

Grain Market Update for 2020

2020 KS-MO State Line Crops Conference

December 2, 2020

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I. Grain Futures Closes, Changes & Carry on Tuesday, December 1, 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	\$4.14 ¾	↓ \$0.05	---	Jan^L 21	\$11.62	↓ \$0.0650	---	Dec^L 20	\$5.37 ½	↓ \$0.0825	---
Mar 21	\$4.20 ¾	↓ \$0.0525	\$0.02	Mar 21	\$11.63	↓ \$0.0650	\$0.050	Mar 21	\$5.39	↓ \$0.08	\$0.00 ⁵⁰
May 21	\$4.24	↓ \$0.05	\$0.01 ⁶²⁵	May 21	\$11.61	↓ \$0.0675	No Carry	May 21	\$5.45	↓ \$0.08	\$0.03
July 21	\$4.24 ¾	↓ \$0.05	\$0.00 ³⁷⁵	July 21	\$11.58 ½	↓ \$0.0625	No Carry	July^H 21	\$5.48 ¾	↓ \$0.0775	\$0.01 ⁸⁷⁵
Sept 21	\$4.08	↓ \$0.03	No Carry	Aug 21	\$11.38 ¾	↓ \$0.0625	No Carry	Sept 21	\$5.54 ½	↓ \$0.0775	\$0.02 ⁸⁷⁵
Dec^H 21	\$4.07	↓ \$0.01	No Carry	Sept 21	\$10.82 ½	↓ \$0.0575	No Carry	Dec 21	\$5.63	↓ \$0.0775	\$0.02 ⁸³³
Mar 22	\$4.12 ½	↓ \$0.0150	\$0.01 ⁹¹⁷	Nov^H 21	\$10.36 ½	↓ \$0.0525	No Carry	Mar 22	\$5.69	↓ \$0.0775	\$0.02
May 22	\$4.13 ¼	↓ \$0.0225	\$0.00 ³⁷⁵	Jan 22	\$10.35 ¾	↓ \$0.0450	No Carry	May 22	\$5.63 ¼	↓ \$0.0775	No Carry

Futures & Cash Price Ratios on December 1, 2020:

- "Current Crop^{2020/21}" ⇒ \$MAR²⁰²⁰ Soybeans ÷ \$MAR²⁰²⁰ Corn = \$11.63 ÷ \$4.20 ¾ = 2.76
- "Next Crop^{2021/22}" ⇒ \$NOV²⁰²¹ Soybeans ÷ \$DEC²⁰²¹ Corn = \$10.36 ½ ÷ \$4.07 = 2.55
- "HRW Wheat/Corn^{12/1/2020}" ⇒ Wheat^{HRW-Garden City, KS} ÷ Corn^{Garden City, KS} = \$ 5.11 ÷ \$4.51 = 1.13 ***
- "Sorghum/Corn^{12/1/2020}" ⇒ Sorghum^{Garden City, KS} ÷ Corn^{Garden City, KS} = \$ 5.51 ÷ \$4.51 = 1.22 ***

Grain Market Supply-Demand Balances 3

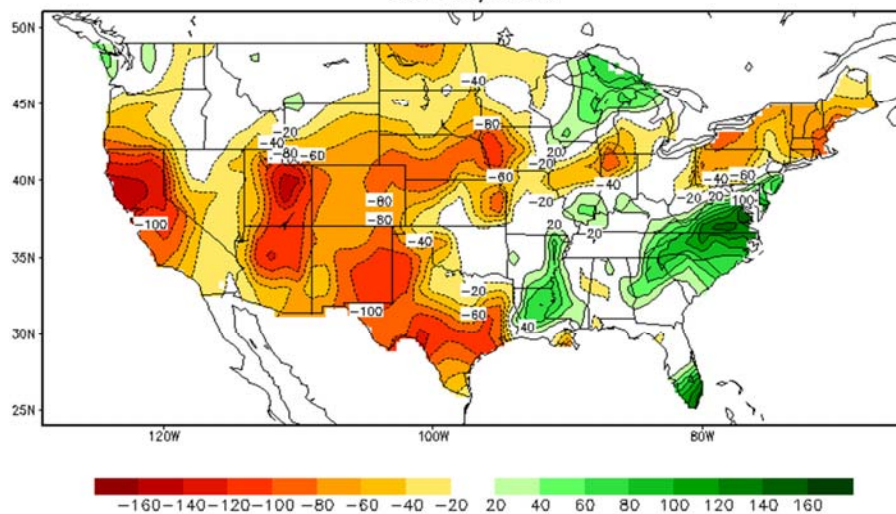
Crop	Production	Ending Stocks	% Stocks/Use	U.S. Farm Price
Corn	14.507 bb ↑6.5%	1.702 bb ↓15%	11.5% Vs 14.4% yr ago	\$4.00 /bu Vs \$3.56 yr ago
Soybeans	4.170 bb ↑17%	190 mb ↓64%	4.2% Vs 13.2% yr ago	\$10.40 /bu Vs \$8.57 yr ago
All Wheat	1.826 bb ↓5.5%	877 mb ↓15%	41.7% Vs 49.2% yr ago	\$4.70 /bu Vs \$4.58 yr ago
HRW Wheat	659 mb ↓22%	338 mb ↓33%	40.3% Vs 59% yr ago	

Grain Market Supply-Demand Balances 4

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	\$4.05 /bu Vs \$3.34 yr ago
Cotton	17.09 m-bales ↓14%	7.2 m-bales ↓0.7%	42.1% Vs 41.0% yr ago	\$0.64 c/lb Vs \$0.60 yr ago



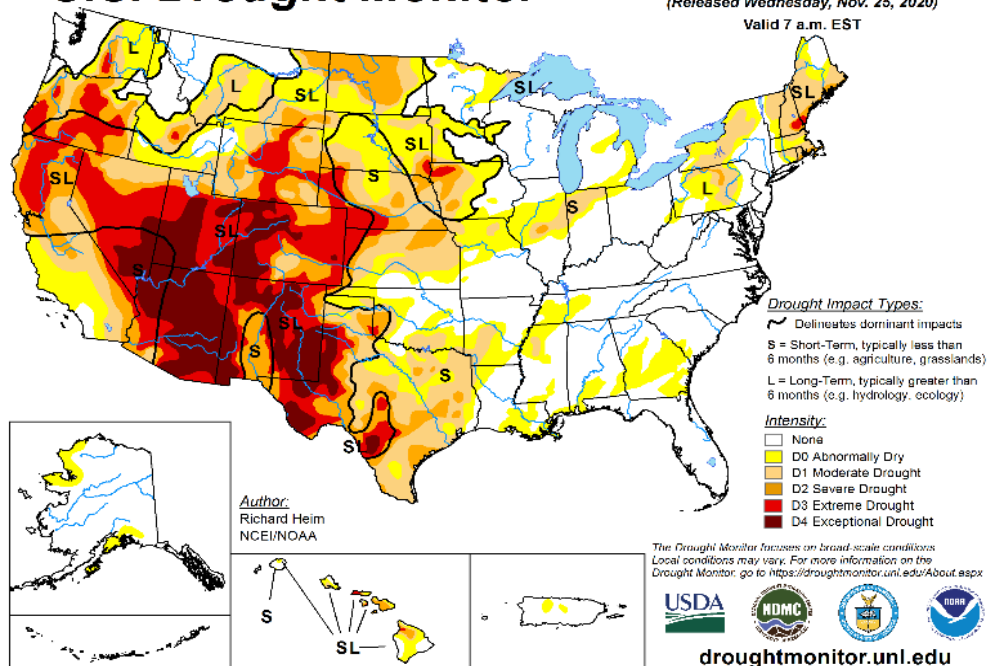
Calculated Soil Moisture Anomaly (mm)
NOV 30, 2020



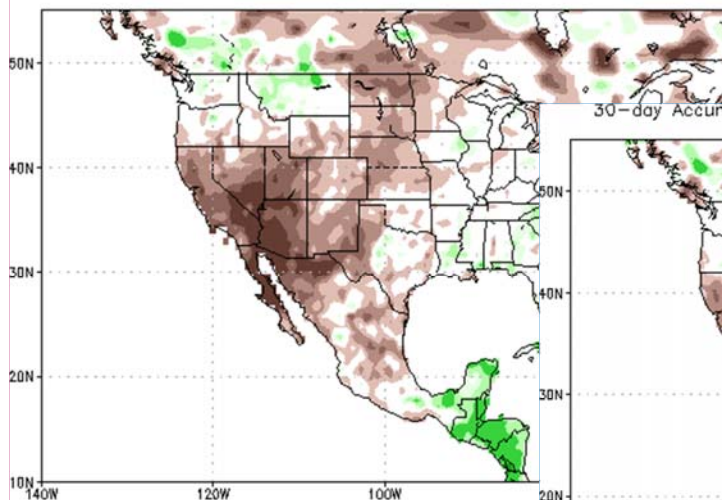
U.S. Drought Monitor

November 24, 2020
(Released Wednesday, Nov. 25, 2020)
Valid 7 a.m. EST

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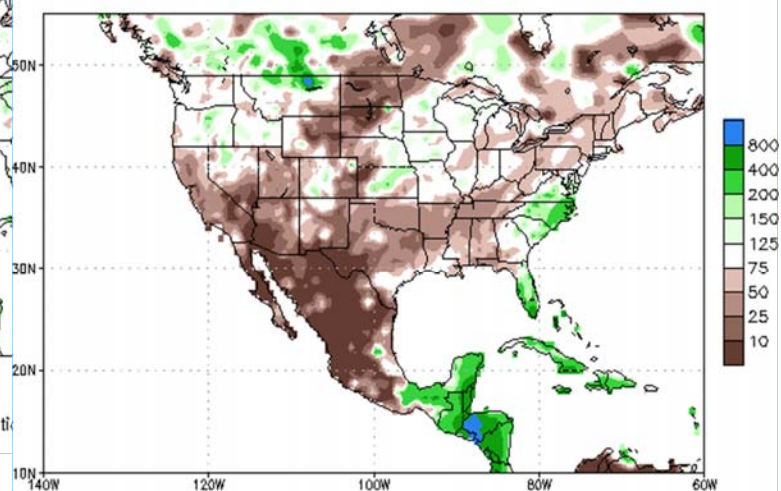


90-day Accumulated Prep % of Normal 02SEP2020-30NOV2020



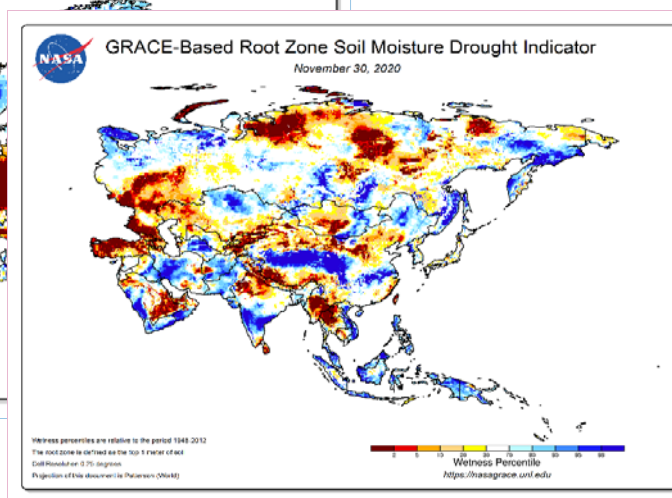
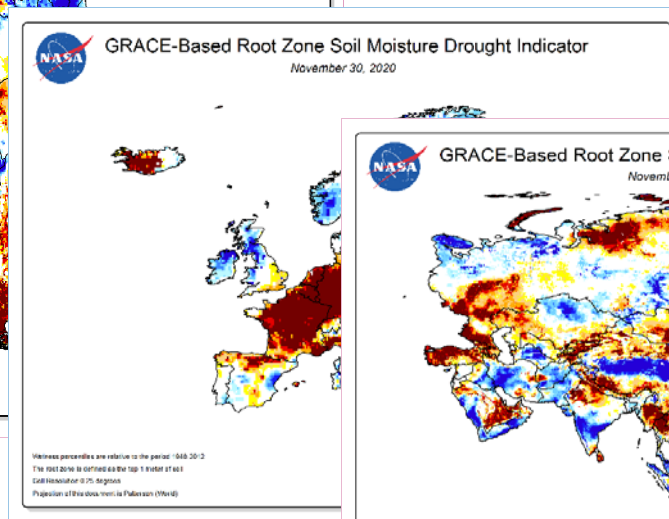
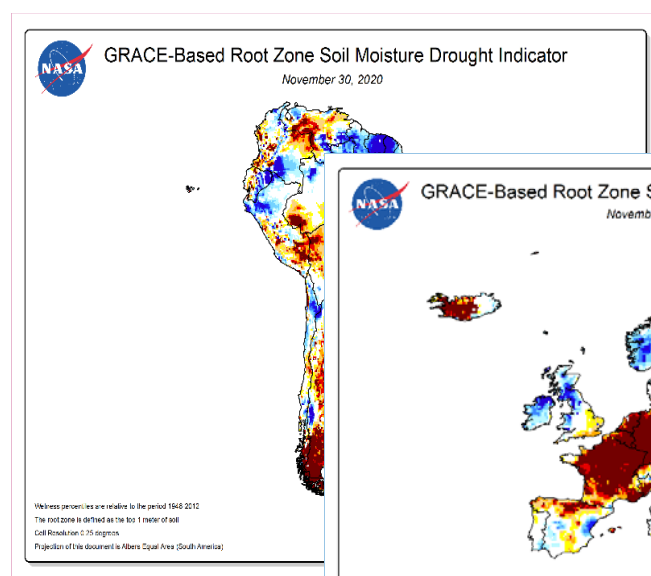
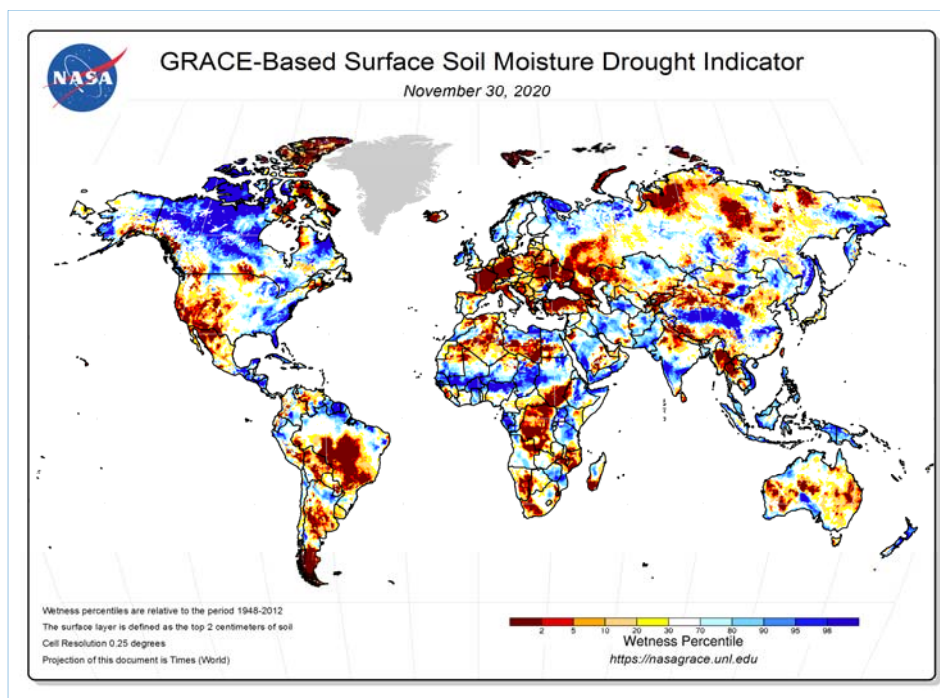
Data Source: CPC Unified (gauge-based & 0.5x0.5 deg resolution) Climatology (1981-2010)

30-day Accumulated Prep % of Normal 01NOV2020-30NOV2020



Data Source: CPC Unified (gauge-based & 0.5x0.5 deg resolution) Precipitation Analysis Climatology (1981-2010)

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Unpredictable Grain Markets in 2020-21 11

1) The “Ups & Downs” of U.S.- China Trade Relations

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

Soybean Exports....

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2) U.S. Soybean Exports ^{11/19/2020} (wk 12/52 – 23.1%)

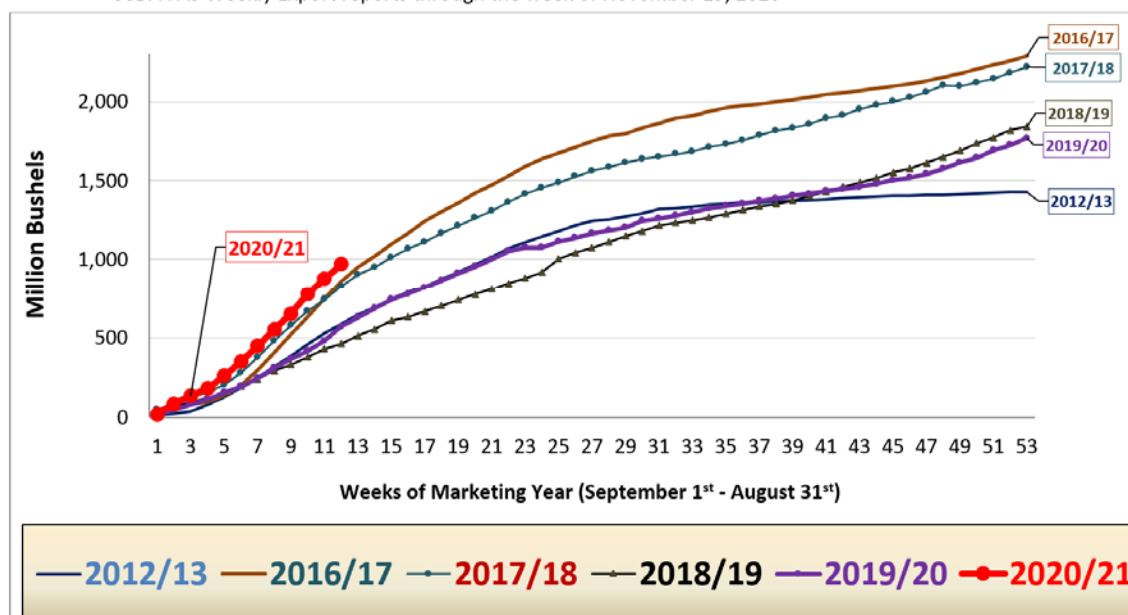
- **Shipments:** 905 mb of 2.200 bb^{USDA est} (72% to *China*)
- **Forward Sales:** 1,003 mb of 2.200 bb^{USDA est} (≤ 76%+ to *China*)

⇒ Need *32.4 mb/wk* for USDA^{est} for 40 weeks

(or 64.8 mb for 20 weeks of U.S. export leadership)

⇒ Had **89 mb shipments** for week ending 11/19/2020

Figure 9b. U.S. Soybean Exports for MY 2012/13 & MY 2016/17 through “New Crop” MY 2020/21 as of recent
USDA FAS Weekly Export reports through the week of November 19, 2020



U.S. Sorghum Exports....

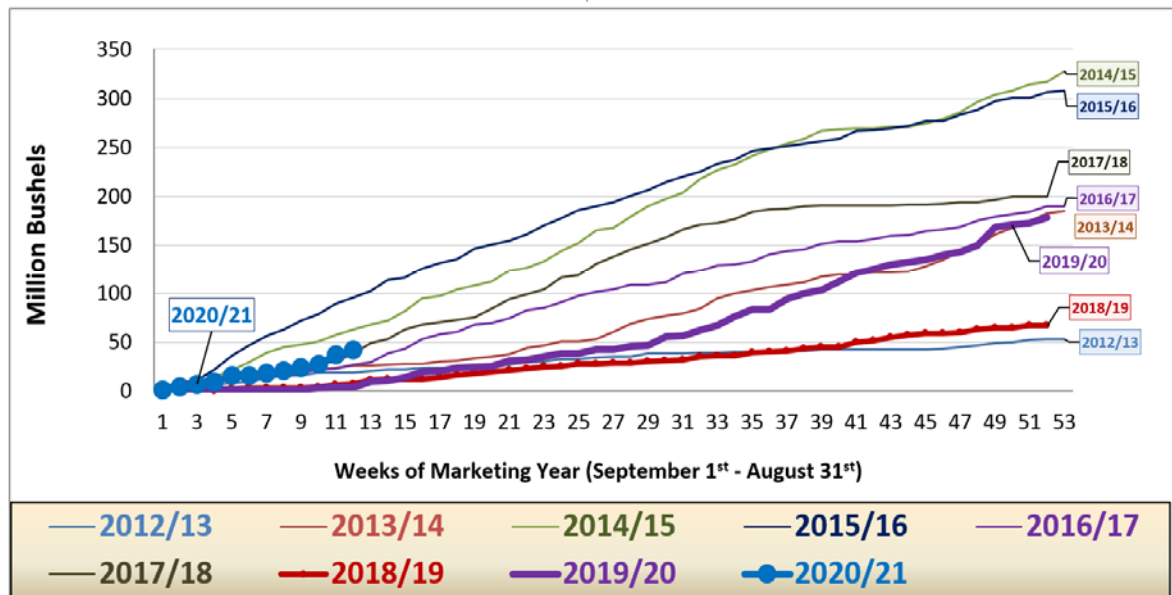
3) U.S. Sorghum Exports ^{11/19/2020} (wk 12/52 – 23.1%)

- **Shipments:** 42 mb of 260 mb^{USDA est} (94.4% to *China*)
- **Forward Sales:** 126 mb of 260 mb^{USDA est} (\approx 99.9% to *China*)

⇒ Need 5.5 mb/wk for USDA^{est} for 40 weeks

⇒ Had **4.8 mb shipments** from U.S. for week ending 11/19/2020

Figure 7a. U.S. Grain Sorghum Exports for MY 2012/13 through “New Crop” MY 2020/21 as of November 19, 2020 - via USDA FAS Weekly Export reports

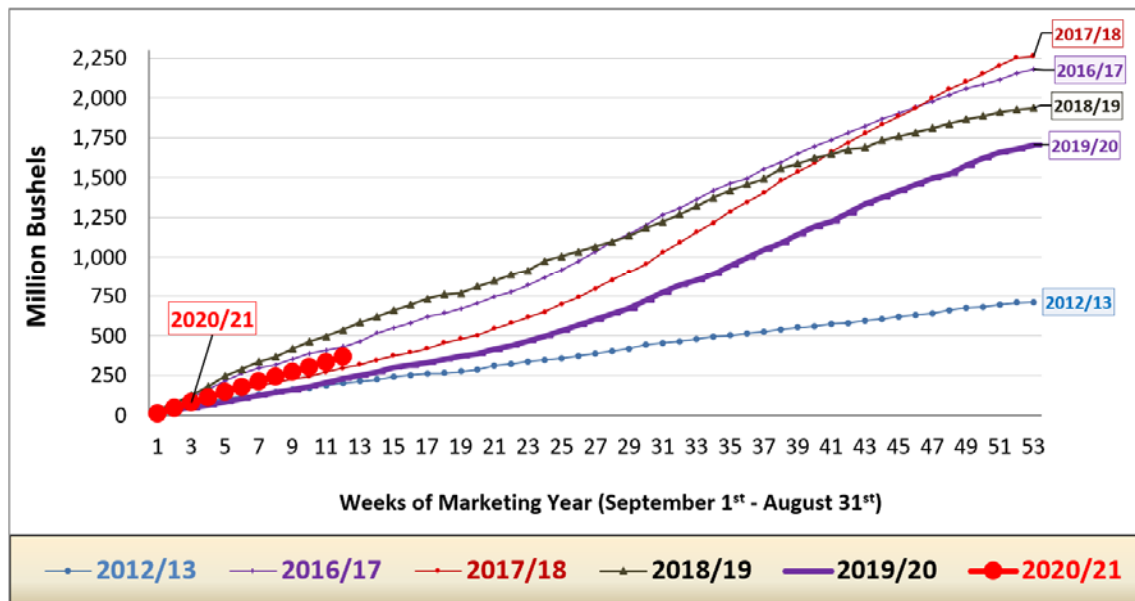


U.S. Corn Exports....

5) U.S. Corn Exports ^{11/19/2020} (wk 12/52 – 23.1%)

- **Shipments:** 366 mb of 2.650 bb^{USDA est} (31.0% to *China*)
- **Forward Sales:** 1.088 bb of 2.650 bb^{USDA est} ($\leq 50.6\%$ to *China*)
- ⇒ Need **57 mb/wk** for USDA^{est} for 40 weeks
- ⇒ Had **34.3 mb shipments** from U.S. for week ending 11/19/2020

Figure 11b. U.S. Corn Exports for MY 2012/13 & 2016/17 through “New Crop” MY 2020/21 based on USDA Foreign Agricultural Service Weekly Export reports through 11/19/2020 (End of marketing year on 8/31)



Corn Ethanol Production....

5) U.S. Corn Ethanol Production – To 87.5% Pre-COVID-19

- Ethanol Corn Use ^{MY 2020/21: 5.050 bb} ^{USDA est}
 - vs 5.015 - 5.082 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 11/20/2020

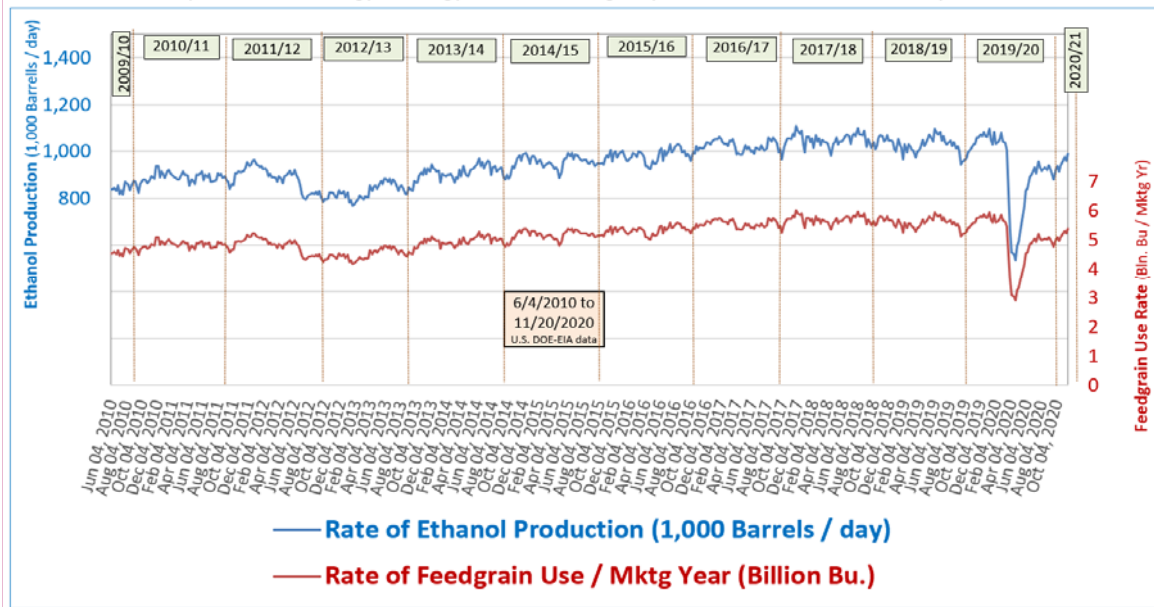
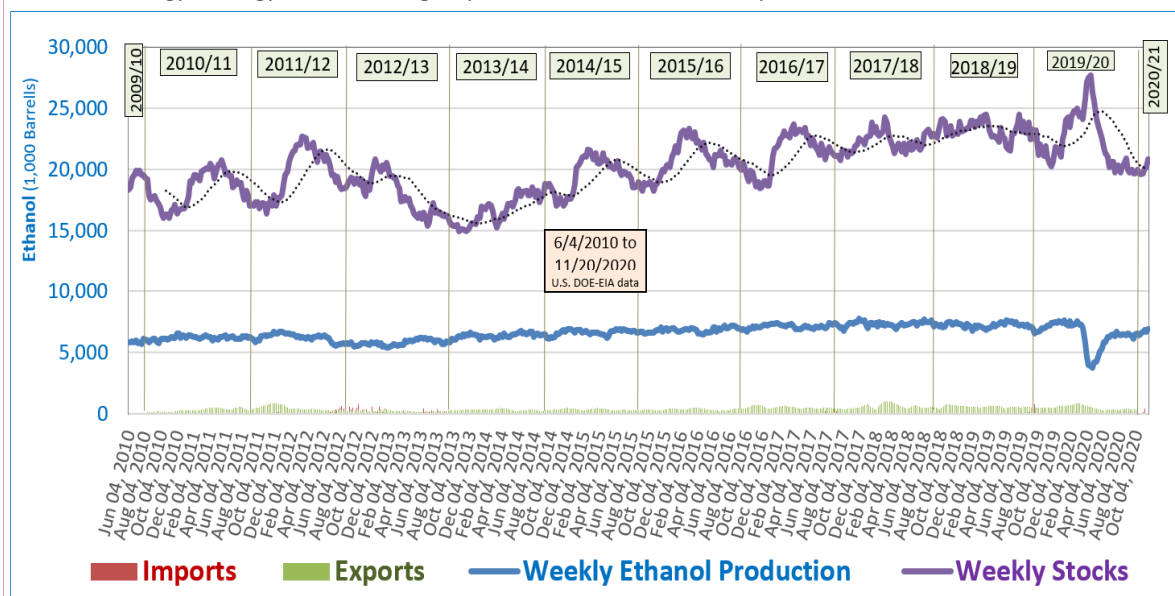


Figure 9b. Weekly U.S. Ethanol Production, Use, Imports, Exports & Stocks based on U.S. Department of Energy – Energy Information Agency data on U.S. Ethanol Industry Trends as of 11/20/2020



Corn Ethanol Markets



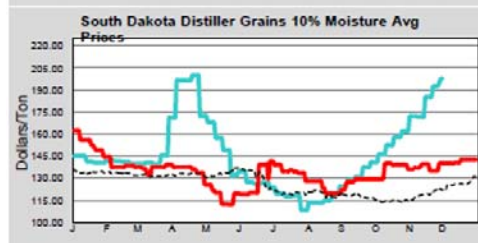
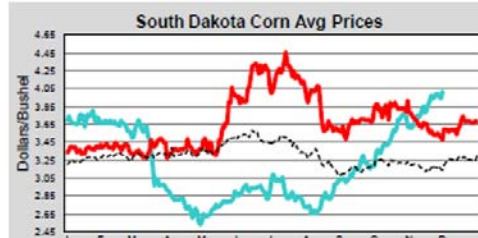
USDA Daily Ethanol Report
Agricultural Marketing Service
Livestock, Poultry & Grain Market News

Tue. Dec 01, 2020

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US #2 Yellow Corn - dollars/bushel

	Cash Bids	Chg	Basis	Avg:
Iowa-Eastern:	4.0500 - 4.2900	↓	-21H to 3H	-7.50
Iowa-Western:	4.0100 - 4.2400	↓	-25H to -2H	-10.05
Illinois:	4.1800 - 4.4400	↓	-8H to 18H	3.33
Indiana:	4.0475 - 4.4100	↓	-15Z to 15H	3.30
Ohio:	4.1975 - 4.4175	↓	OptZ to 22Z	5.33
Michigan:	3.9975 - 4.3600	↓	-20Z to 10H	-3.33
Kansas:	4.1900 - 4.5800	↓	-7H to 32H	15.00
Minnesota:	3.8775 - 4.0500	↓	-32Z to -21H	-26.00
Nebraska:	3.9375 - 4.2975	↓	-26Z to 10Z	-15.27
Wisconsin:	3.7100 - 3.9975	↓	-55H to -20Z	-38.25
South Dakota:	3.8100 - 4.0400	↓	-45H to -22H	-32.00
Missouri:	3.9975 - 4.2775	↓	-20Z to 8Z	-8.25

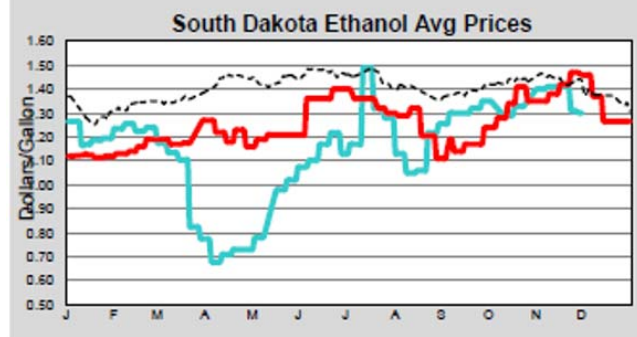


— 2020 — 2019 - - - 5 Yr Avg

Ethanol - dollars/gallon - week ending 11/27/2020

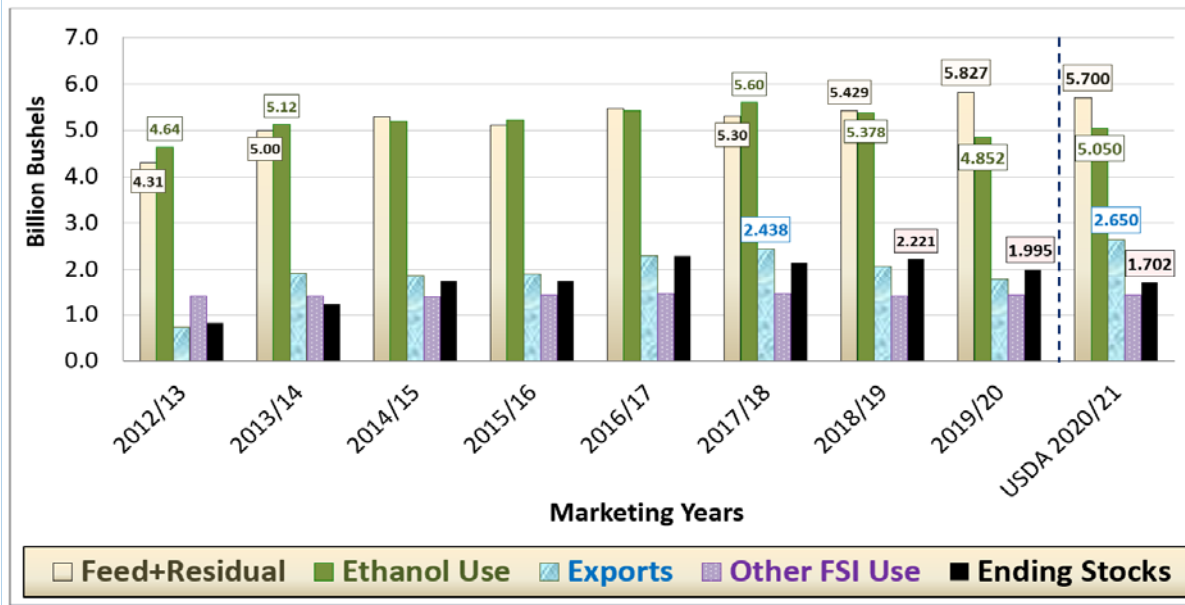
Iowa:	1.13	-	1.35	↓	1.25
Eastern Cornbelt	1.37	-	1.40	↑	1.38
Kansas:	1.13	-	1.31	↓	1.21
Minnesota:	1.19	-	1.28	↑	1.24
Nebraska:	1.13	-	1.33	↓	1.21
Wisconsin:	1.33	-	1.33	↓	1.33
South Dakota:	1.27	-	1.34	↓	1.30

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— 2020 — 2019 - - - 5 Yr Avg

Figure 8b. U.S. Corn Use & Ending Stocks: MY 2012/13 through Projected “Next Crop” MY 2020/21
as of the November 10, 2020 USDA WASDE report



Wheat Market Factors....

6) U.S. Wheat Exports ^{11/19/2020} (wk 25/52 – 48.1%)

- **Shipments:** 438 mb of 975 mb^{USDA est} (10.8% to *China*)
- **Forward Sales:** 225 mb of 975 mb^{USDA est} (≈12.7% to *China*)

⇒ **All U.S. Wheat:** Need 19.9 mb/wk for USDA^{est} of 975 mb

- 12.6 mb shipments for week ending 11/19/2020

⇒ **U.S. HRW Wheat:** Need 8.4 mb/wk for USDA^{est} of 405 mb

- 7.0 mb shipments for week ending 11/19/2020

Figure 10a. U.S. All Wheat Exports for MY 2015/16 thru “New Crop” MY 2020/21 as of USDA FAS Weekly Export reports through November 19, 2020

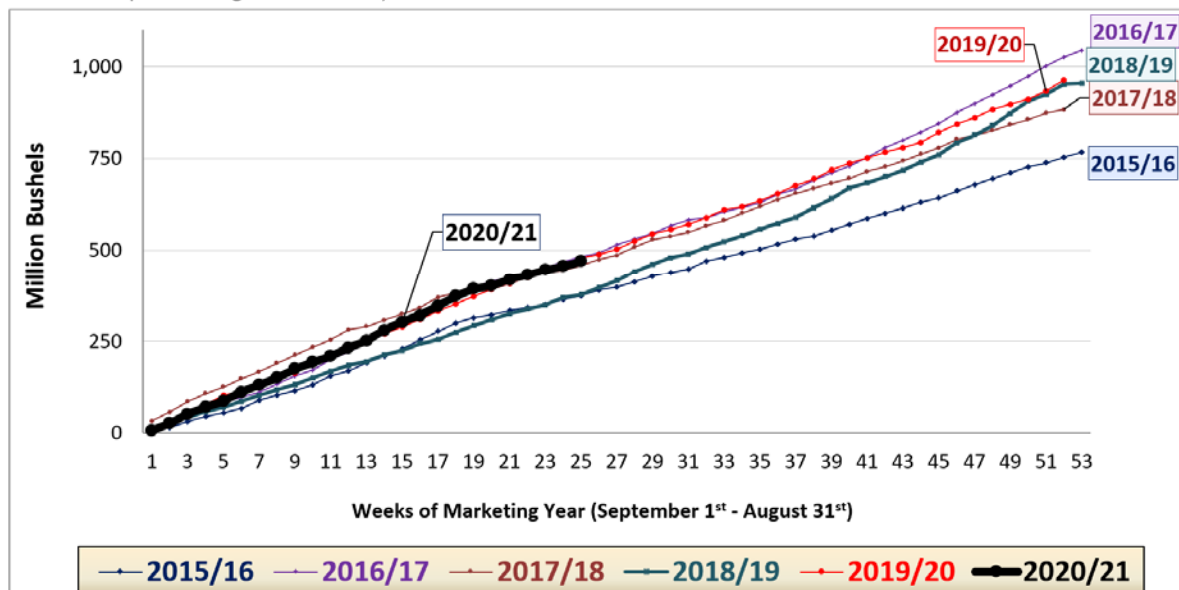
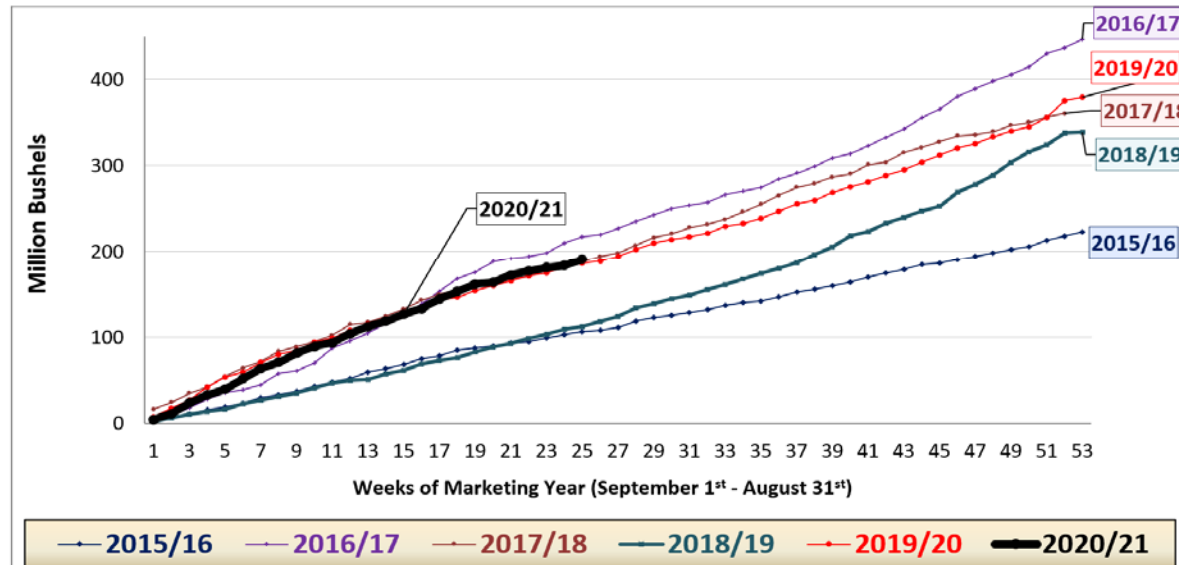


Figure 10b. U.S. Hard Red Winter Wheat Exports for MY 2015/16 thru “Current Crop” MY 2019/20 as of USDA FAS Weekly Export reports through November 19, 2020



Major Export Competitor Issues....

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

- **Soybeans** ^{So-Am 2021} ⇒ **Up 5%** vs 2020 due to ‘China demand’
- **Corn** ^{So-Am 2021} ⇒ **Up 5%** vs 2020,
 - *So-Am + Ukraine* UP 51% over last 5 years competing with U.S.
- **Argentina & Brazil:** Politics, export taxes, weak currencies
- **Ukraine & Russia:** Drought, geopolitics, logistics, weak currencies

What to anticipate in early 2021.....

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8) 2021 U.S. Spring Plantings

- **1st determine U.S. crops in fall 2020**
 - Moderate U.S. crop reductions in Fall 2020 ^{D. O’Brien}
- **Soybeans** ^{U.S. 2021} **Up++** ➡ ⬆⬆ ≈ **U.S.-China Trade / exports**
- **Corn** ^{U.S. 2021} **Up also?** ➡ ⬆ ≈ **Ethanol & Feed use + exports**
- **Sorghum** ^{U.S. 2021} **Up***** ➡ ⬆ ≈ **IF China Imports Continue**

Corn & Sorghum Markets

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U.S. Corn & Sorghum Stocks.....

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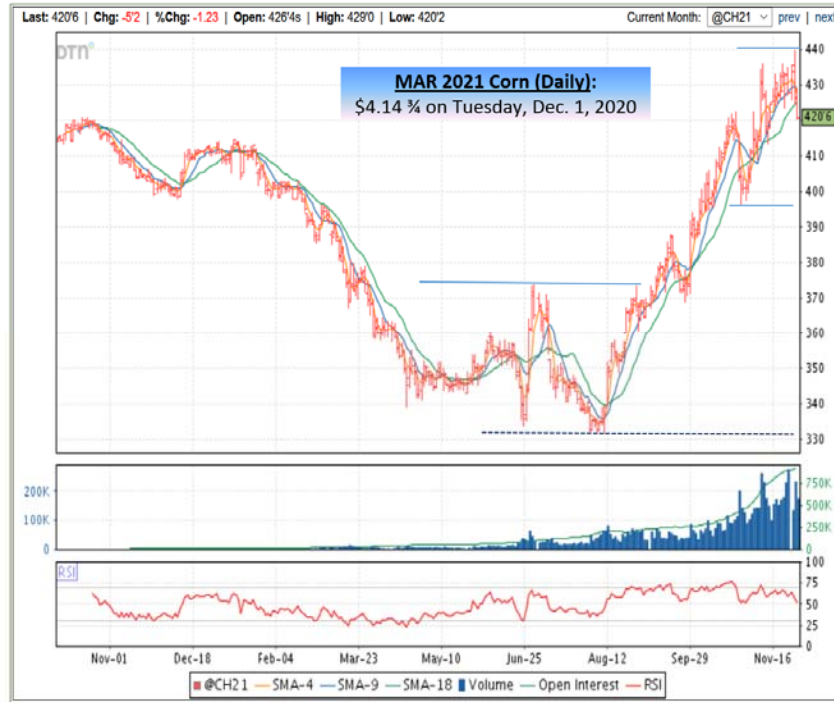
□ Corn: “*Tight*” Stocks & % S/U @ \$4.00 /bu U.S. Farm\$

- End Stocks ^{2020/21} ⇒ 1.702 bln bu (vs 1.995 bb last year)
- % Stocks/Use ^{2020/21} ⇒ 11.5% S/U (vs 14.4% S/U last year)

□ Grain Sorghum: “*Strong*” Exports @ \$4.05 /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)

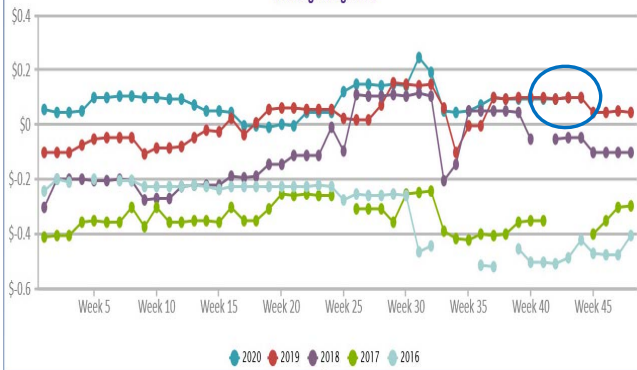
Daily CME MARCH 2021 Corn Futures



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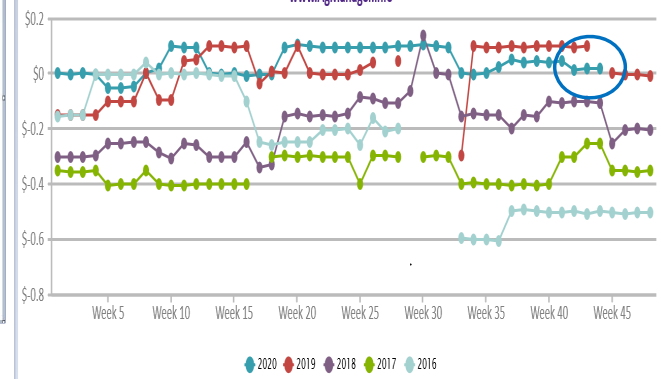
COLUMBUS, KS: Corn Basis - FARMERS COOP

www.AgManager.info



LAMAR, MO: Corn Basis - MFA

www.AgManager.info



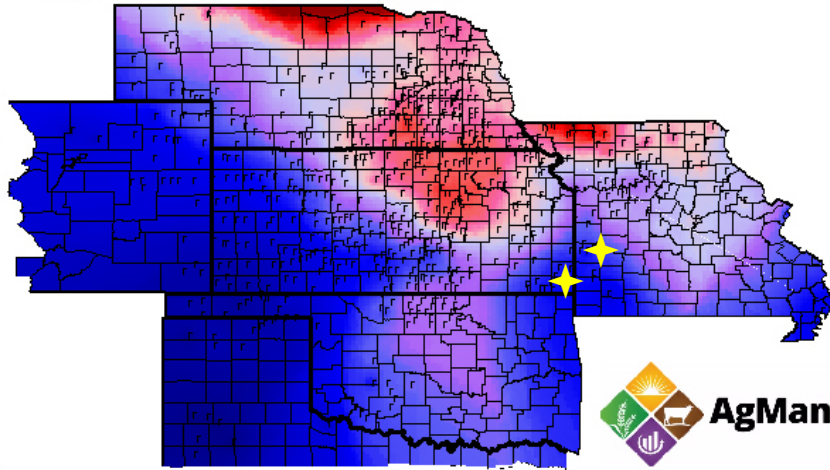
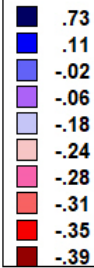
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Corn Basis, 11-25-2020

Basis = Cash Price - Nearby Futures Price

CBT Dec
Futures
Price: \$4.20

\$/Bushel



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

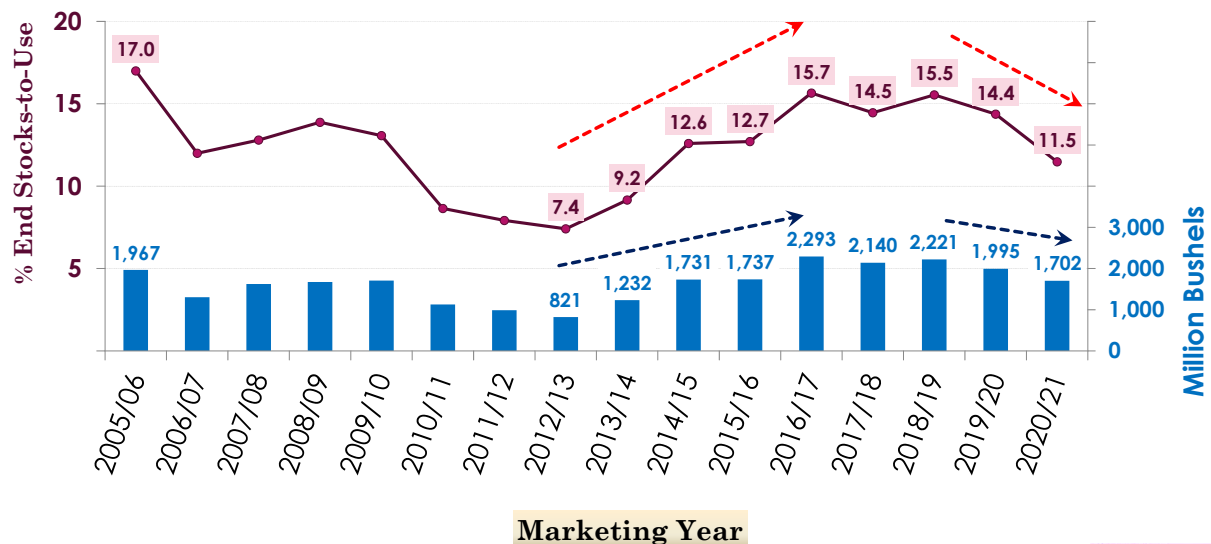
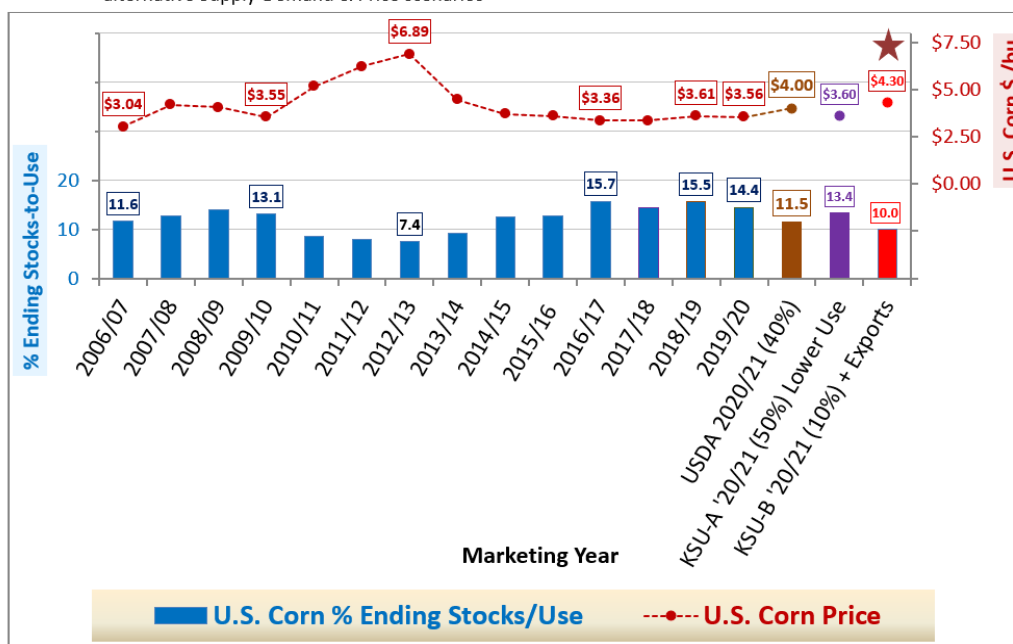


Figure 13b. U.S. Corn Percent Ending Stocks vs U.S. Average Cash Corn Prices, MY 2006/07 – projected “New Crop” MY 2020/21; as of the November 10, 2020 USDA WASDE report plus KSU alternative Supply-Demand & Price scenarios



World Corn Supply, Use & Stocks

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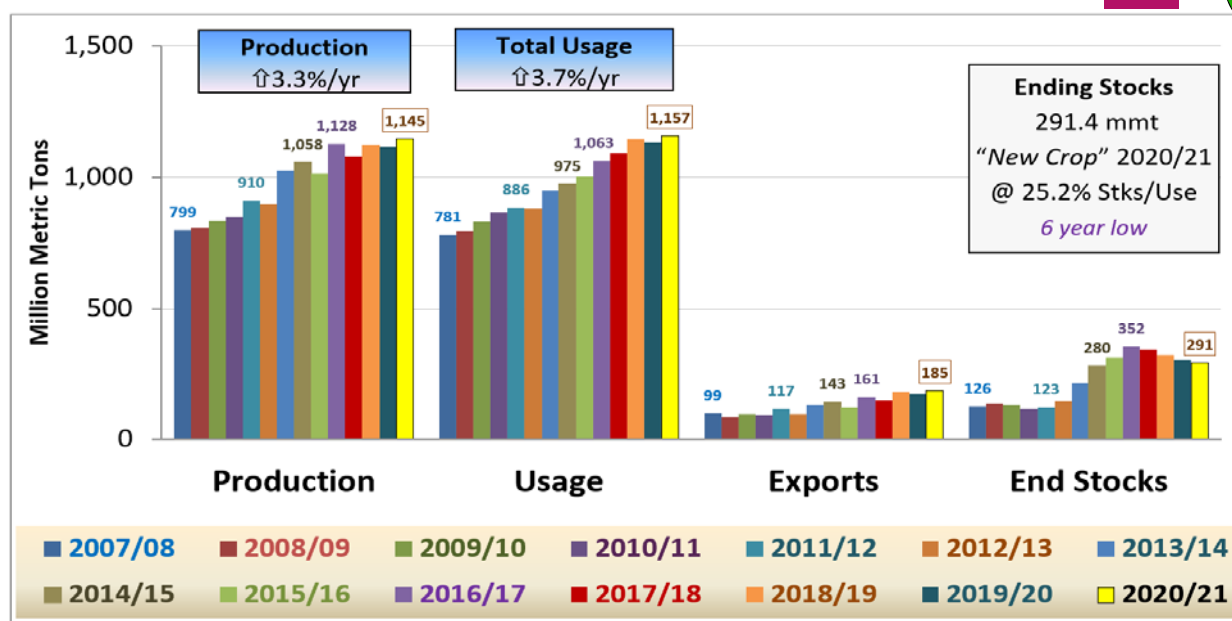
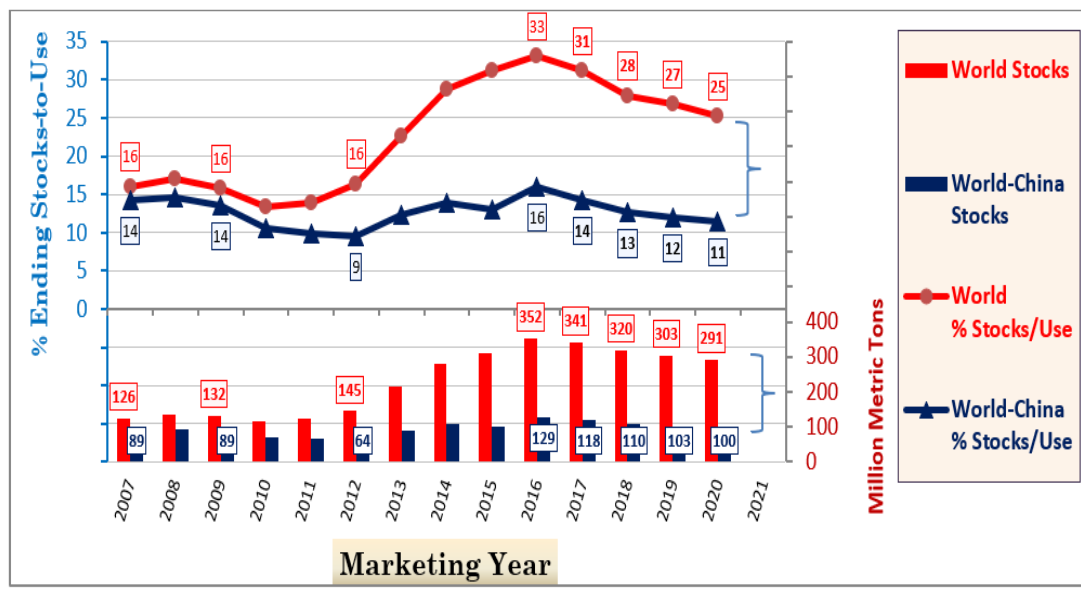
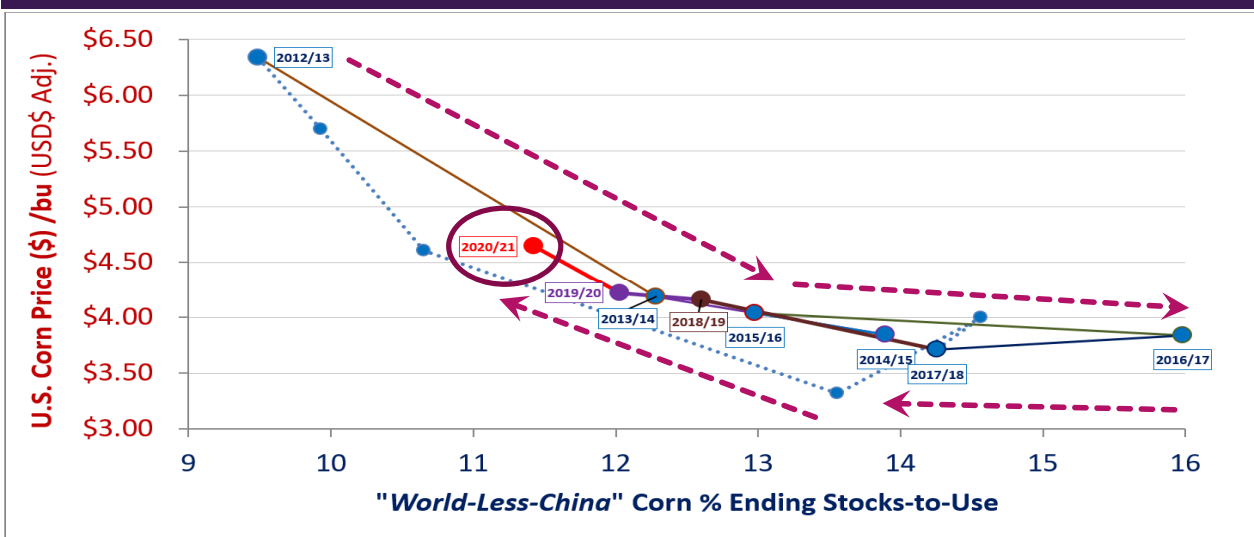


Figure 18. U.S. vs % "World-Less-China" Corn Stocks-to-Use: MY 2007/08 through "New Crop" MY 2020/21,
as of the November 10, 2020 USDA WASDE report.



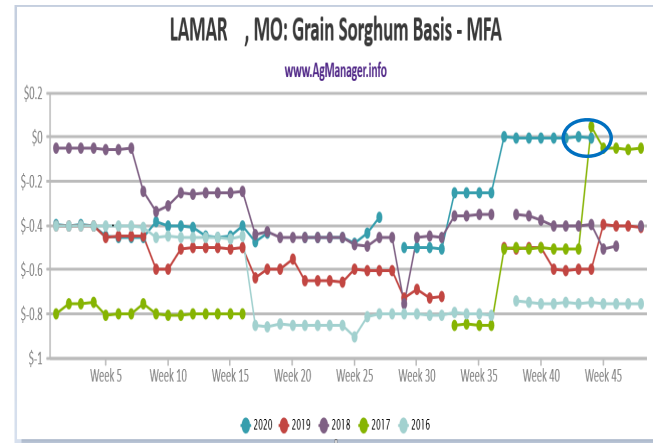
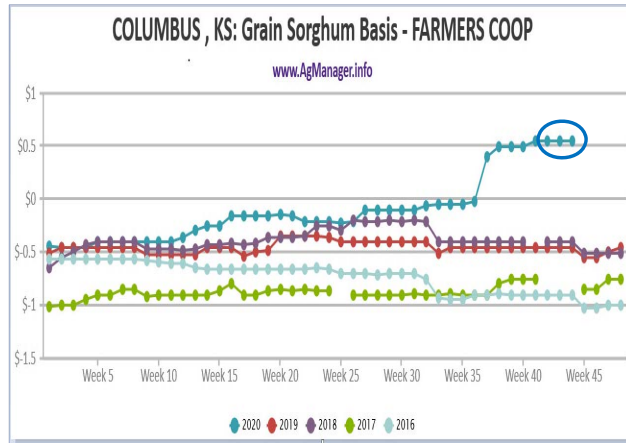
U.S. Corn \$^{USD-adj} vs World^{Less China} %Stx/Use

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





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Grain Sorghum Basis, 11-25-2020

Basis = Cash Price - Nearby Futures Price

CBT Corn
Dec Futures
Price: \$4.20

\$/Bushel

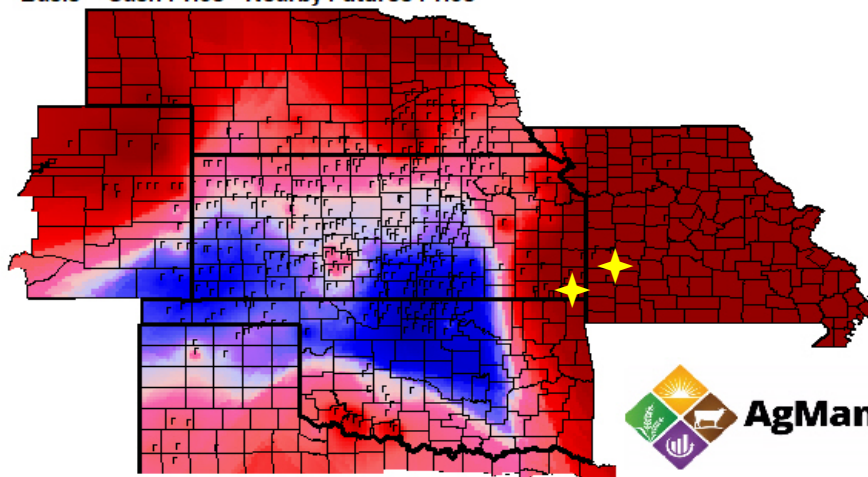
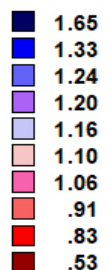


Figure 7a. U.S. Grain Sorghum Exports for MY 2012/13 through “New Crop” MY 2020/21 as of November 19, 2020 - via USDA FAS Weekly Export reports

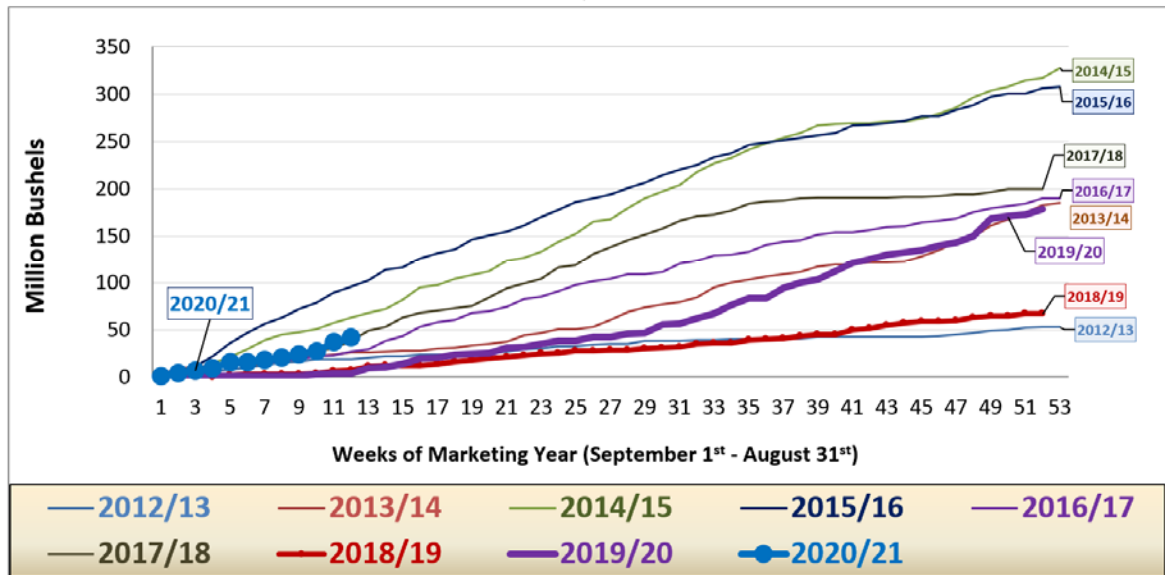
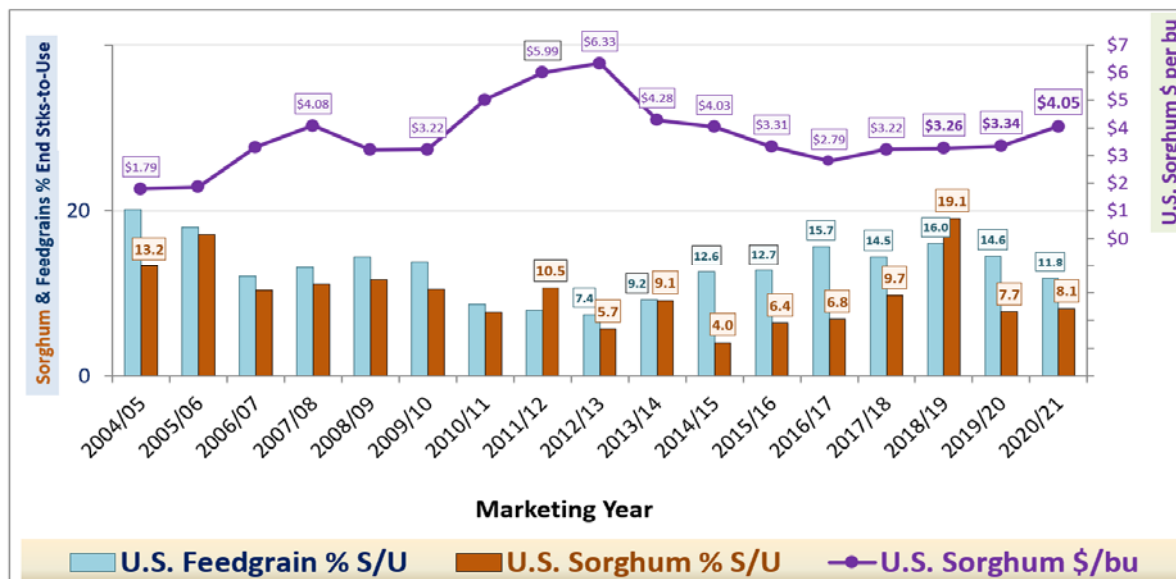
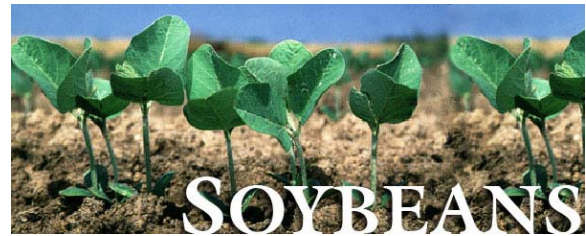


Figure 8a. U.S. Grain Sorghum Ending Stocks-to-Use vs U.S. Average Cash Prices: MY 2004/05 - “New Crop” MY 2020/21 as of the November 10, 2020 WASDE Report



Soybean Markets

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U.S. Soybean Market Prospects in 2018-19

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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 31%+* 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

U.S. Soybean & Cotton Stocks.....

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- Soybean: “*Small*” Stocks & % S/U

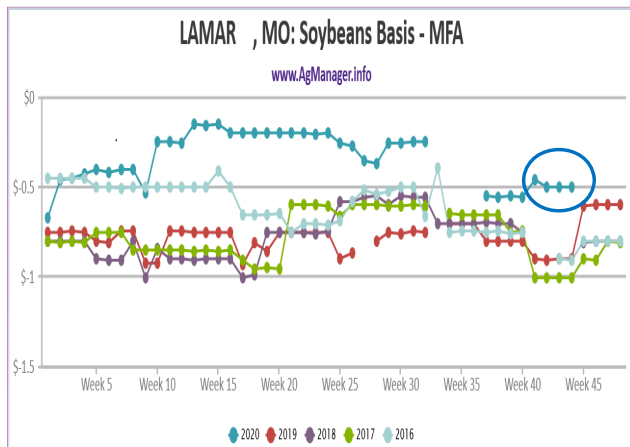
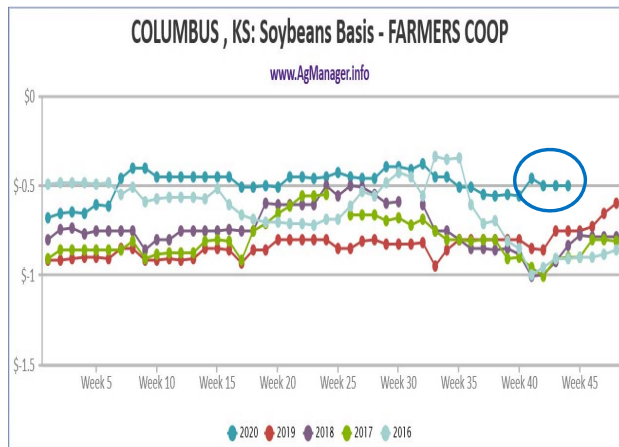
- End Stocks 2020/21 ⇒ 190 mln bu (Down vs 523 mb last year)
- % Stocks/Use 2020/21 ⇒ 4.2% S/U (Down vs 13.2% last year)

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Daily JANUARY 2021 Soybean Futures



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Soybean Basis, 11-25-2020

Basis = Cash Price - Nearby Futures Price

CBT Jan
Futures
Price: \$11.84

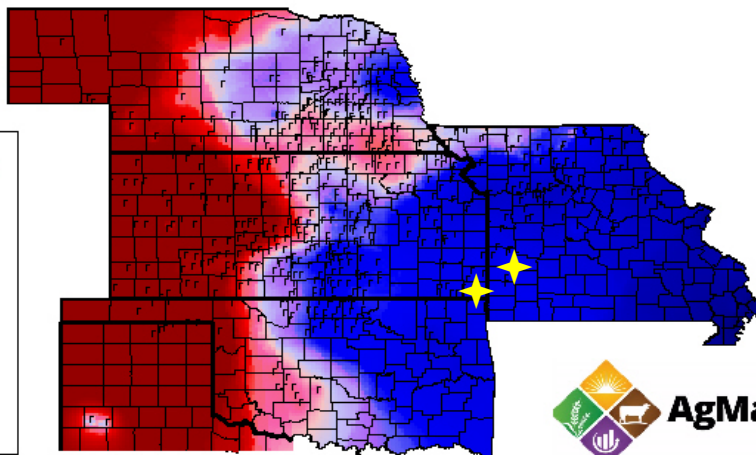
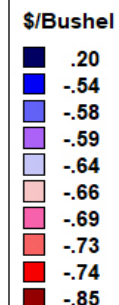
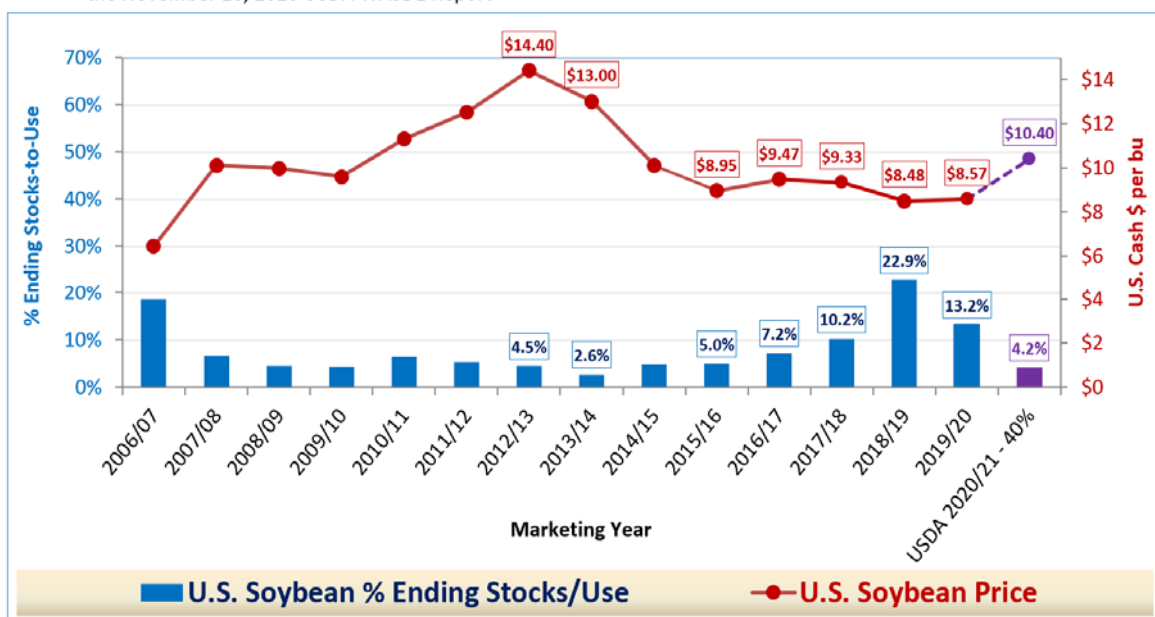


Figure 12a. U.S. Soybean Ending Stocks vs U.S. Avg. Cash Prices: MY 2006/07 – “New Crop” MY 2020/21 as of the November 10, 2020 USDA WASDE Report



Wheat Markets

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U.S. Wheat Stocks.....

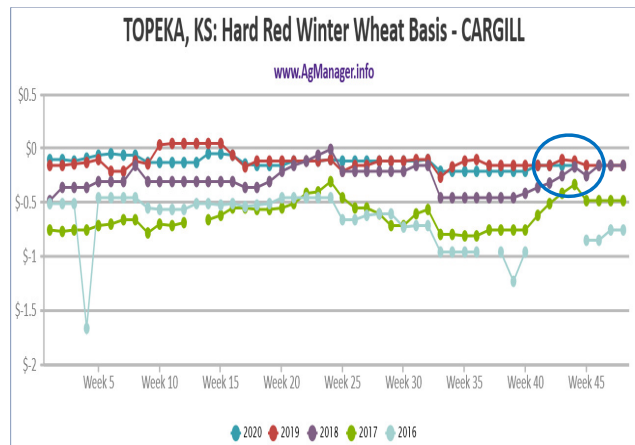
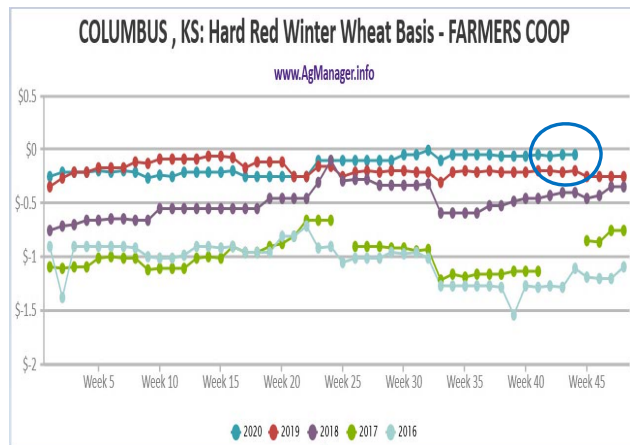
51

- **All U.S. Wheat:** “Large but Declining” **Stocks**
 - **End Stocks** 2020/21 ⇒ 877 mln bu (1.028 bb last year)
 - **% Stocks/Use** 2020/21 ⇒ 41.7% S/U (49.2% Stx/Use last year)
- **U.S. HRW Wheat:** “Large but trending Lower” **Carryover**
 - **End Stocks** 2020/21 ⇒ 338 mln bu (506 mb last year)
 - **% Stocks/Use** 2020/21 ⇒ 40.3% S/U (59.0% Stx/Use last year)

Daily MARCH 2021 KS HRW Wheat



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Wheat Basis, 11-25-2020

Basis = Cash Price - Nearby Futures Price

KCBT Dec
Futures
Price: \$5.44

\$/Bushel

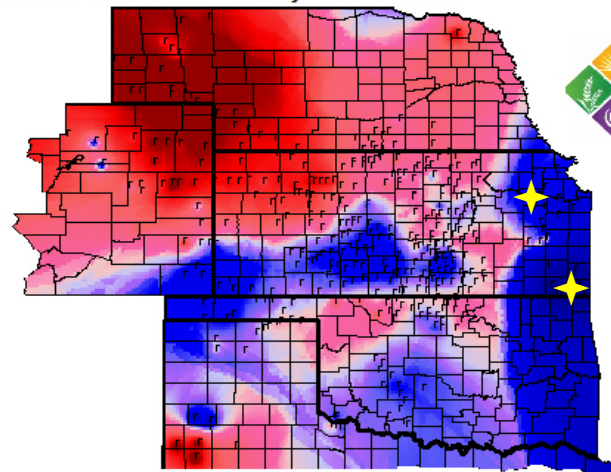
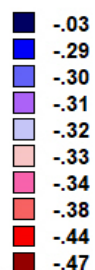
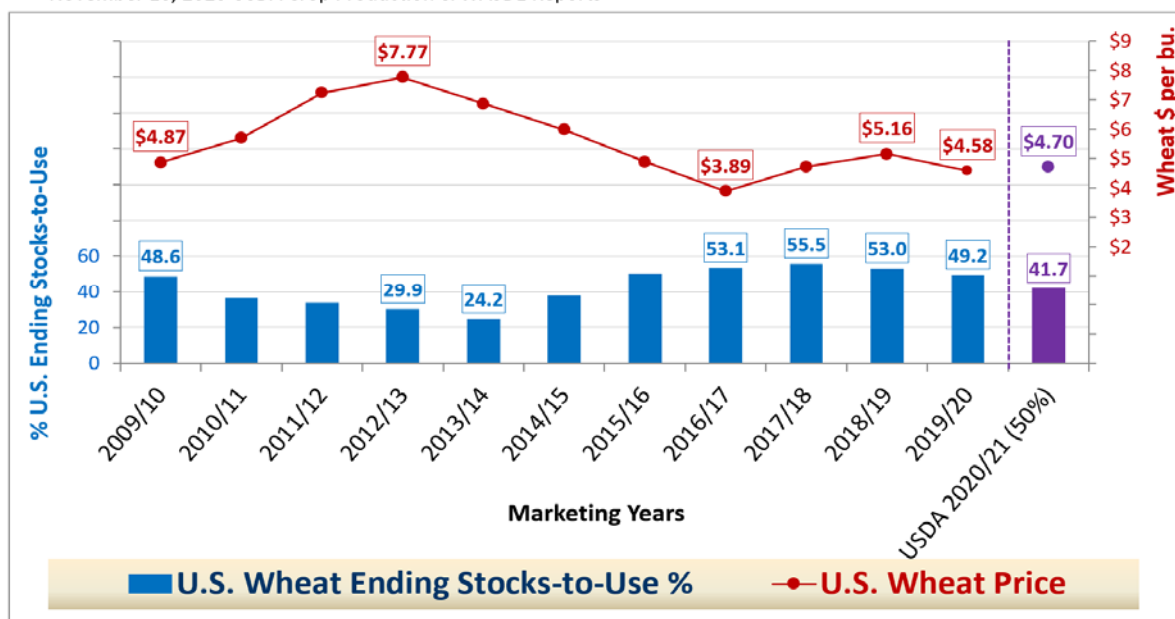


Figure 11a. U.S. Wheat Ending Stocks vs U.S. Cash Prices: MY 2009/10 thru "New Crop" MY 2020/21 as of the
November 10, 2020 USDA Crop Production & WASDE Reports



Questions?

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