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- Professional Farm Management
- Farmland Sales & Acquisitions
- Farmland Auctions
- Trusted Farmland Appraisals





Caring for You and Your Farm®

**Landowner Educational Seminar
Summer 2022**

Grain Markets



Marketing Decisions

Continued volatility

- Trade
- Weather
- World Economy
- Government
- Russia/Ukraine Conflict



Overview

- Today's Markets
- Weather
- Trade
- Corn
- Soybeans
- China
- Outlook



Today's Price

Corn			Soybeans		
	2022	2020		2022	2020
July/August			July/August		
October			October		
December			December		

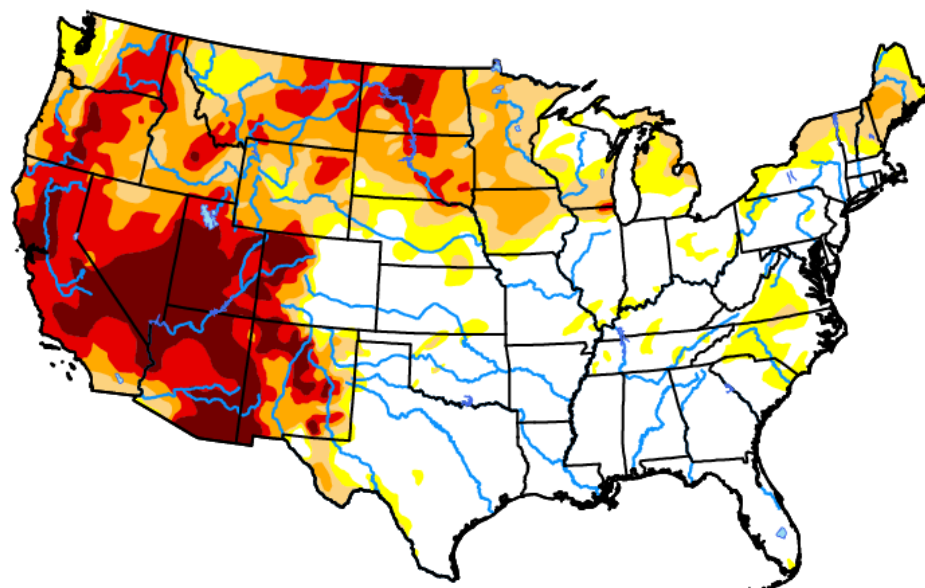


Weather

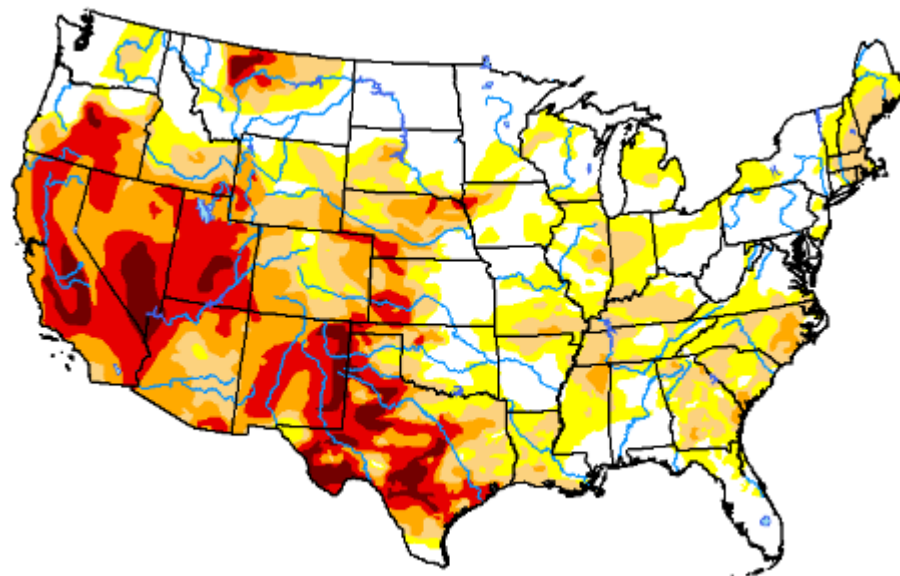


U.S. Drought Monitor

July 6, 2021



July 5, 2022



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:

- | | |
|---|------------------------|
|  | D0 Abnormally Dry |
|  | D1 Moderate Drought |
|  | D2 Severe Drought |
|  | D3 Extreme Drought |
|  | D4 Exceptional Drought |



Source: <http://droughtmonitor.unl.edu/>

www.Hertz.ag

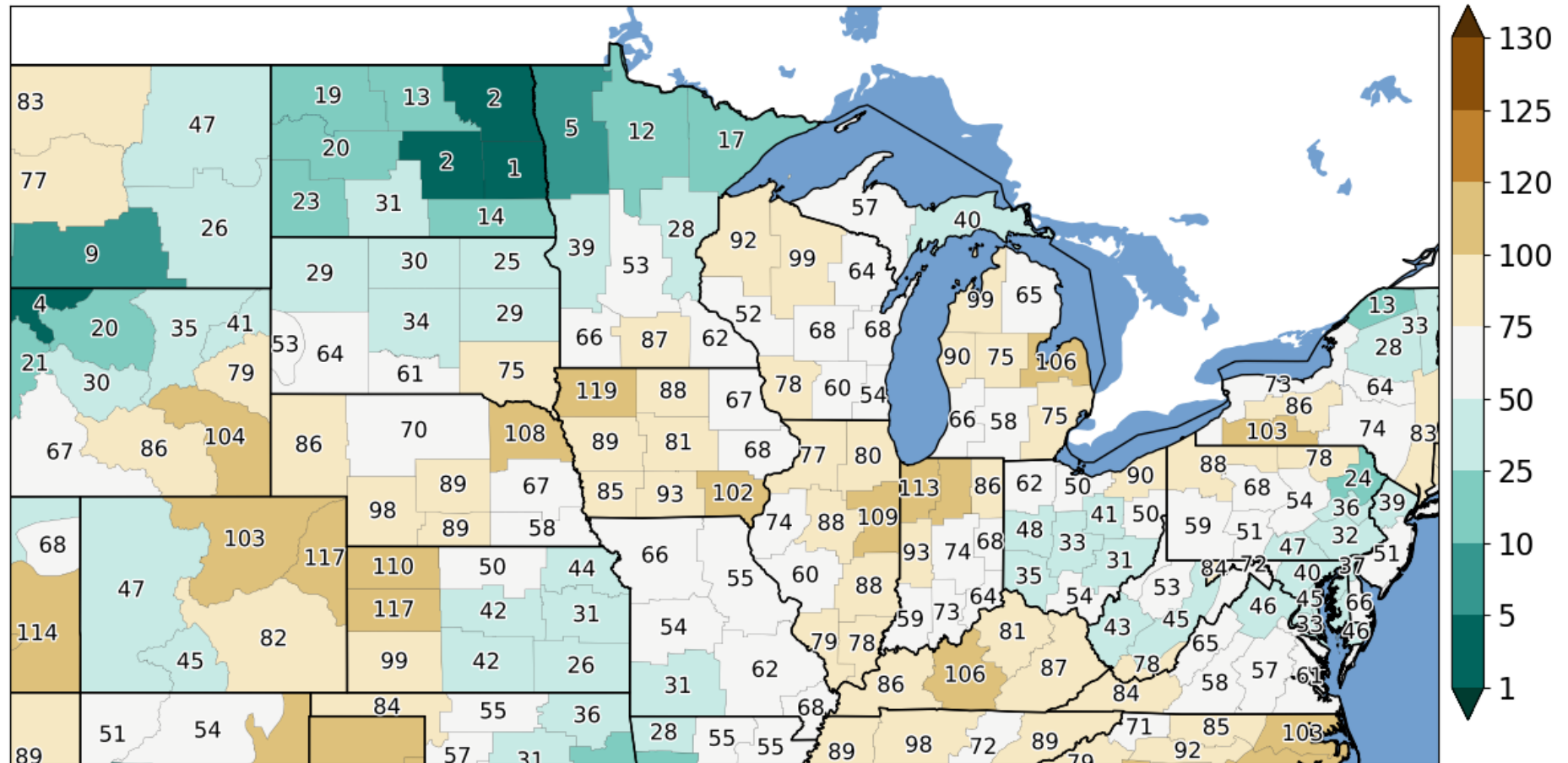


Total Precipitation Ranks by Climate District

April 14 – July 1, 2022



13 Apr 2022 ~7 AM till 1 Jul 2022 ~7 AM Total Precipitation Ranks by Climate District
Based on IEM Estimates, 1 is wettest out of 130 total years (1893-2022)



Generated at 6 Jul 2022 3:57 PM CDT in 29.05s

IEM Autoplot App #24



Source: IEM

www.Hertz.ag



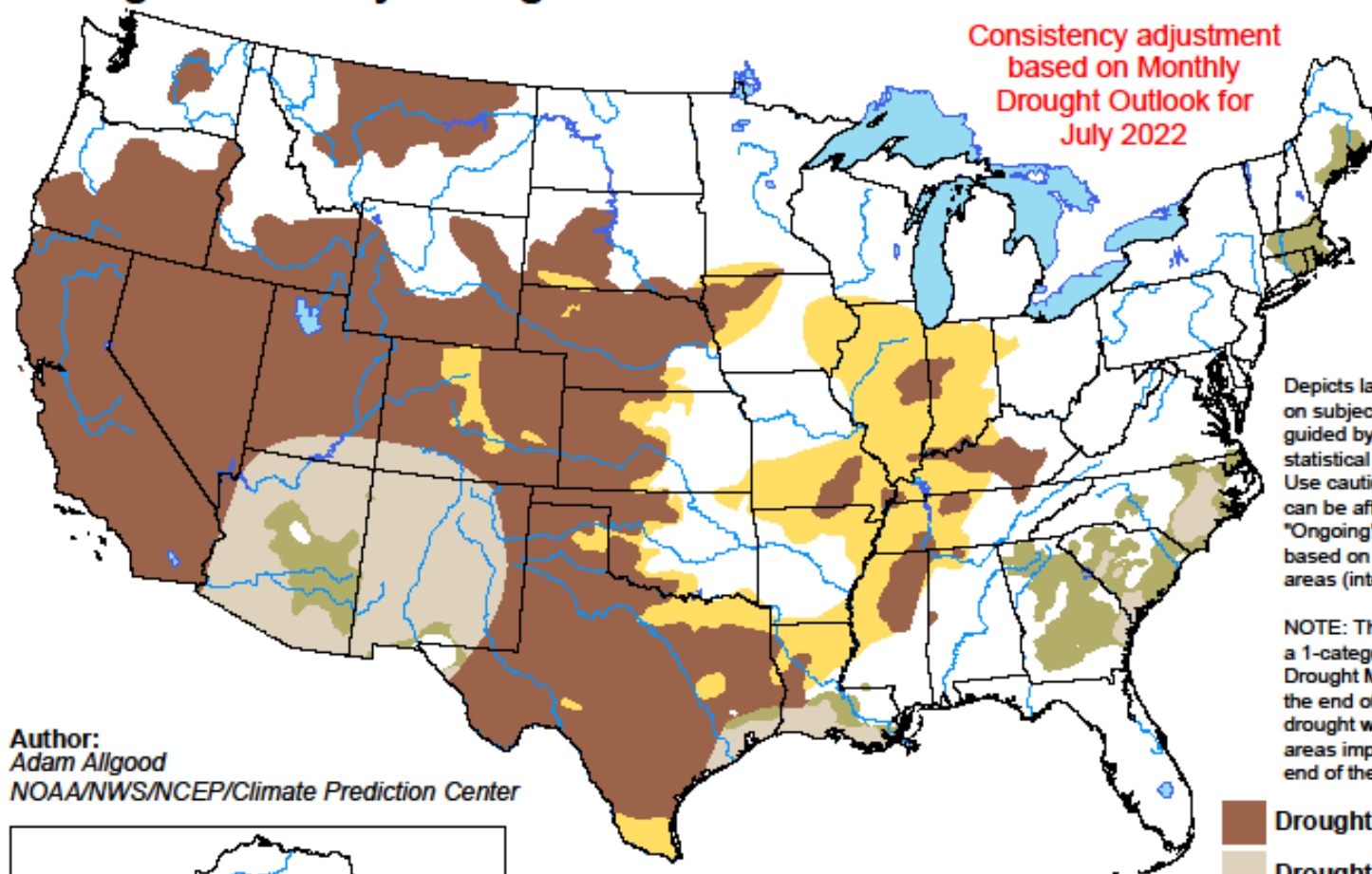
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for July 1 - September 30, 2022

Released June 30, 2022

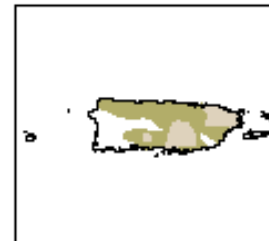
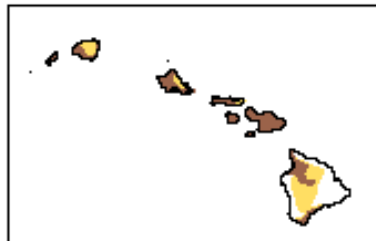
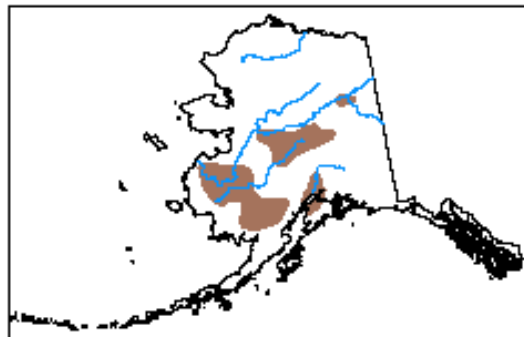
Consistency adjustment
based on Monthly
Drought Outlook for
July 2022



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center



-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZ73>



Source: NOAA

www.Hertz.ag

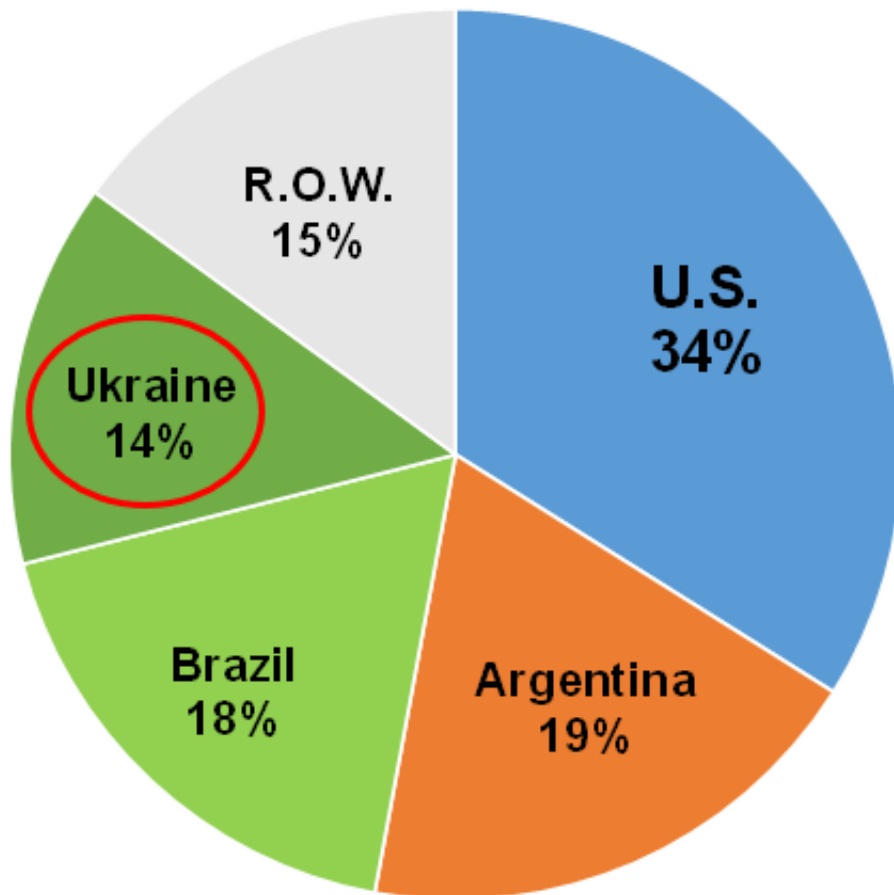
 **Hertz**
Farm Management, Inc.

Agricultural Trade

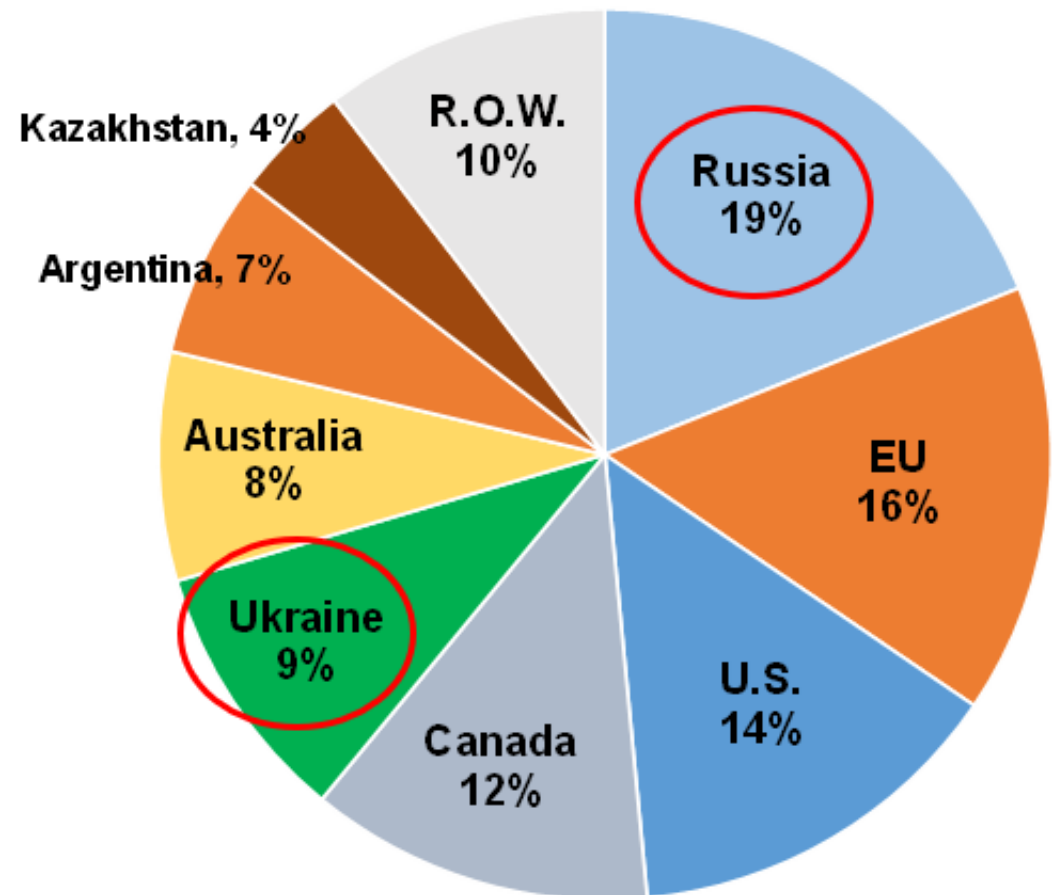


Ukraine Export Contributions

World Corn Export Share
for the 5 years from 2016/17 to 2020/21



World Wheat Export Share
for the 5 years from 2016/17 to 2020/21



Source: Brock Associates

www.Hertz.ag

Ukraine Agricultural Production and Exports, 2022/23 Marketing Year

Product	Production			Exports		
	Volume (1,000 mt)	Global rank	% of global production	Volume (1,000 mt)	Global rank	% of global exports
Corn	25,000	#8	2.1%	9,000	#4	4.9%
Wheat	21,500	#9	2.8%	10,000	#7	4.9%
Sunflower seed	9,500	#3	19.3%	750	#1	20.7%
Barley	5,700	#7	3.9%	1,800	#6	5.9%
Sunflower oil	4,085	#3	21.4%	3,600	#1	34.7%
Sunflower meal	3,924	#3	19.0%	2,700	#1	39.8%
Rapeseed	3,200	#6	4.0%	2,750	#3	16.2%

Source: USDA, June 2022



Source: Brock Associates

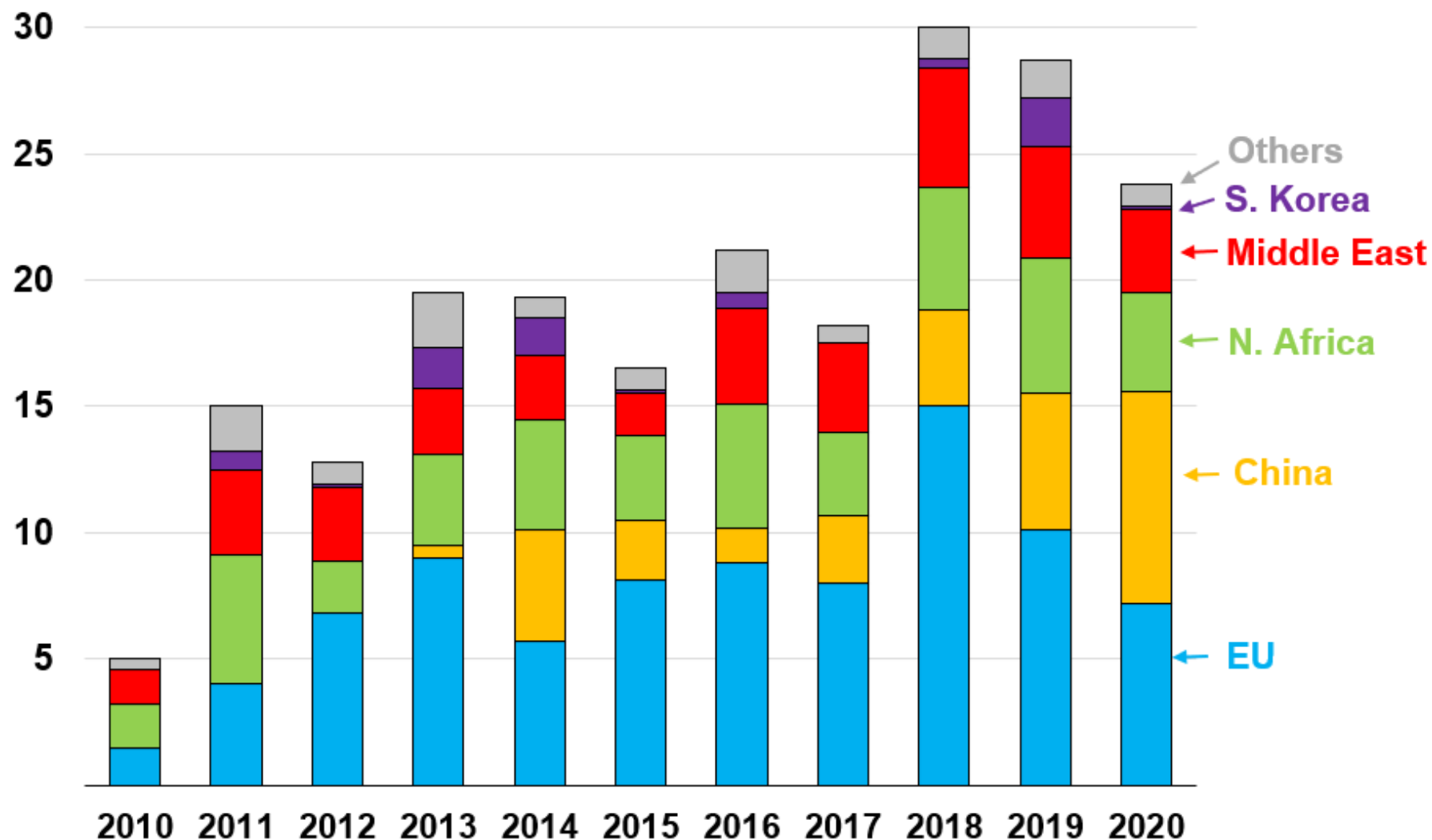
www.Hertz.ag



Ukraine: Corn Production



Ukraine Corn Export Destinations (mmt)



Source: USDA ERS Feed Outlook, February 2022

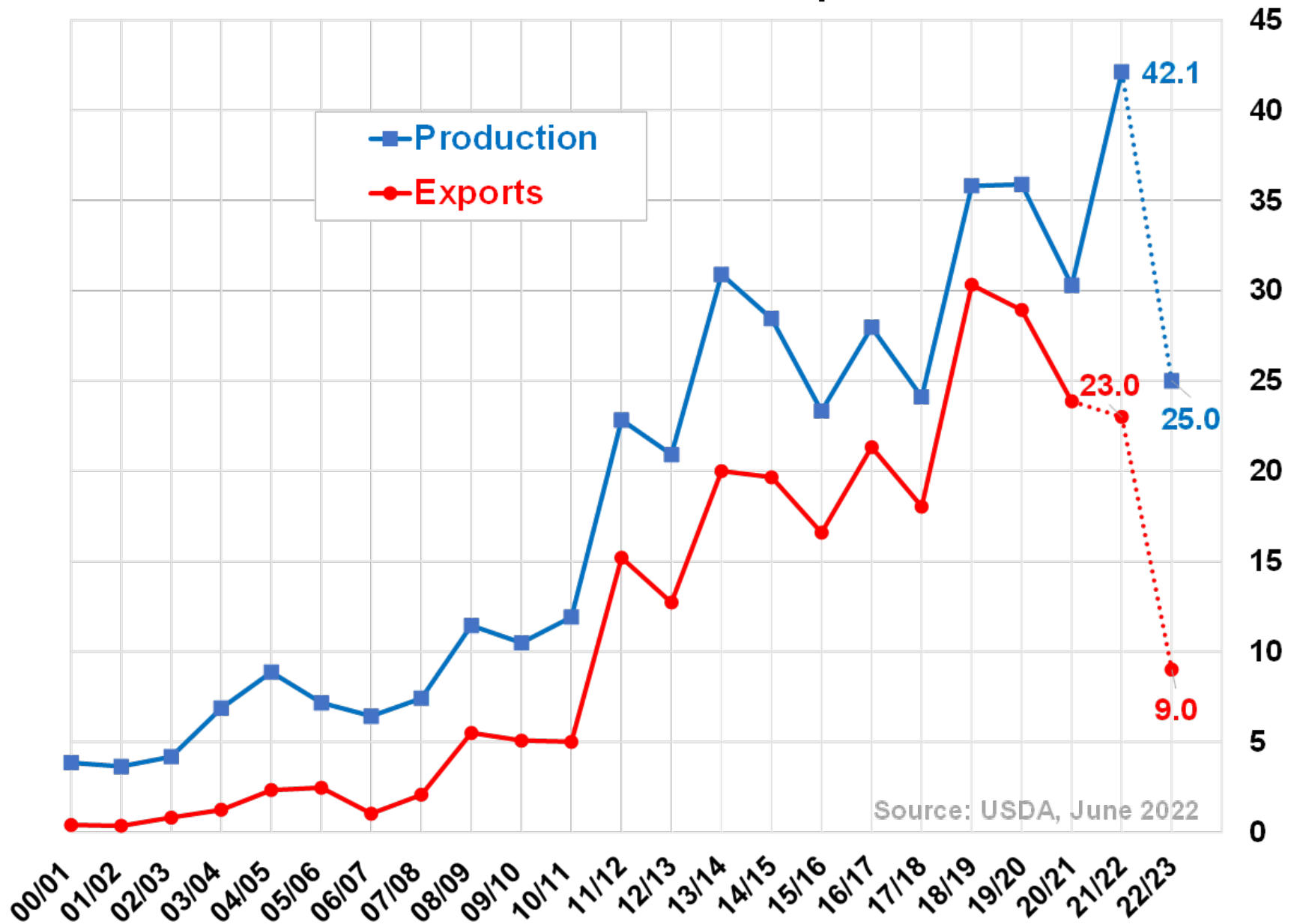


Source: Brock Associates

www.Hertz.ag



Ukraine Corn Production and Exports, million metric tons

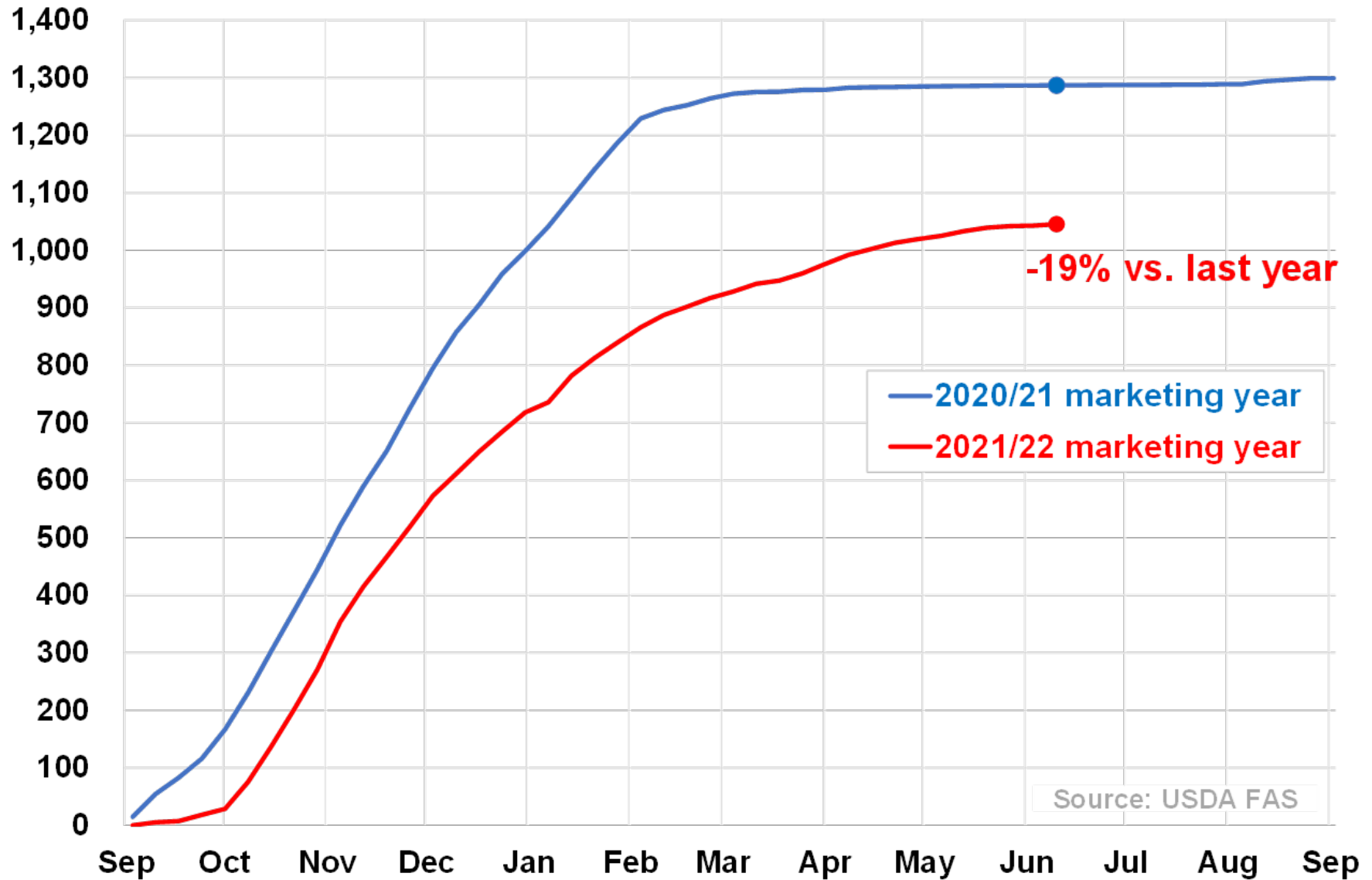


Source: Brock Associates

www.Hertz.ag



U.S. Soybean Export Shipments to China, million bu



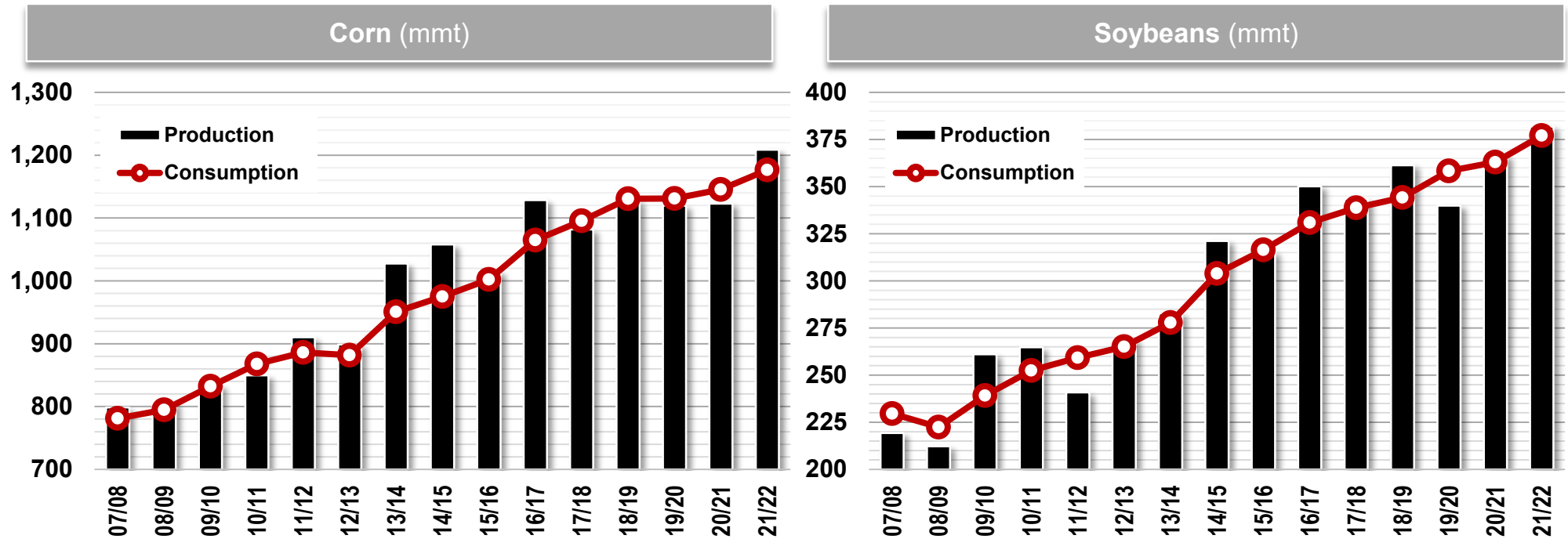
Source: Brock Associates

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Global Production & Consumption Growth

Growth in agricultural product demand has been strong



Data Source: USDA December 2021



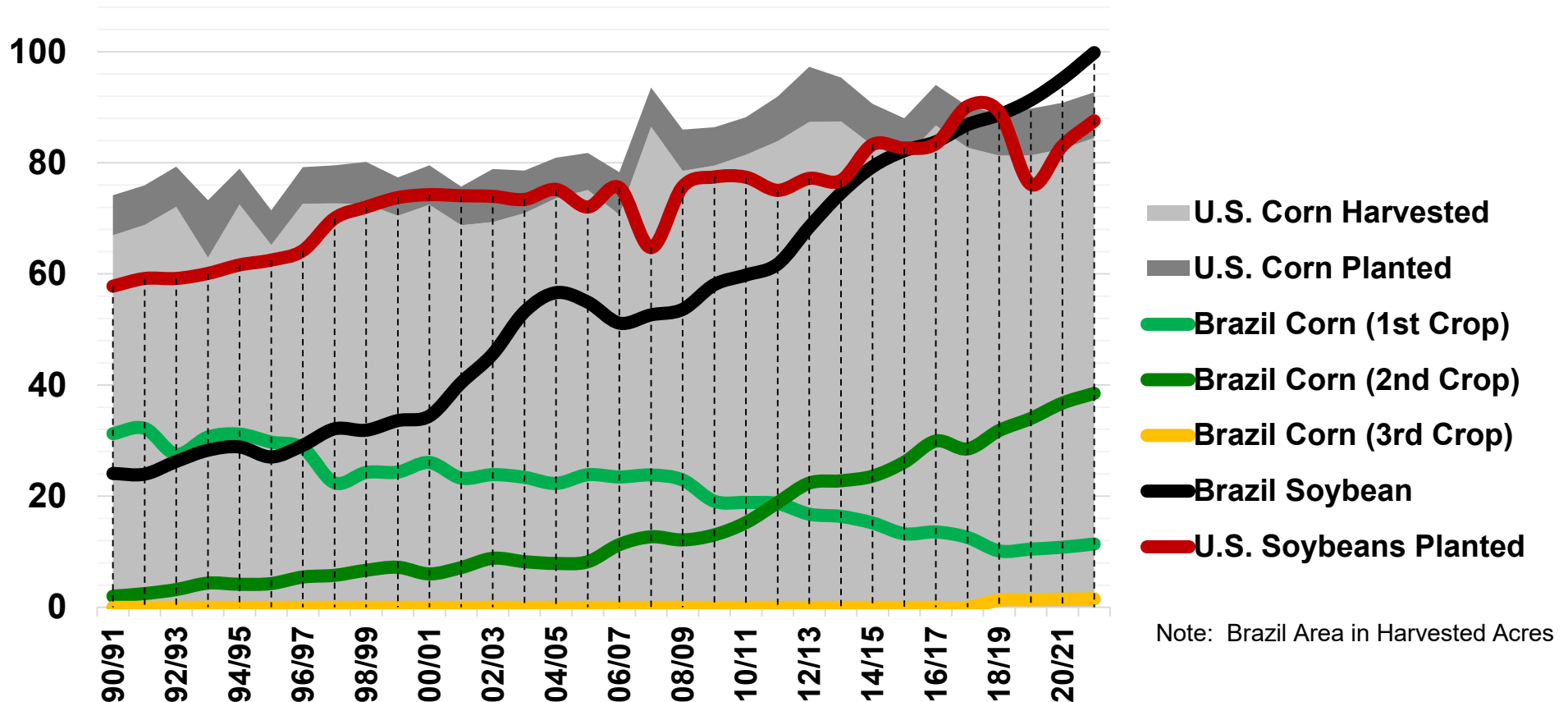
Source: Corteva AgriScience

www.Hertz.ag



U.S. and Brazil Area Perspective

Million Acres



Source: Corteva AgriScience

www.Hertz.ag

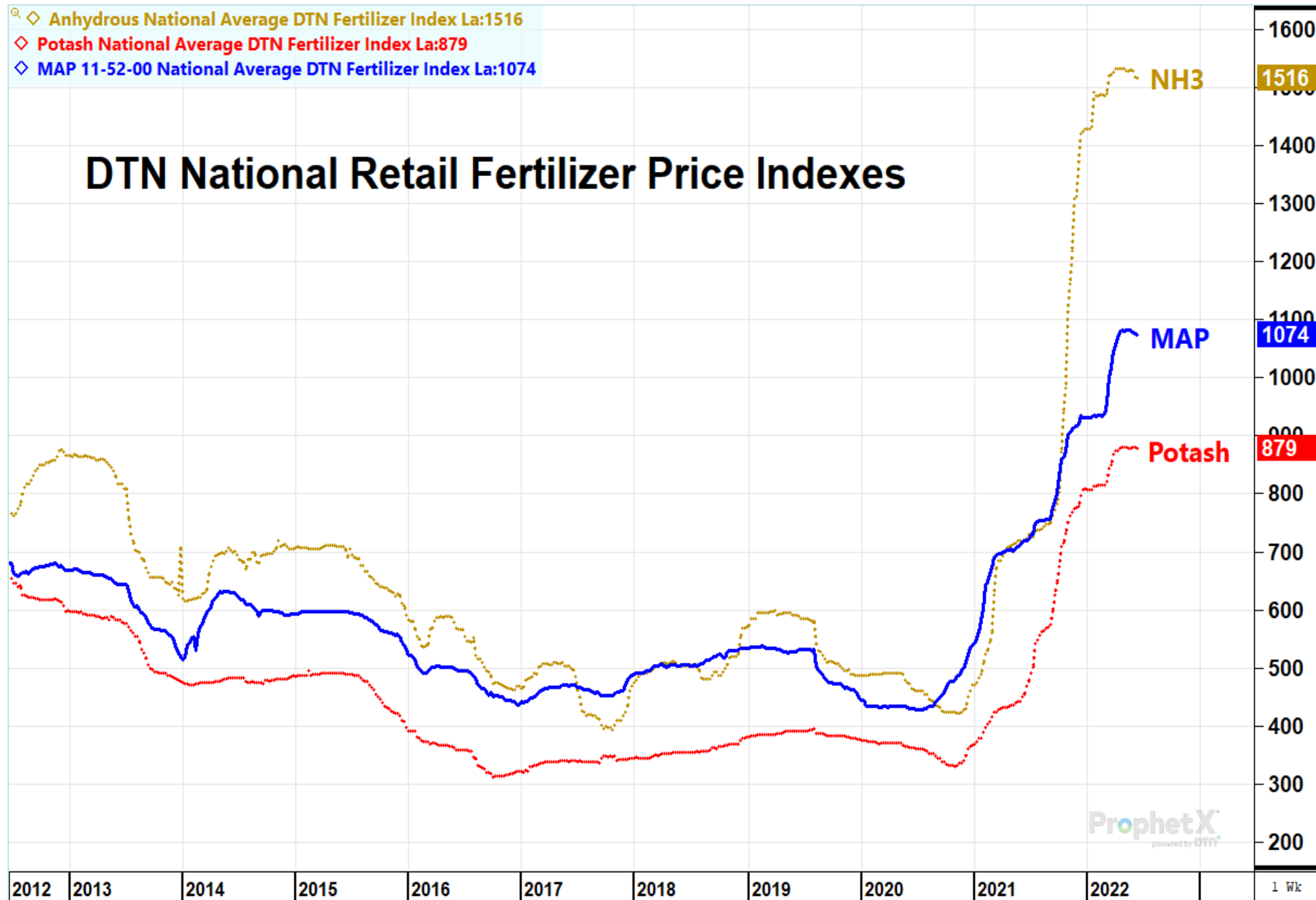


Corn Market



◇ Anhydrous National Average DTN Fertilizer Index La:1516
◇ Potash National Average DTN Fertilizer Index La:879
◇ MAP 11-52-00 National Average DTN Fertilizer Index La:1074

DTN National Retail Fertilizer Price Indexes

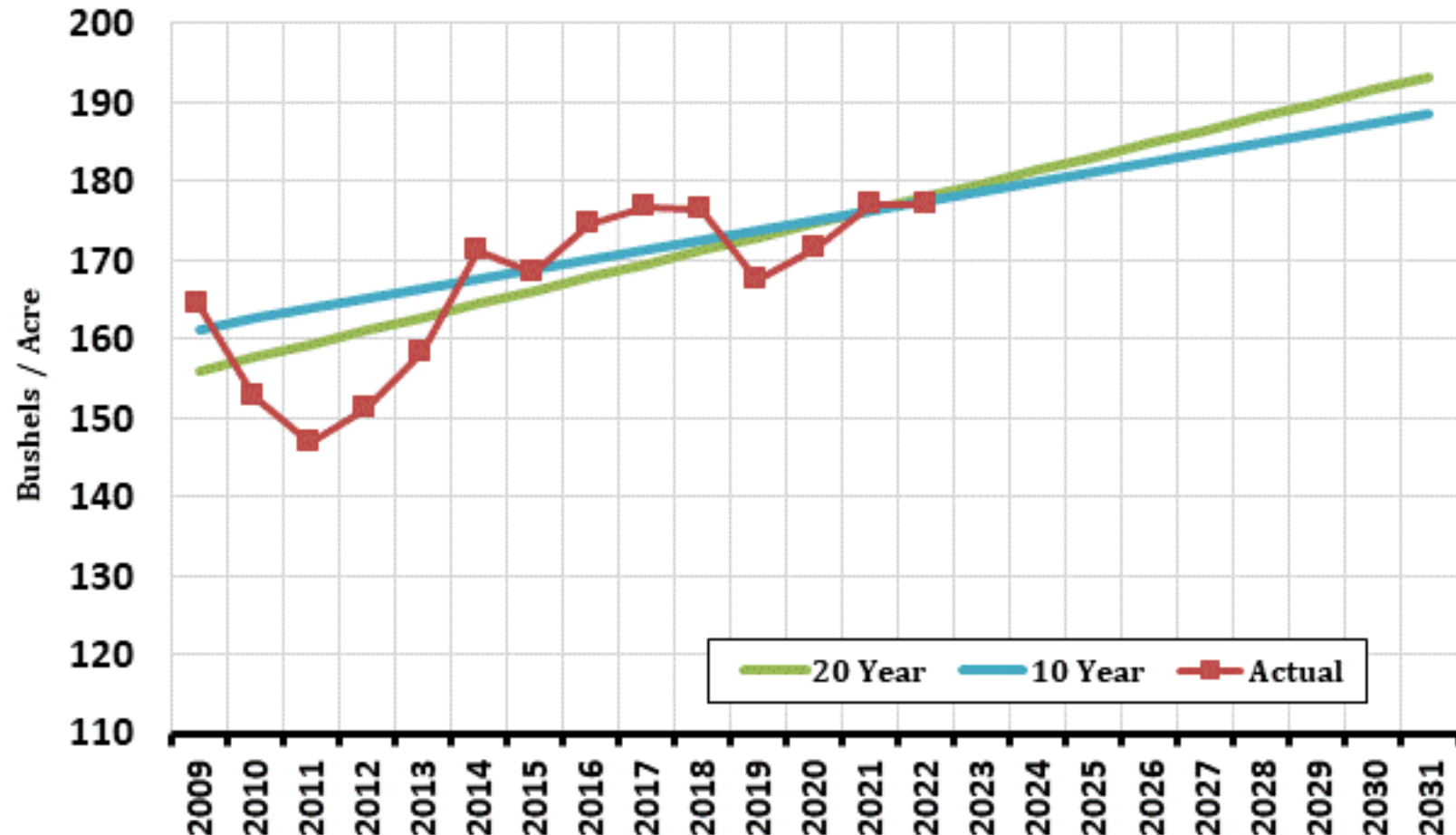


Source: Brock Associates

www.Hertz.ag



U.S. Corn Yield Actual vs. Trend Line



Updated: 07/12/2022

The Hightower Report



Source: CME Group

www.Hertz.ag



U.S. Corn Supply and Use

Marketing Year (2021 = 9/1/21 to 8/31/22)		2018	2019	2020	2021	2022
Area Planted	(mil. acres)	88.9	89.7	90.7	93.4	89.9
Yield	(bu./acre)	176.4	167.5	171.4	177.0	177.0
Production	(mil. bu.)	14,340	13,620	14,111	15,115	14,505
Beg. Stocks	(mil. bu.)	2,140	2,221	1,919	1,236	1,510
Imports	(mil. bu.)	28	42	24	25	25
Total Supply	(mil. bu.)	16,509	15,883	16,055	16,375	16,040
Feed & Residual	(mil. bu.)	5,429	5,897	5,601	5,600	5,350
Ethanol	(mil. bu.)	5,378	4,857	5,028	5,375	5,375
Food, Seed, & Other	(mil. bu.)	1,425	1,430	1,437	1,215	1,445
Exports	(mil. bu.)	2,066	1,778	2,753	2,450	2,400
Total Use	(mil. bu.)	14,288	13,963	14,819	14,865	14,570
Ending Stocks	(mil. bu.)	2,221	1,919	1,236	1,510	1,470
Season-Average Price	(\$/bu.)	3.61	3.56	4.53	5.95	6.65

Sources: USDA-WAOB and USDA-OCE



Source: Chad E. Hart

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U.S. CORN SUPPLY AND DEMAND

2022/23 Bullish vs. Bearish Scenarios

	Bullish Scenario	Average	Bearish Scenario
ACREAGE (mil ac)			
Planted Area	89.0	89.9	90.5
Harvested Area	81.0	81.9	82.5
Yield	174.0	177.0	180.0
SUPPLY (mil bu)			
Beg. Stocks (Sep 1)	1,485	1,485	1,485
Production	14,094	14,496	14,850
Imports	25	25	25
Total Supply	15,604	16,006	16,360
USAGE (mil bu)			
Feed & Residual	5,450	5,400	5,400
Food/Seed/Ind	6,725	6,675	6,775
Ethanol & By-Products	5,300	5,250	5,350
Domestic Use	12,175	12,175	12,175
Exports	2,450	2,450	2,500
Total Use	14,625	14,625	14,675
STOCKS (mil bu)			
Ending Stocks (Aug 31)	979	1,381	1,685
Stocks/Use	6.7%	9.4%	11.5%
Farm Price (\$/bu)	\$7.00-8.50	\$5.80-6.50	\$4.75-6.00

Source: Brock Associates Numbers may not add due to rounding

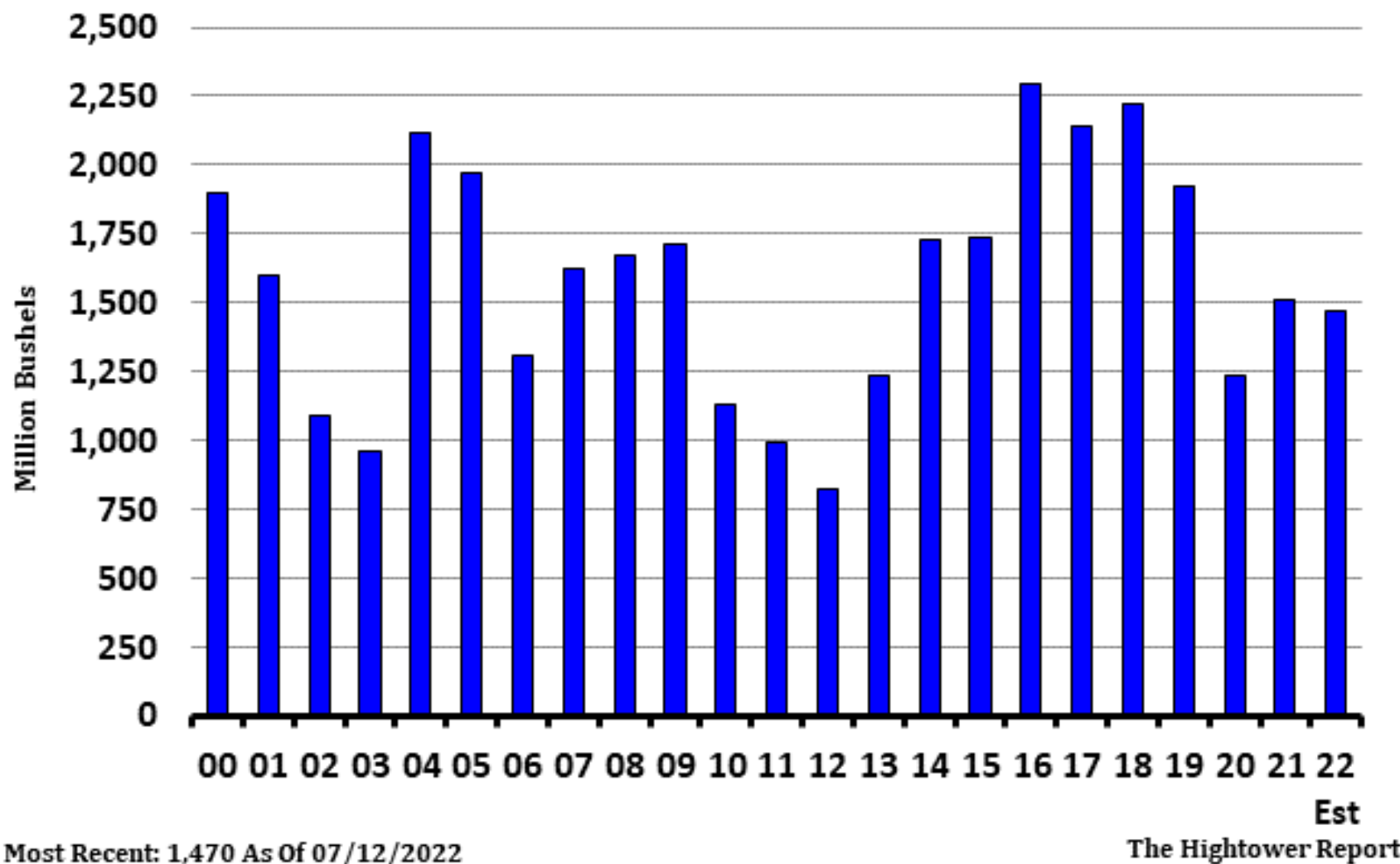


Source: Brock Associates

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U.S. Corn Ending Stocks



Source: CME Group

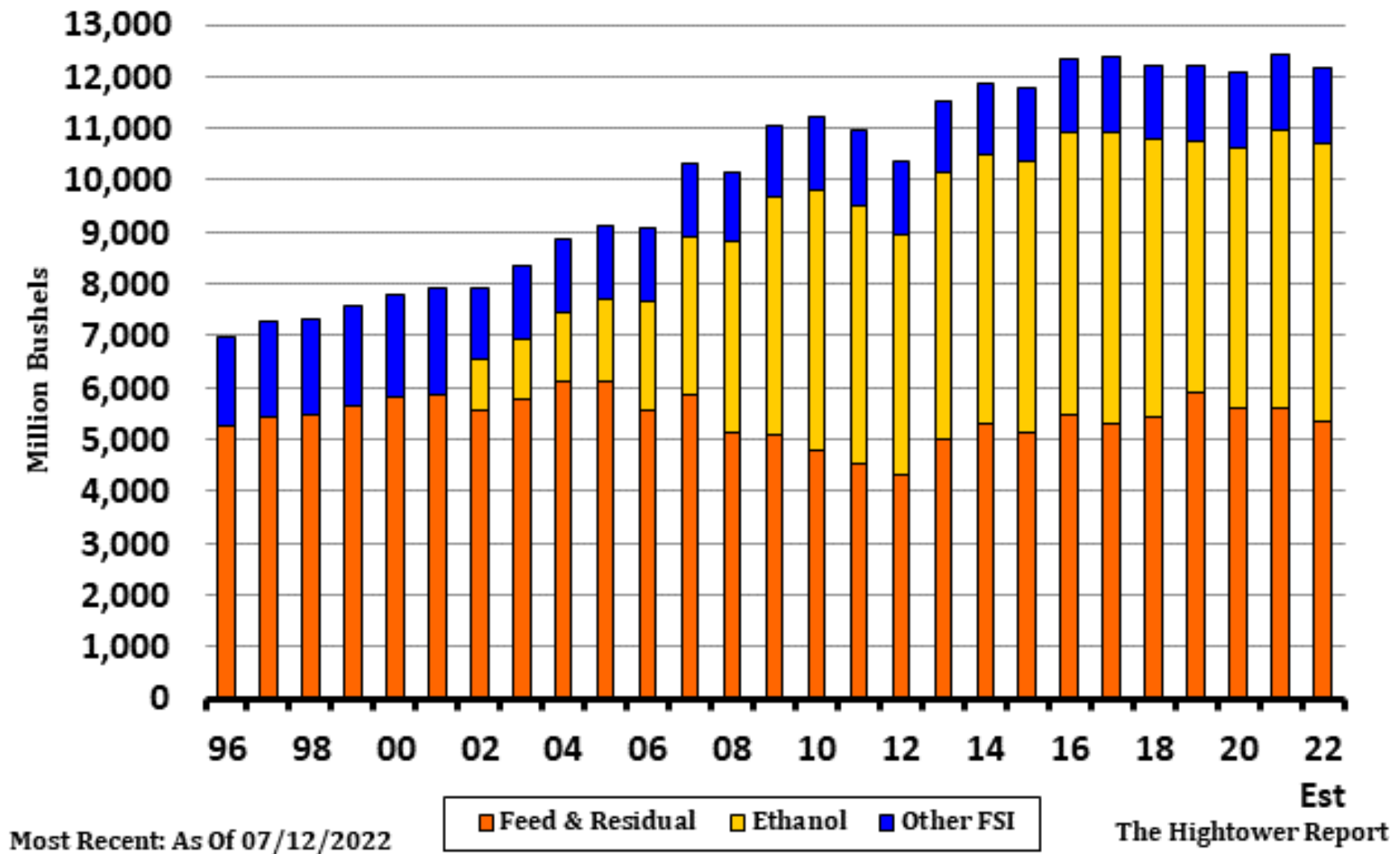
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Demand



U.S. Corn Total Usage



Source: CME Group

www.Hertz.ag



U.S. Corn Exports



Most Recent: 2,400 As Of 07/12/2022

The Hightower Report



Source: CME Group

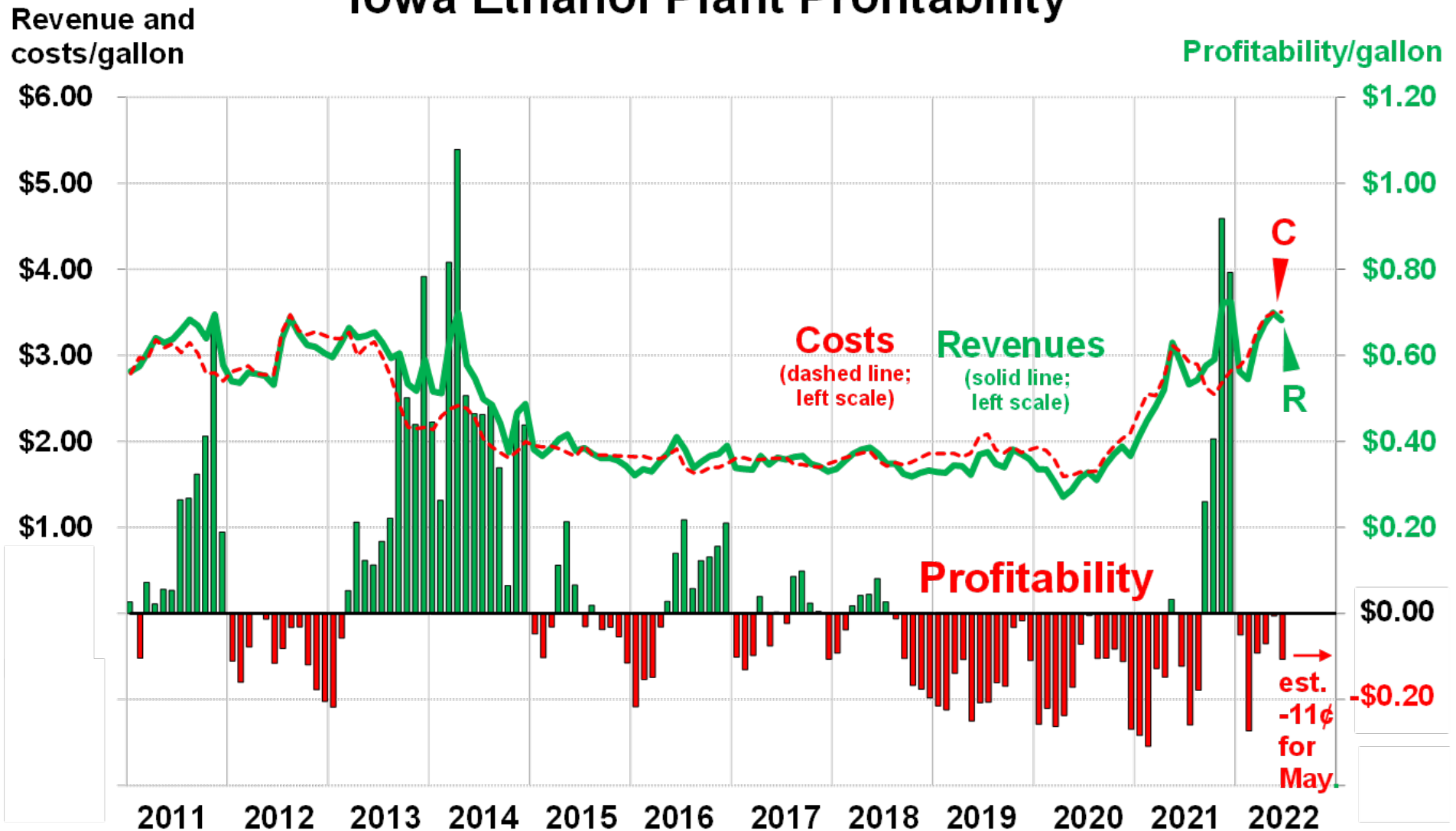
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Renewable Fuels



Iowa Ethanol Plant Profitability



Source: Iowa State University through april, Brock estimate for May and June



Source: Brock Associates

www.Hertz.ag



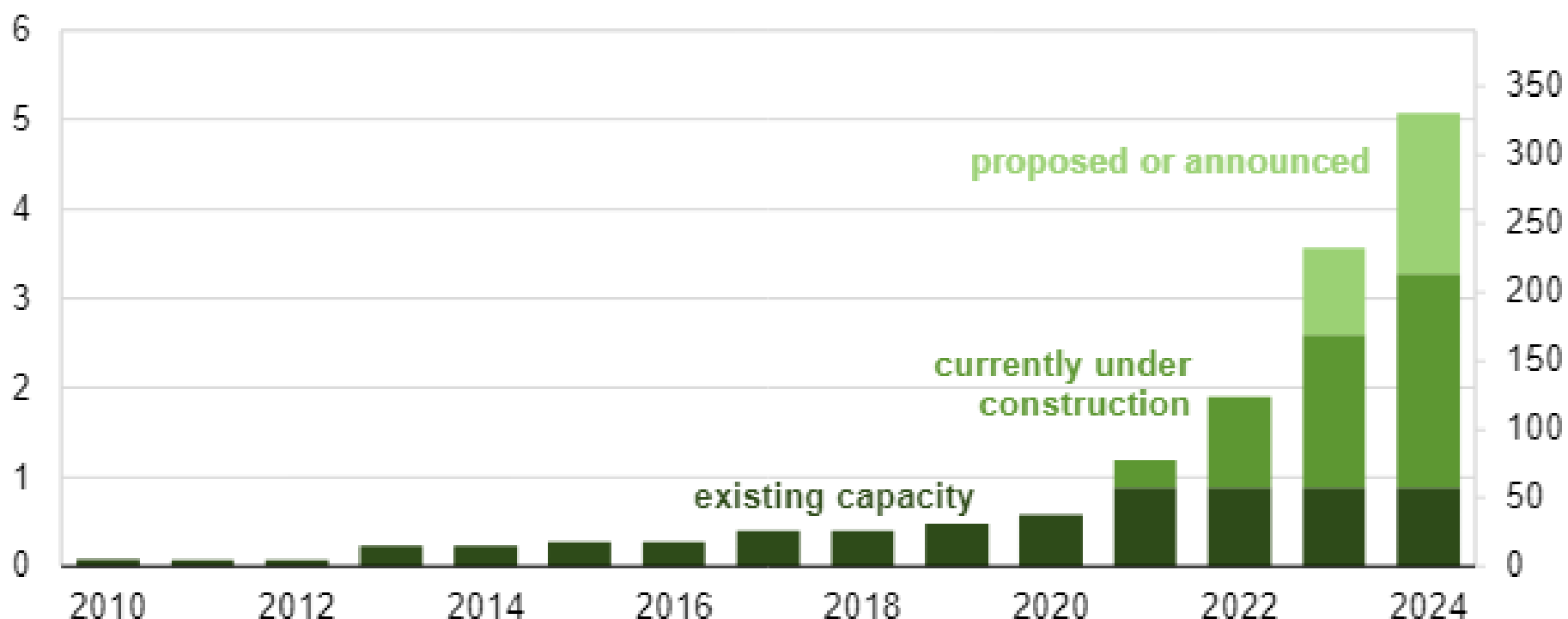
Renewable Diesel Push

Existing and expected U.S. renewable diesel production capacity (2010–2024)



billion gallons per year

thousand barrels per day

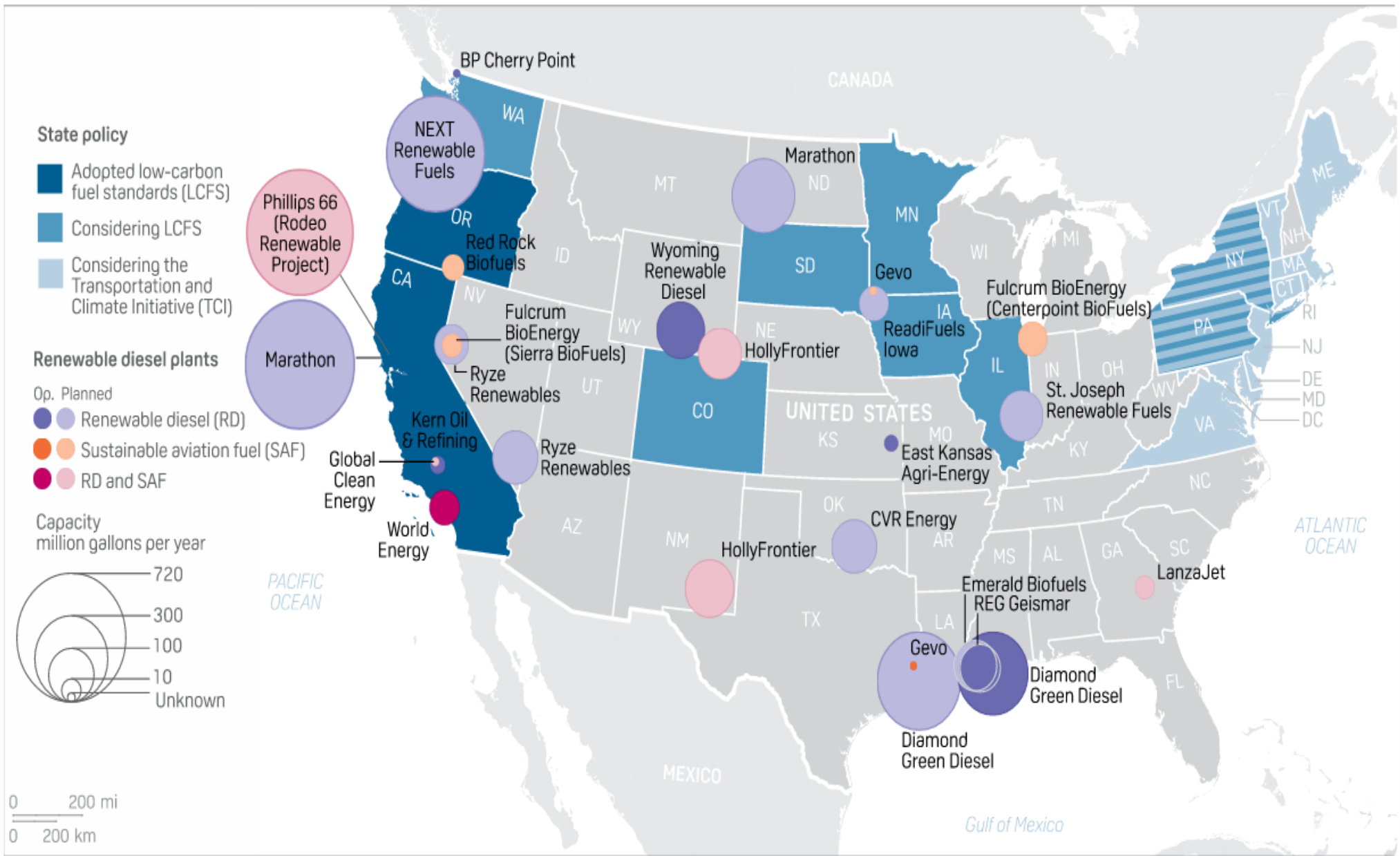


Source: Chad E. Hart

www.Hertz.ag



US REFINERS JUMP ON THE RENEWABLE FUEL BANDWAGON



Source: S&P Global Platts; EIA



Source: Chad E. Hart

www.Hertz.ag



July 2022 Crude Oil



Source: Brock Associates

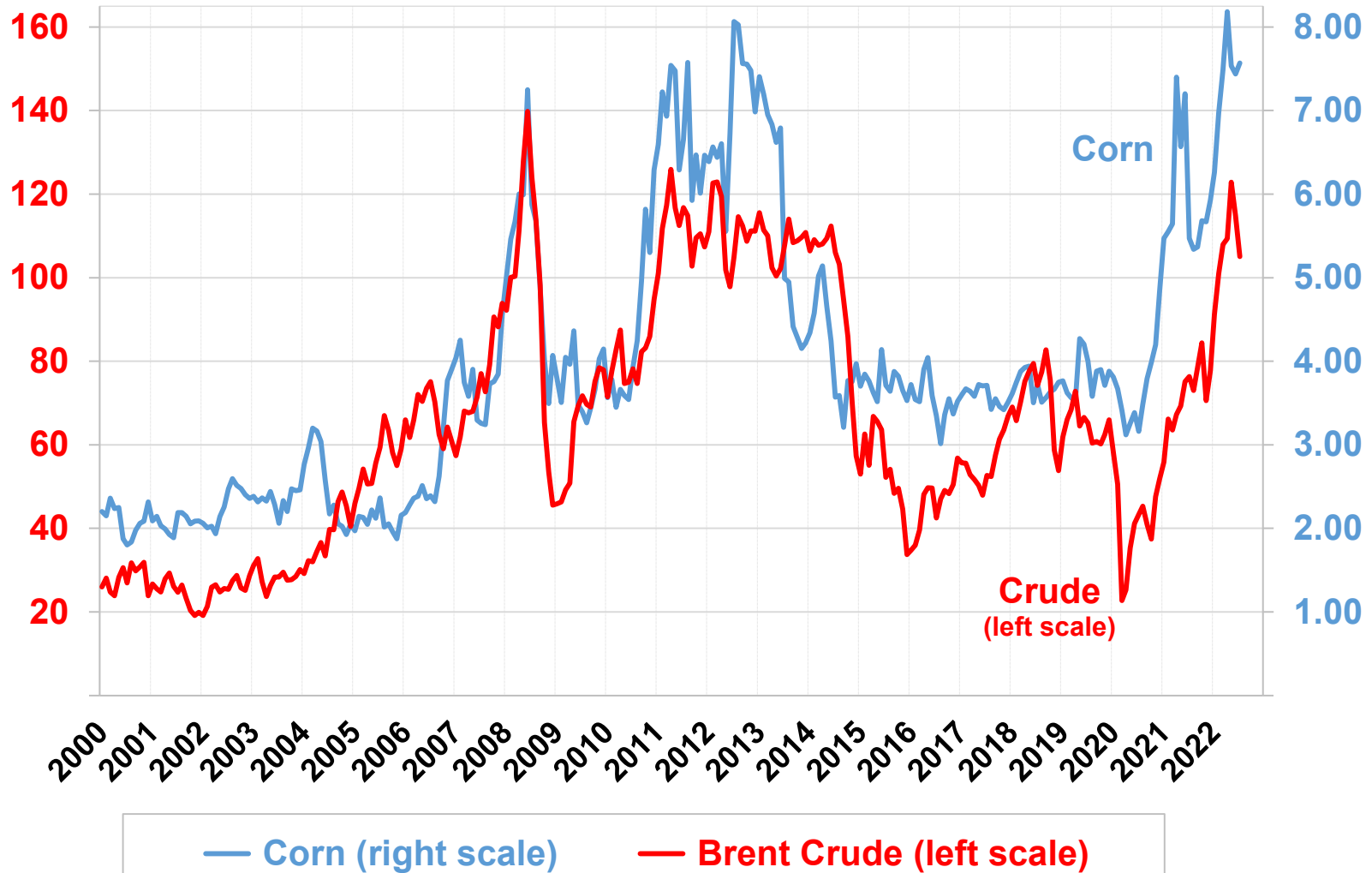
www.Hertz.ag



Brent Crude vs. Corn

Crude oil
\$/barrel

Corn
\$/bushel



Source: Brock Associates

www.Hertz.ag



24%

'13/14

'12/13

'08/09

'02/03

'96/97

'88/89

'84/85

'83/84

'81/82

'76/77

'75/76

'74/75

Corn Seasonality

Central Illinois

1970/71 to 2020/21

Percent Highs



indicates the high for the 21/22
marketing year so far...

18%

18%

'15/16

16%

'11/12

'10/11

'18/19

'09/10

'07/08

'16/17

'01/02

'89/90

'14/15

'90/91

'87/88

'05/06

'82/83



8%

'20/21

'86/87

'04/05

'79/80

'17/18

'85/86

'95/96

'73/74

'99/00

'78/79

'94/95

'72/73

'77/78

'70/71

'92/93

'71/72

4%

4%

2%

2%

2%

'19/20

2%

'98/99

2%

Sep

Oct

Nov

Dec

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

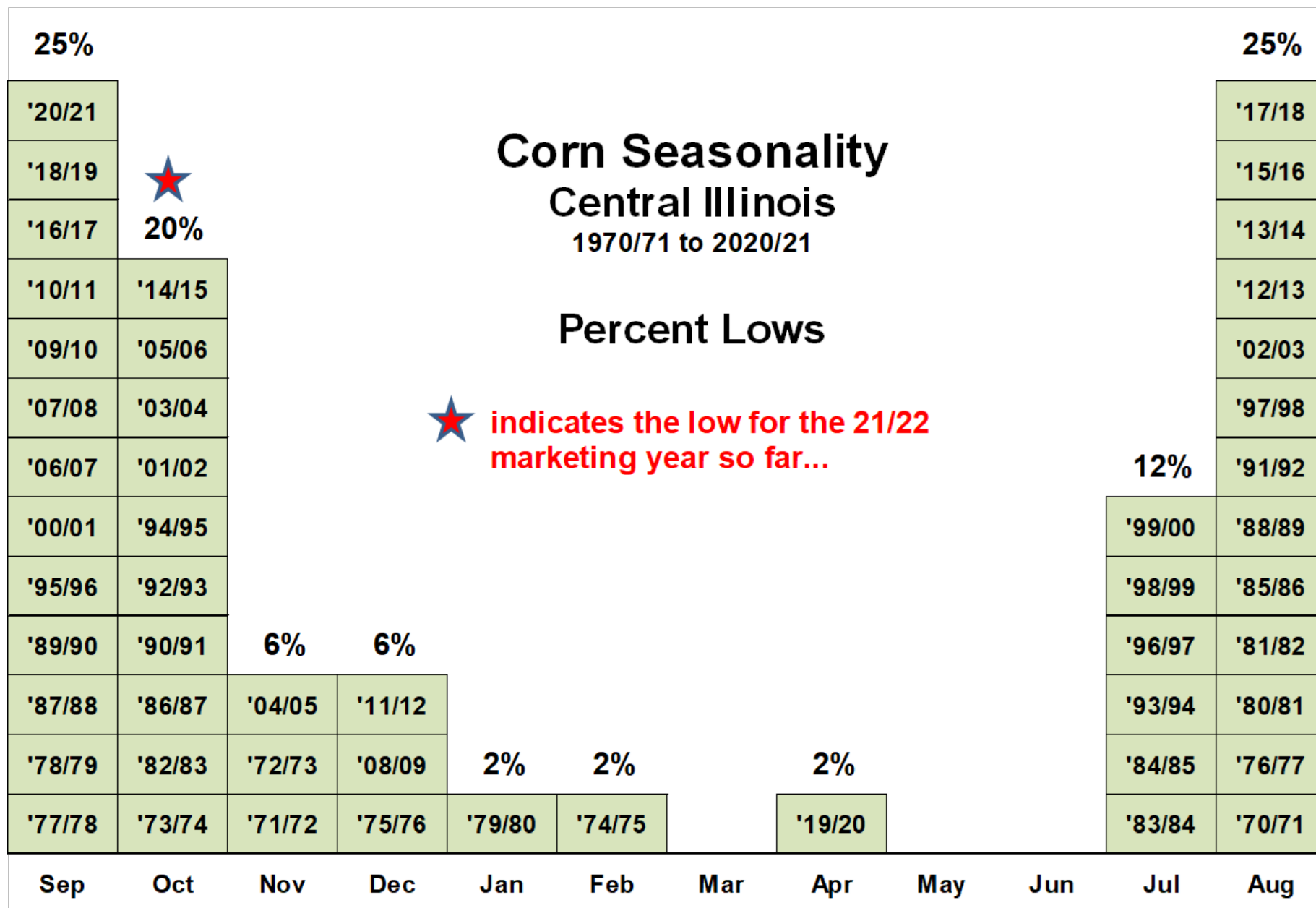
Source: USDA AMS, Brock Associates

Marketing year begins September 1



Source: Brock Associates

www.Hertz.ag

Source: USDA AMS, Brock Associates

Marketing year begins September 1



Source: Brock Associates

www.Hertz.ag



December 2022 Corn Chart

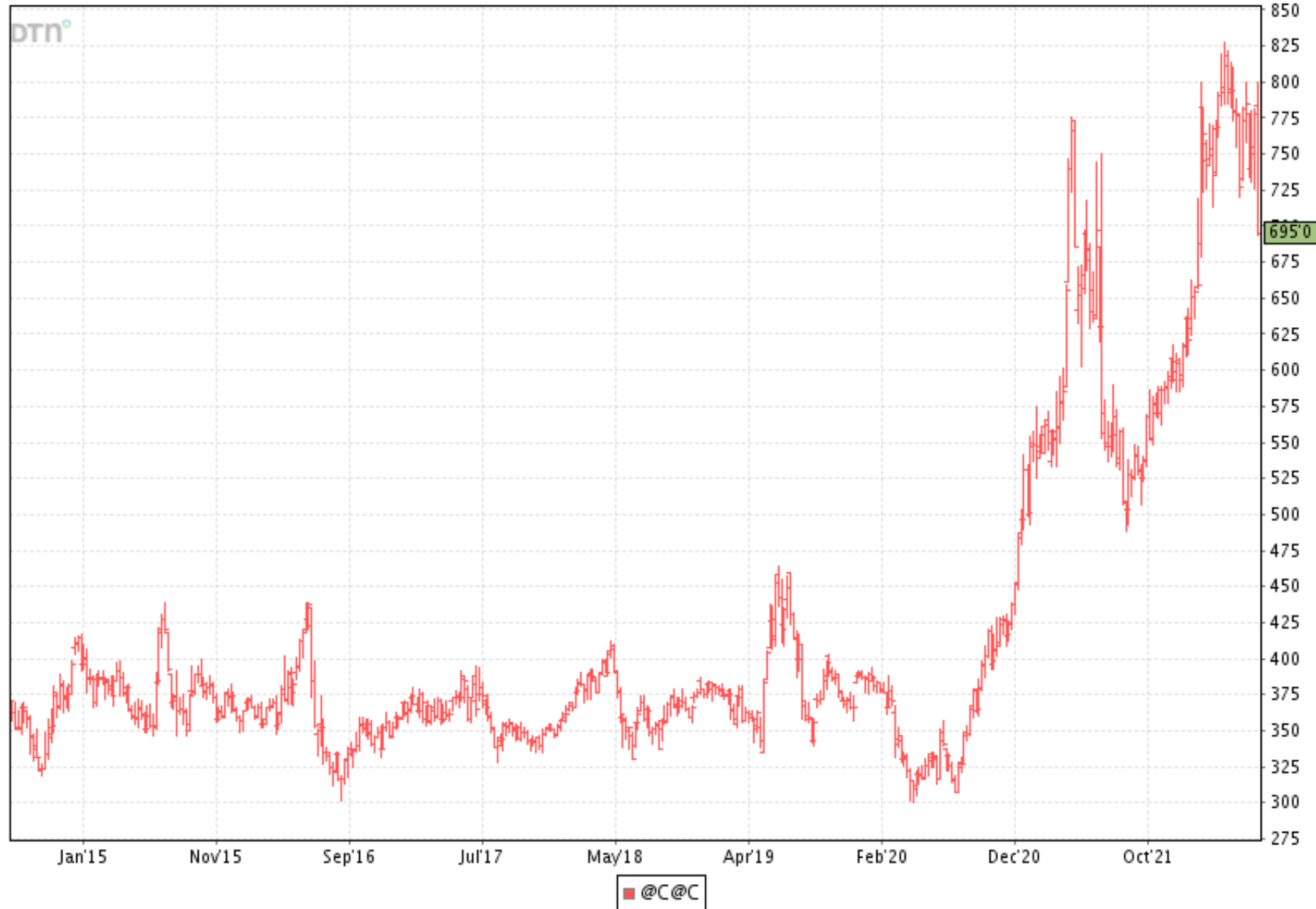


Source: DTN

www.Hertz.ag



Corn Continuous Weekly Chart



Source: DTN

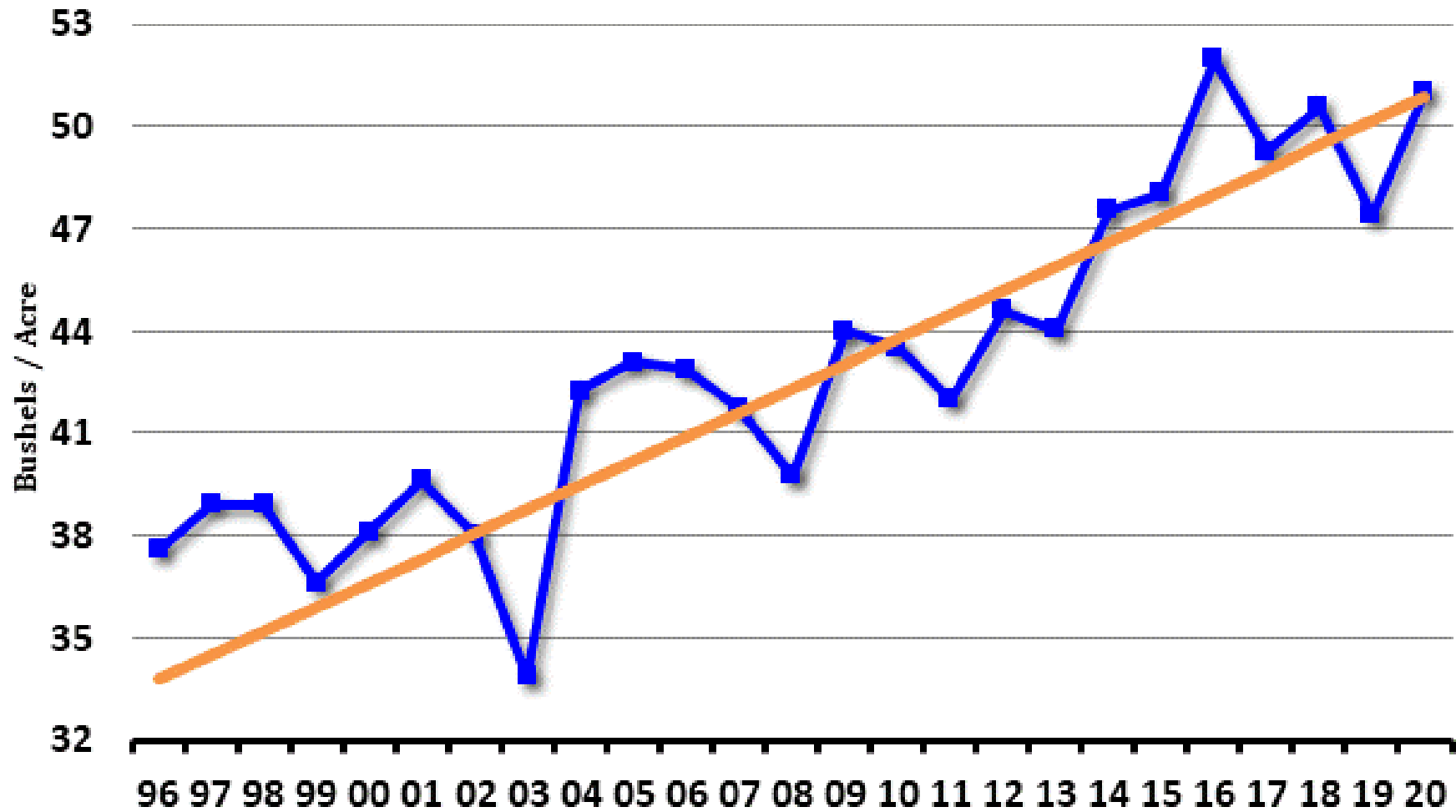
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Soybean Market



U.S. Soybean Yield Actual vs. Trendline



Updated: 07/12/2022

Actual

Trend

The Hightower Report

Source: CME Group

www.Hertz.ag



U.S. Soybean Supply and Use

Marketing Year (2021 = 9/1/21 to 8/31/22)		2018	2019	2020	2021	2022
Area Planted	(mil. acres)	89.2	76.1	83.4	87.2	88.3
Yield	(bu./acre)	50.6	47.4	51.0	51.4	51.5
Production	(mil. bu.)	4,428	3,552	4,216	4,435	4,505
Beg. Stocks	(mil. bu.)	438	909	525	257	215
Imports	(mil. bu.)	14	15	20	15	15
Total Supply	(mil. bu.)	4,880	4,476	4,761	4,707	4,735
Crush	(mil. bu.)	2,092	2,165	2,141	2,205	2,245
Seed & Residual	(mil. bu.)	127	105	97	118	125
Exports	(mil. bu.)	1,752	1,682	2,265	2,170	2,135
Total Use	(mil. bu.)	3,971	3,952	4,504	4,492	4,505
Ending Stocks	(mil. bu.)	909	525	257	215	230
Season-Average Price	(\$/bu.)	8.48	8.57	10.80	13.35	14.40



Source: Chad E. Hart

www.Hertz.ag



U.S. SOYBEAN SUPPLY AND DEMAND

2022/23 Bullish vs. Bearish Scenarios

	Bullish Scenario	Average	Bearish Scenario
ACREAGE (mil ac)			
Planted Acres	88.3	88.3	90.0
Harvested Acres	87.4	87.4	89.1
Yield	50.0	51.5	52.5
SUPPLY (mil bu)			
Beg. Stocks (Sep 1)	205	205	205
Production	4,370	4,501	4,678
Imports	15	15	15
Total Supply	4,590	4,721	4,898
USAGE (mil bu)			
Crush	2,175	2,220	2,250
Seed	110	107	107
Residual	10	10	10
Domestic Use	2,295	2,337	2,367
Exports	2,100	2,180	2,200
Total Use	4,395	4,517	4,567
STOCKS (mil bu)			
Ending Stocks (Aug 31)	195	204	331
Stocks/Use	4.4%	4.5%	7.2%
Farm Price (\$/bu)	\$15.50-19.50	\$14.00-16.00	\$12.50-14.50

Source: Brock Associates Numbers may not add due to rounding

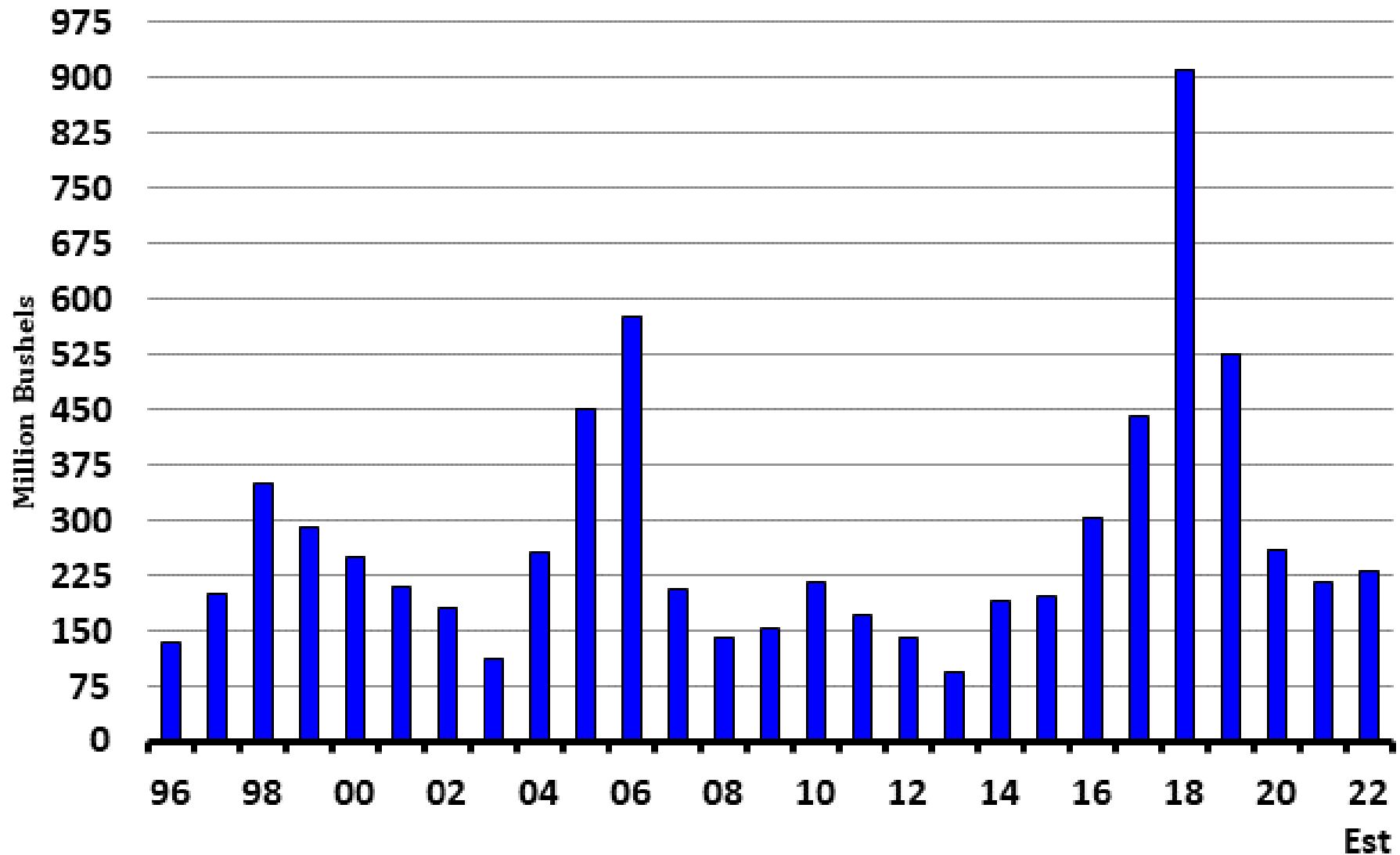


Source: Brock Associates

www.Hertz.ag



U.S. Soybean Ending Stocks



Most Recent: 230 As Of 07/12/2022

The Hightower Report



Source: CME Group

www.Hertz.ag



U.S. Soybean Exports



Most Recent: 2,135 As Of 07/12/2022

The Hightower Report

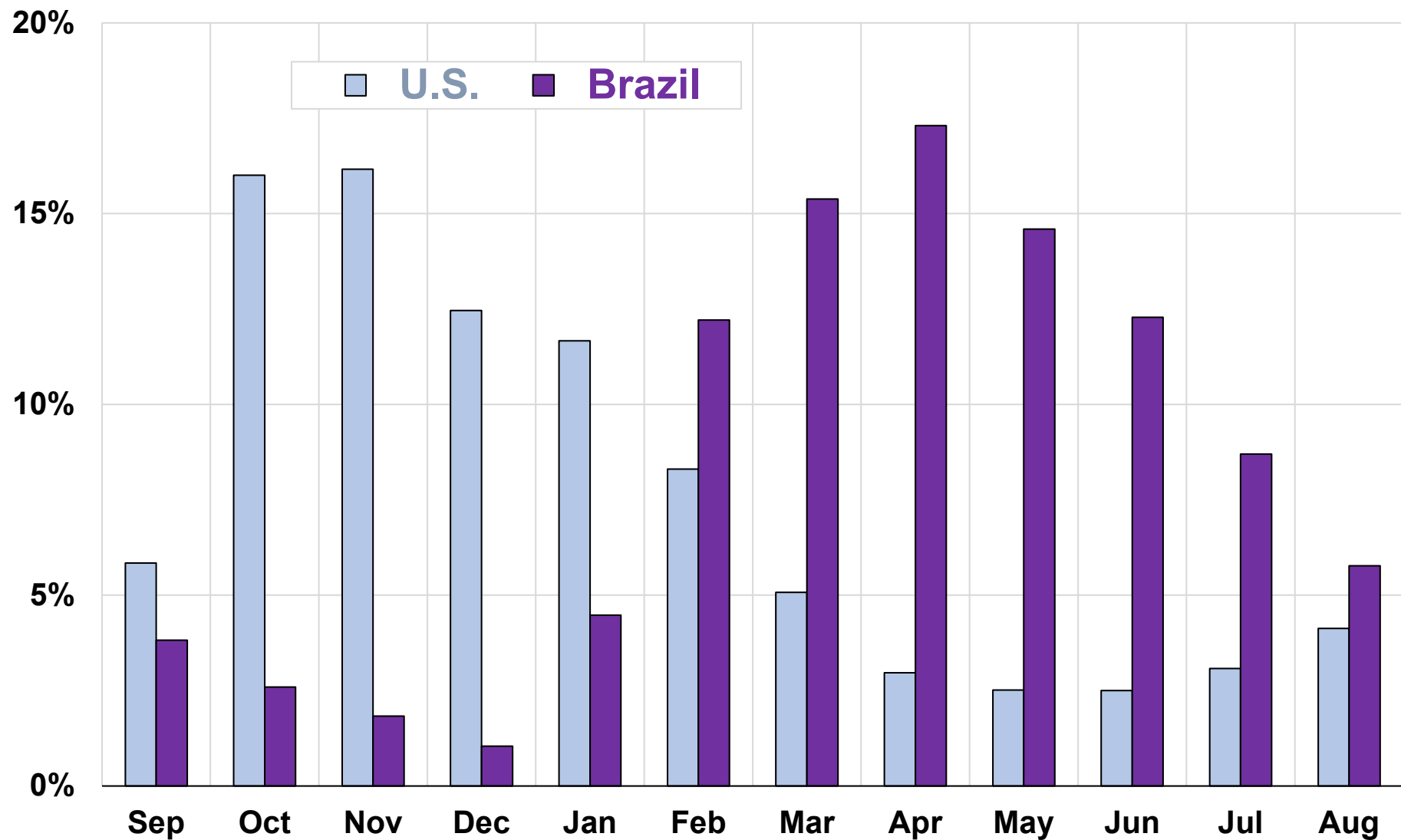


Source: CME Group

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Distribution of Marketing Year Soybean Exports for U.S. and Brazil



Sources: USDA, Brazilian Assn. of Vegetable Oil Industries



Source: Brock Associates

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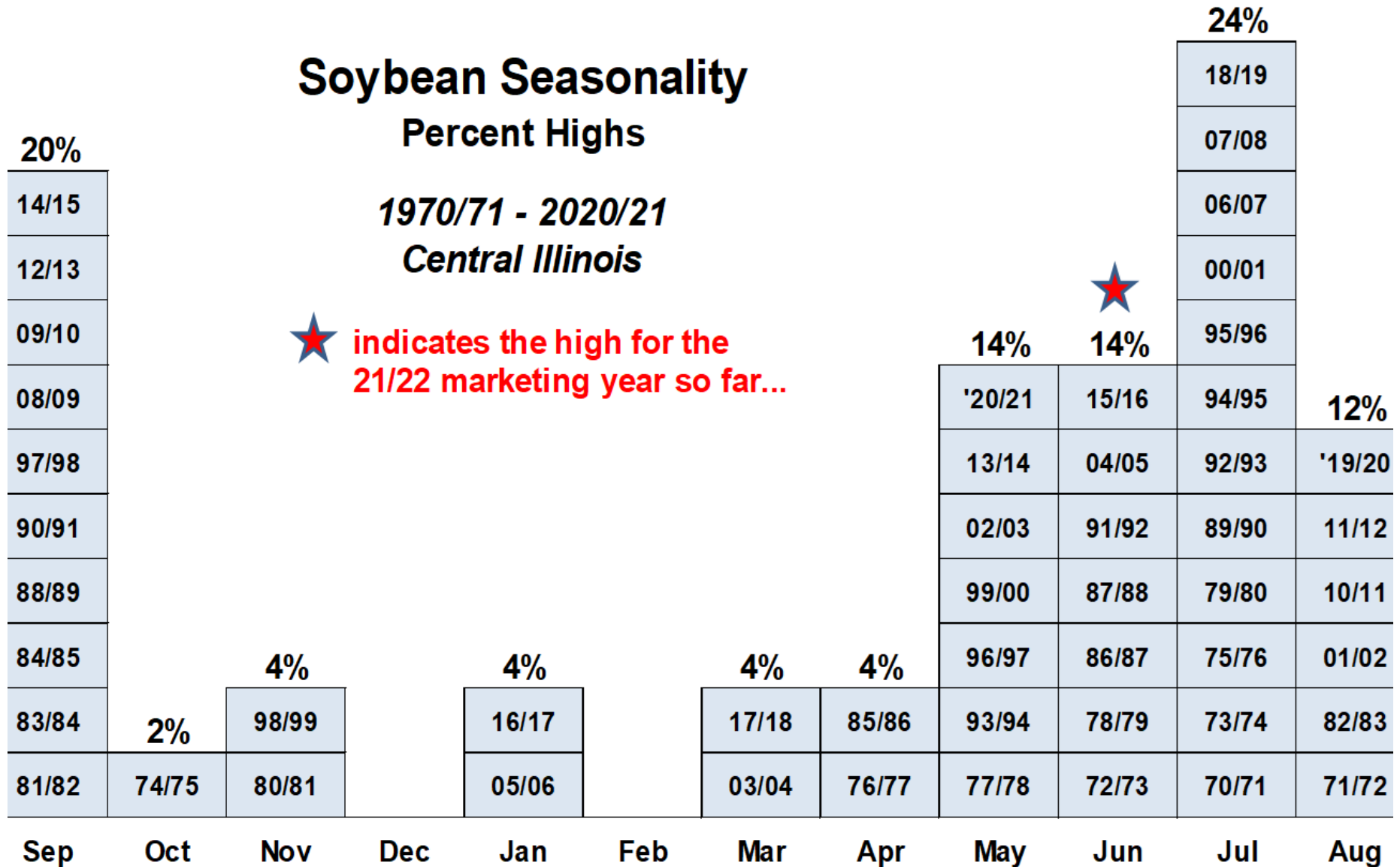
Soybean Seasonality

Percent Highs

1970/71 - 2020/21

Central Illinois

★ indicates the high for the
21/22 marketing year so far...



Source: USDA AMS, Brock Associates

Marketing Year begins Sept 1

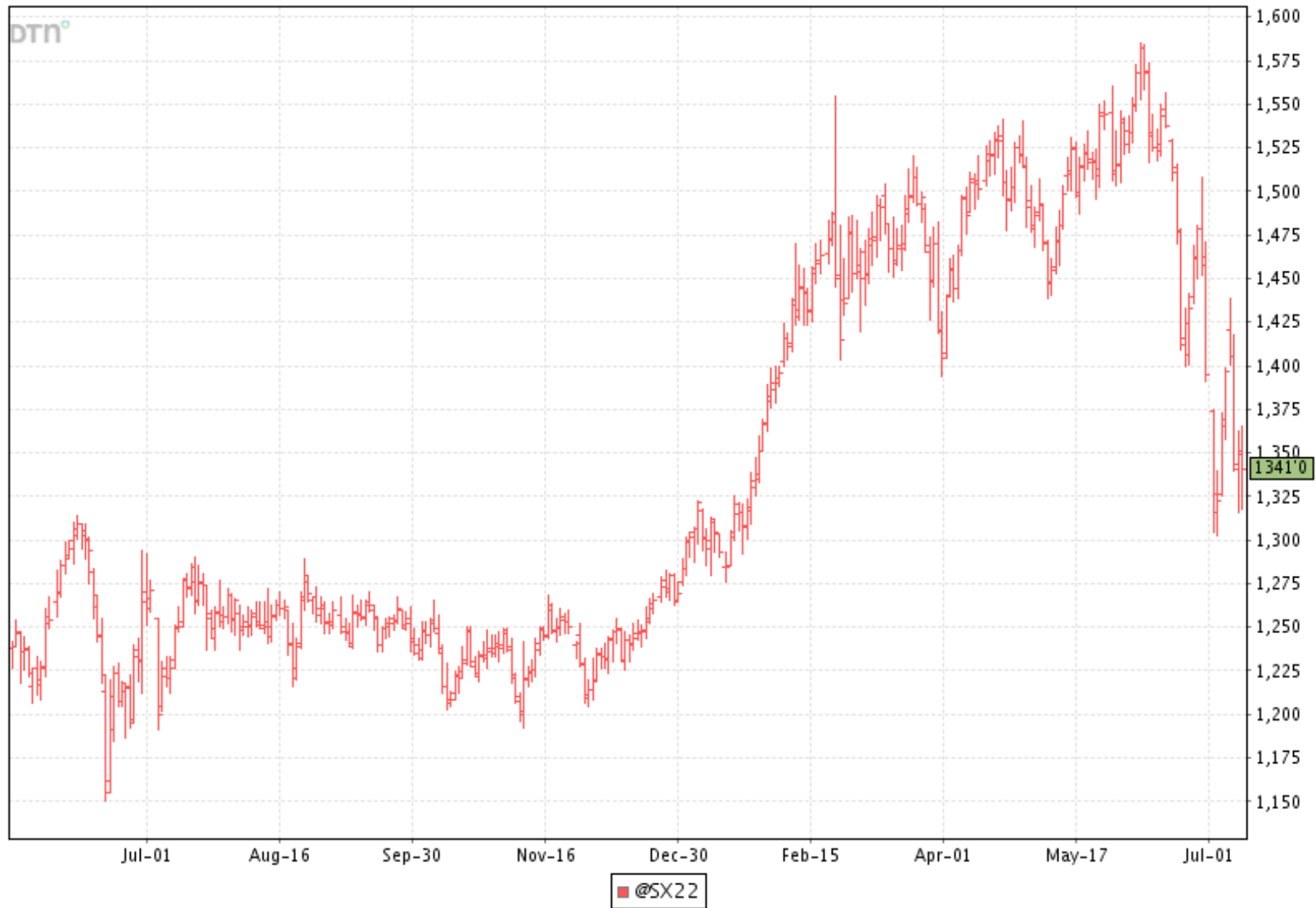


Source: Brock Associates

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November 2022 Soybean Chart



Source: DTN

www.Hertz.ag



Soybean Continuous Weekly Chart



Source: DTN

www.Hertz.ag



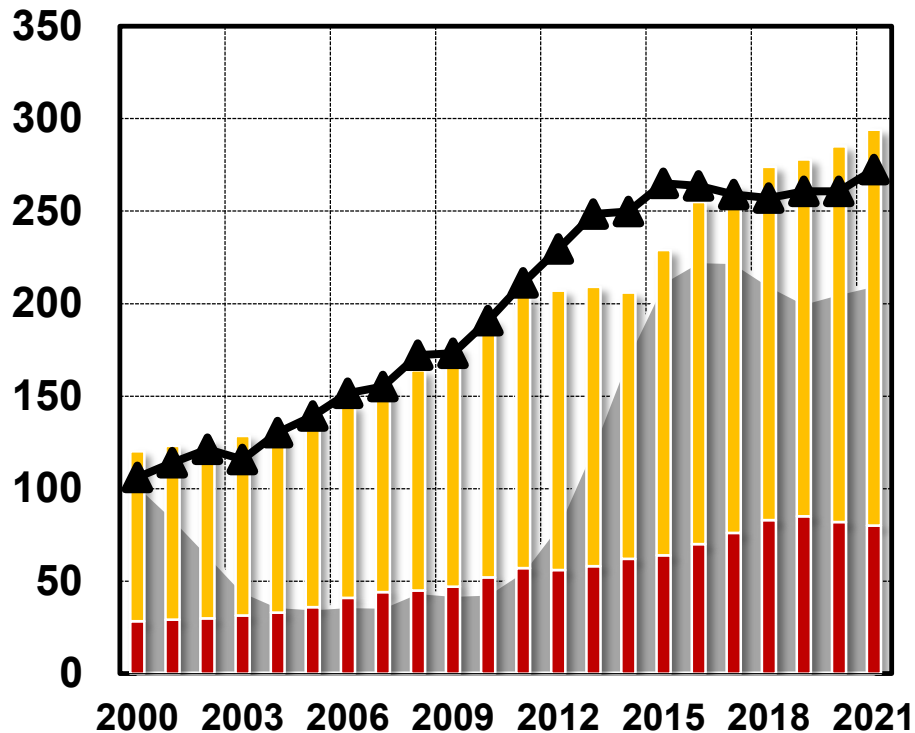


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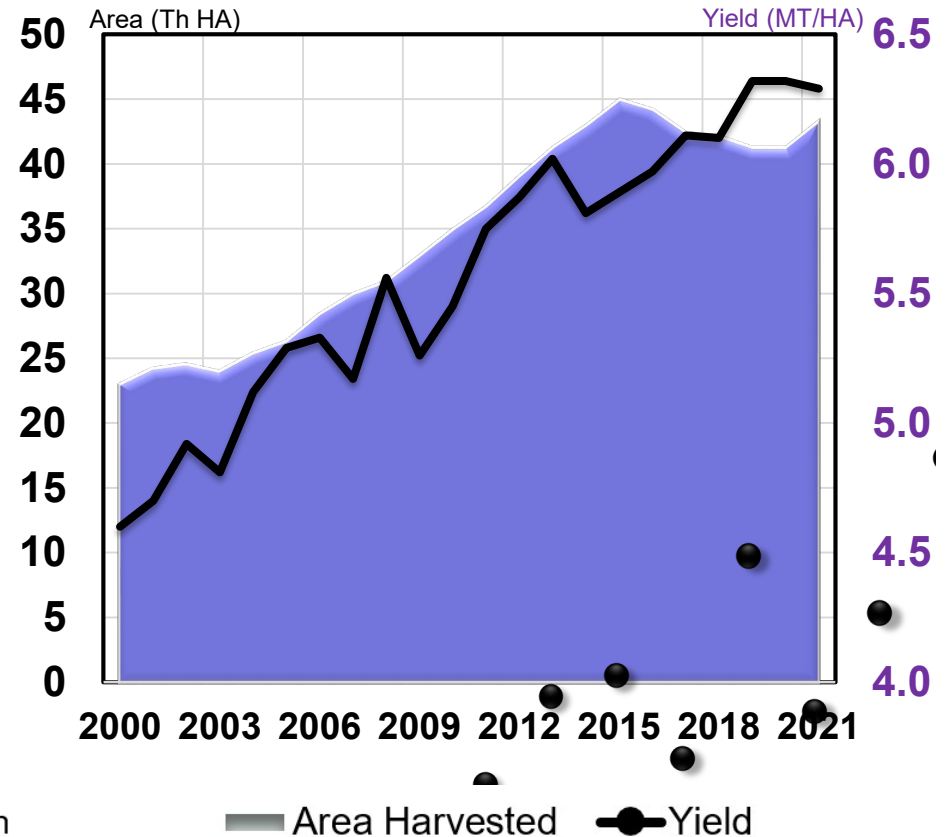
China – Domestic Corn Situation

Production & Domestic Consumption (MMT)



Ending Stocks
 Food/Industrial Consumption
 Feed Consumption
 Production

Corn Area & Yield



Data Source: USDA December 2021



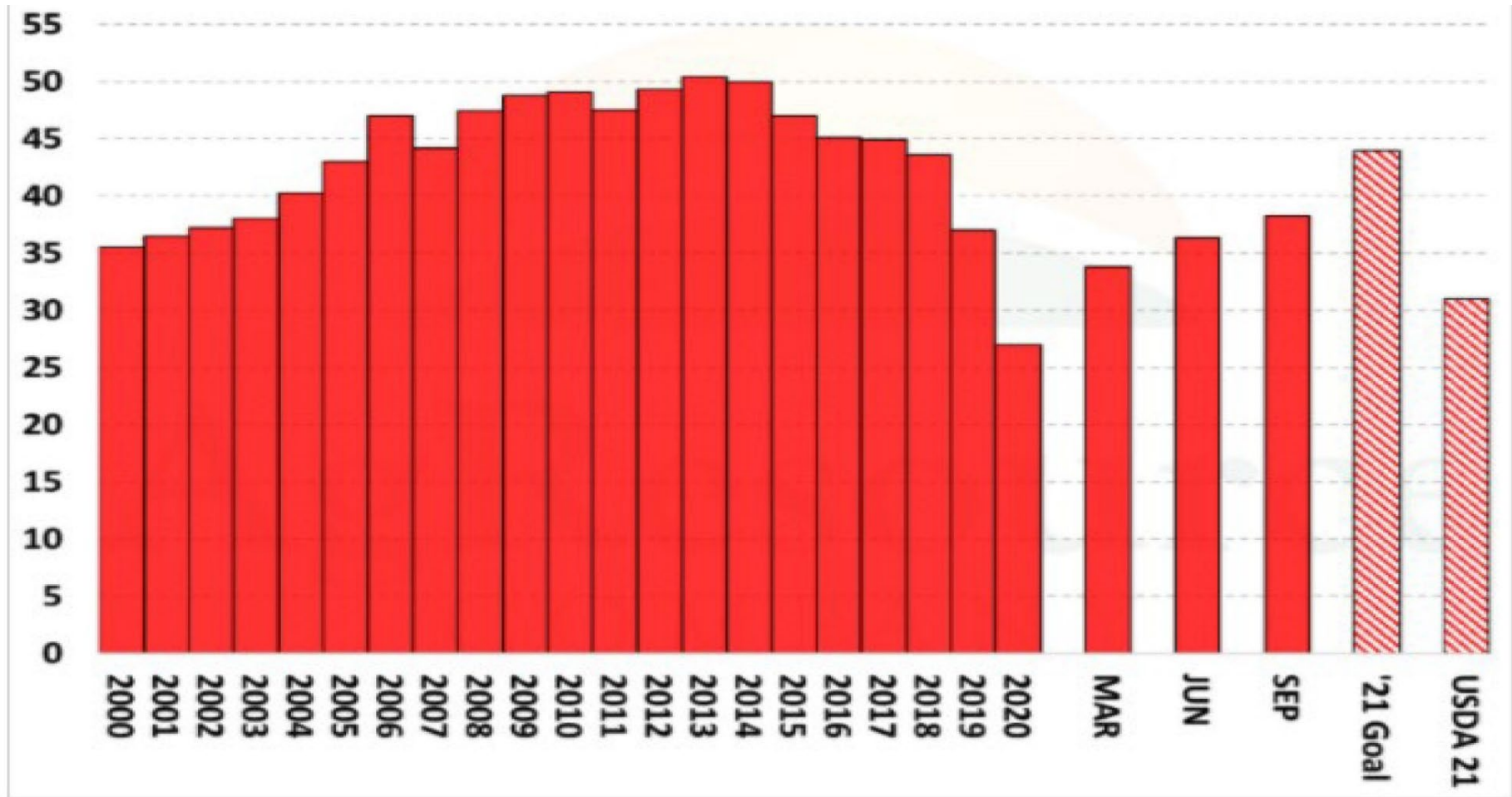
Source: Corteva AgriScience

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Massive Sow Expansion; China's Pig Numbers Back to Pre-AFS by mid 2021

China Jan 1 Sow Inventory (*Mil Head*)



Source: AgResource Company

www.Hertz.ag



Yangxiang Hog High Rise – Mountain Views – 7 Stories - 840,000 Hogs/Year



Source: AgResource Company

www.Hertz.ag





Outlook



Key Influences

- Inflation
- Higher interest rates
- Economic growth
- U.S. dollar
- Covid
- Conservation Reserve Program
 - *Increase from 24 to 27 million acres by 2023*
- Asset prices
 - Equities due for a correction
- Population Growth
 - *Population of 9 billion by 2050*
- End of the Ukraine war (?)



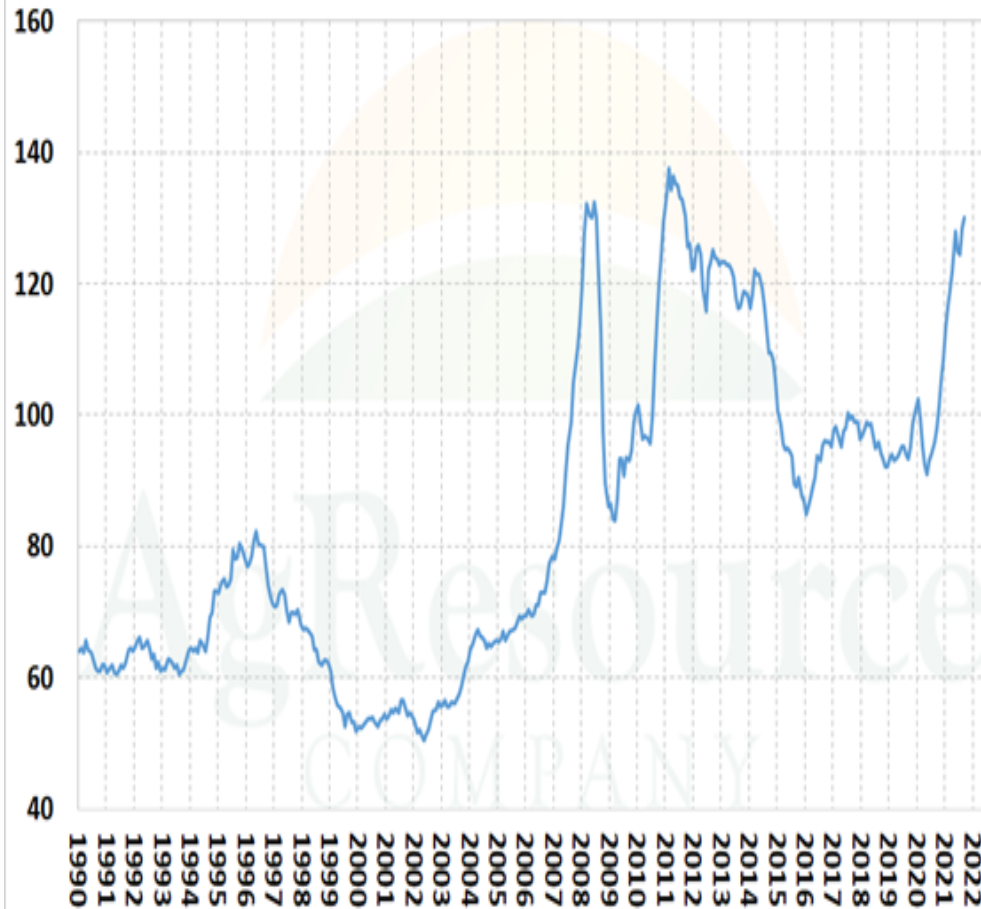
Source: Brock Associates

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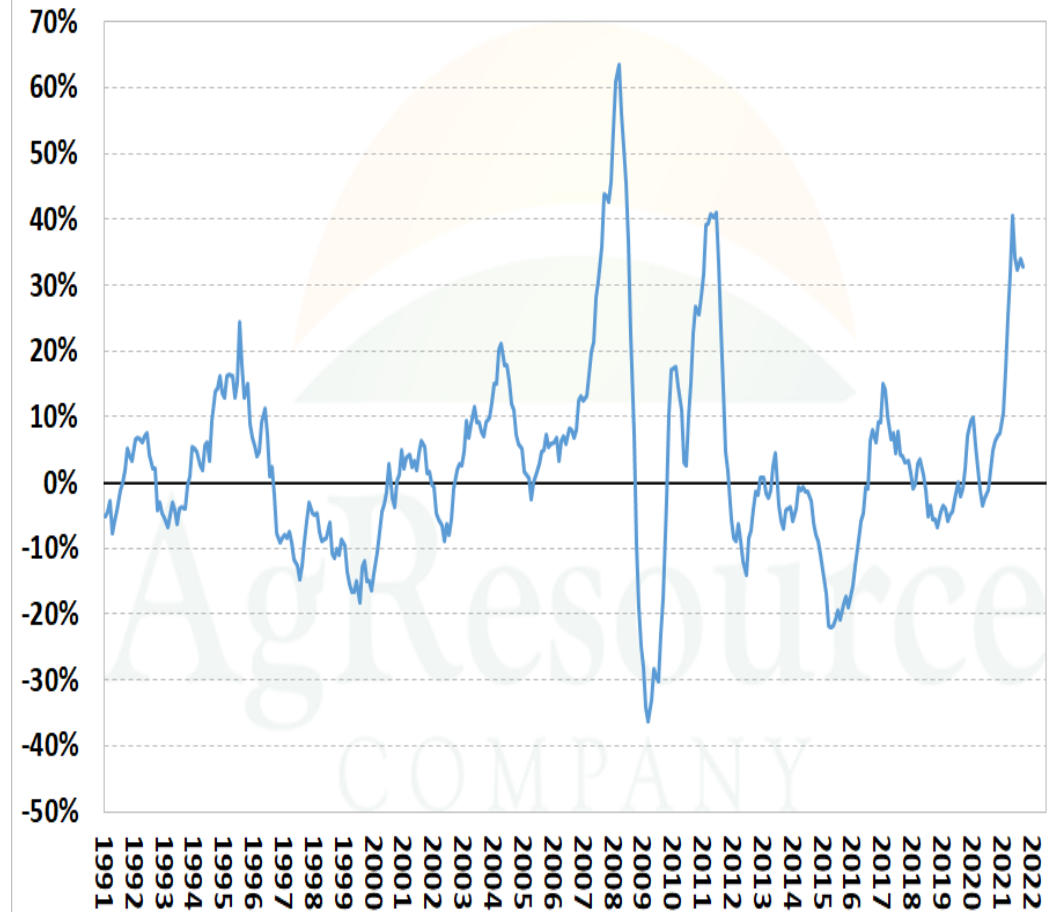


World Food Prices Rising Sharply During Pandemic on Demand

FAO World Food Price Index (2014-2016 = 100)



Yr/Yr Change in FAO World Food Price Index



Source: AgResource Company

www.Hertz.ag



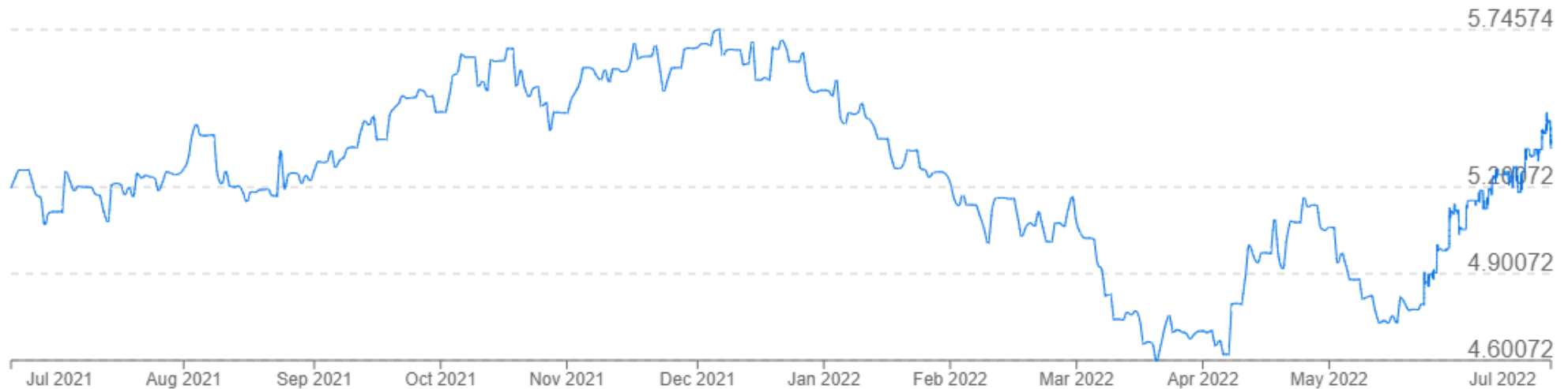
US Dollar vs Brazilian Real

USD to BRL Chart

1 USD = 5.337 BRL Jul 7, 2022, 15:20 UTC

US Dollar to Brazilian Real

12H 1D 1W 1M 1Y 2Y 5Y 10Y



Higher exchange rate means Brazil is more competitive in the export market



Source: XE Exchange

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Global Fertilizer Market

Average of 2017-21	Nitrogen		Phosphate		Potash	
	USA	Brazil	USA	Brazil	USA	Brazil
Imports of Consumption	12.5%	95%	9%	75%	93%	91%
Main Origins	65% Trinidad and Tobago 30% Canada 2% Other	21% Russia 20% China 17% Qatar 15% Algeria 5% Iran 22% Other	85% Peru 15% Morocco	38% Morocco 15% Russia 11% Saudi Arabia 8% US 7% China 21% Other	83% Canada 6% Russia 6% Belarus 5% Other	32% Canada 26% Russia 18% Belarus 11% Israel 13% Other



Source: Farm Futures

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State of the Agriculture Industry: 2050 projections present global challenges

3 BILLION
in middle class growth

- More income
- More population
- More consumption



9 BILLION
expected population in 2050

- Requiring MORE protein
- Current consumption: 1.5x planets available resources

RIISING TIDE OF CHALLENGES





Q & A

What concerns can we address?





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- Farmland For Sale
- Auctions and Auction Results
- Ag Links
- Request Weekly Farmland Email

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