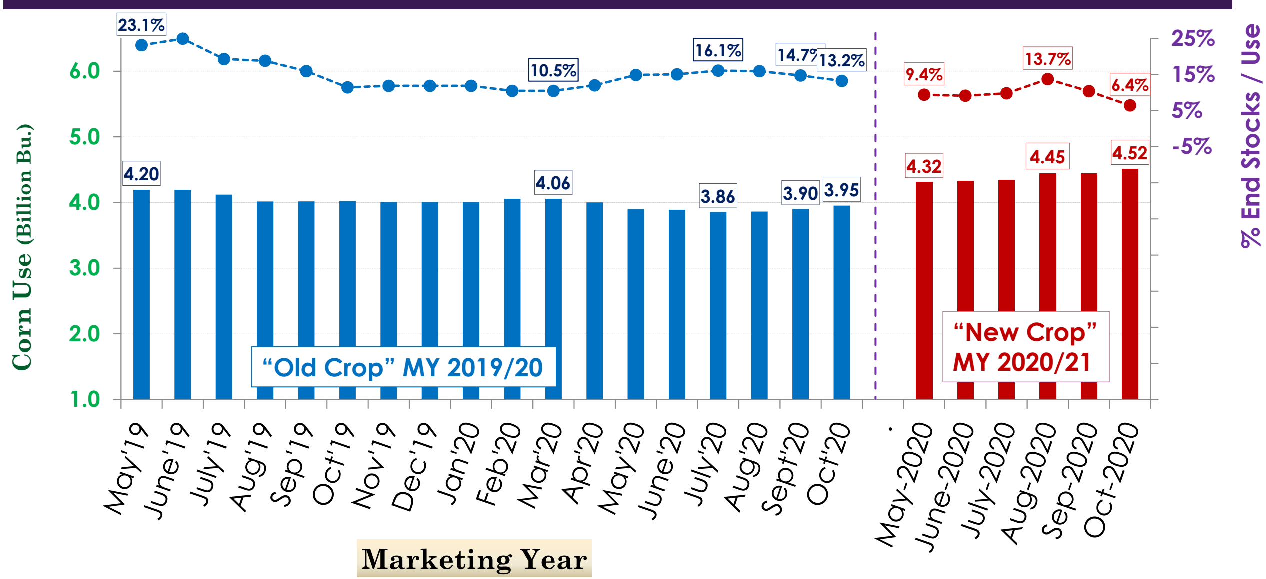


U.S. Soybean Total Use Projections (USDA)

74

For "Old Crop" MY 2019/20 & "New Crop" MY 2020/21

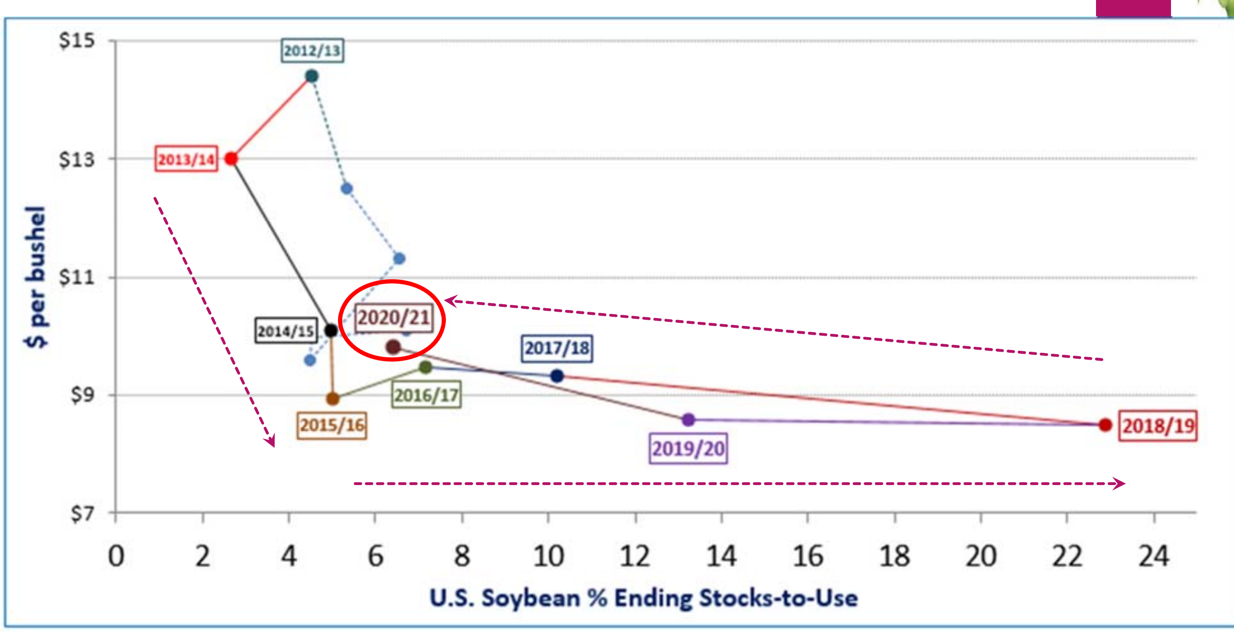


U.S. Soybean % Stocks/Use vs Price$

75

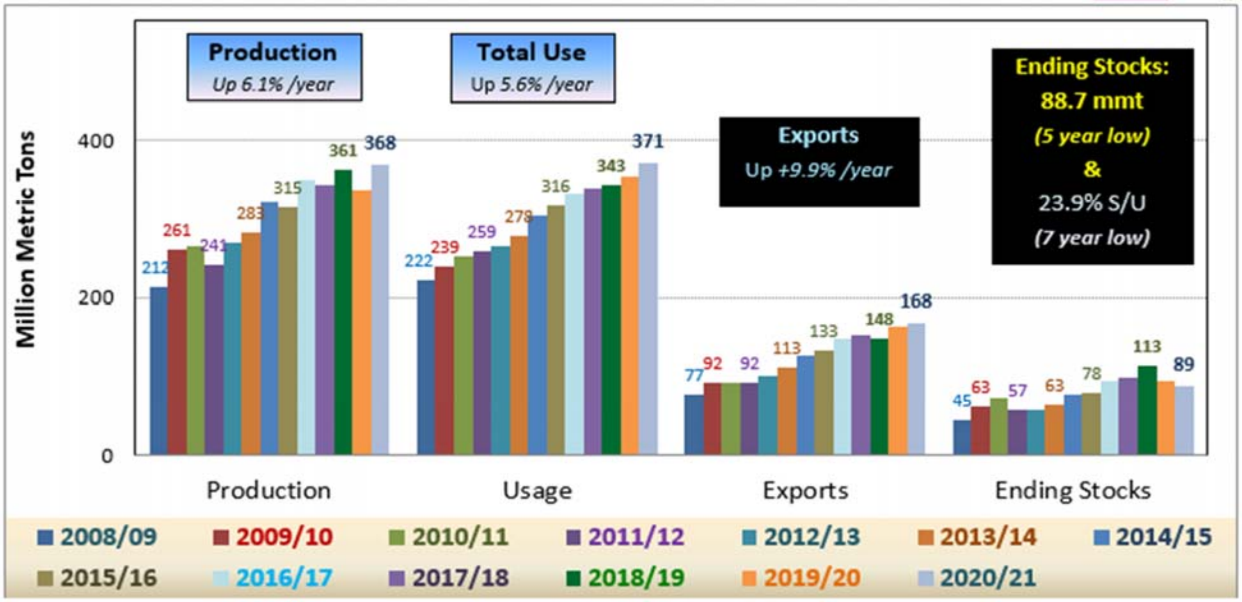
U.S. Soybean % Stocks/Use vs Price$

76



World Soybean Supply, Use & Stocks

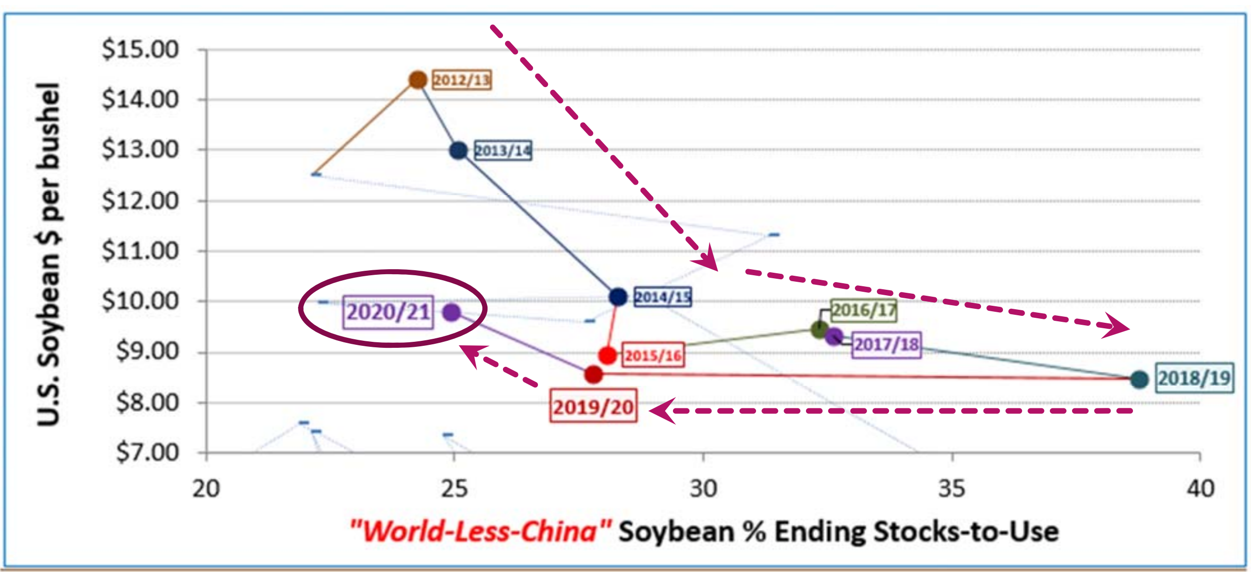
77



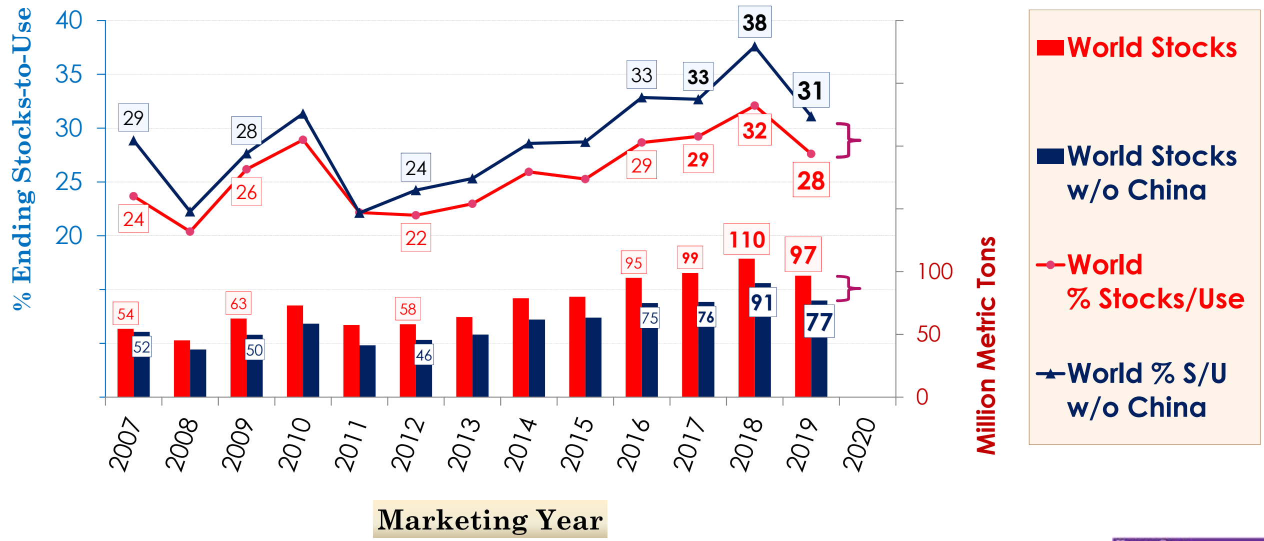
U.S. Soybean$ vs World %Stx/Use

MY 2007/08 through "New Crop" MY 2020/21

78



World & *World-less-China* SOYBEAN Stocks & %S/U



Questions?

Daniel O'Brien – Extension Ag Economist

Blog: www.ksugrains.wordpress.com

KSUGrains on Twitter

www.AgManager.info

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