

CORN-SOYBEAN UPDATE

WEDNESDAY, JULY 14, 2021



**MONTHLY
OUTLOOK**

**PURDUE CENTER FOR
COMMERCIAL AGRICULTURE**

James Mintert, Professor & Director, Center for Commercial Agriculture

Nathan Thompson, Associate Professor, Dept. of Agricultural Economics

Michael Langemeier, Professor & Associate Director, Center for Commercial Agriculture



Center for Commercial Agriculture

CORN - July World Ag Supply & Demand Estimates (WASDE) Highlights

▪ **Change in U.S. Corn 2020 Crop Balance Sheet**

- Increased feed usage by 25 million bushels
- No change in projected exports
- No change in projected ethanol usage
- Reduced projected carryover by 25 m. bu. to total 1.082 billion bushels, **equal to 7.4% of usage**
- Raised U.S. 2020 MYA Corn Price by \$0.05 to \$4.40/bushel

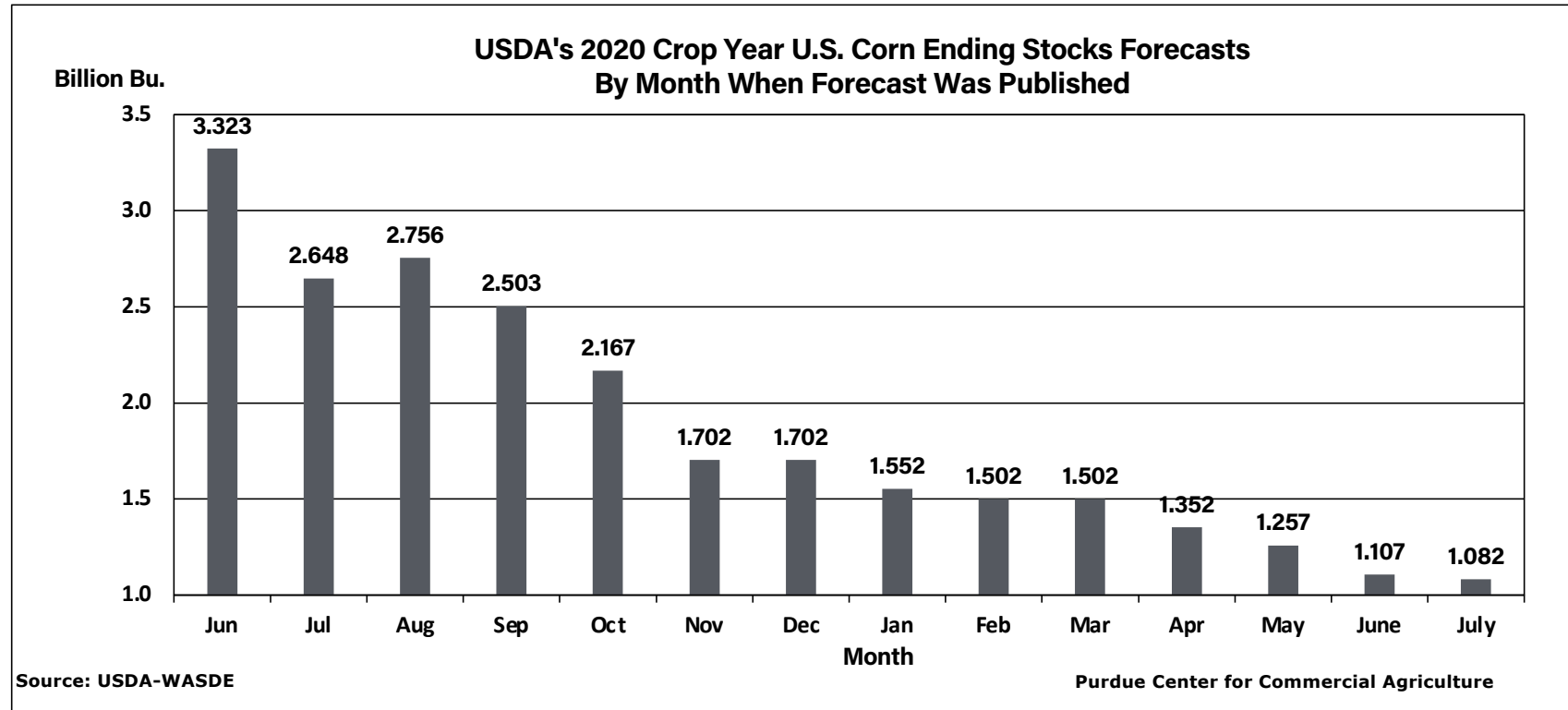
▪ **U.S. Corn 2021 Crop Balance Sheet**

- Raised production estimate by 175 million bushels to reflect acreage on June 30 *Acreage* report
- No change in Ethanol usage, still 5.2 billion bushels
- Raised Projected exports by 50 million bushels to 2.5 billion bu., about 12% below 2020 estimate
- Raised Projected Ending Stocks up to 1.43 billion bu., 75 million bushels more than June estimate
- Ending Stocks at end of 2021 = projected to be 9.6% of usage

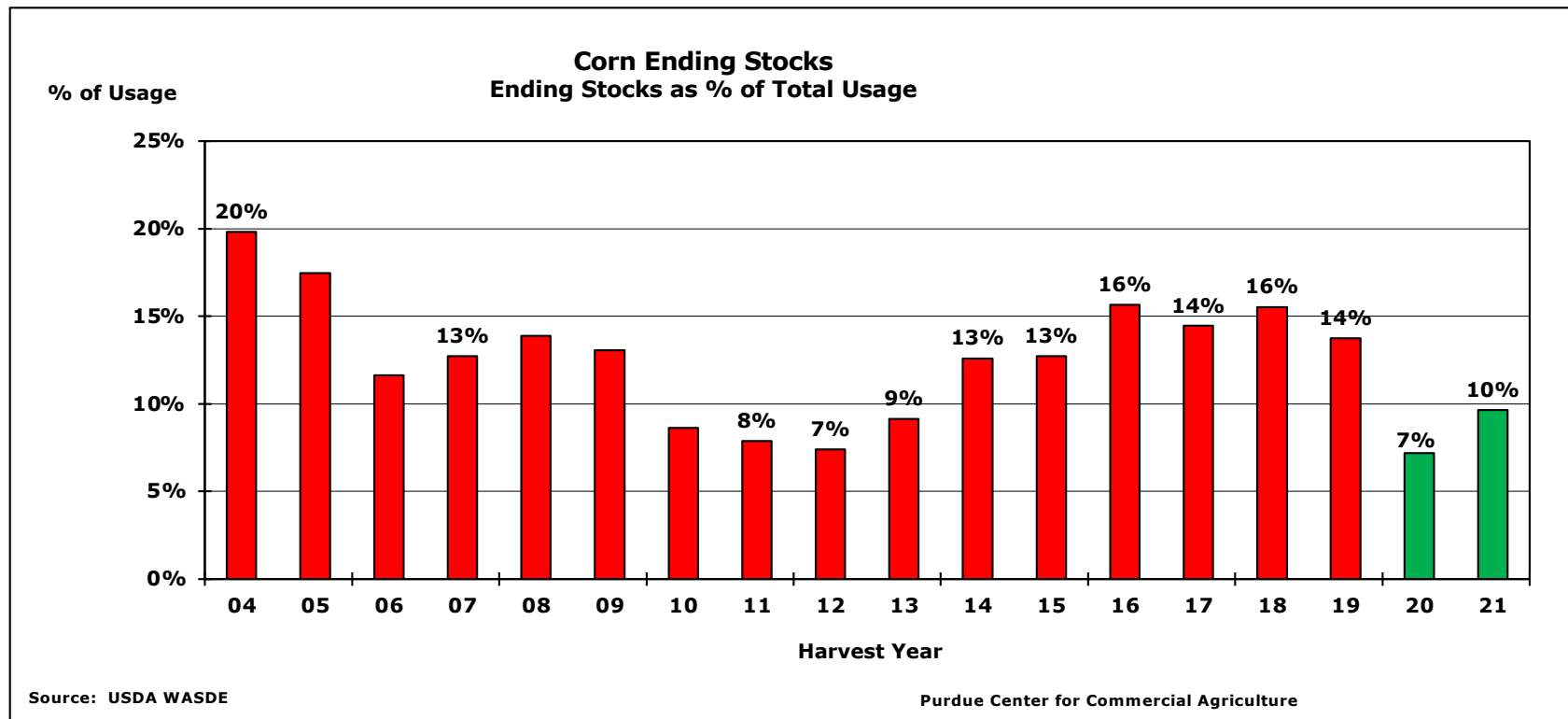
• **World Estimates**

- Reduced Brazil's current production by 5.5 mmt, but raised Argentina's by 1.5 mmt
- No change in China's expected imports from all sources compared to June estimates

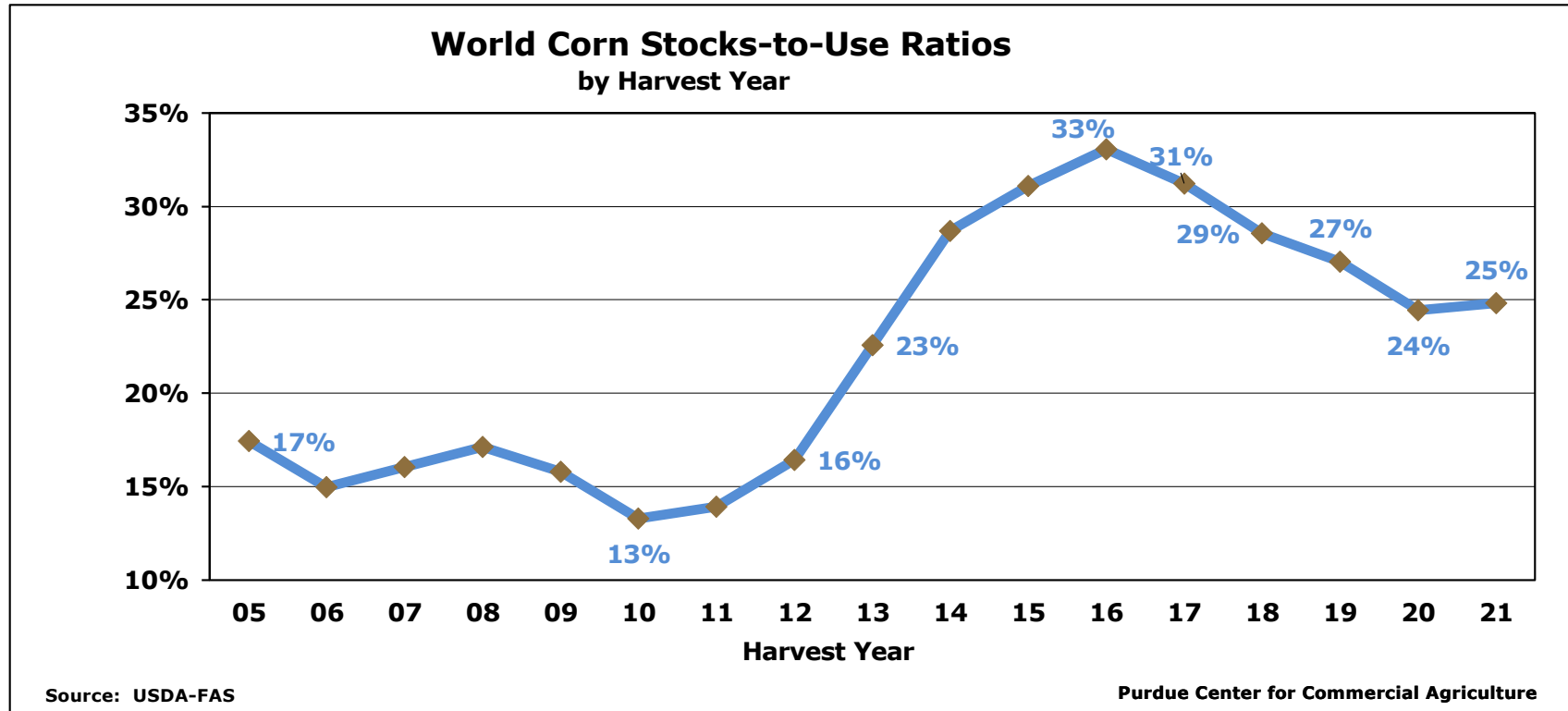
2020 Corn Crop Estimated Ending Stocks Shrink By 25 Million Bushels



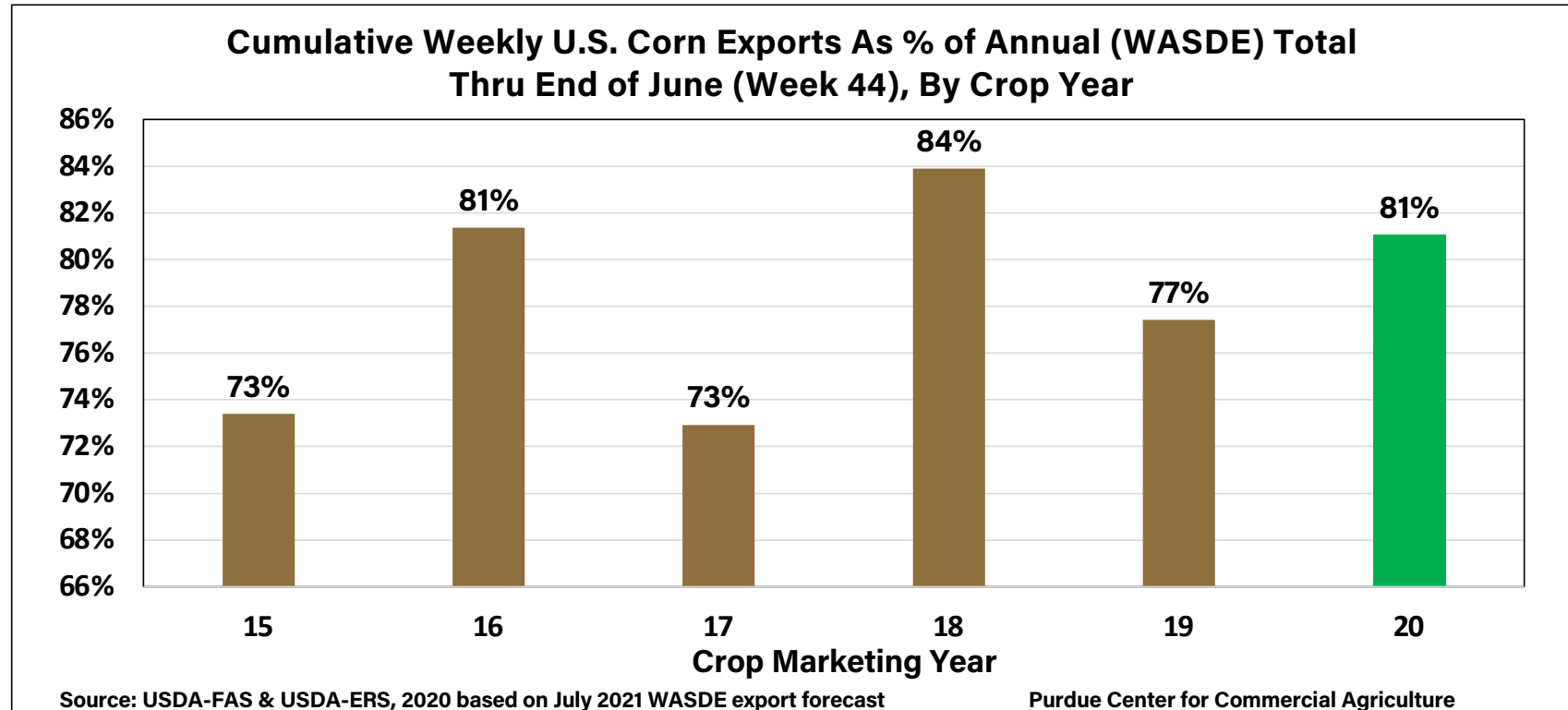
Revised 2021 Corn Crop Production Up to Reflect June Acreage Report, Pushed Up 2021 Ending Stocks



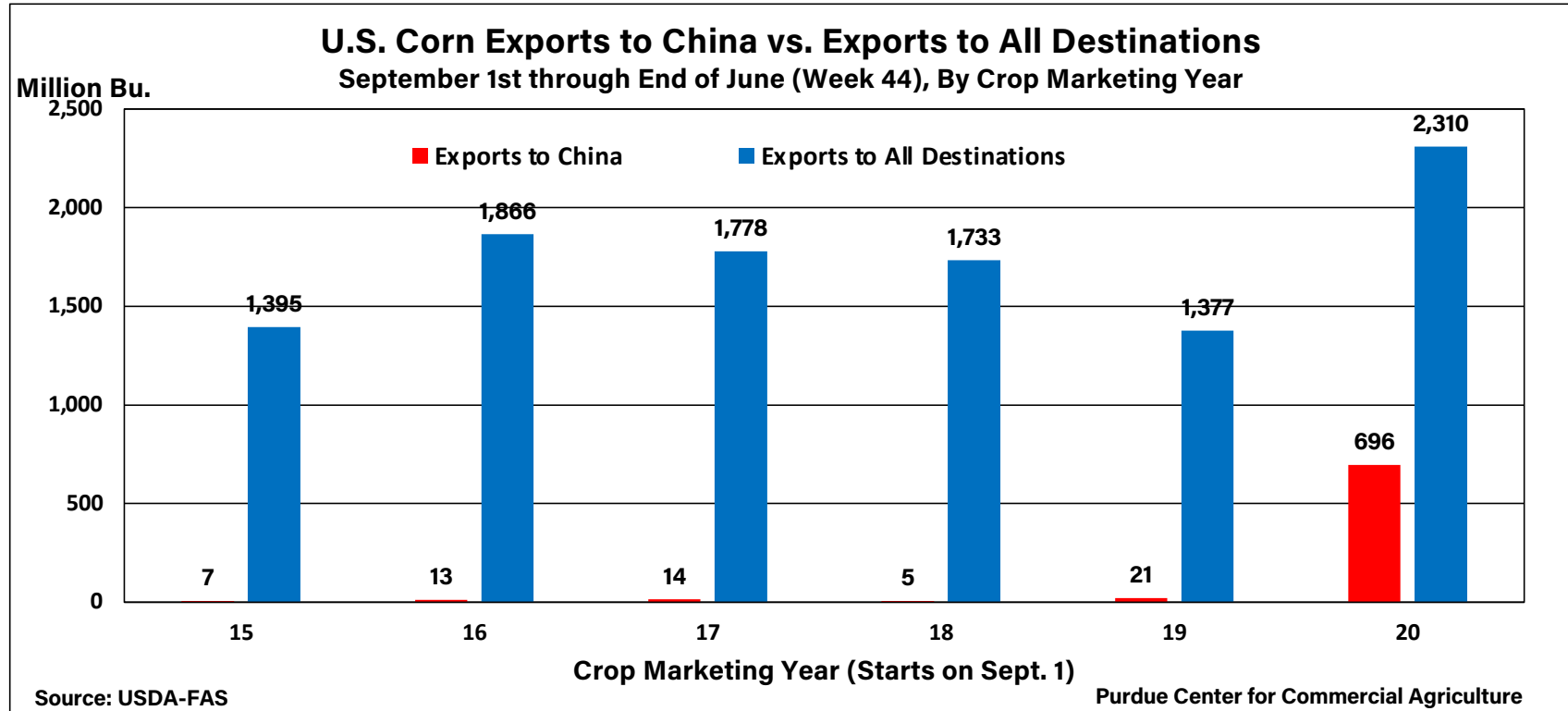
2020 World Stocks Outside China Down 1% vs June Estimate



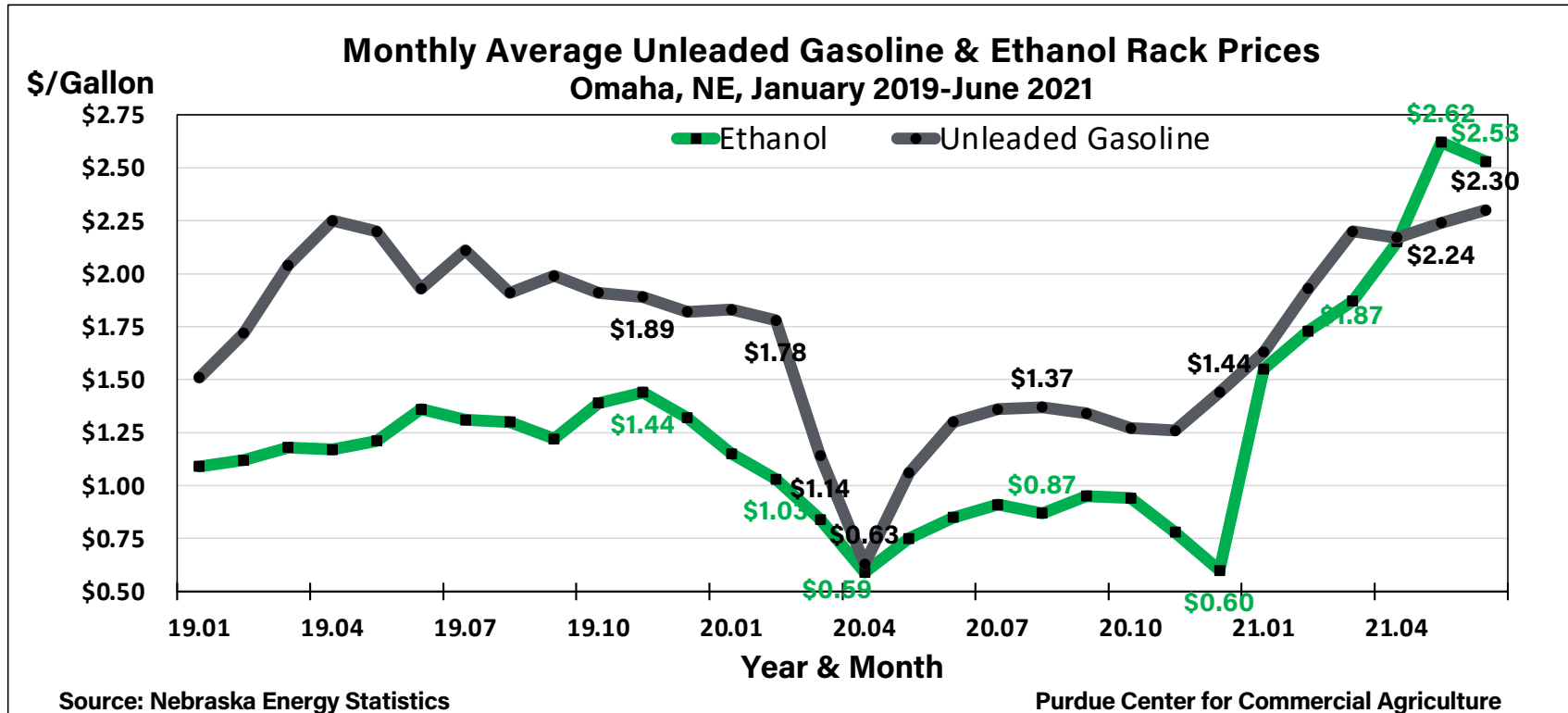
Looks Like There's Still Time To Reach USDA's Corn Exports Projection



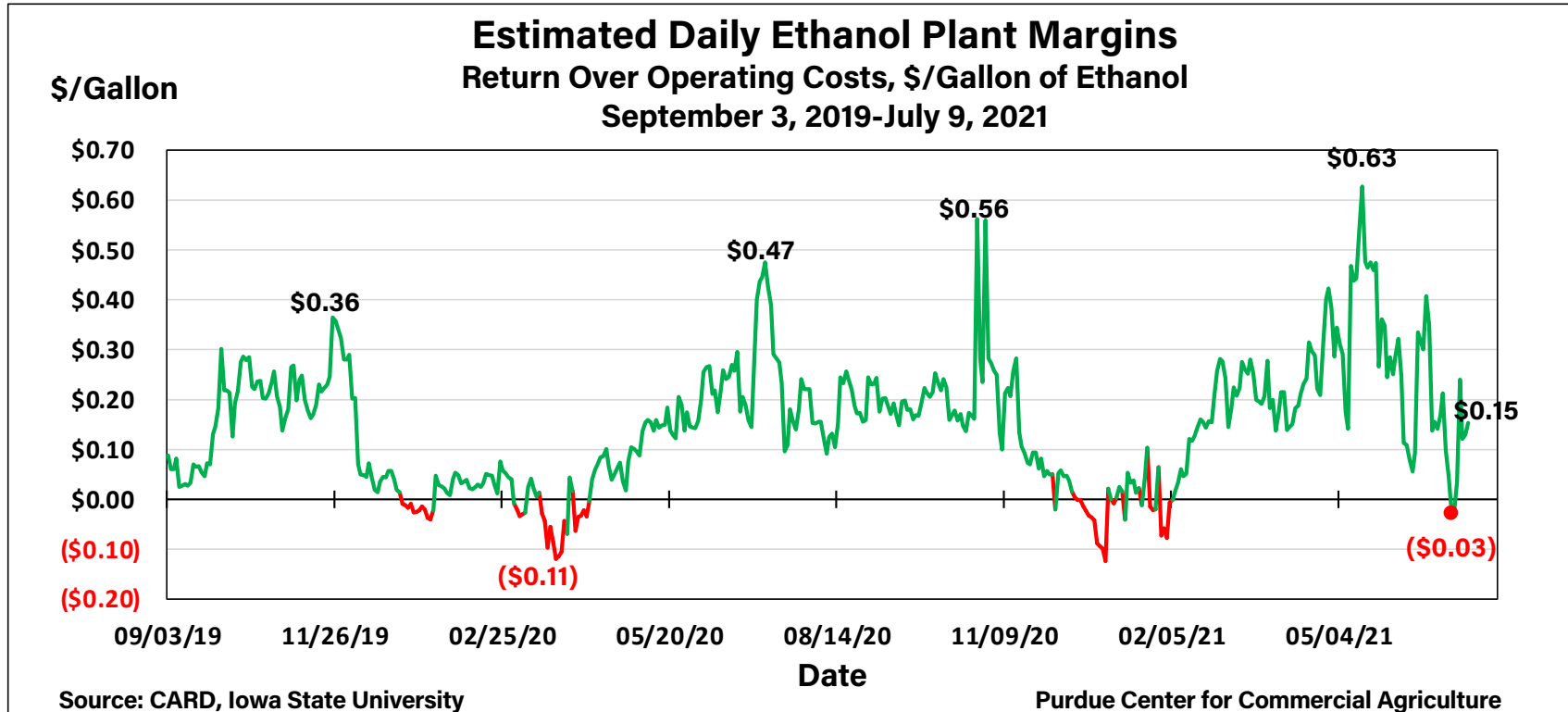
**Total Corn Exports Up 68% This Year, Rise in Exports to China Accounts for 72% of Increase
What Will China Do During the Rest of the Summer?**



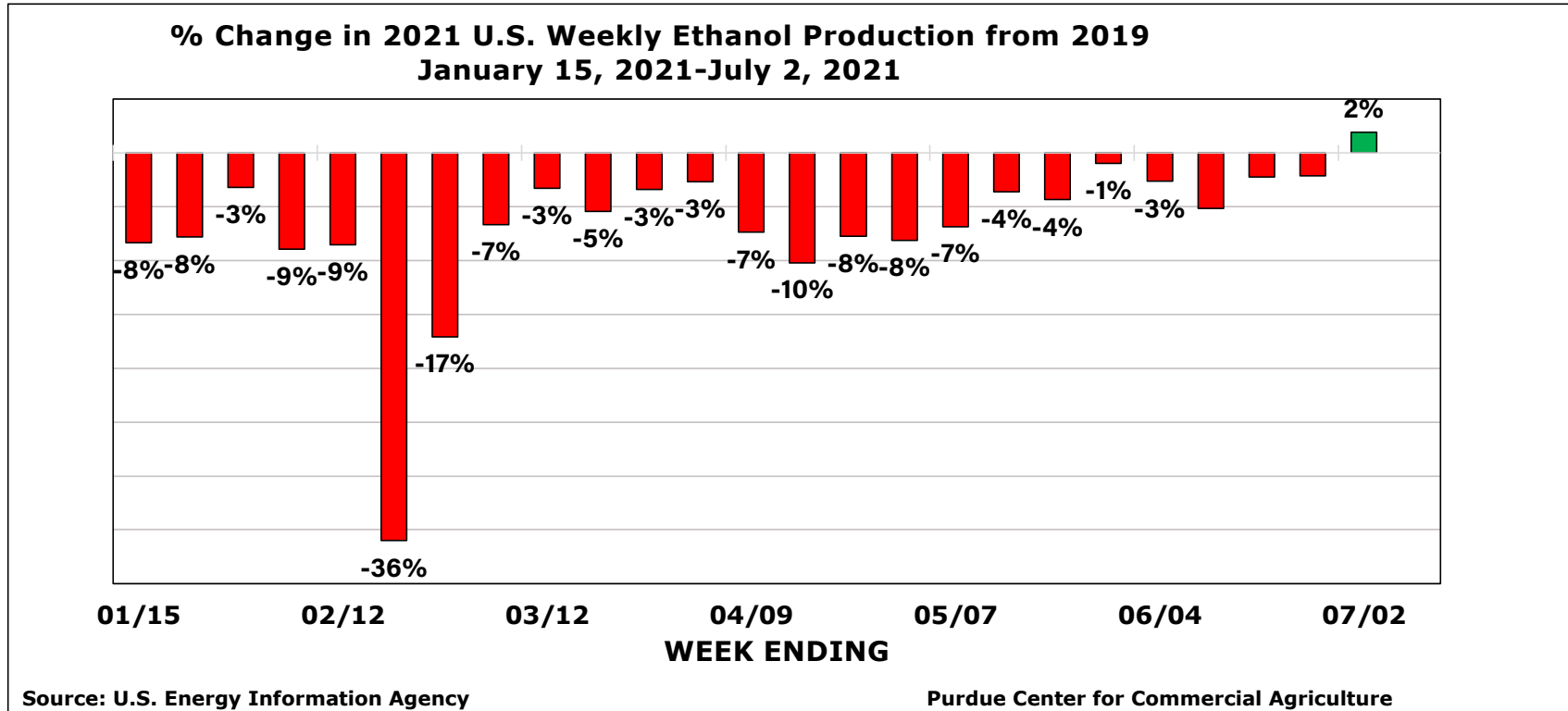
Ethanol Prices Remain Above Gas Prices



Ethanol Margins Under Pressure, But Still Positive



Ethanol Production Eclipsed 2019 Level at End of June



*Drought Monitor Suggests Dry Conditions in ND, SD, MN and Parts of IA Were Still A Problem Late Last Week
But How Much Did Rains of the Last Week Alleviate Crop Stress?*

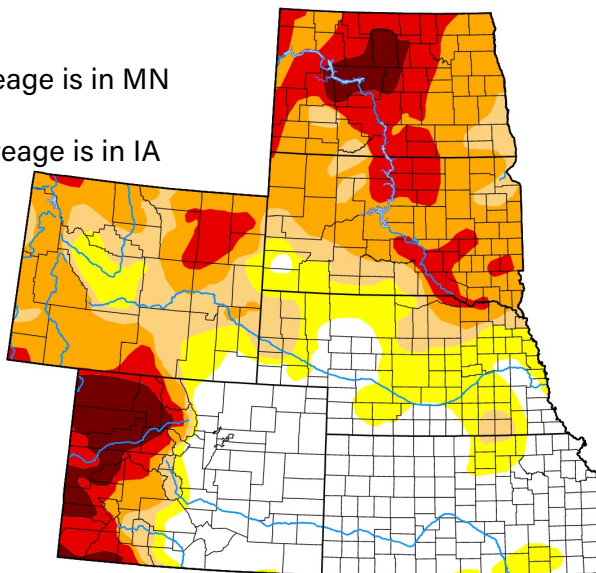
July 8th Drought Monitor...Next Update Will Be on July 15th

High Plains

10% of 2021 U.S. Corn Acreage is in ND & SD

9% of Corn Acreage is in MN

14% of Corn Acreage is in IA

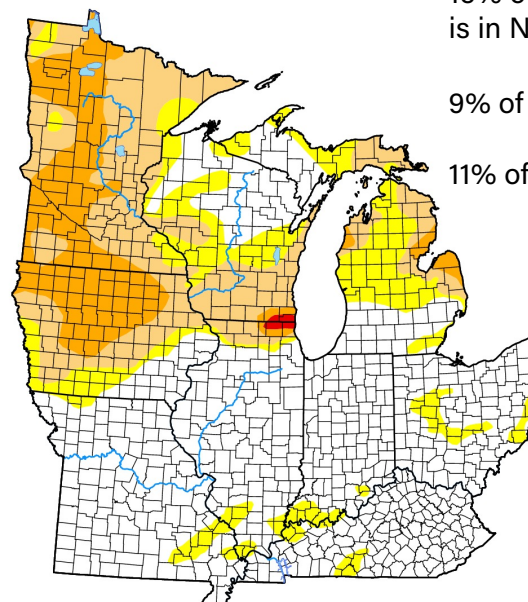


Midwest

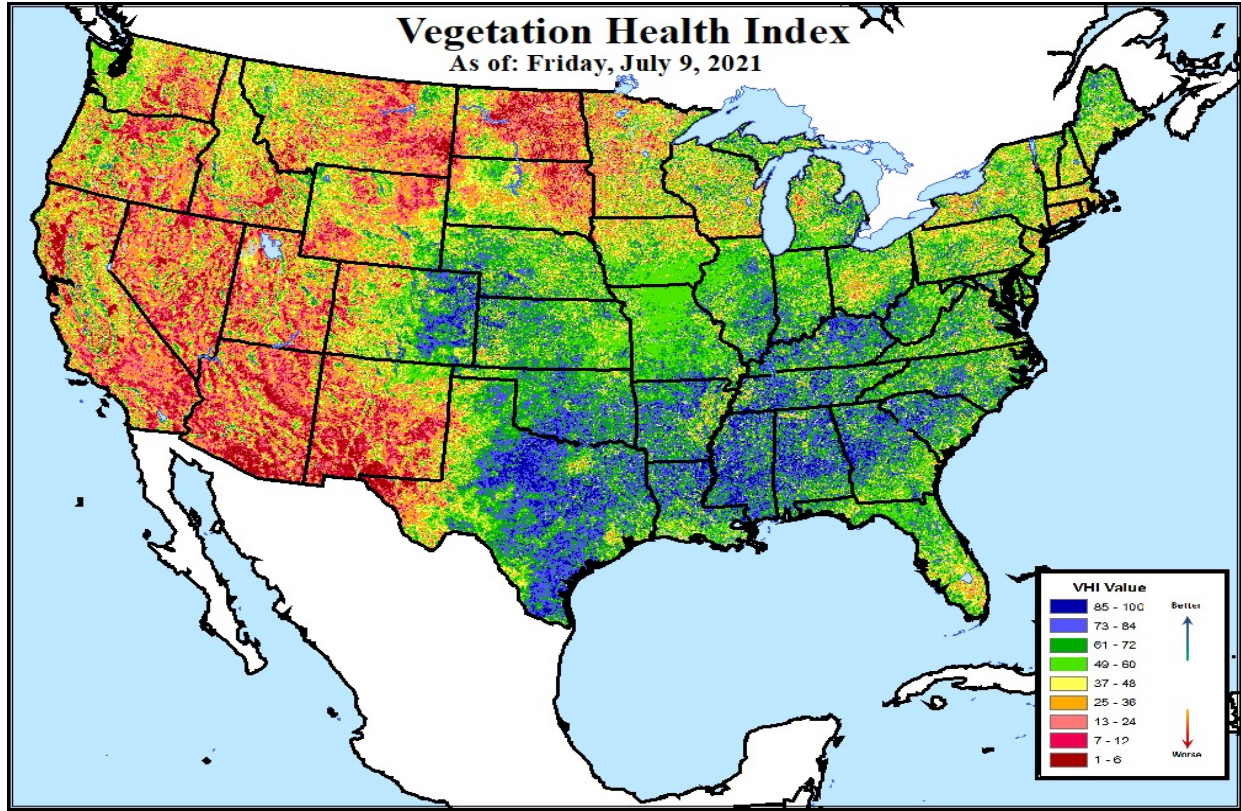
15% of 2021 U.S. Soybean Acreage is in ND & SD

9% of Soybean Acreage is in MN

11% of Soybean Acreage is in IA



US VEGETATION HEALTH INDEX (VHI)



Crop Conditions for Corn

Source: USDA-NASS

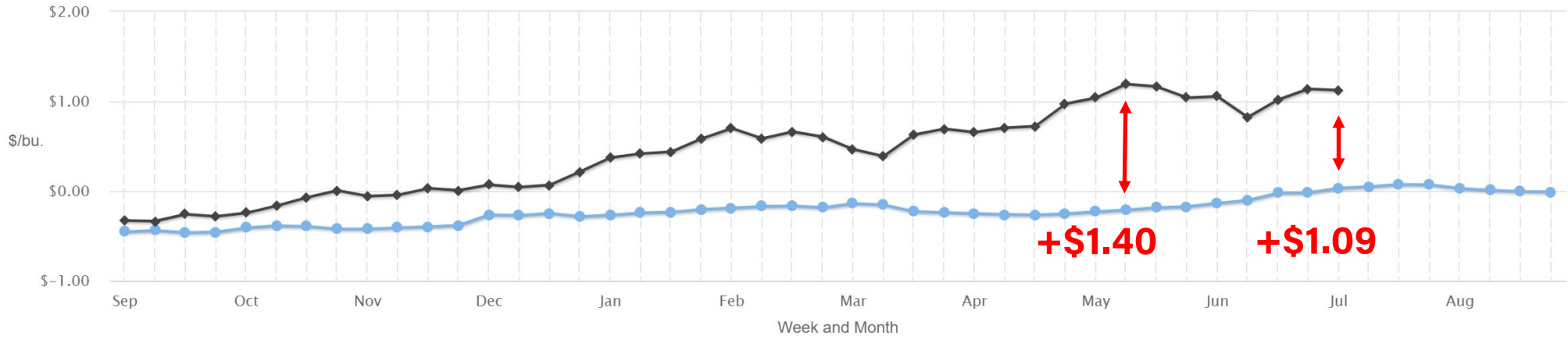
Percentage of Corn Ranked Good and Excellent

Week Ending	IN – 5-Year Average	IN - 2021	18 Major States
6/6	66%	73%	72%
6/13	63%	73%	68%
6/20	62%	70%	65%
6/27	59%	73%	64%
7/4	60%	73%	64%
7/11	59%	73%	65%

Corn basis - Central Indiana - 3 year average - September Corn Futures

Purdue Center for Commercial Agriculture Crop Basis Tool

Corn: IN CENTRAL Region, September Contract Basis, Weekly
 Avg. of Selected Historical Crop Years [2017-2018,2018-2019,2019-2020]
 vs. Current Crop Year



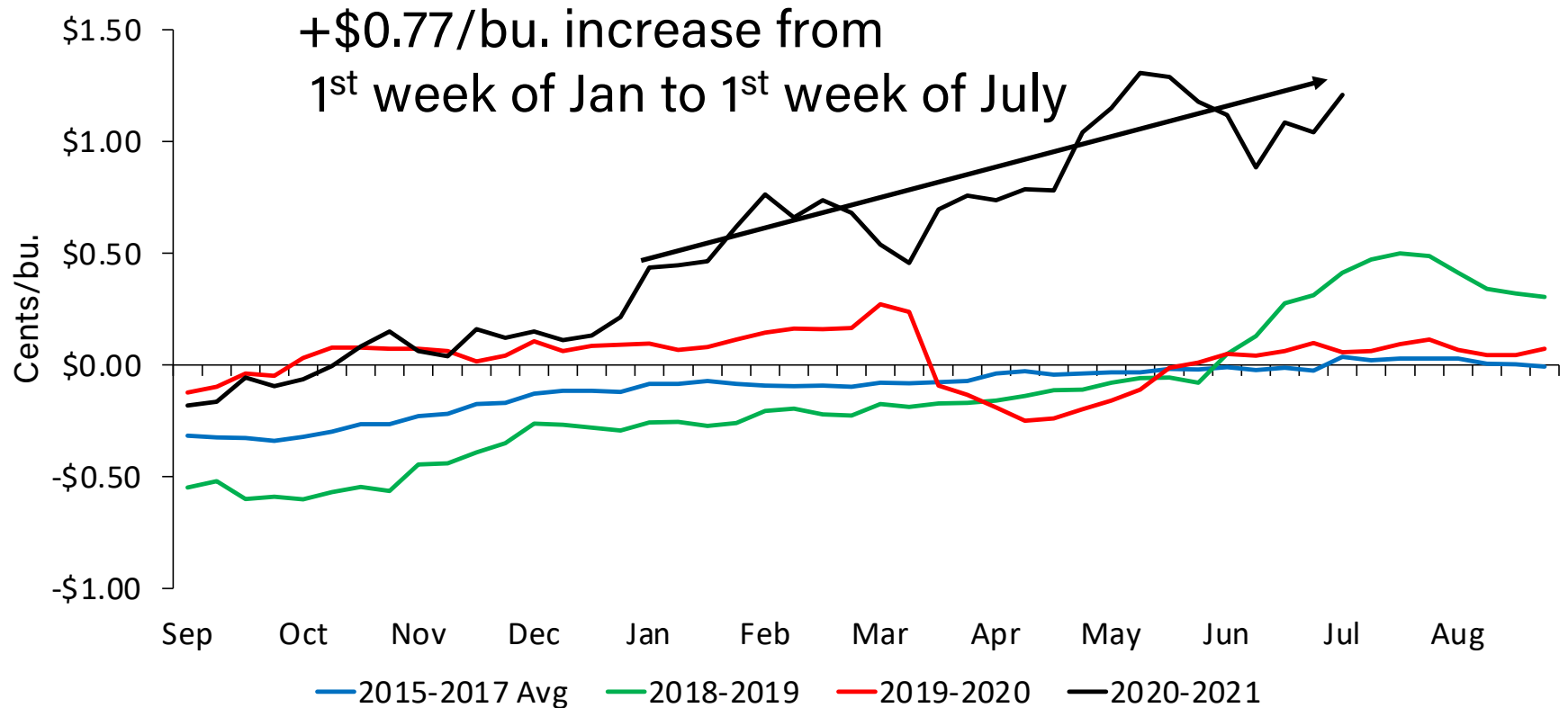
— Historical September Contract Basis, Avg of Selected Crop Years —◆— 2020-2021 Regional September Contract Basis

<https://www.purdue.edu/commercialag>



Center for Commercial Agriculture

Indiana ethanol plant basis - September Corn Futures



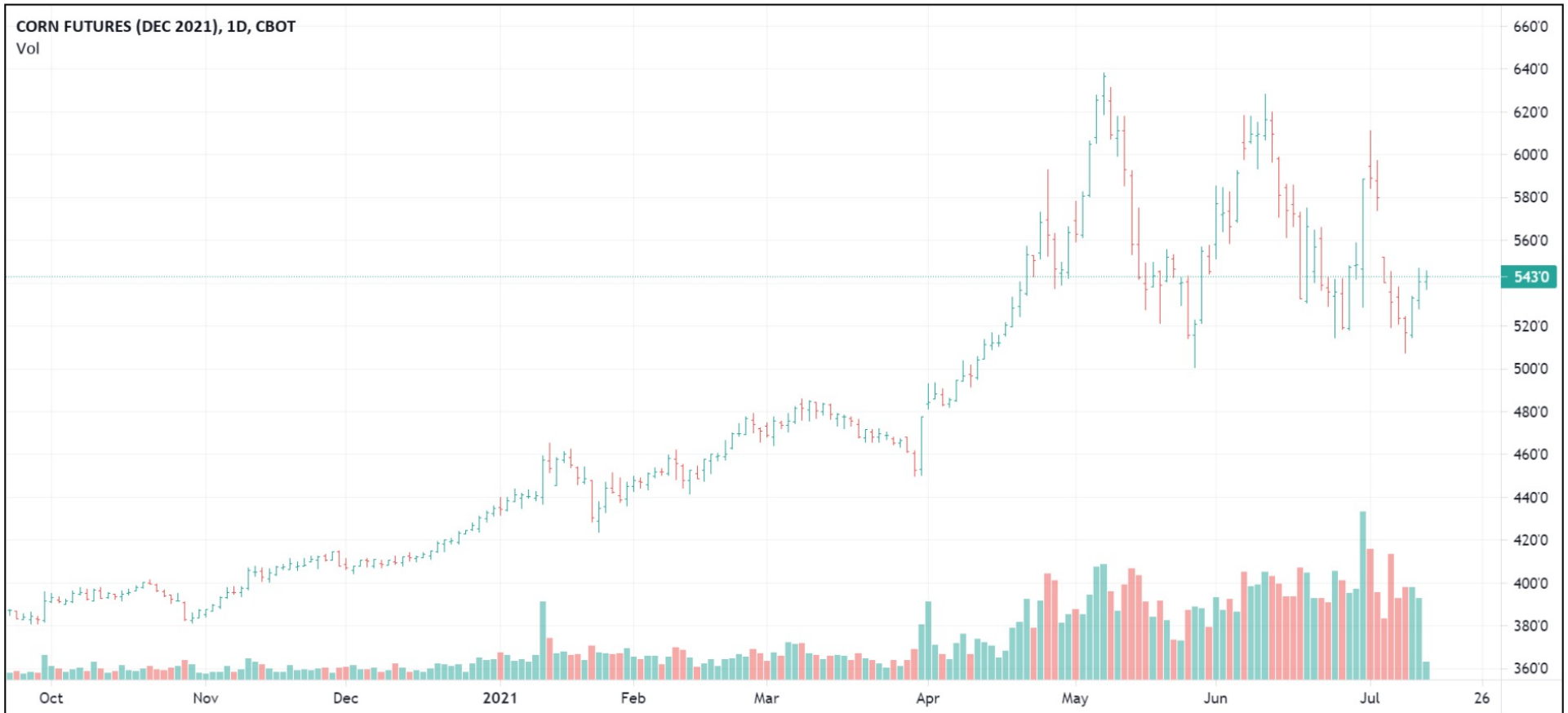
New crop corn opportunities?

CBOT Dec. '21 Corn futures	\$5.43
<u>Expected corn basis October '21 in Central IN</u>	<u>-\$0.15</u>
Expected harvest cash price	\$5.28/bu.

- Think in terms of risk management
- How can you protect favorable price opportunities while leaving open upside potential?

New crop December '21 corn futures

CBOT:ZCZ2021, 1D 543'0 ▲ +2'2 (+0.42%) O:540'4 H:545'6 L:536'6 C:543'0



farmdoc Price Discovery Tool: Dec. '21 Corn Futures



Price at Expiration ▲	Probability Below ▲
\$4.50	21.14%
\$4.75	29.71%
\$5.00	39.06%
\$5.25	48.60%
\$5.50	57.77%
\$5.75	66.17%
\$6.00	73.52%
\$6.25	79.72%
\$6.50	84.77%

Source: <https://fd-tools.ncsa.illinois.edu/pricedistribution>

20% chance that Dec. '21 corn futures decline another \$1 between now and expiration.

SOYBEANS - July World Ag Supply & Demand Estimates (WASDE) Highlights

▪ **U.S. Soybean 2020 Crop Balance Sheet**

- Reduced estimated imports by 15 million bushels to just 20 million bushels
- Reduced soybean crush estimate by 5 million bushels to 2.17 billion bushels
- Reduced projected 2020 crop exports by 10 million bushels to 2.27 billion bushels
- Projected carryover unchanged at 135 m. bushels, **equal to 2.9% of usage**
- Reduced U.S. 2020 MYA Soybean Price, by \$0.20 to \$11.25/bu.

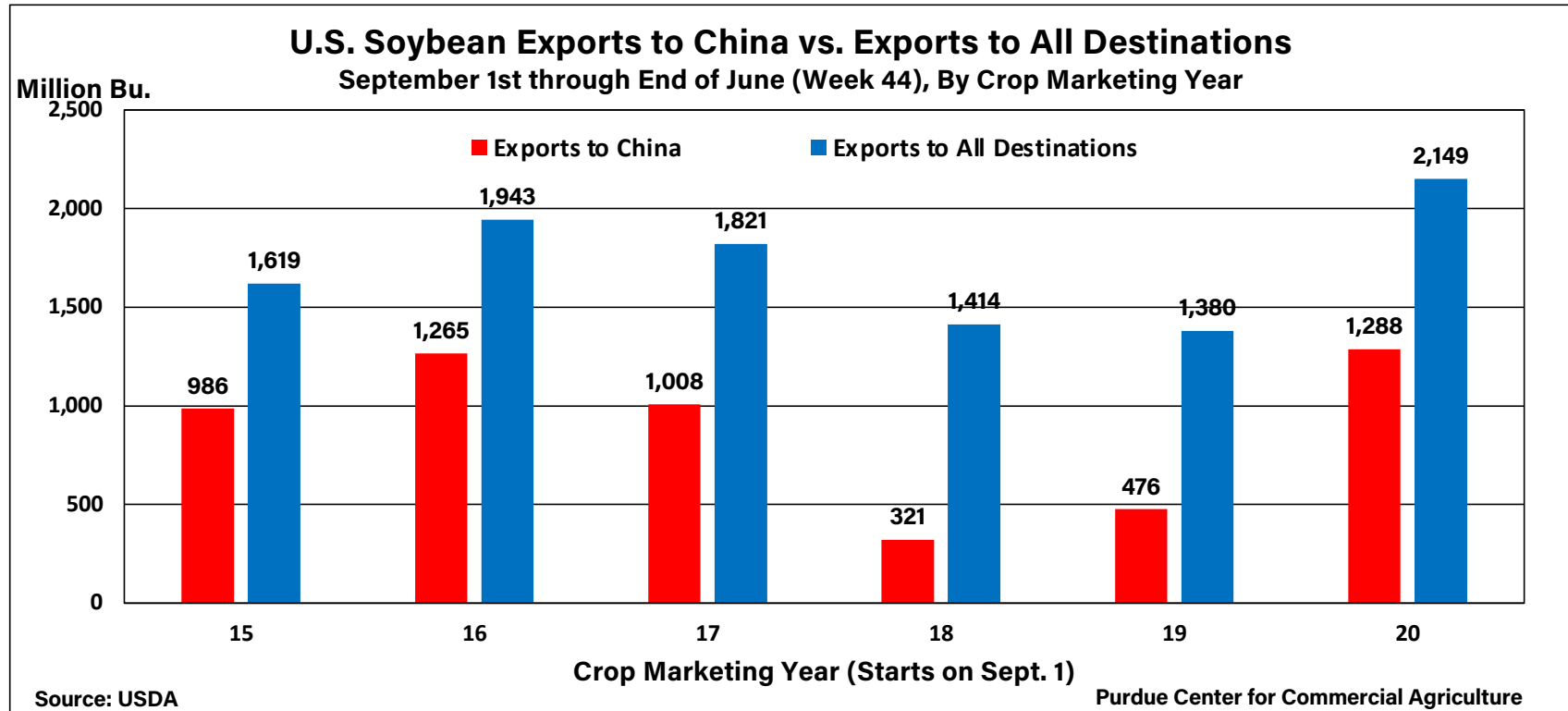
▪ **U.S. Soybean 2021 Crop Balance Sheet**

- No change in 2021 crop balance sheet
- But lowered US 2021 MYA Soybean Price projection by \$0.15 to \$13.70

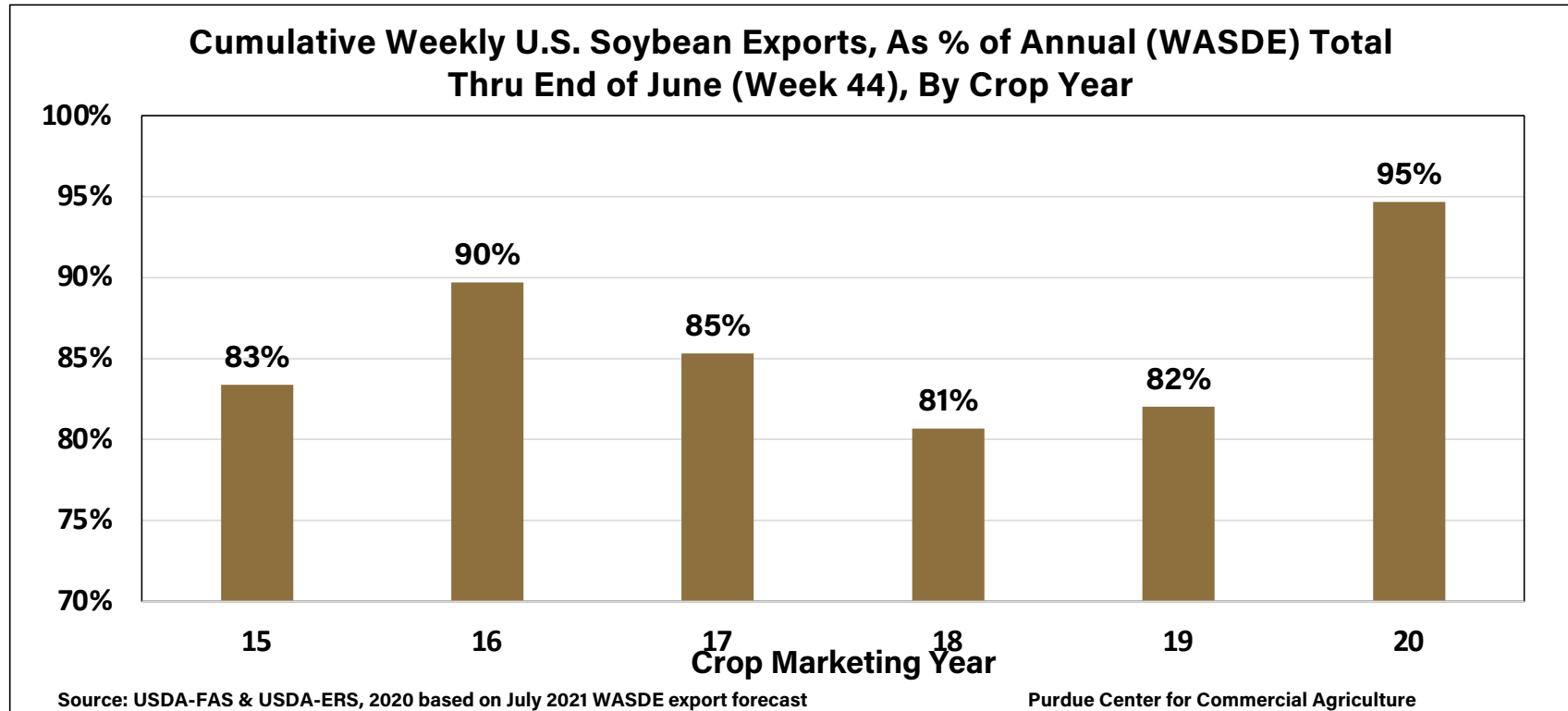
▪ **World**

- No change in Brazil's current year estimated production, but reduced Argentina by 0.5 mmt
- No change in estimate of Brazil's or Argentina's 2022 harvests
- Reduced current year estimate of China's imports by 2 mmt & reduced next crop year's imports by 1 mmt

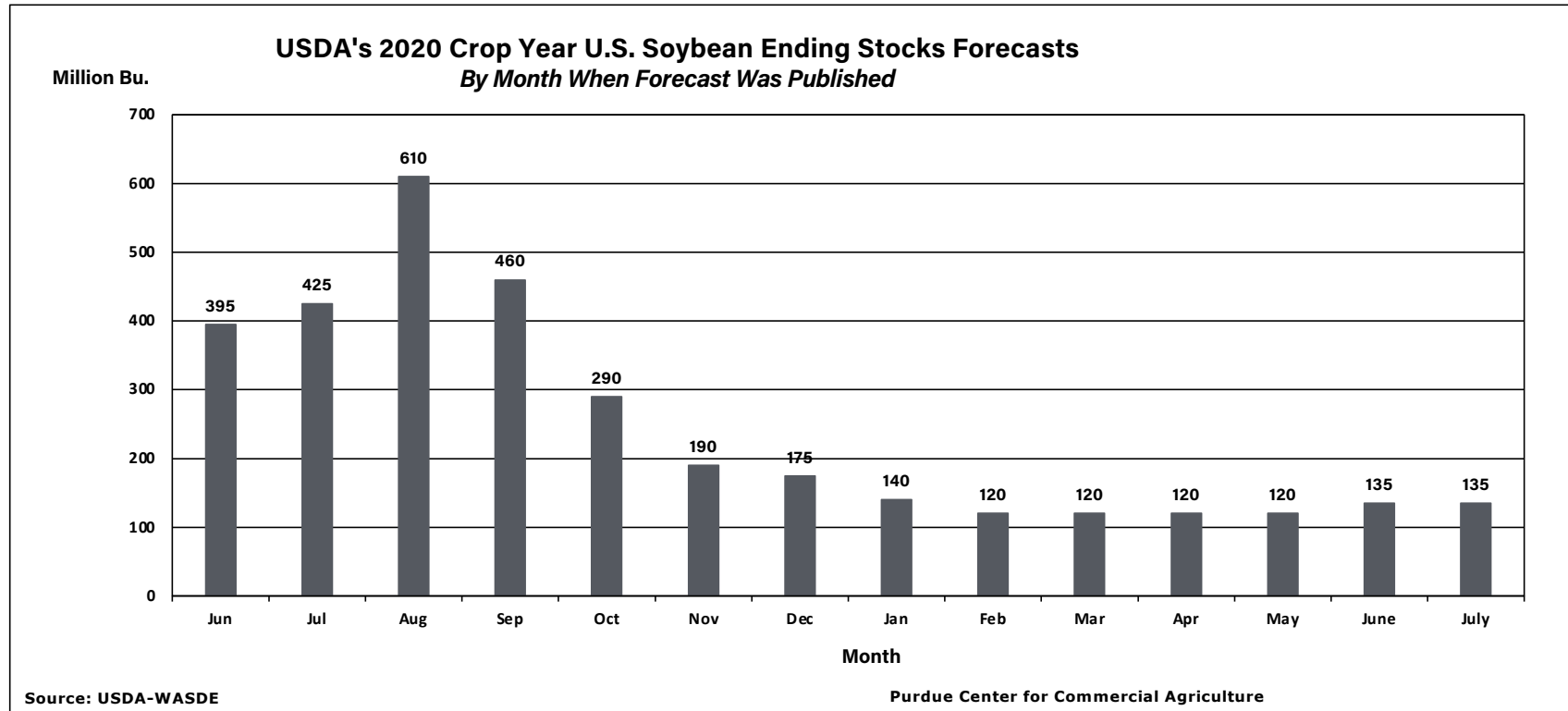
Soybean Exports Were Very Slow in June...Leading USDA to Reduce Export Projection



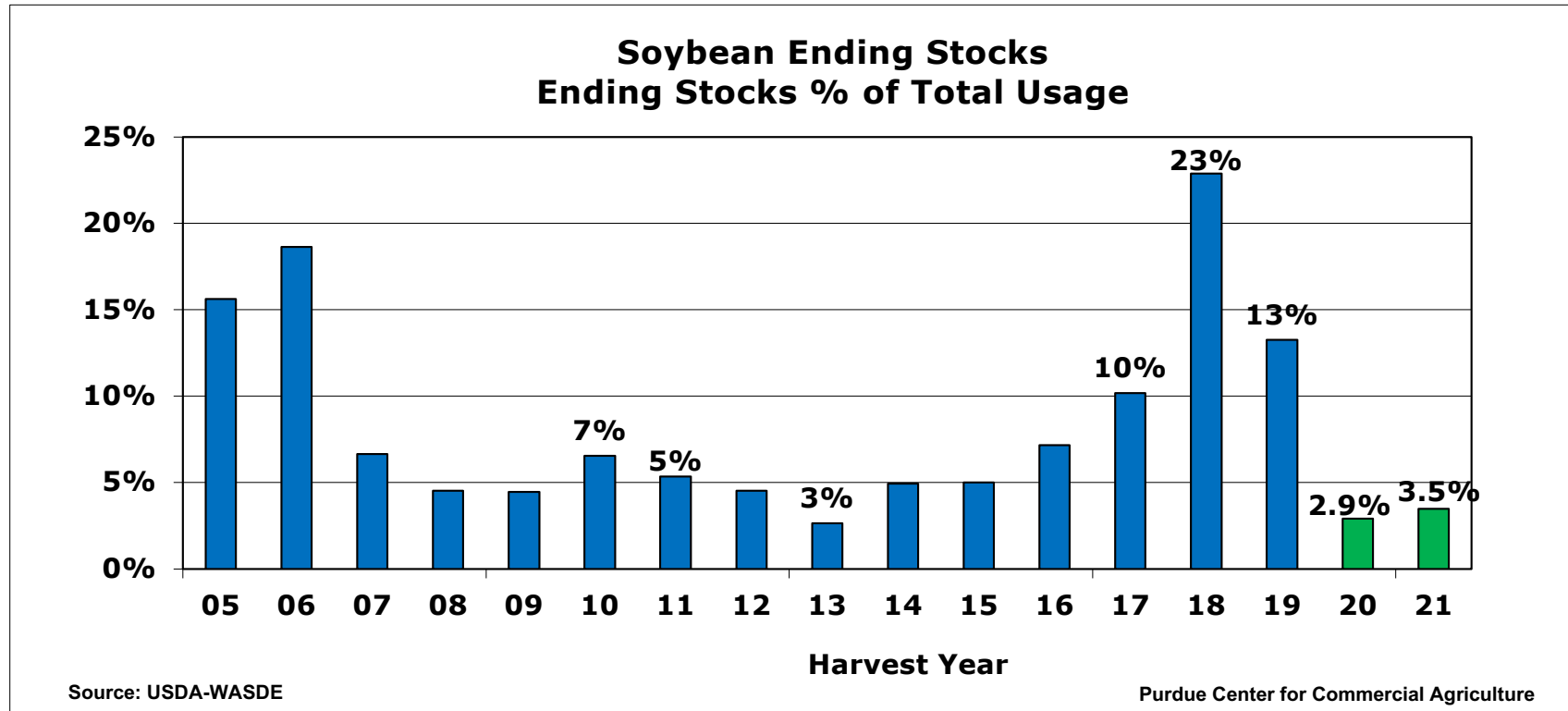
***YTD Weekly Soybean Export Total Equals 95% of USDA's July WASDE Forecast
But That Also Reflects USDA's Reduction in 2020 Crop Export Projection***



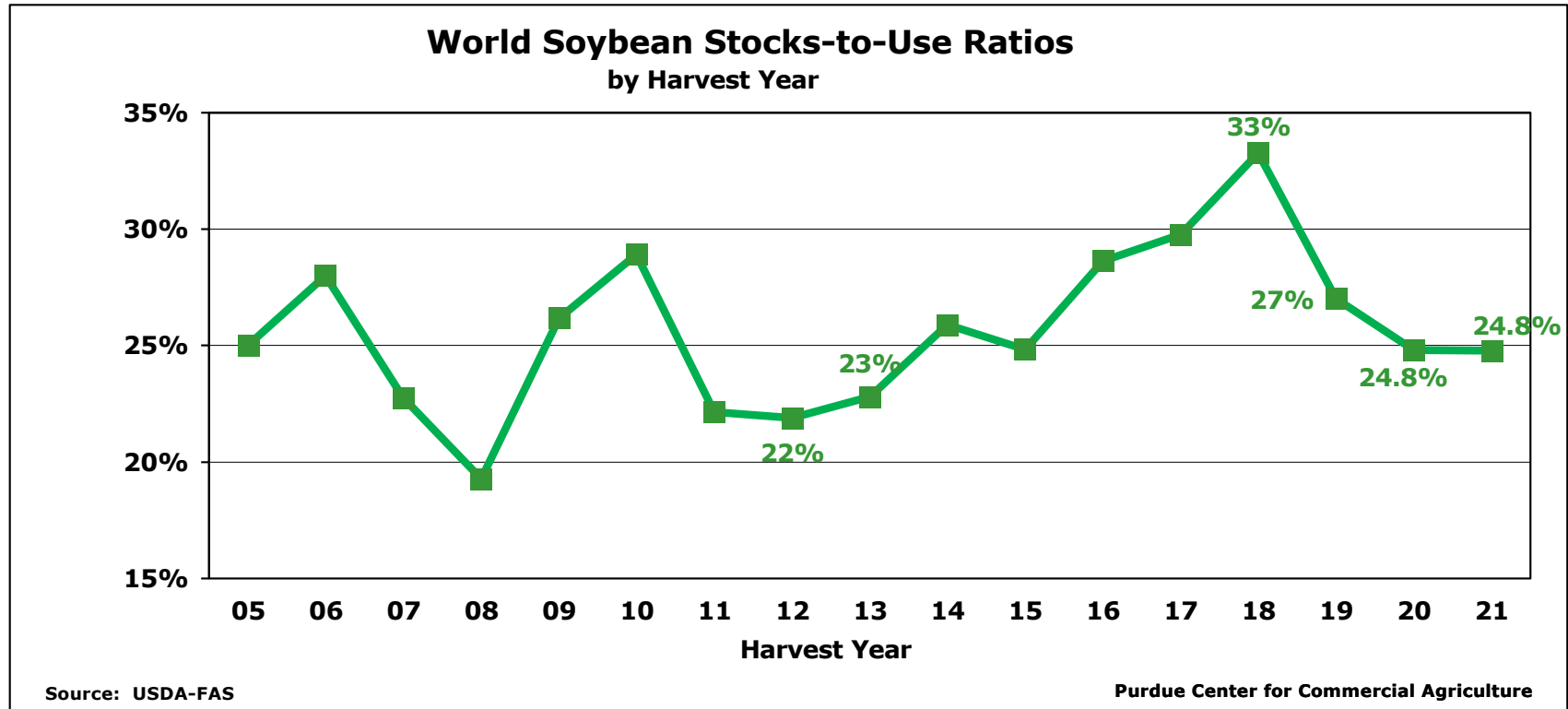
No Change in Projected 2020 Crop Soybean Ending Stocks



Soybean Ending Stocks Projection Indicates Another Tight Carryover in 2021



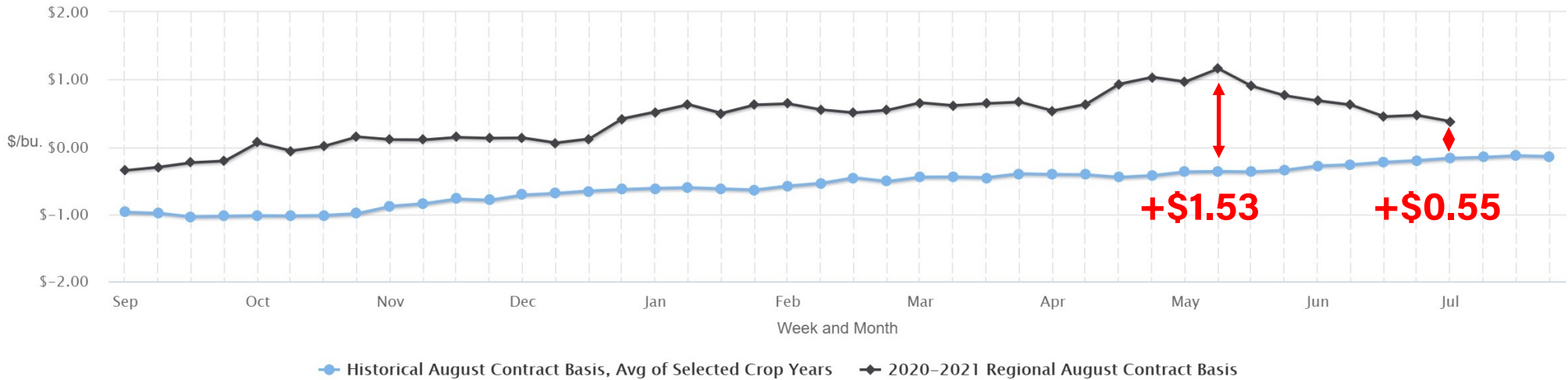
World Soybean Stocks Expected To Remain Tight in 2021 Crop Year



Soybean basis - Central Indiana - 2 year average - August Soybean Futures

Purdue Center for Commercial Agriculture Crop Basis Tool

Soybeans: IN CENTRAL Region, August Contract Basis, Weekly
 Avg. of Selected Historical Crop Years [2018-2019, 2019-2020]
 vs. Current Crop Year



<https://www.purdue.edu/commercialag>



Center for Commercial Agriculture

7/14/21 |

New crop soybean opportunities?

CBOT Nov. '21 Soybean futures	\$13.61
<u>Expected soybean basis October '21 in Central IN</u>	<u>-\$0.30</u>
Expected harvest cash price	\$13.31/bu.

- Think in terms of risk management
- How can you protect favorable price opportunities while leaving open upside potential?

New crop November '21 soybean futures

CBOT:ZSX2021, 1D 1361'2 ▲ +9'4 (+0.7%) O:1351'6 H:1362'6 L:1343'2 C:1361'2



farmdoc Price Discovery Tool: Nov. '21 Soybean Futures



Price at Expiration ▲	Probability Below ▲
\$12.50	31.01%
\$12.75	36.17%
\$13.00	41.49%
\$13.25	46.86%
\$13.50	52.19%
\$13.75	57.38%
\$14.00	62.36%
\$14.25	67.06%
\$14.50	71.43%

Source: <https://fd-tools.ncsa.illinois.edu/pricedistribution>

33% chance that Nov. '21 soybean futures decline another \$1 between now and expiration.

Crop Conditions for Soybeans

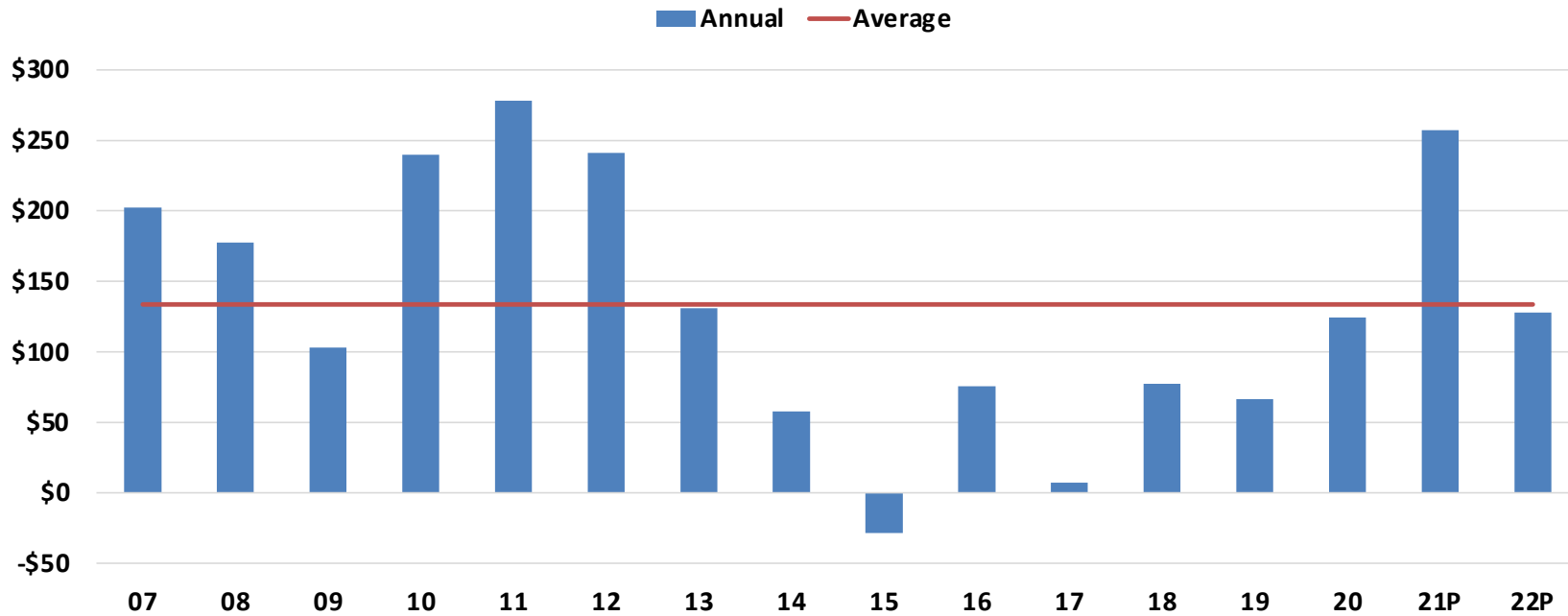
Source: USDA-NASS

Percentage of Soybean Ranked Good and Excellent

Week Ending	IN – 5-Year Average	IN - 2021	18 Major States
6/6		74%	67%
6/13		73%	62%
6/20	59%	70%	60%
6/27	59%	71%	60%
7/4	58%	70%	59%
7/11	57%	70%	59%

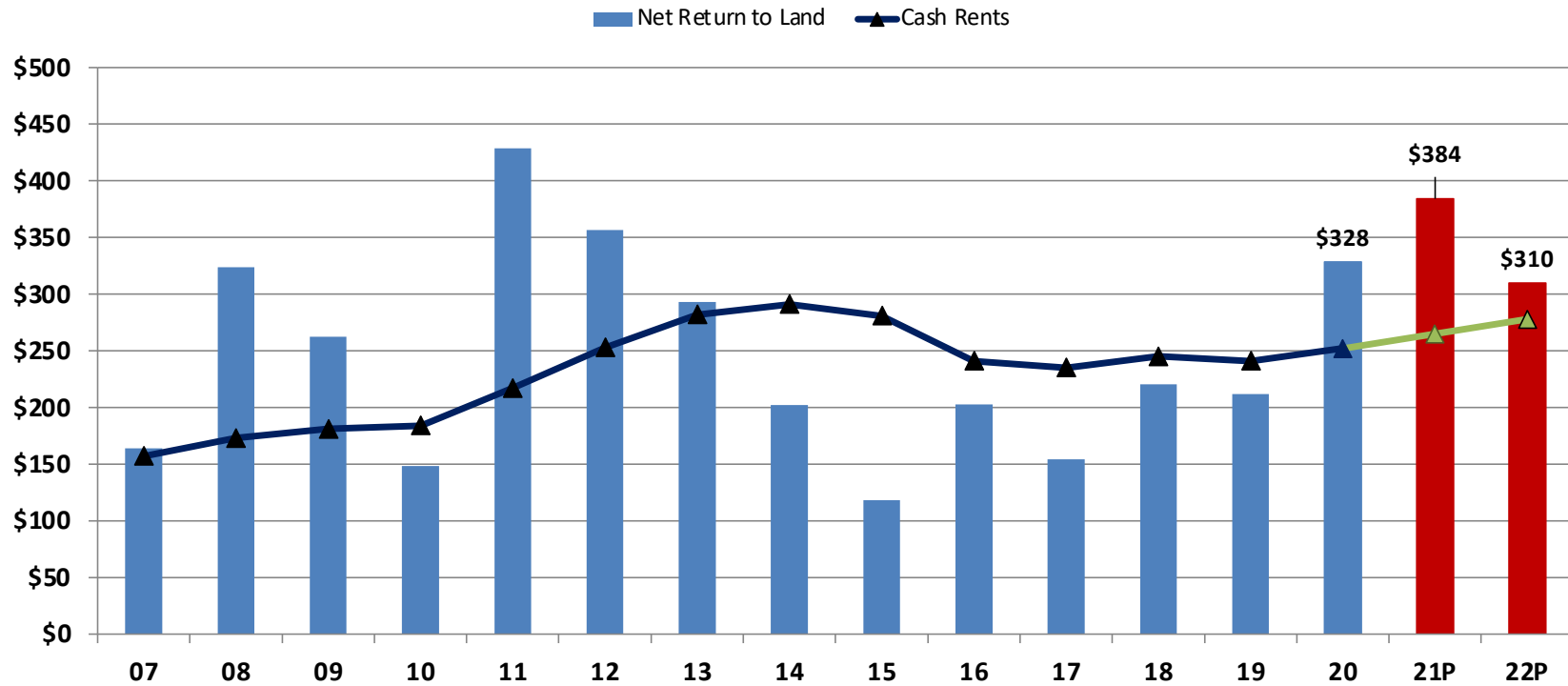
Net Farm Income per Acre in 2021 is Projected to be Substantially Higher than the Average Since 2007

Net Farm Income, Corn/Soybean Rotation (\$ per Acre)
West Central Indiana Case Farm



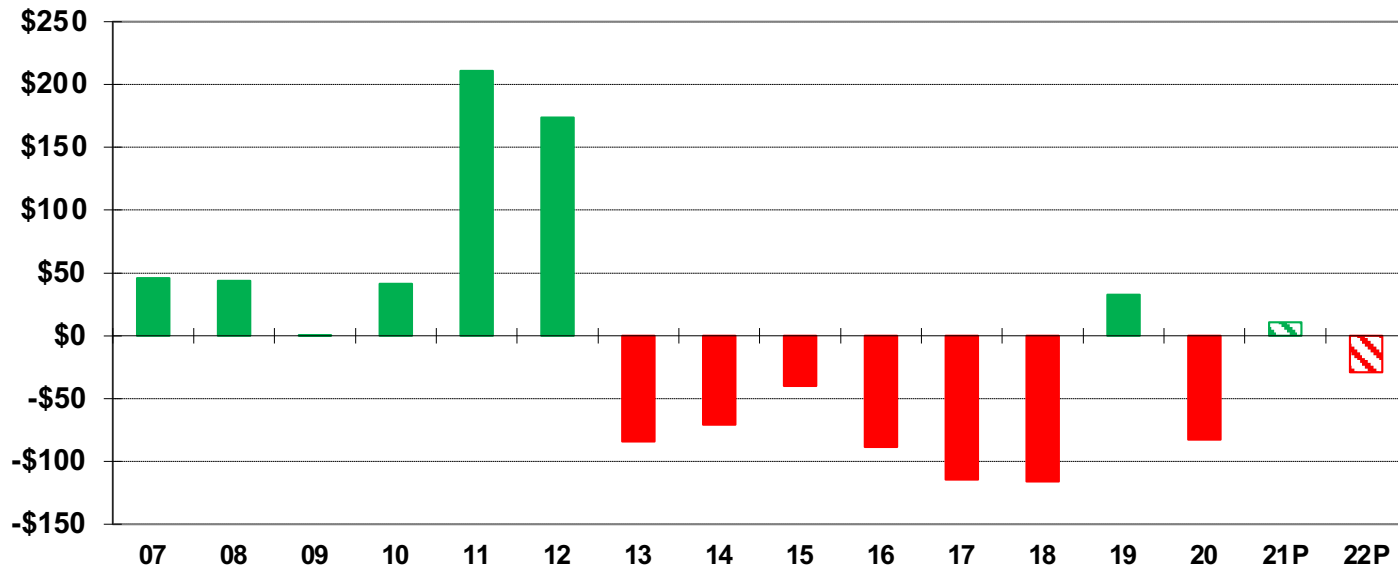
Strong Upward Pressure on Cash Rents

Cash Rent and Net Return to Land, West Central Indiana



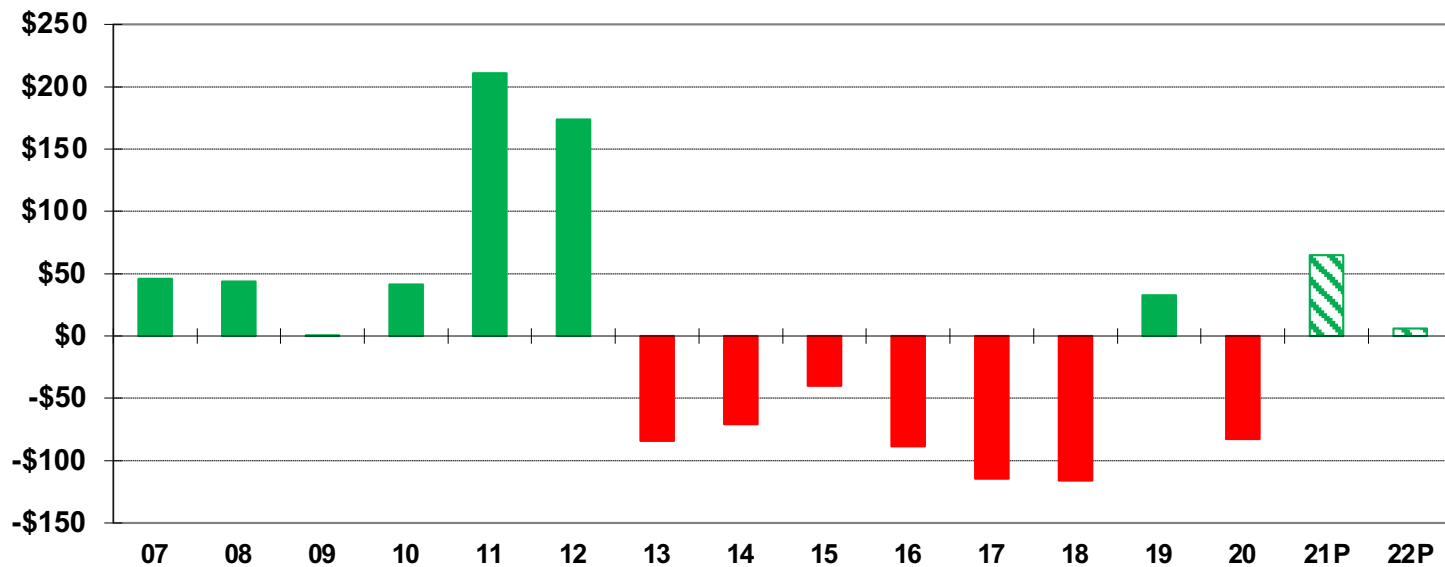
Net Return Prospects for Corn and Soybeans for 2021 and 2022 are Similar
Mid-July 2021 Projections

**Difference in Earnings per Acre
West Central Indiana (Corn Minus Soybeans)**



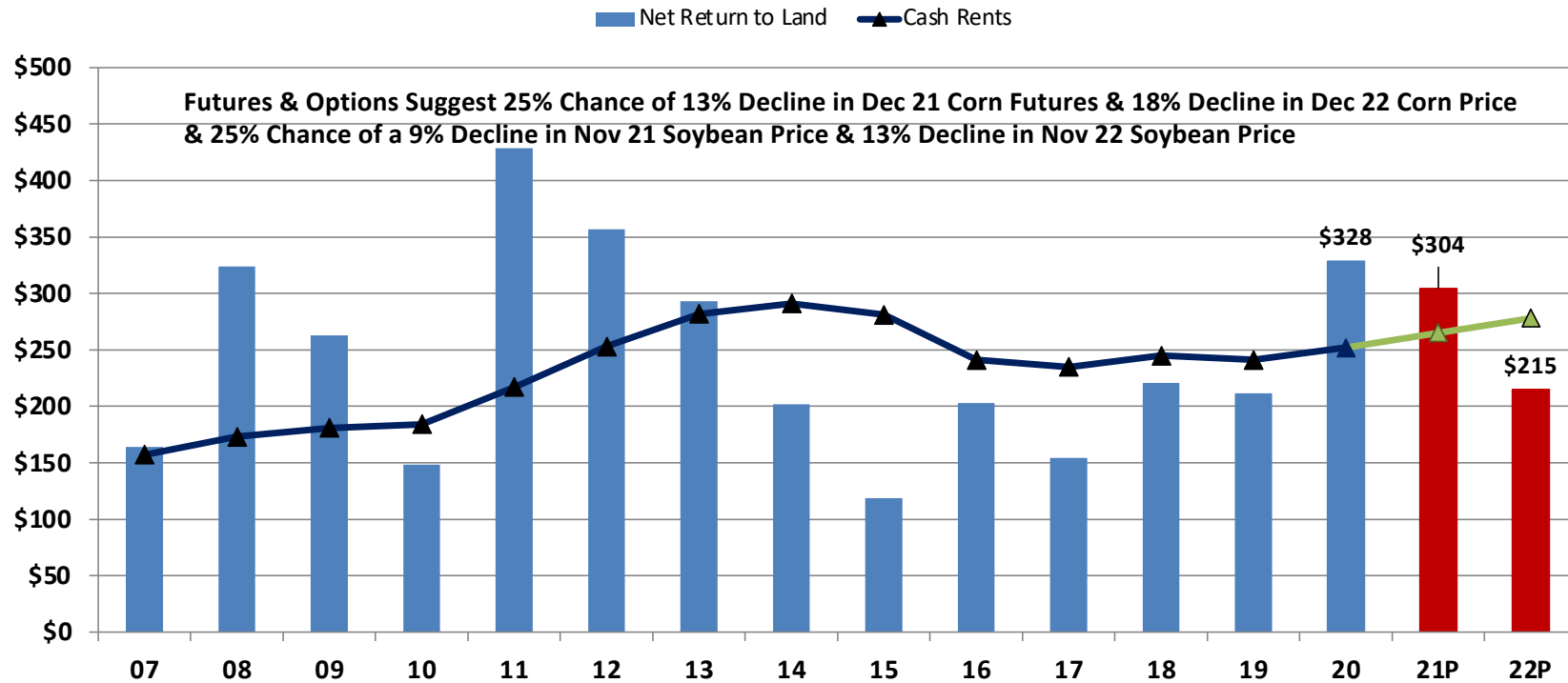
Net Return Prospects for Corn and Soybeans for 2022 are Similar
June 2021 Projections

**Difference in Earnings per Acre
West Central Indiana (Corn Minus Soybeans)**



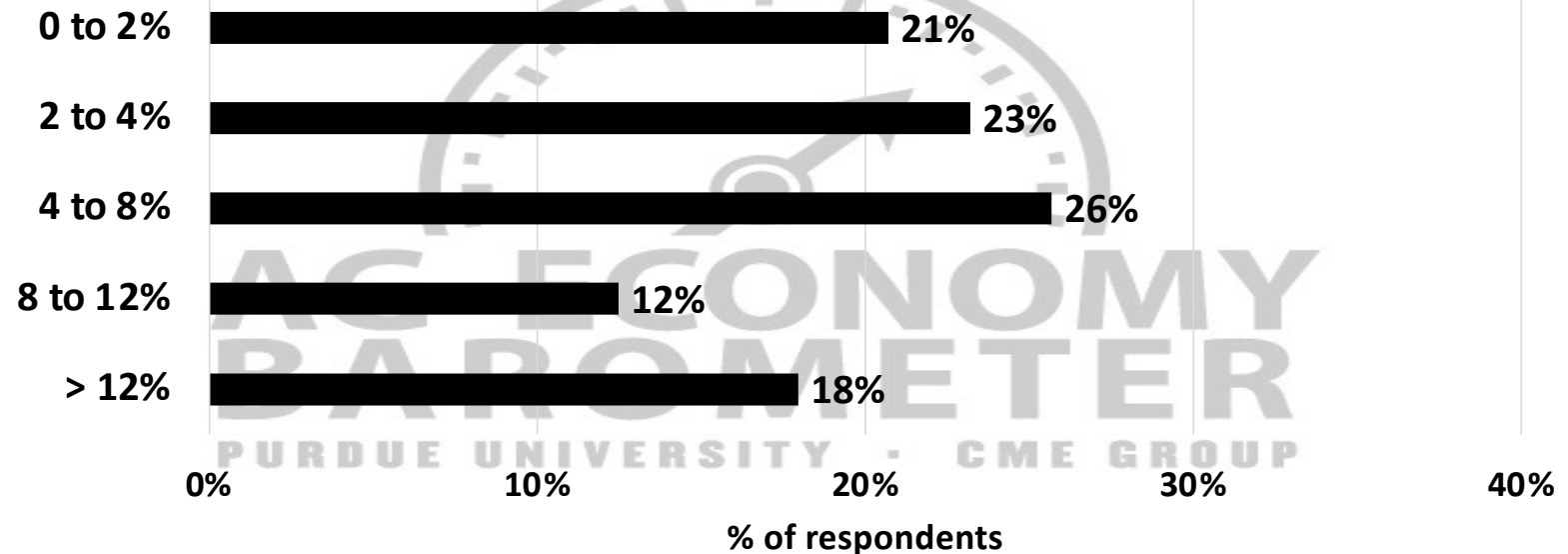
What Happens If 2021 & 2022 Harvest Futures Prices Decline Sharply?

Cash Rent and Net Return to Land, West Central Indiana



Farmers Are Concerned About Production Costs Rising

The average price paid for farm inputs increased by 1.8% per year during the last ten years. Using this as a frame of reference, by how much do you expect input prices to change during the next 12 months?



Source: Purdue Center for Commercial Agriculture, Producer Survey, June 2021



**MONTHLY
OUTLOOK**
PURDUE CENTER FOR
COMMERCIAL AGRICULTURE

NEXT OUTLOOK WEBINAR:

Friday, August 13, 2021, 12:30 p.m. (EDT)

Details Will Be Available at
[purdue.edu/commercialag](https://www.purdue.edu/commercialag)



Center for Commercial Agriculture

7/14/21 |