

# ***CROP OUTLOOK UPDATE***

## ***MAY 16, 2022***

**James Mintert, Professor & Director, Center for Commercial Agriculture**

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

**Nathan Thompson, Associate Professor, Department of Agricultural Economics**



Center for Commercial Agriculture

## ***Key Changes to Corn Balance Sheet in USDA's May WASDE***

- ✓ **No Changes to 2021/2022 Balance Sheet**
- ✓ **U.S. corn ending stocks estimate for '21'22 marketing year, remains at 1.44 billion bushels**
- ✓ **May is the first 2022/2023 crop year balance sheet for corn**
- ✓ **Backed away from trendline U.S. corn yield estimate in 2022 to 177 bpa, same as in 2021**
- ✓ **14.46 billion bu. corn crop estimate, down from 15.115 last year**
- ✓ **Ethanol usage in 22/23 same as in 21/22, 5.375 billion bu.**
- ✓ **Exports of 2.4 billion bu. down 100 million bu. in 22/23 compared to 21/22**
- ✓ **U.S. projected 22/23 carryover = 1.36 billion bushels, down 80 million bu. from 21/22 crop year**

## ***Key Changes in USDA's Corn Trade Projections in May WASDE***

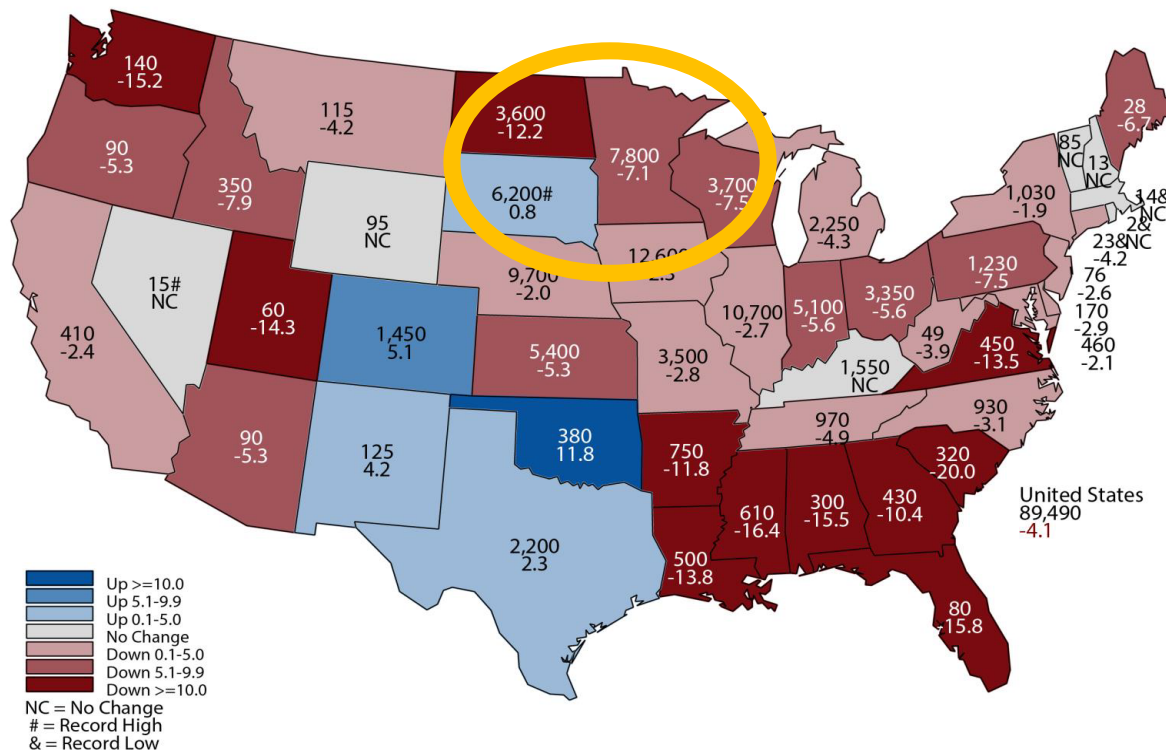
- ✓ **Changes in 2021/2022 Trade Matrix**
  - ✓ Small increase in major exporters ending stocks
  - ✓ Raised Argentina's ending stocks, but reduced Brazil's
  - ✓ Small increase in Ukraine's carryover compared to April estimate
- ✓ **May provides the first 2022/2023 crop year trade matrix estimates**
  - ✓ World Ending Stocks (less China) expected to increase modestly
  - ✓ Smaller Ending Stocks expected in U.S.
  - ✓ Big rebound is expected in Brazil, based on expected production increase
  - ✓ Ukraine production down 54% vs. 2021, but export challenge still expected to boost their ending stocks

# 2022 CORN PLANTED ACREAGE

## THOUSAND ACRES AND PERCENT CHANGE FROM PREVIOUS YEAR

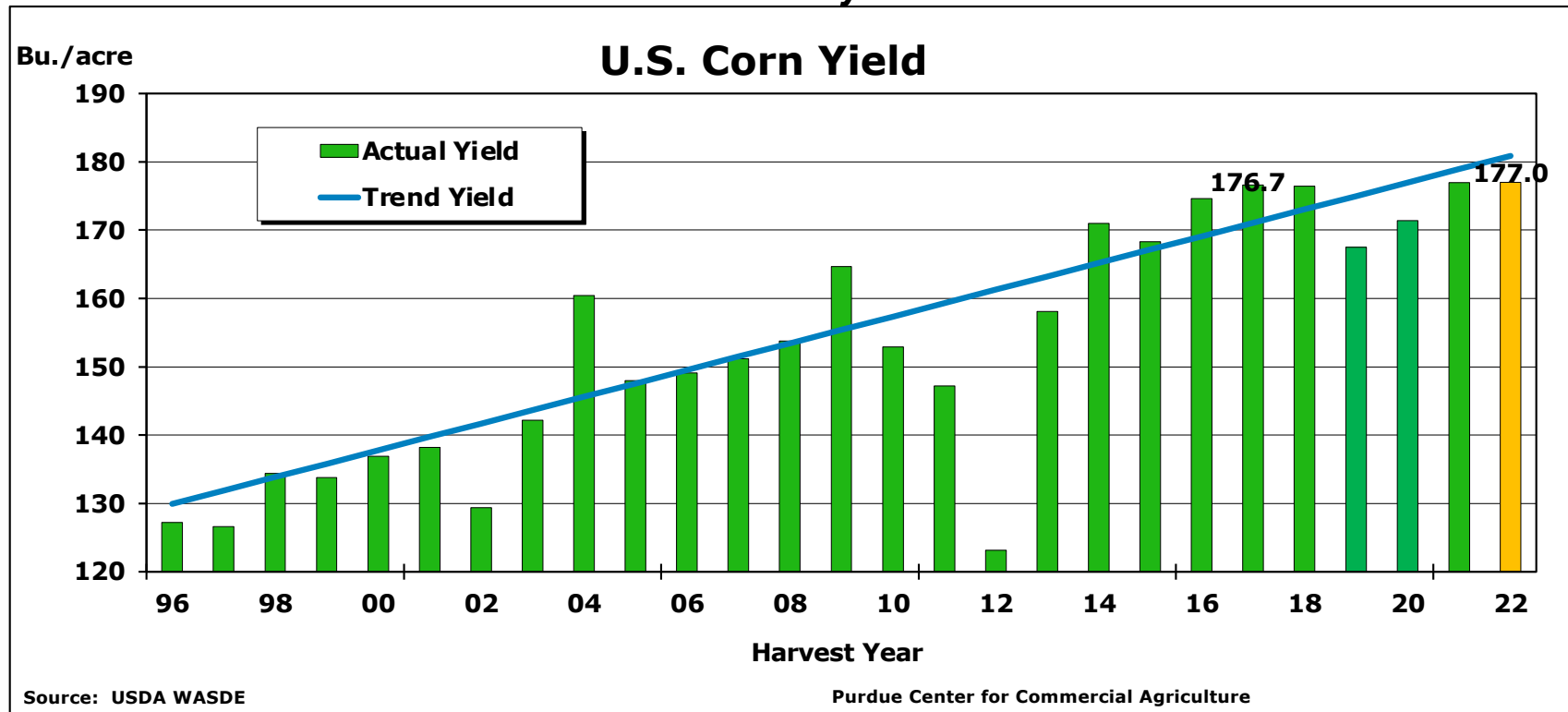
Thru 5/8 just 22% of corn acreage was planted....how much was planted last week?

Northern Corn Belt is the biggest trouble spot...but progress elsewhere has also been slow

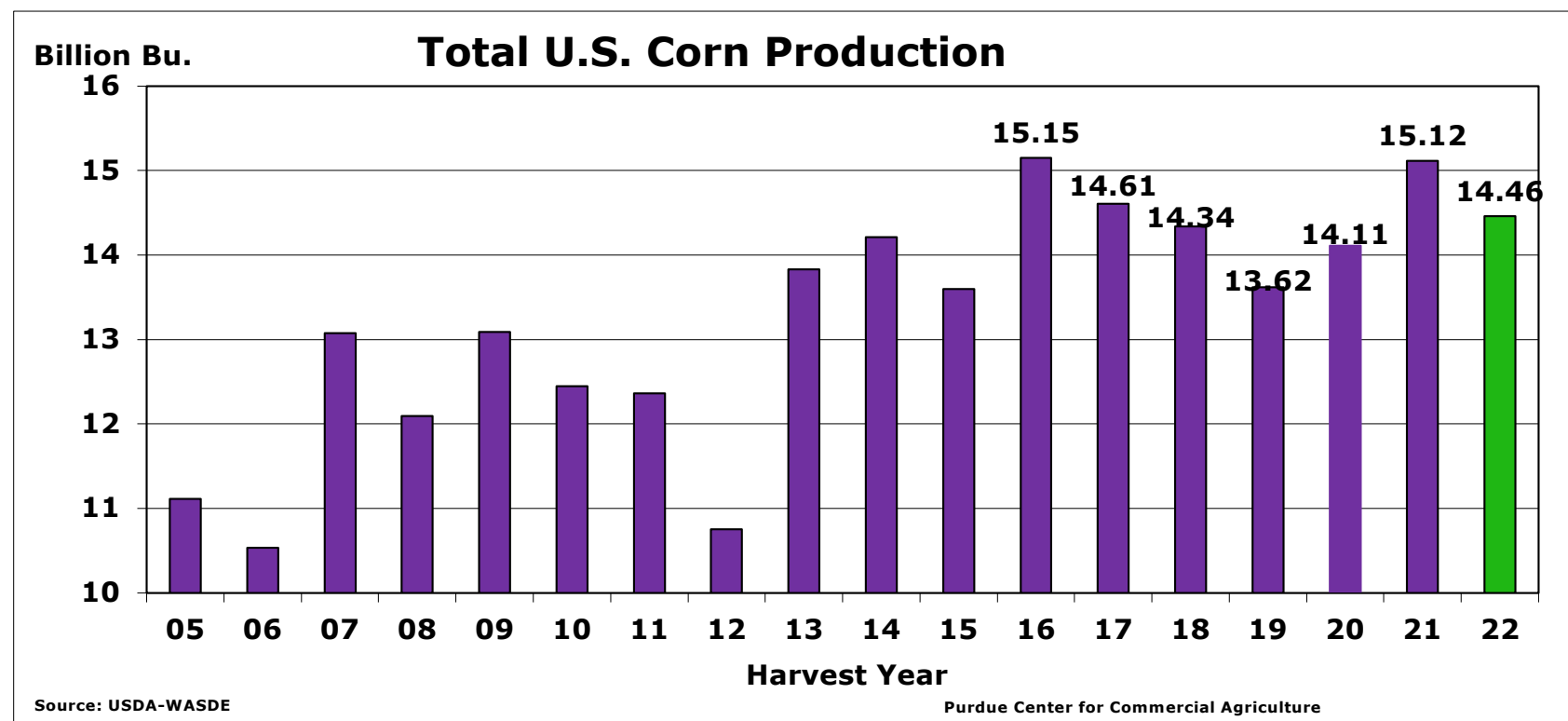


# *Slow Planting Pace Led USDA to Back Away from Trend Yield & Use 177*

*But 177 is still a record yield*

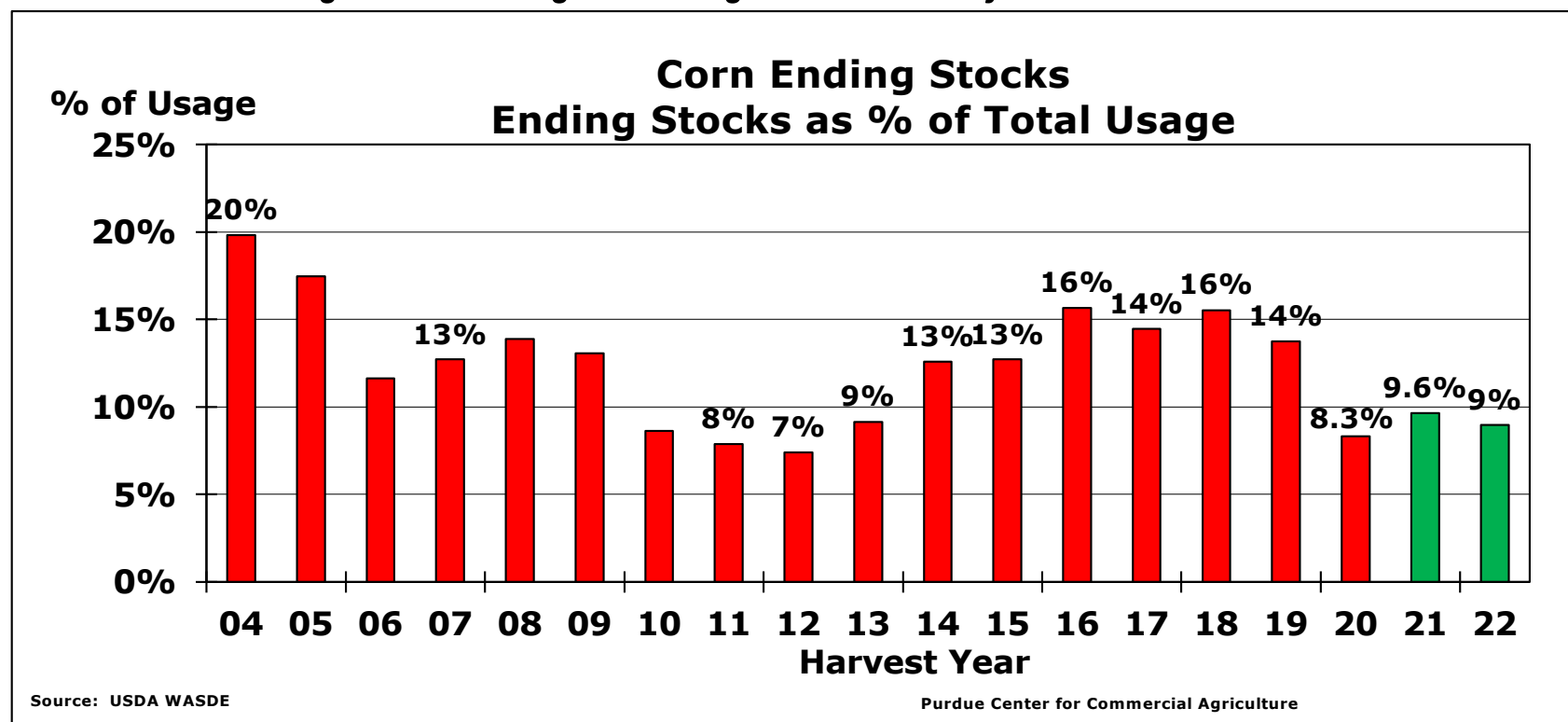


*Pulling Back From Trend Yield & Smaller Acreage in '22 Drops Production 4% Below 2021*



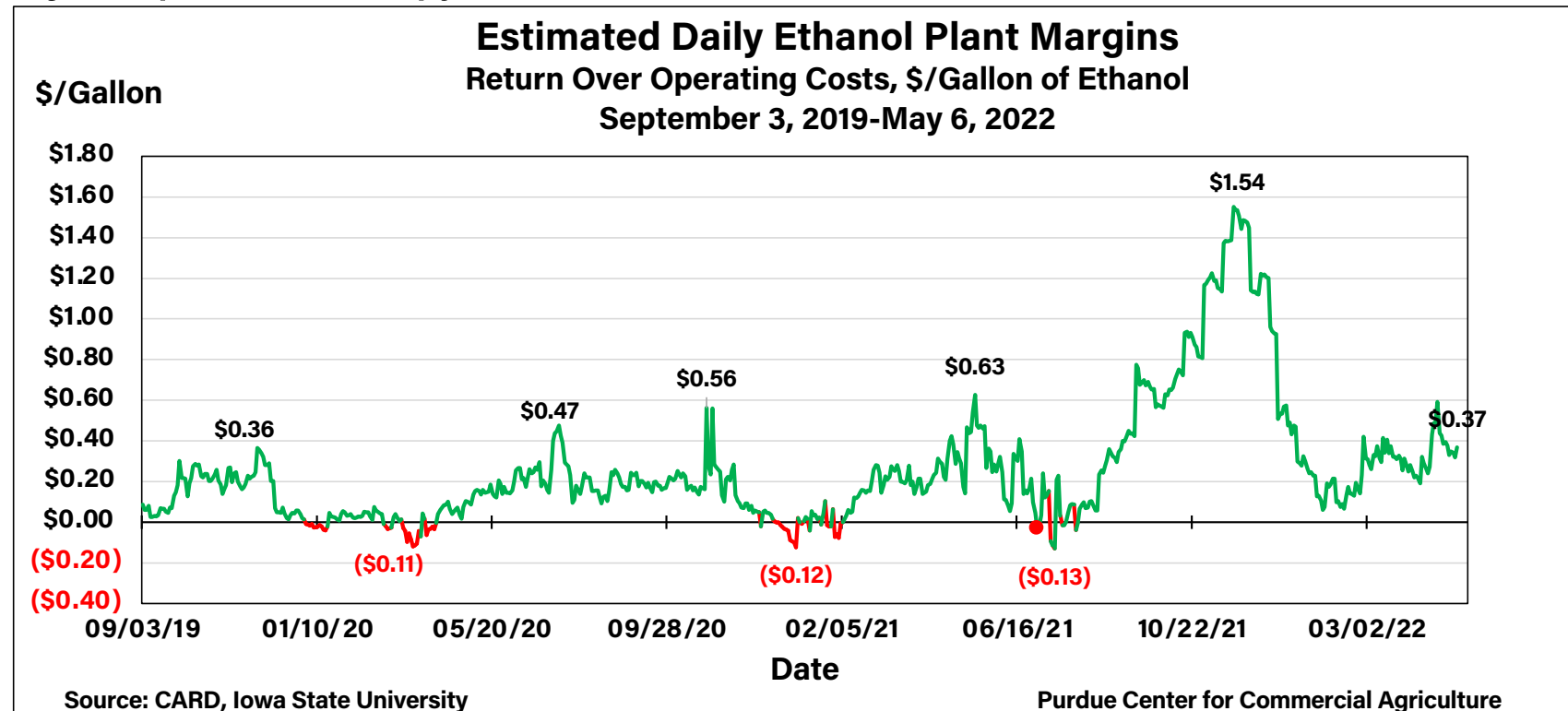
## USDA's Projections Leaves Ending Stocks @ 9% of Usage in 2022

*But It Looks Like the Big Risk is Even Tighter Ending Stocks Than Projected*



# Ethanol Production Remains Strong Despite High Corn Prices

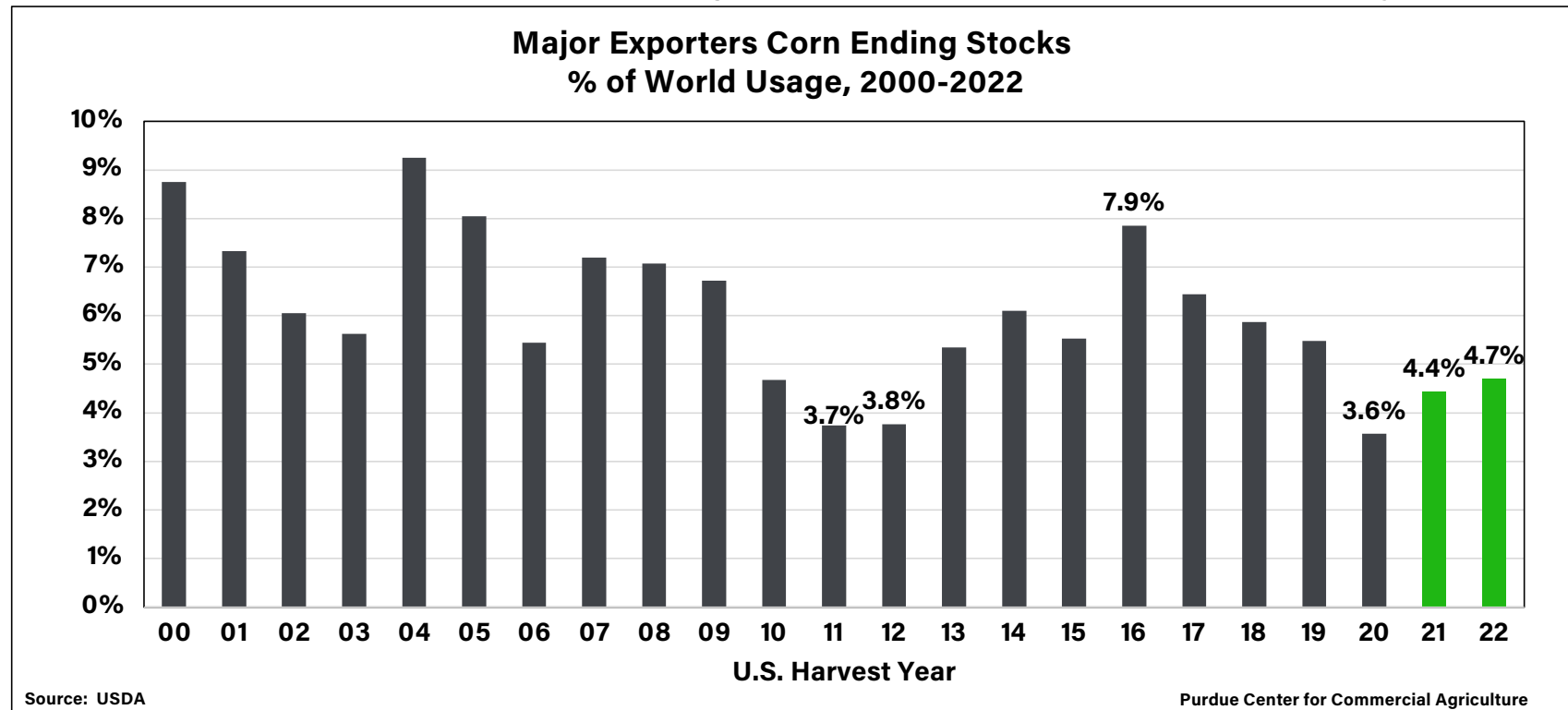
Usage still up 9% so far this crop year



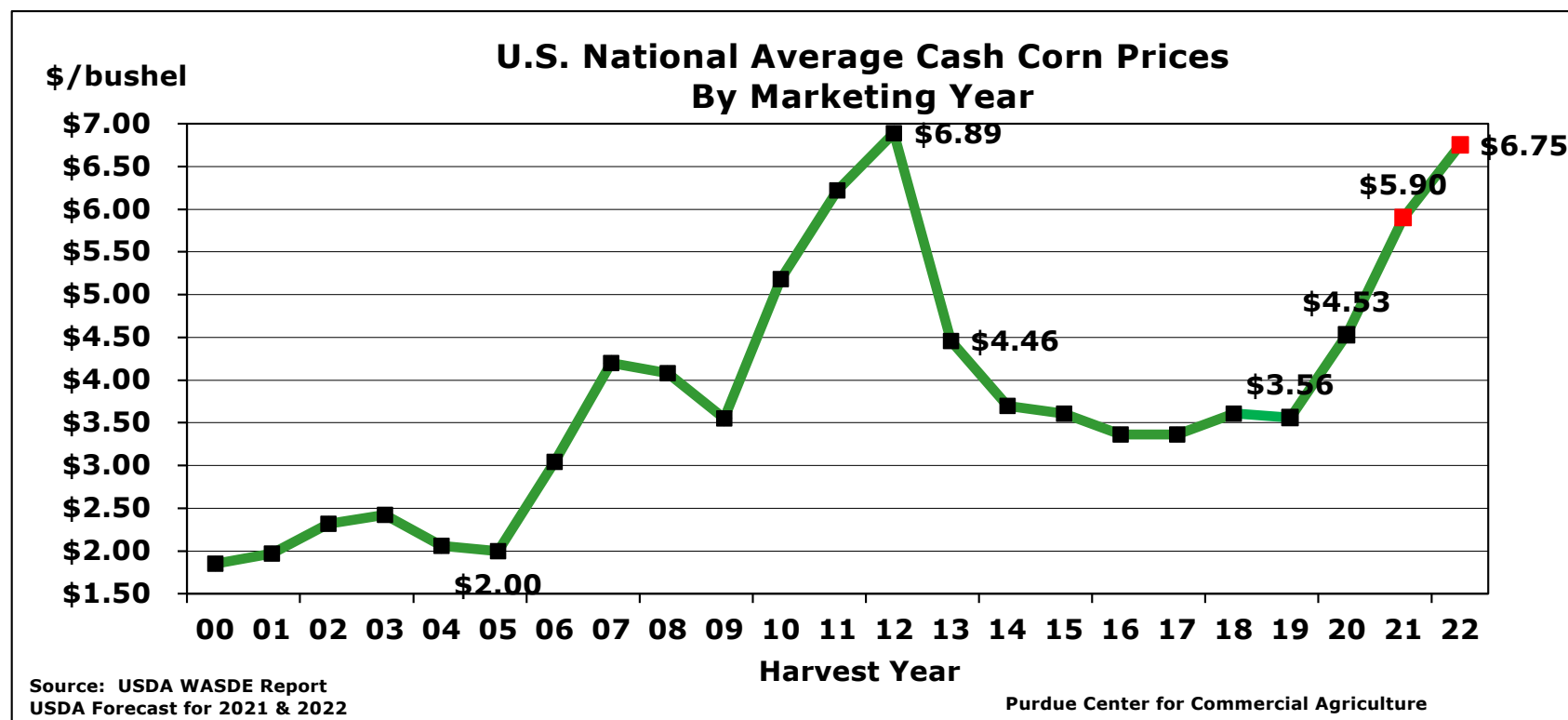


## Major Exporter Ending Stocks Are Tighter Than They Appear...Ukraine & Brazil?

*Ukraine accounts for 15 % of estimated world corn ending stocks in '22/23, but how much of that is actually available?*

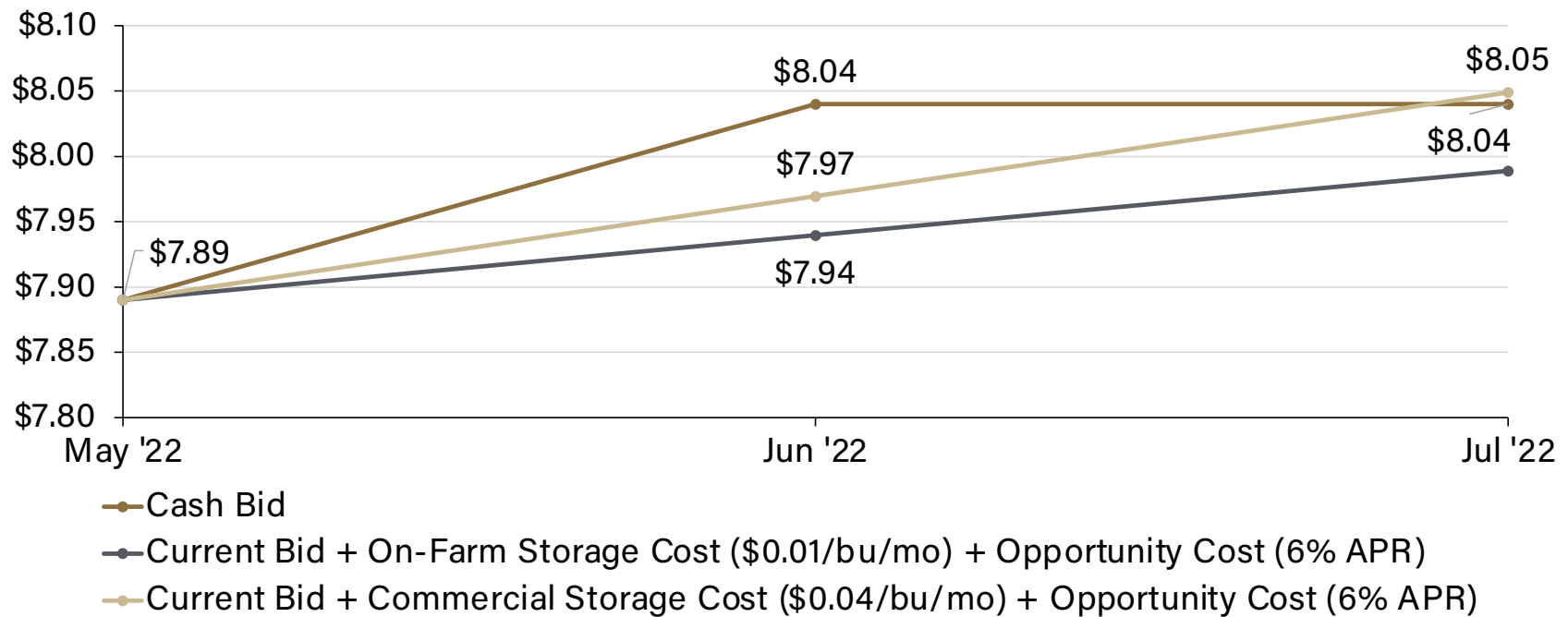


## USDA Projecting Highest MYA Price Since 2012



## Storage opportunities for corn?

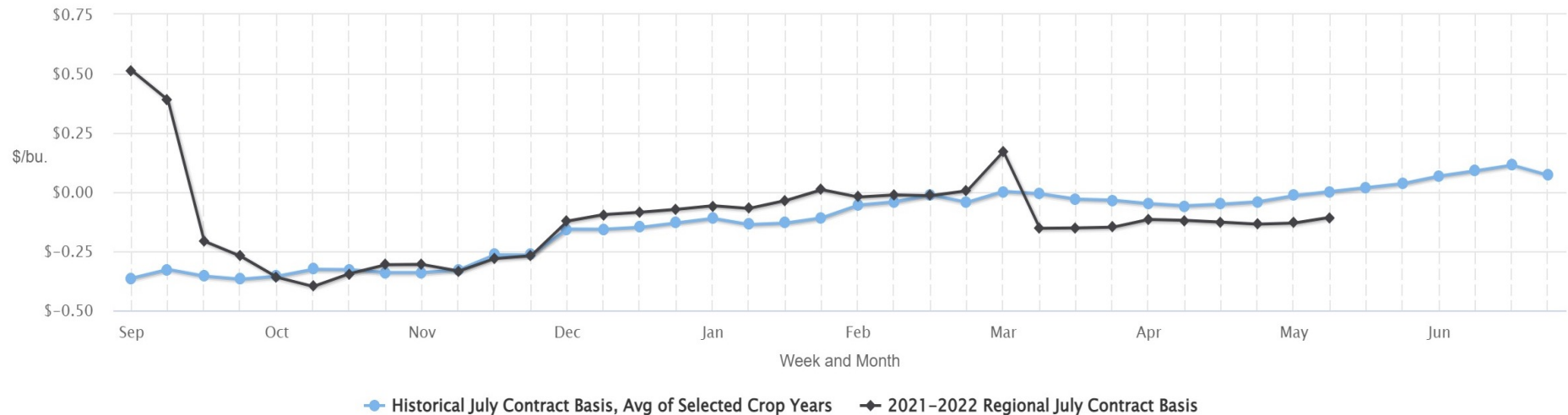
### Cash Forward Contract Corn Bids Central Indiana



# Corn basis – Central Indiana – 3 year average

## Purdue Center for Commercial Agriculture Crop Basis Tool

Corn: IN CENTRAL Region, July Contract Basis, Weekly  
Avg. of Selected Historical Crop Years [2018–2019, 2019–2020, 2020–2021]  
vs. Current Crop Year

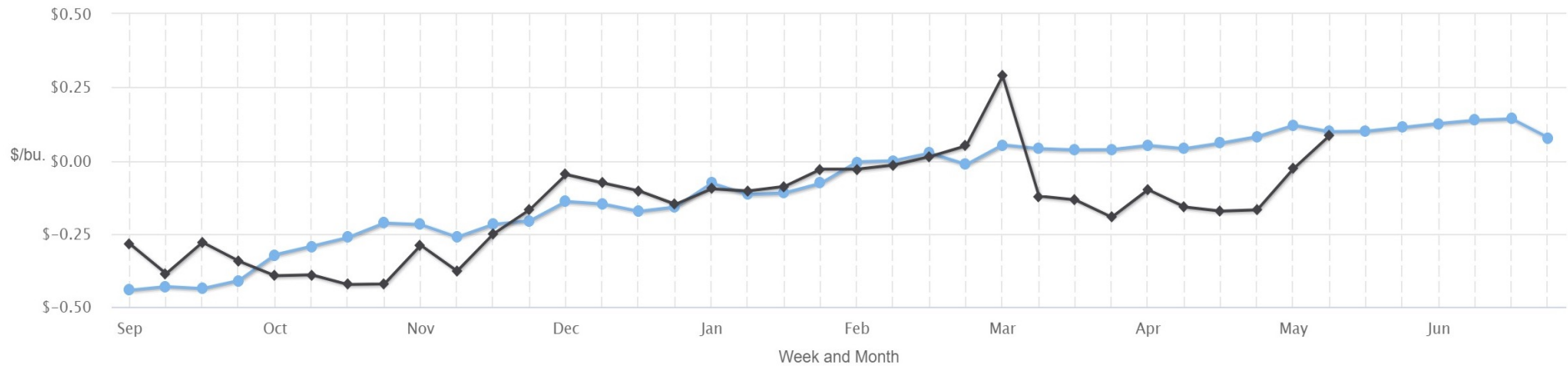


<https://www.purdue.edu/commercialag>

# Corn basis – Southwest Indiana – 3 year average

## Purdue Center for Commercial Agriculture Crop Basis Tool

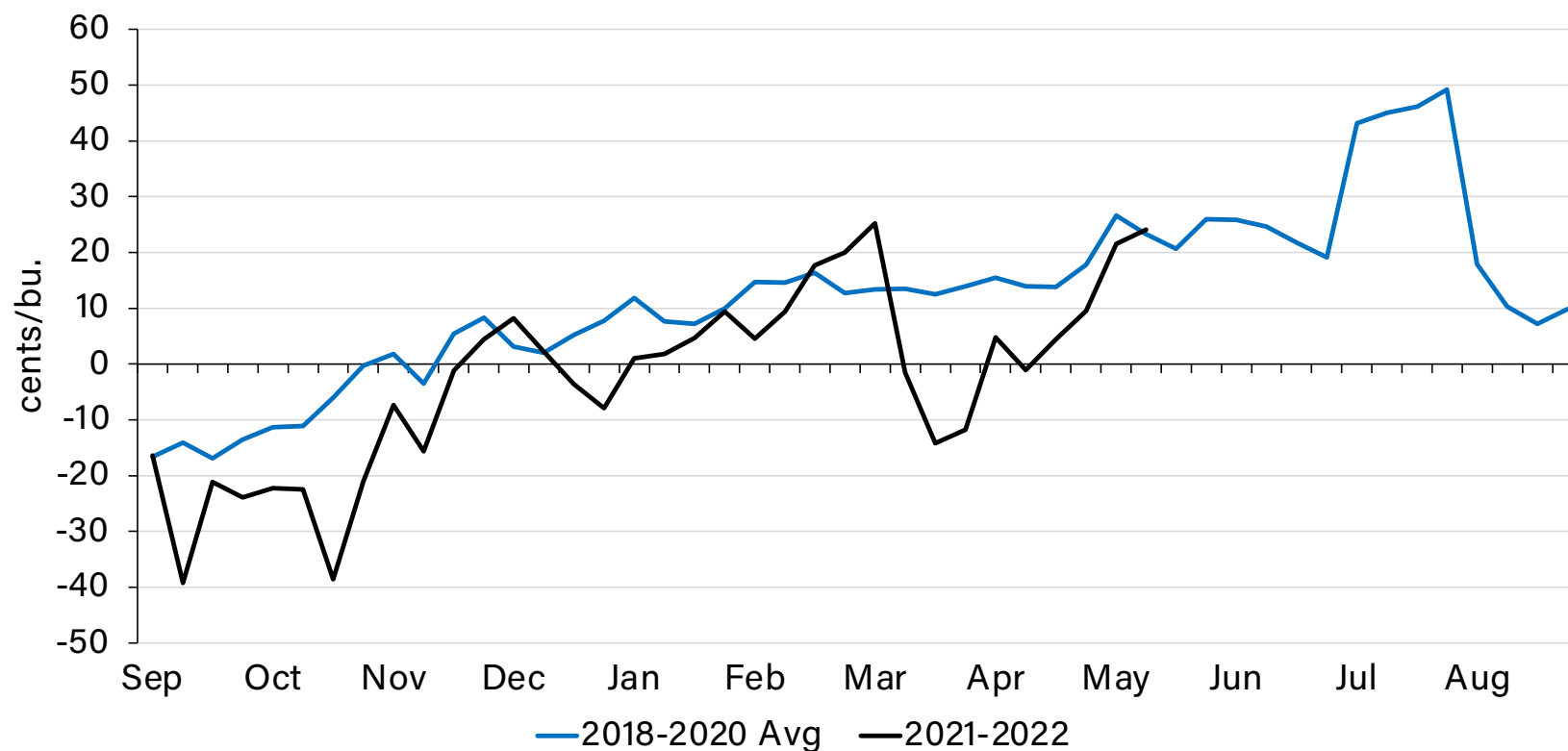
Corn: IN SW Region, July Contract Basis, Weekly  
Avg. of Selected Historical Crop Years [2018–2019, 2019–2020, 2020–2021]  
vs. Current Crop Year



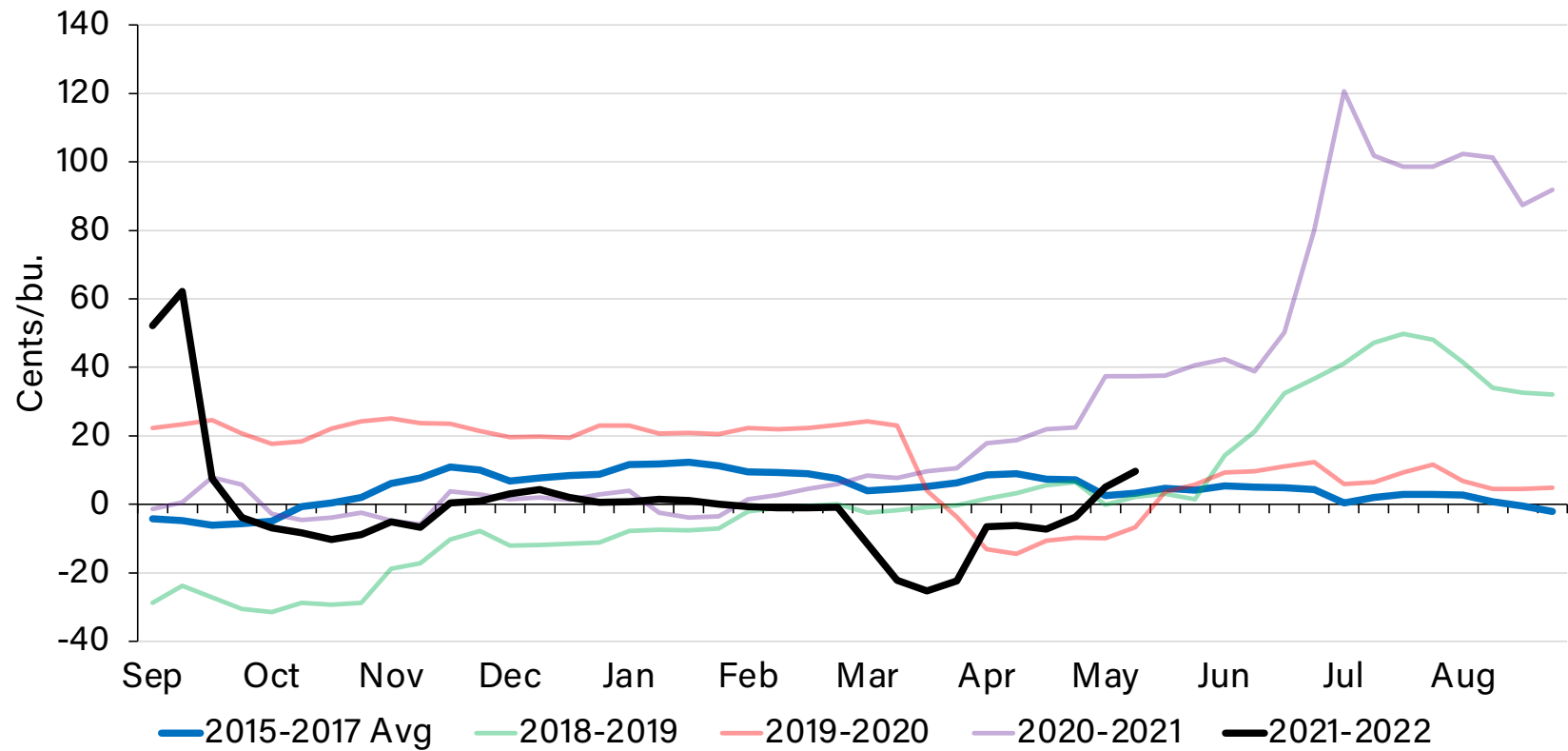
— Historical July Contract Basis, Avg of Selected Crop Years — 2021–2022 Regional July Contract Basis

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

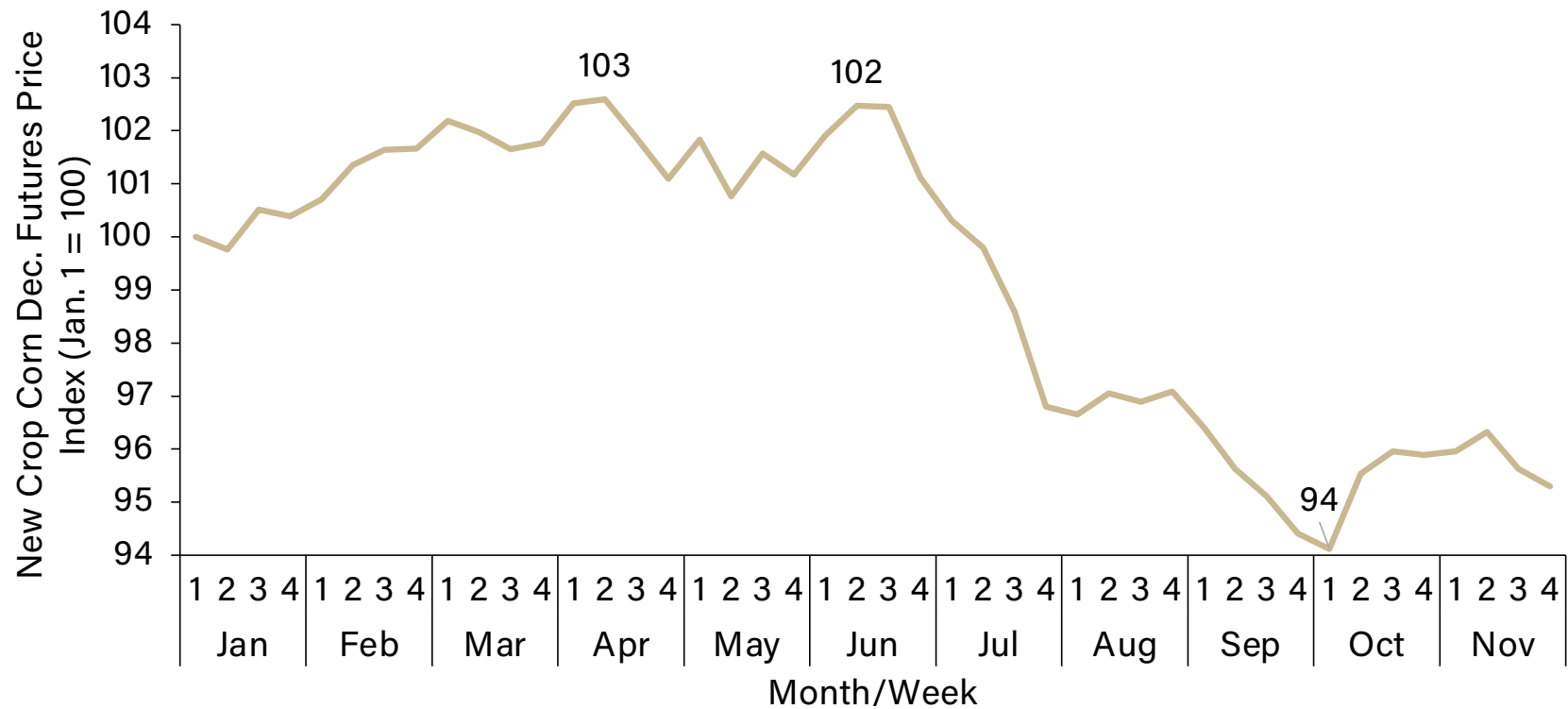
## *Corn River Basis-Southern Indiana and Southern Illinois River Terminals*



## Indiana ethanol plant basis

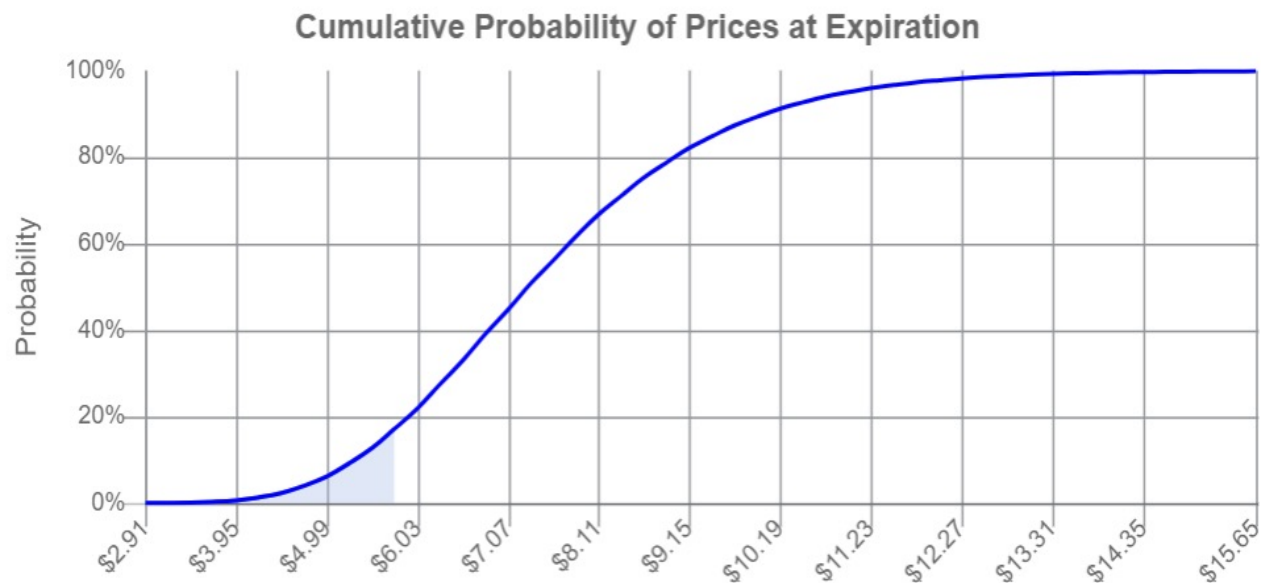


## 30-Year Average New Crop Corn Dec. Futures Price Index (Jan. 1 = 100), 1990-2020





## *farmdoc Price Discovery Tool: Dec. '22 Corn Futures*



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

Price at Expiration ▲	Probability Below ▲
\$6.50	31.97%
\$6.75	37.61%
\$7.00	43.31%
\$7.25	48.95%
\$7.50	54.42%
\$7.75	59.63%
\$8.00	64.51%
\$8.25	69.03%
\$8.50	73.16%

~20% chance that Dec. '22 corn futures are below \$6 at expiration.

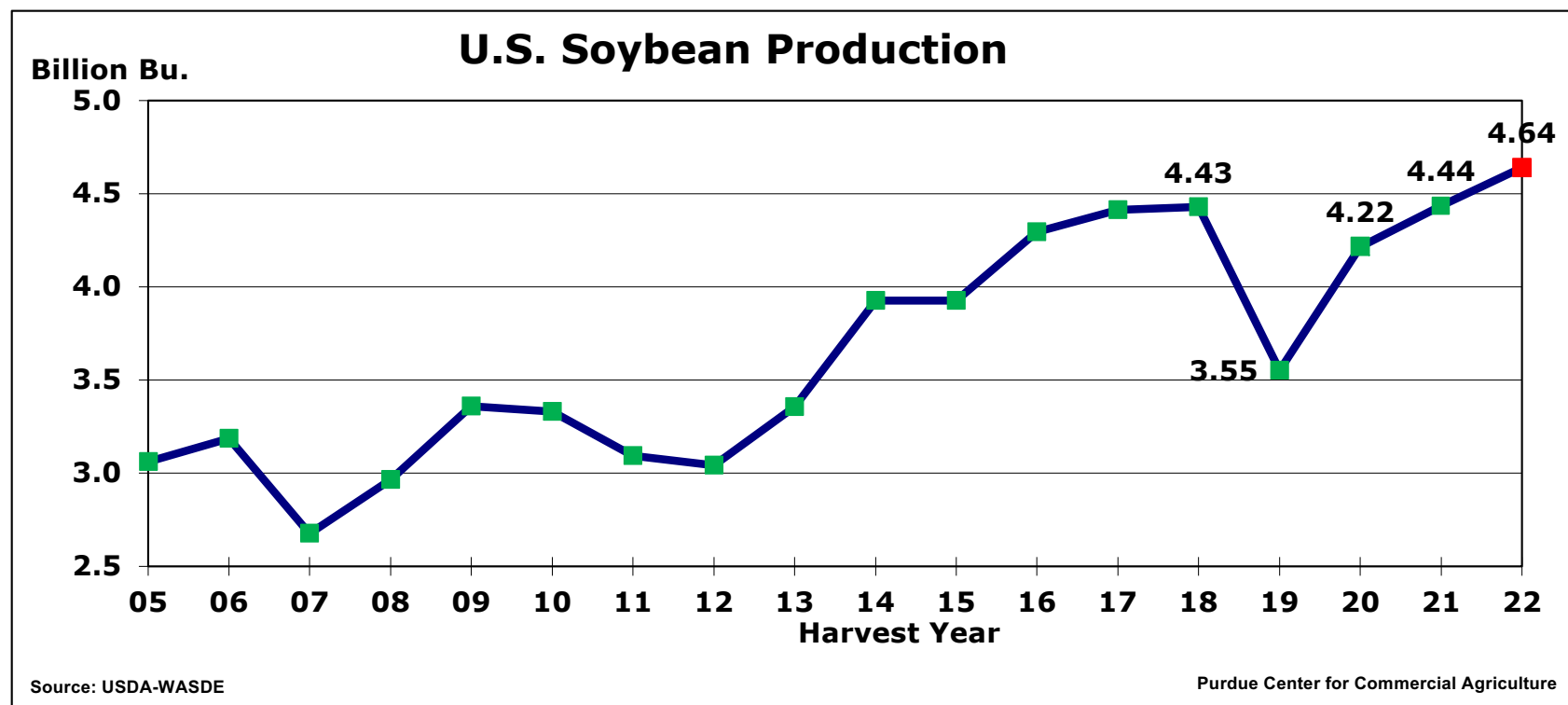
## ***Key Changes to Soybean Balance Sheet in USDA's May WASDE***

- ✓ Increased '21/22 export forecast by 25 million bushels again... new total = 2.14 billion bushels
- ✓ 21/22 Ending stocks estimate declined 25 million bushels again... to 235 million bushels
- ✓ May is USDA's first 22/23 crop balance sheet
  - ✓ Trend yield of 51.5 bpa & acreage from planting intentions
  - ✓ Provides production estimate of 4.64 billion bu., up 4.6% vs. 2021
  - ✓ Larger soybean crush & exports, still leads to increase in projected carryover
  - ✓ 310 million bushels in 22/23 vs. 235 in 21/22

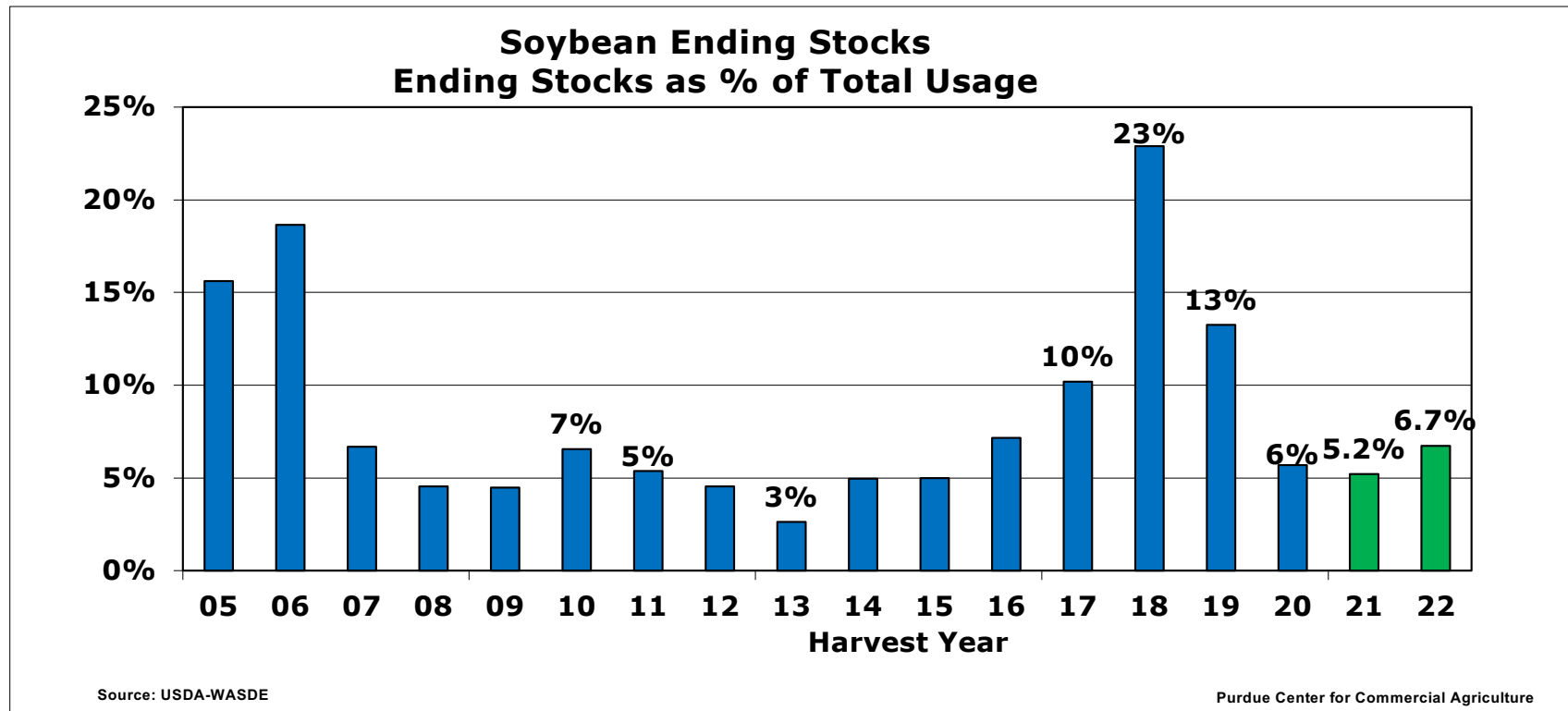
## ***Key Changes to Soybean Balance Sheet in USDA's May WASDE***

- ✓ **World soybean trade matrix**
  - ✓ **Held Brazil's 21/22 harvest at 125 mmt**
  - ✓ **Reduced Argentina's harvest to 42 mmt vs 43.5 last month**
- ✓ **But in 22/23 expecting big production increases**
  - ✓ **Brazil expected to jump up to 149 mmt (+19%)**
  - ✓ **Argentina expected to increase to 51 mmt (+21%)**
  - ✓ **Result would lead to major exporter ending stocks rising to 52.8 mmt (+30%)**

*If Trend Yield (51.5 bpa) Is Achieved, Production Up 4.5% vs. 2021, A New Record*

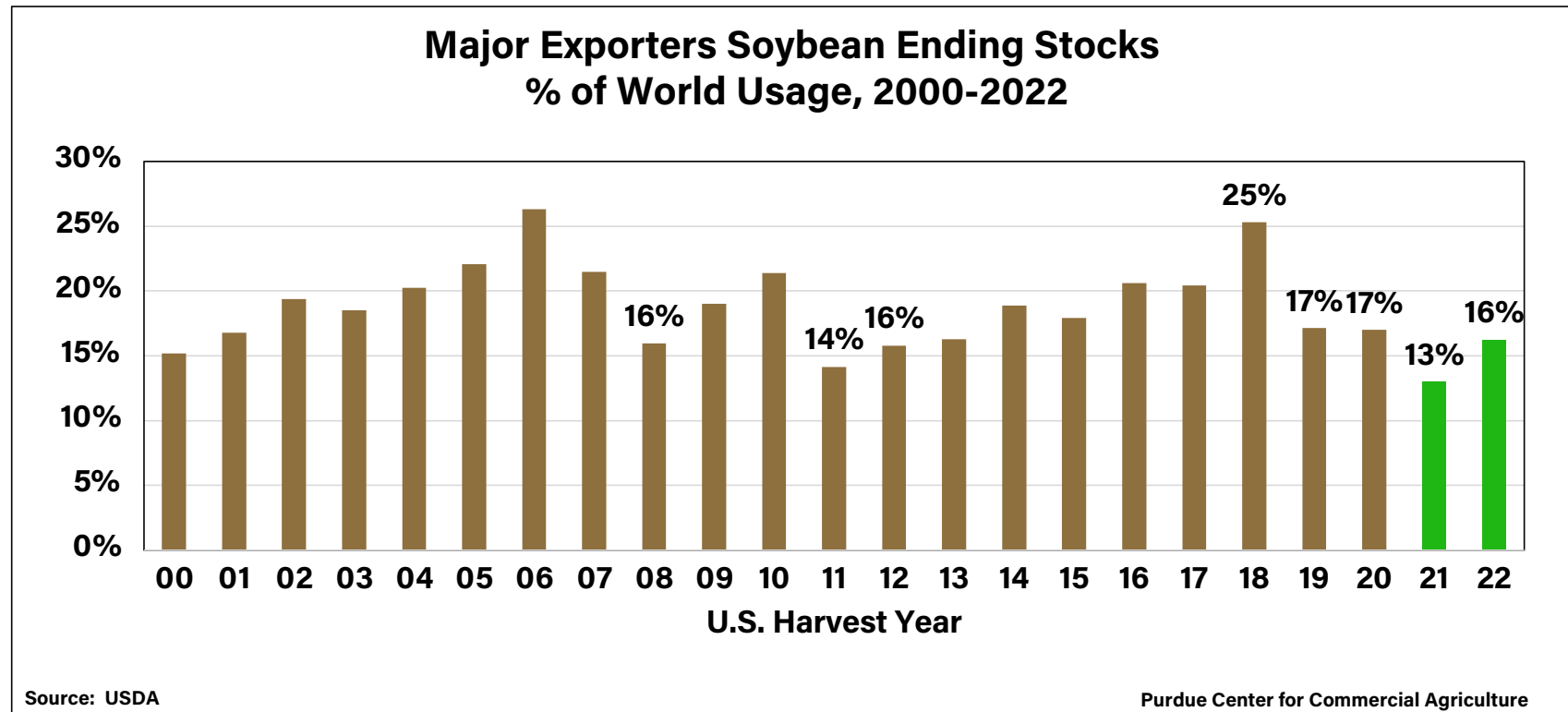


## *Despite Expectation for Record Production, Carryover Likely to Remain Tight*

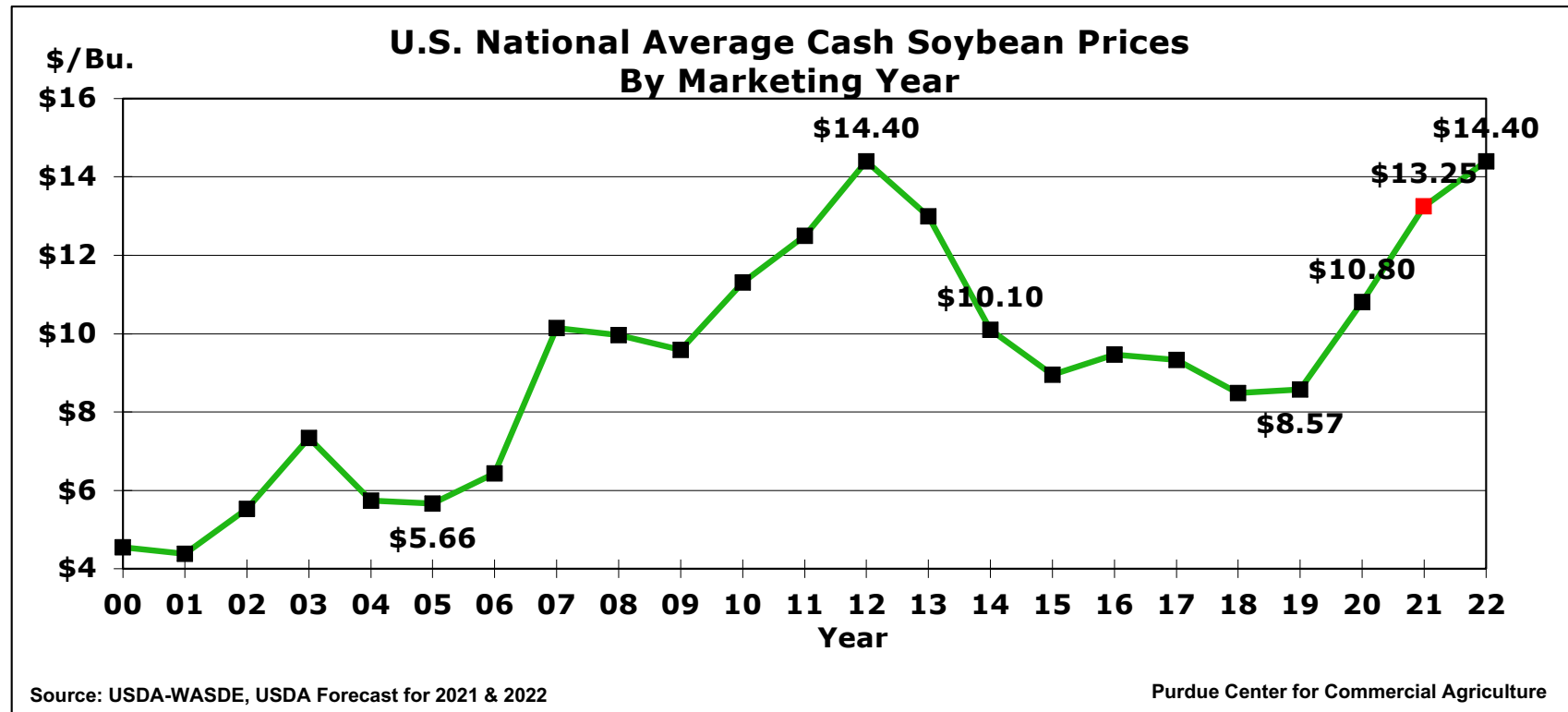


## *21/22 Exporter Stocks Could Still Tighten More Than Projected*

*Rise in 22/23 Stocks Dependent on Big U.S. Crop and Rebound in South American Production*

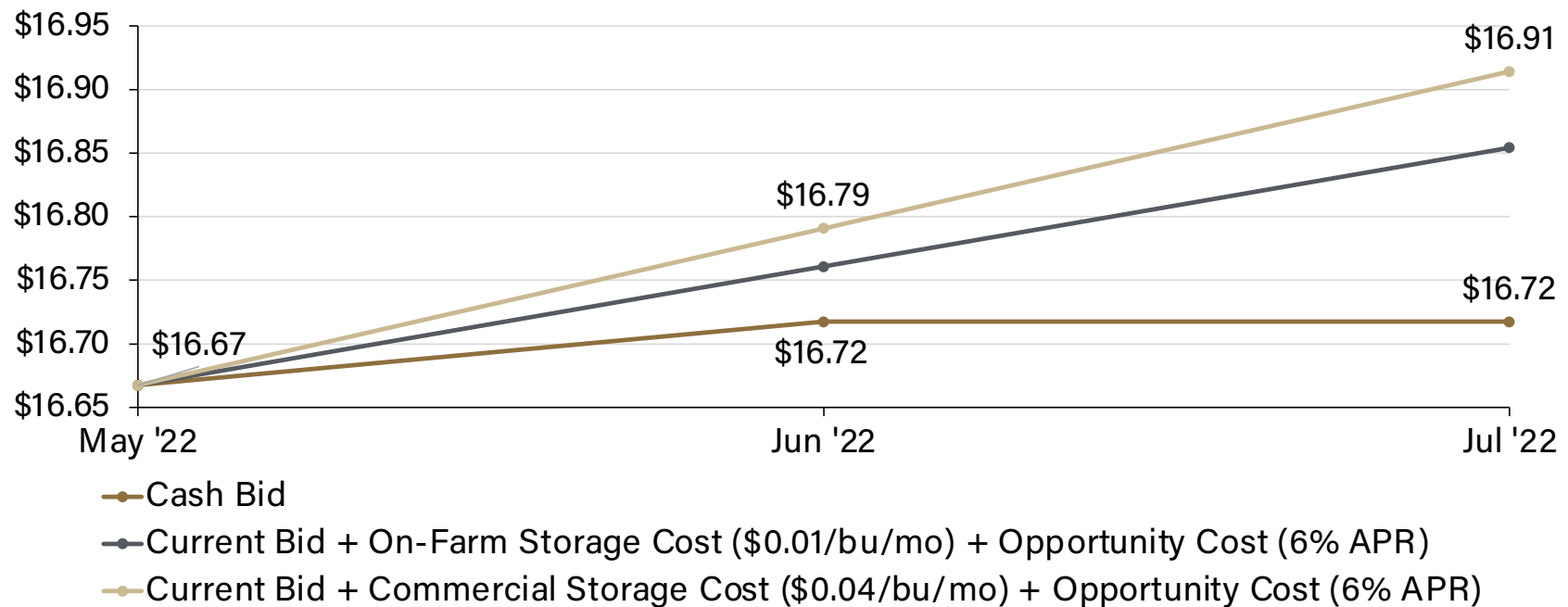


## USDA Forecasting Highest MYA Soybean Price Since 2012 Crop Year



## Storage opportunities for soybeans?

### Cash Forward Contract Soybean Bids Central Indiana

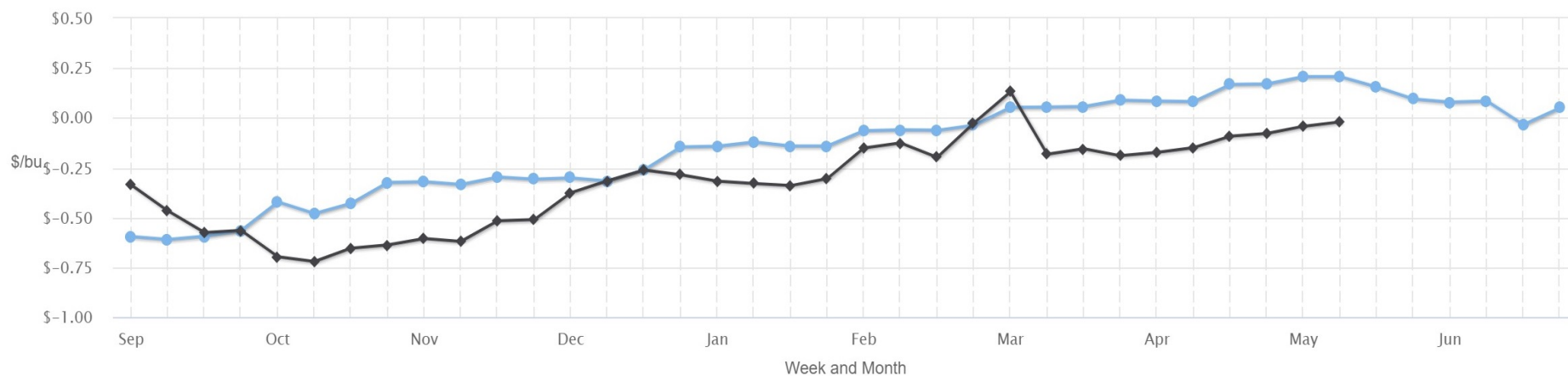




# Soybean basis -Central Indiana - 2 year average

## Purdue Center for Commercial Agriculture Crop Basis Tool

Soybeans: IN CENTRAL Region, July Contract Basis, Weekly  
Avg. of Selected Historical Crop Years [2019-2020,2020-2021]  
vs. Current Crop Year



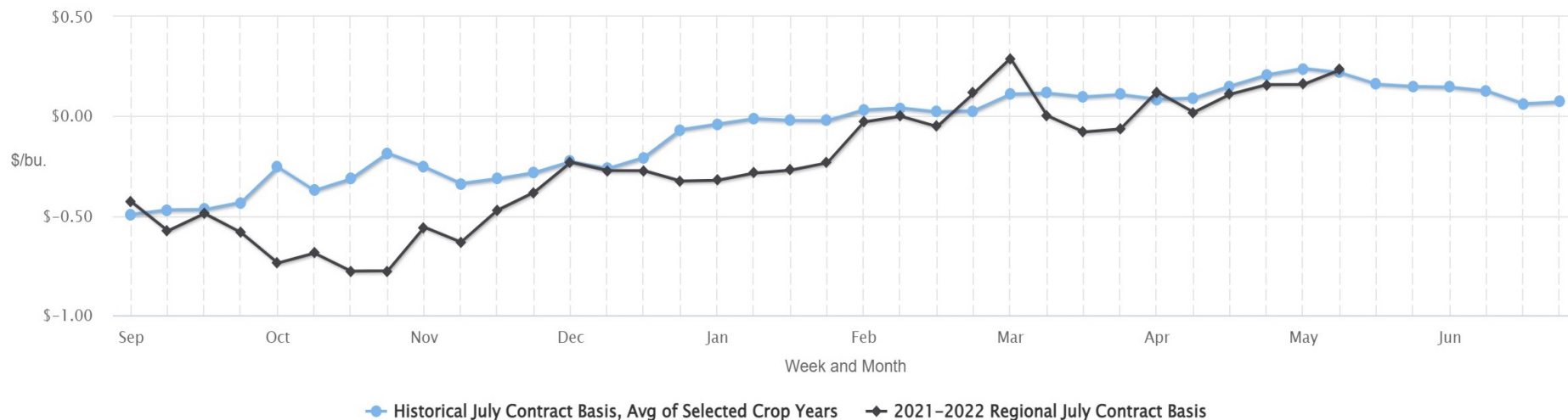
— Historical July Contract Basis, Avg of Selected Crop Years — 2021-2022 Regional July Contract Basis

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

# Soybean basis –Southwest Indiana – 2 year average

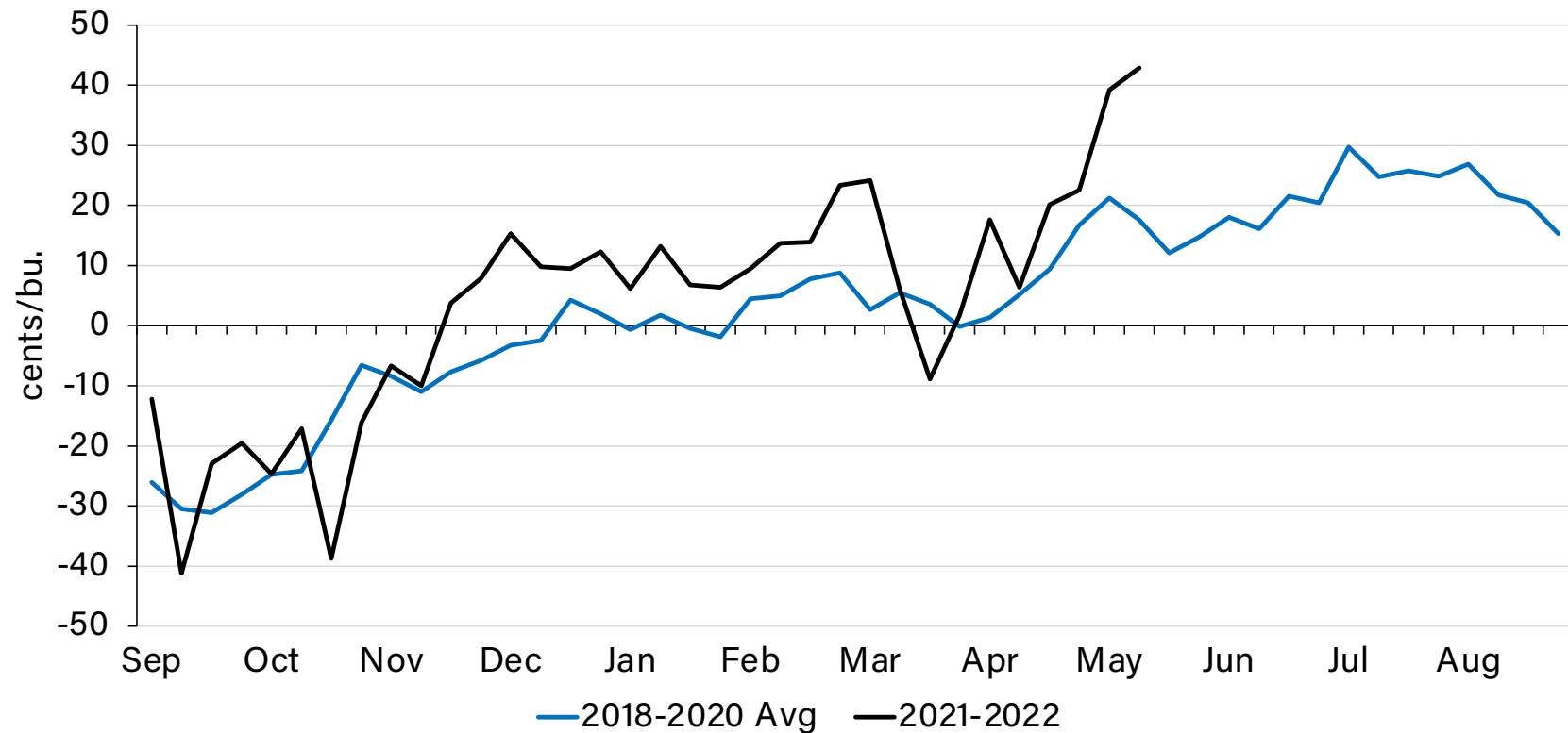
## Purdue Center for Commercial Agriculture Crop Basis Tool

Soybeans: IN SW Region, July Contract Basis, Weekly  
Avg. of Selected Historical Crop Years [2019–2020,2020–2021]  
vs. Current Crop Year

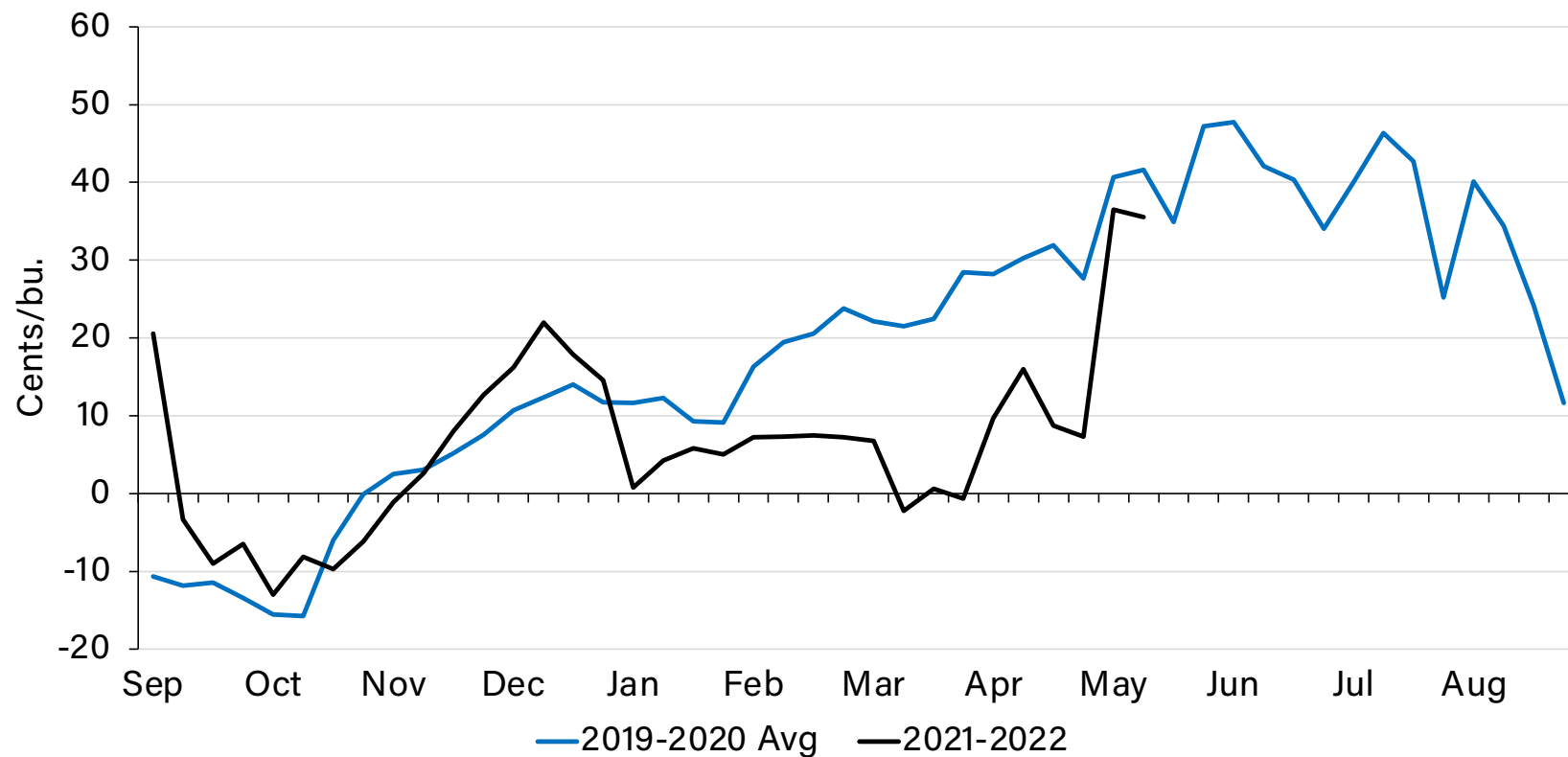


<https://www.purdue.edu/commercialag>

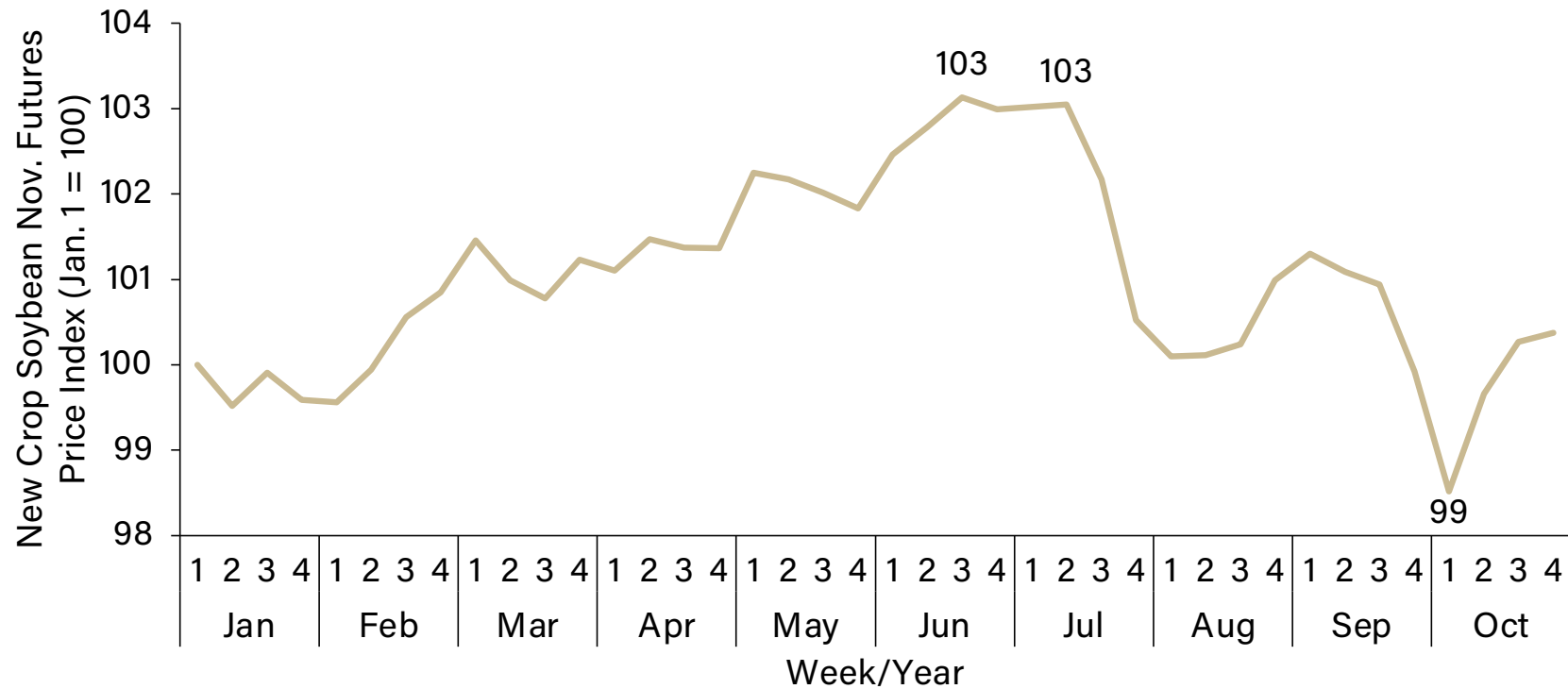
## *Soybean River Basis-Southern Indiana and Southern Illinois River Terminals*



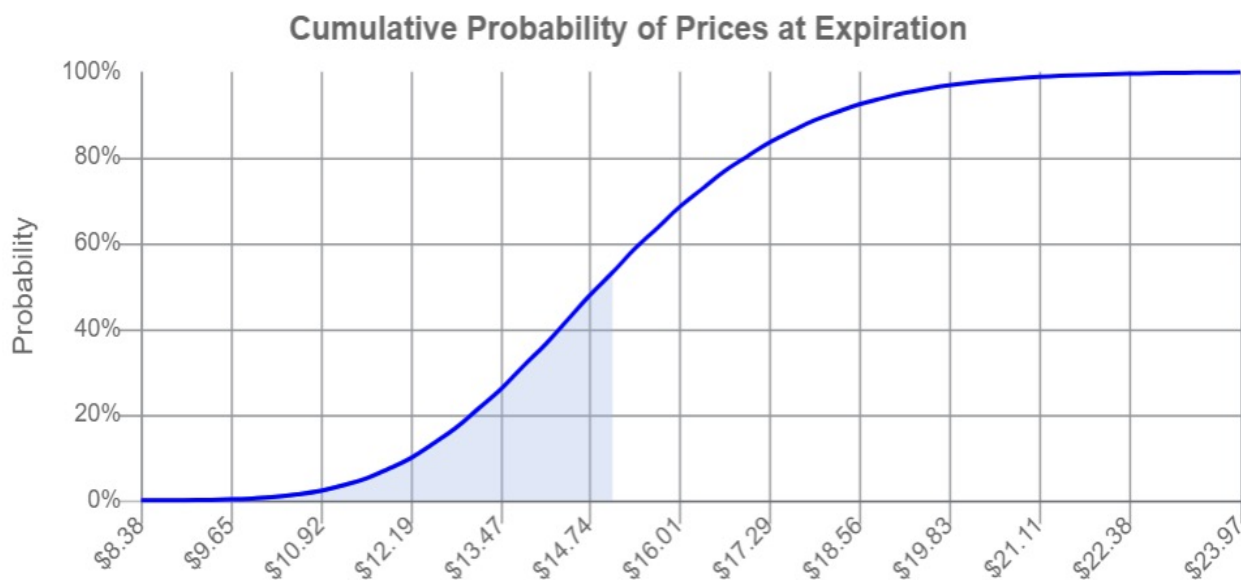
## *Indiana soybean processor basis*



## 30-Year Average New Crop Nov. Soybean Futures Price Index (Jan. 1 = 100), 1990-2020



## *farmdoc Price Discovery Tool: Nov. '22 Soybean Futures*

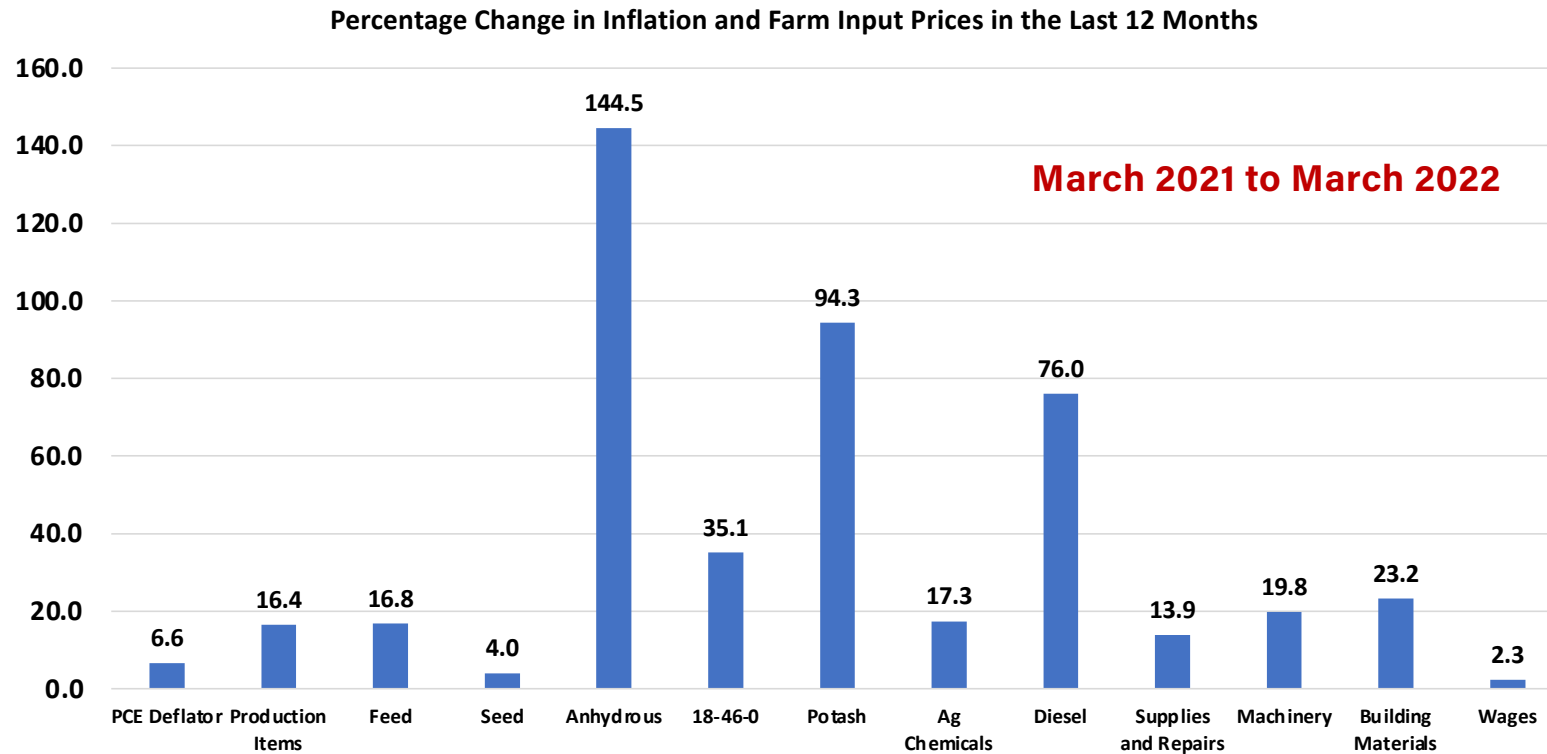


Source: <https://fd-tools.ncsa.illinois.edu/pricedistribution>

Price at Expiration ▲	Probability Below ▲
\$14.00	34.75%
\$14.25	39.07%
\$14.50	43.45%
\$14.75	47.84%
\$15.00	52.18%
\$15.25	56.42%
\$15.50	60.52%
\$15.75	64.45%
\$16.00	68.17%

~20% chance that Nov. '22 soybean futures are below \$13 at expiration.

## Surge in Farm Input Prices



## *Inflation Expectations*

- **March 2021 to March 2022:**

- PCE Price Deflator = 6.6%

### **Federal Reserve Board Projections PCE Price Deflator**

- 2022: 4.3%
- 2023: 2.7%
- 2024: 2.3%
- Longer Run: 2.0%



## *Key Interest Rates*

### ▪ **April 2022**

- Federal Funds Rate = 0.33%...but still rising
- 10-Year Treasury Notes = 2.75%
- Prime Rate = 3.50%....headed towards 5%
- What's this mean for farm operating interest rates?
- Headed towards 6 to 6.5% by year end

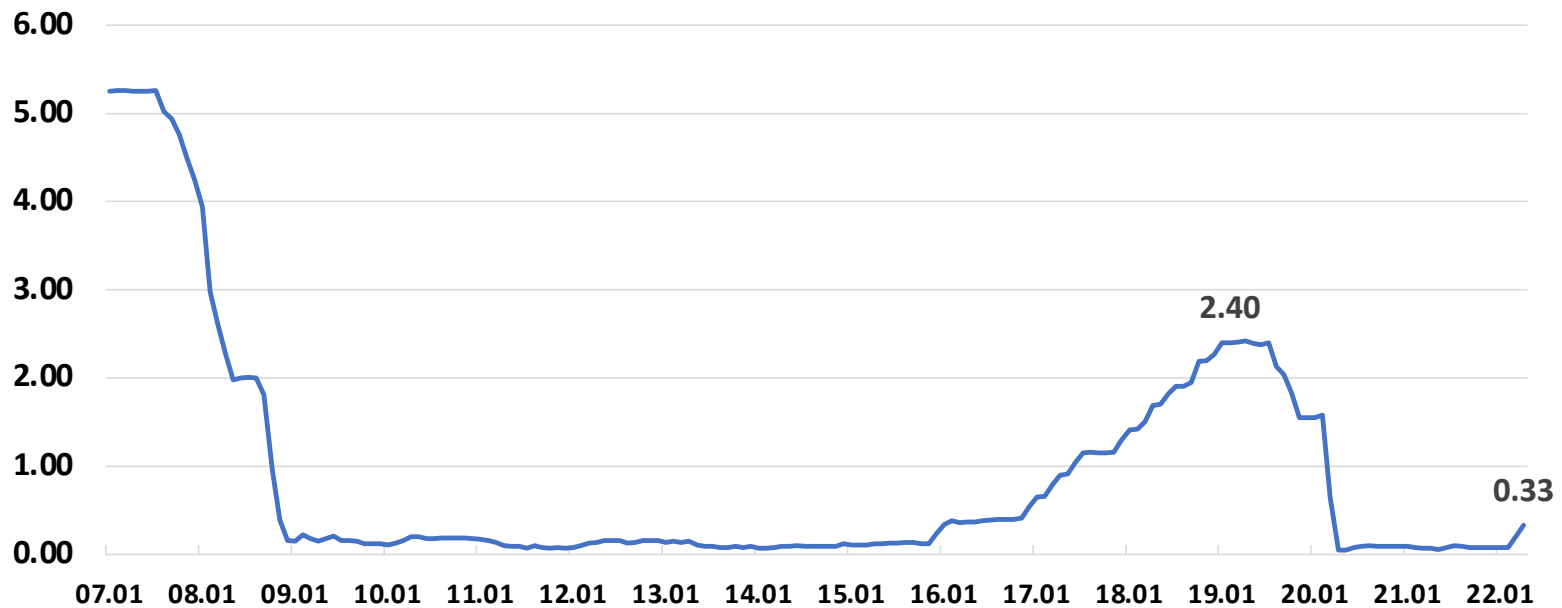
### **Federal Reserve Board Projections** **Federal Funds Rate**

- 2022: 1.9%
- 2023: 2.8%
- 2024: 2.8%
- Longer Run: 2.4%

## *Historical Fed Fund Rates....*

### Monthly Federal Funds Rate (%)

Source: FRB of St. Louis

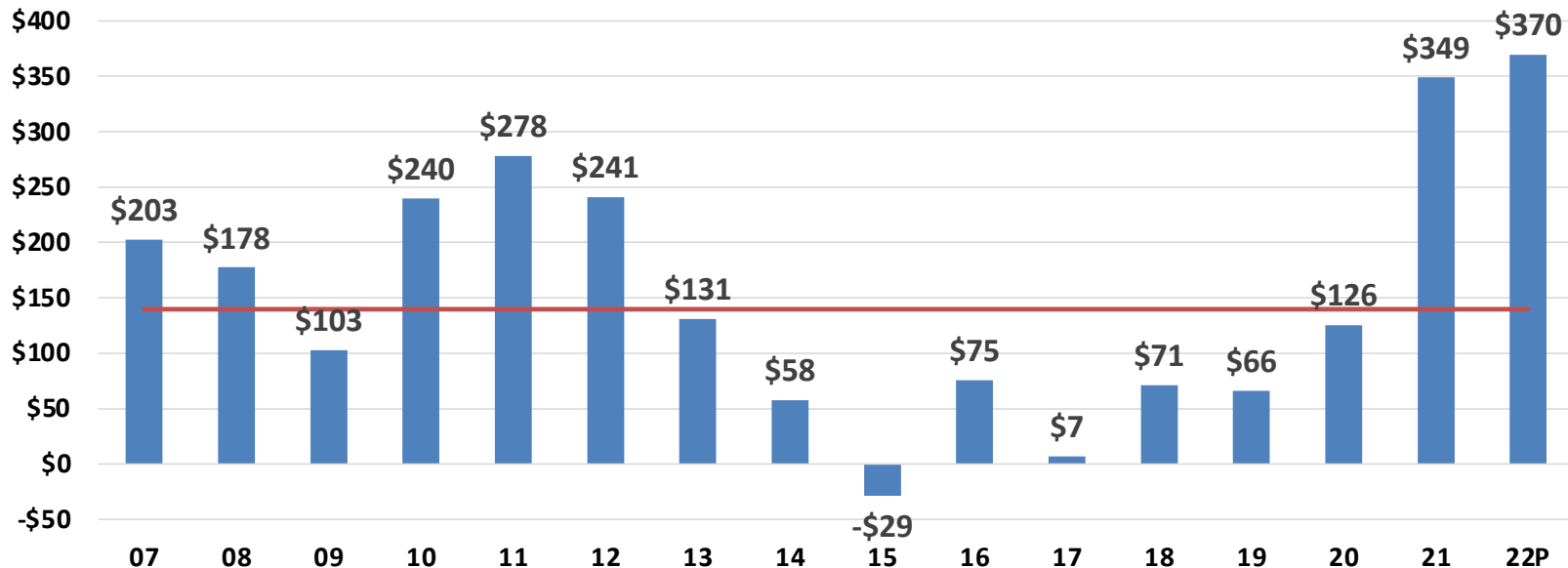


## Comparison of Projections for 2022 to Long-Run Net Farm Income Average

### Net Farm Income, Corn/Soybean Rotation (\$ per Acre)

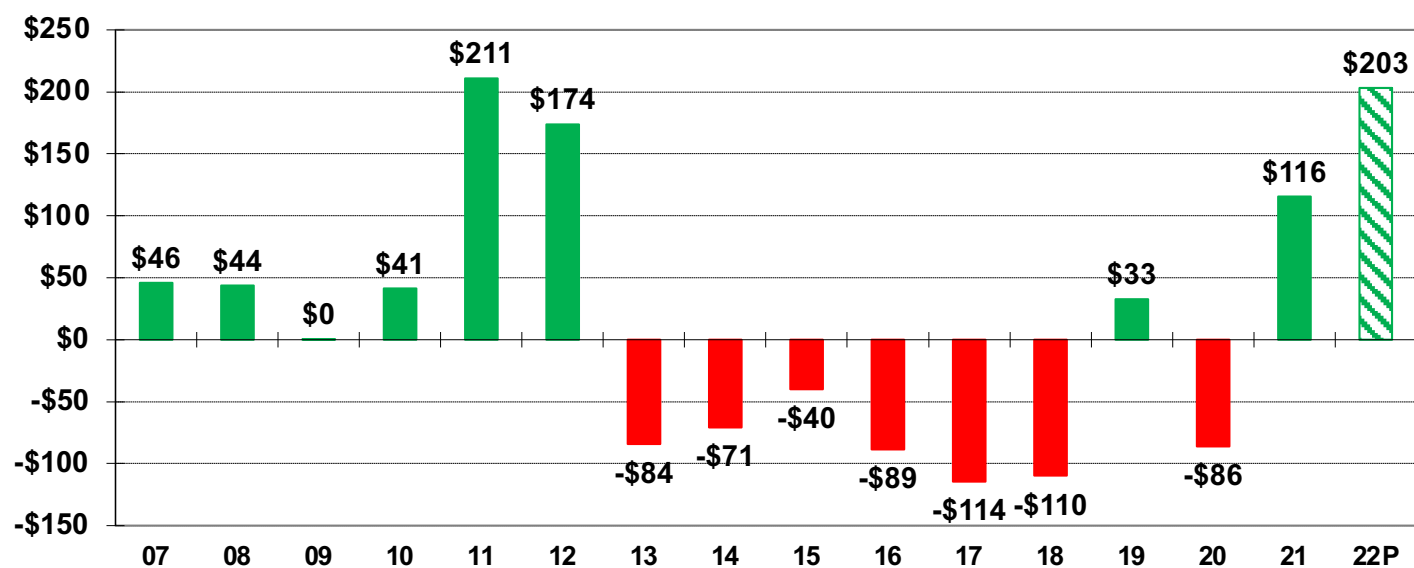
West Central Indiana Case Farm

■ Annual — Average, 2007 to 2021



## *Strong Profit Prospects for Corn in 2022*

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





## MONTHLY OUTLOOK

PURDUE CENTER FOR  
COMMERCIAL AGRICULTURE

Next *Crop Outlook Webinar* will be on Monday, June 13

Details Available at  
**[purdue.edu/commercialag](http://purdue.edu/commercialag)**



Center for Commercial Agriculture