



Summer 2021

**Landowner Educational
Webinar**



www.Hertz.ag



Grain Markets

Speaker:

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Summer 2021

Grain Markets



Marketing Decisions

Continued Volatility

- Trade
- Weather
- World Economy
- Government



Overview

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



Today's Price

	<u>Corn</u>	<u>Soybeans</u>
Cash	6.37	13.71
October 2021	5.28	12.73
March 2022	5.34	12.72
October 2022	4.70	11.85



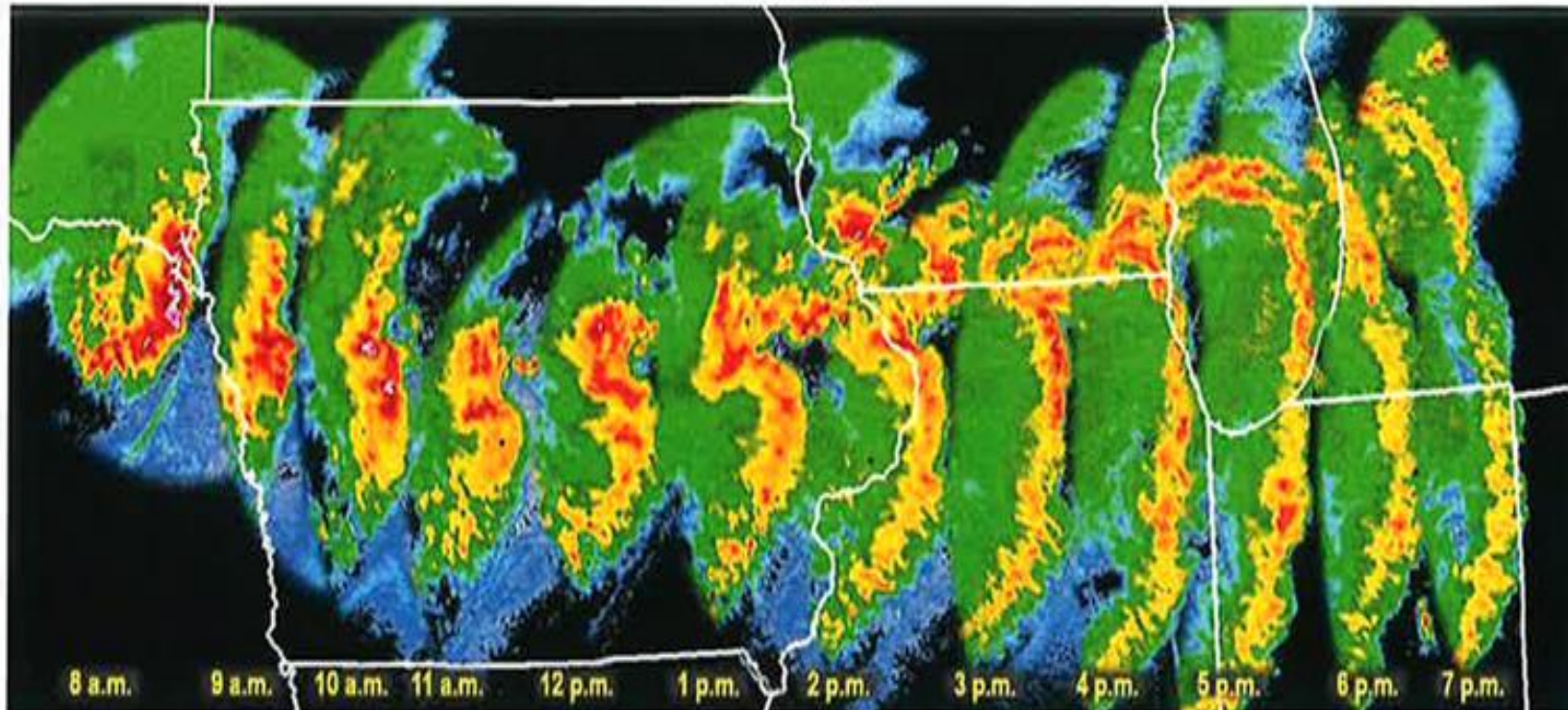
Weather




2020 Derecho

August 10, 2020 Derecho: Lowest Angle NWS Radar Reflectivity at One-Hour Time Steps

All times in CDT



This long-lasting, severe wind thunderstorm complex (known as a derecho) produced hundreds of reports of damage along with likely a few tornadoes.

 NWS Chicago | weather.gov

Aug 11, 2020



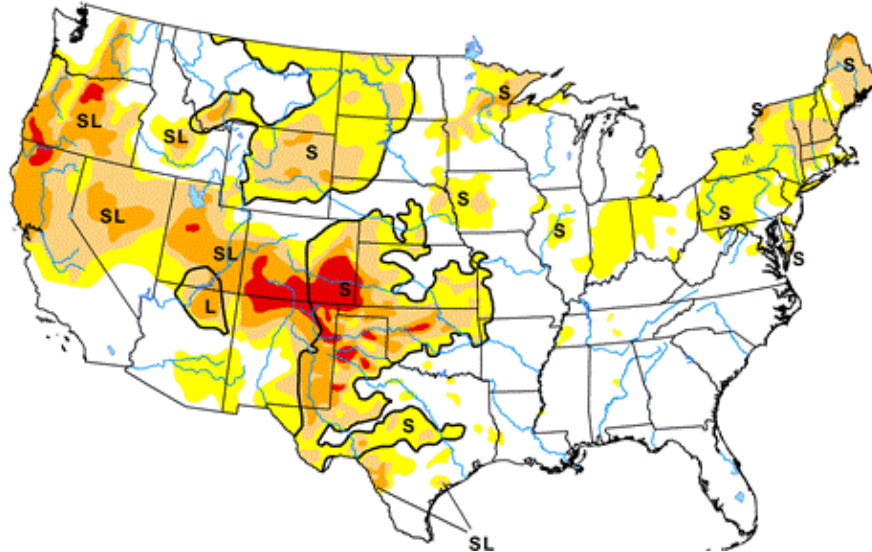
Source: NWS Chicago, weather.gov

www.Hertz.ag

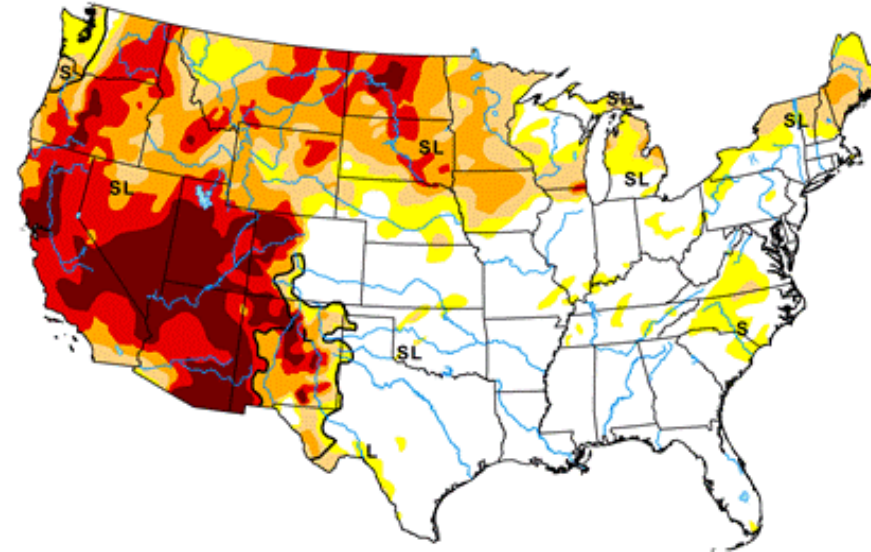


U.S. Drought Monitor

July 7, 2020



July 6, 2021



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:

- Yellow D0 Abnormally Dry
- Light Orange D1 Moderate Drought
- Orange D2 Severe Drought
- Red D3 Extreme Drought
- Dark Red D4 Exceptional Drought



Source: <http://droughtmonitor.unl.edu/>
www.Hertz.ag

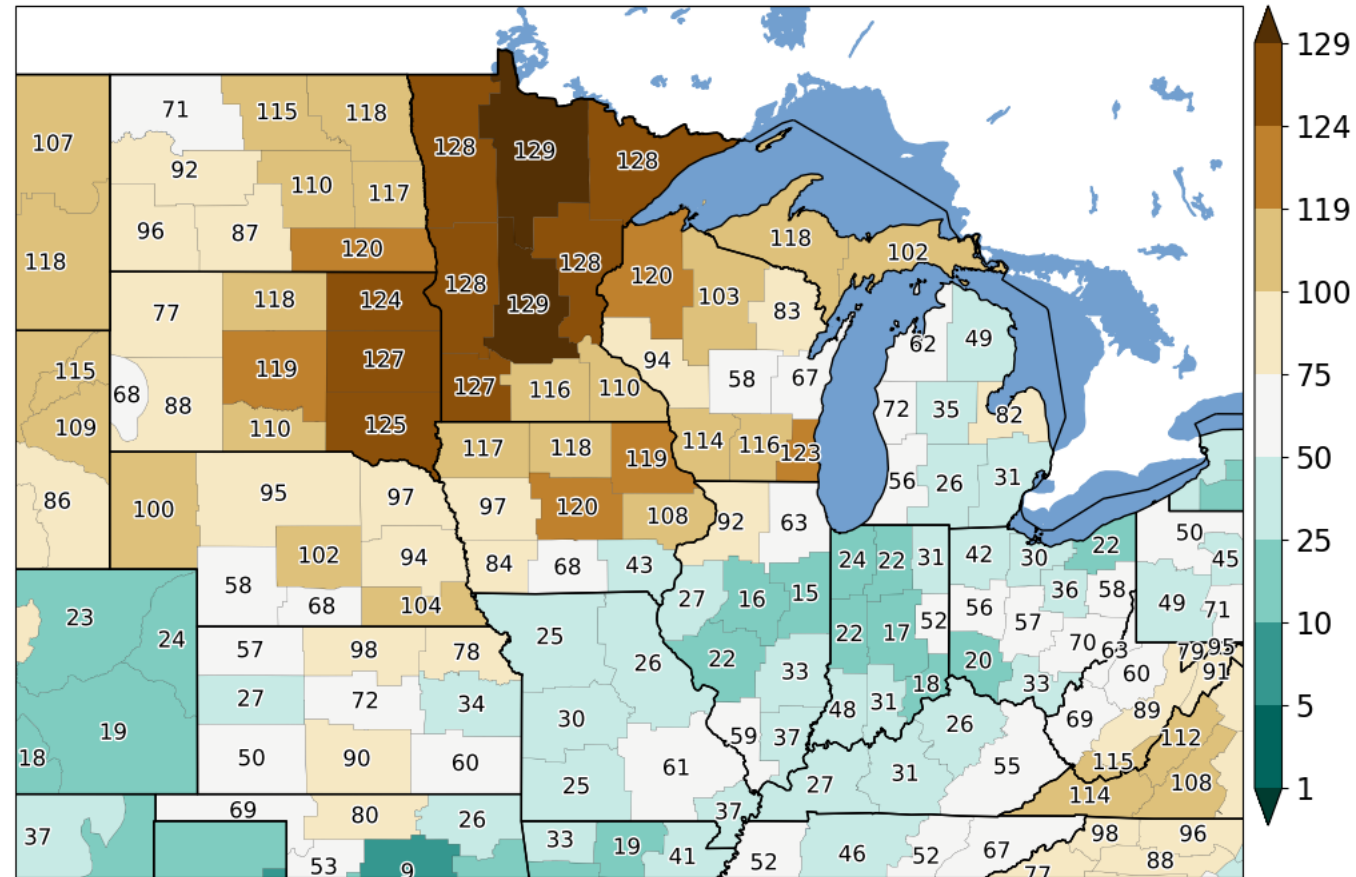


Total Precipitation Rains by Climate District

April 15 – July 15, 2021



14 Apr 2021 ~7 AM till 14 Jul 2021 ~7 AM Total Precipitation Ranks by Climate District
Based on IEM Estimates, 1 is wettest out of 129 total years (1893-2021)



Iowa Environmental Mesonet :: generated 15 July 2021 09:45 AM
Generated at 15 Jul 2021 9:45 AM CDT in 39.31s

IEM Autoplot App #24



Source: IEM

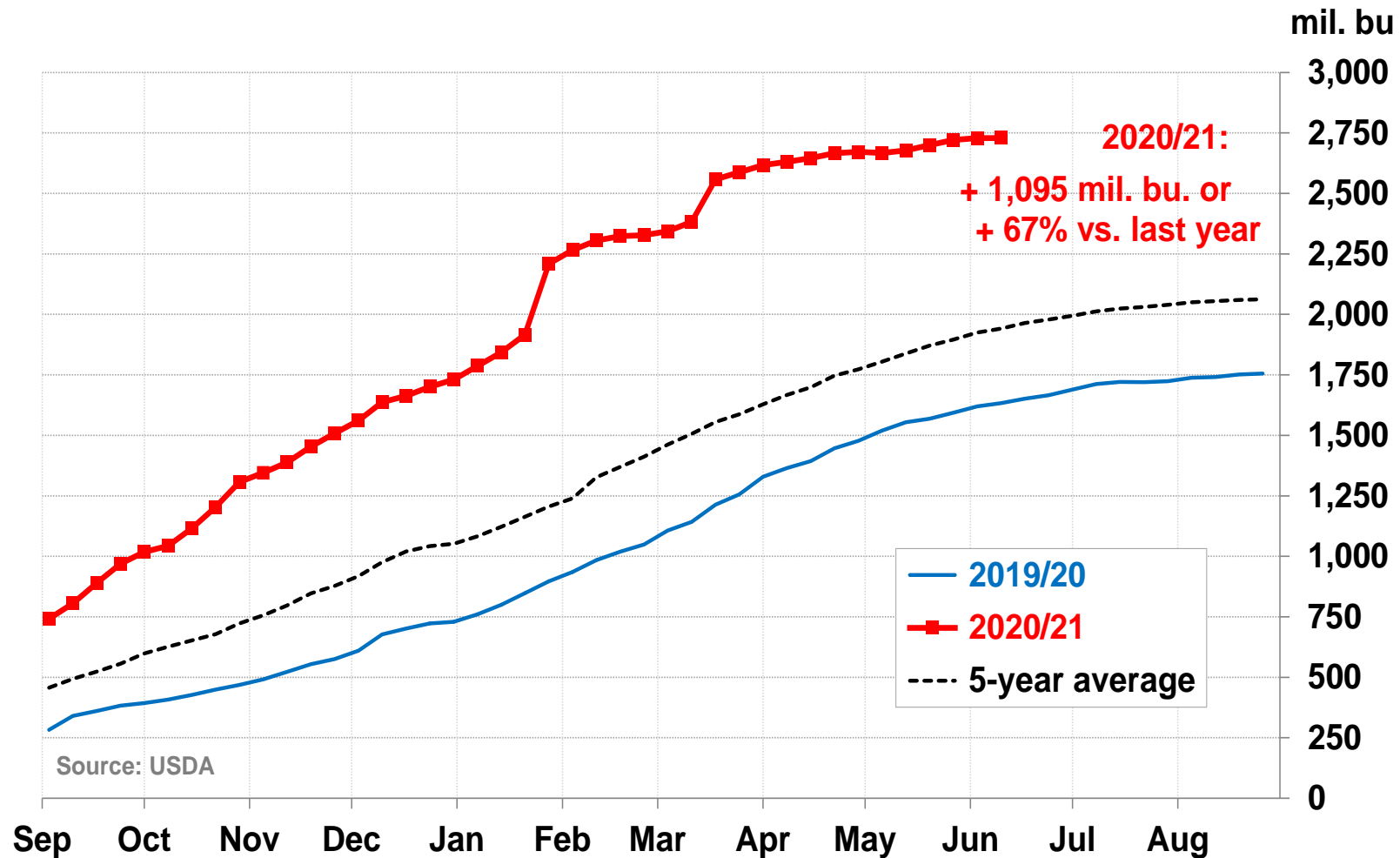
www.Hertz.ag



Agricultural Trade



U.S. Corn Export Commitments

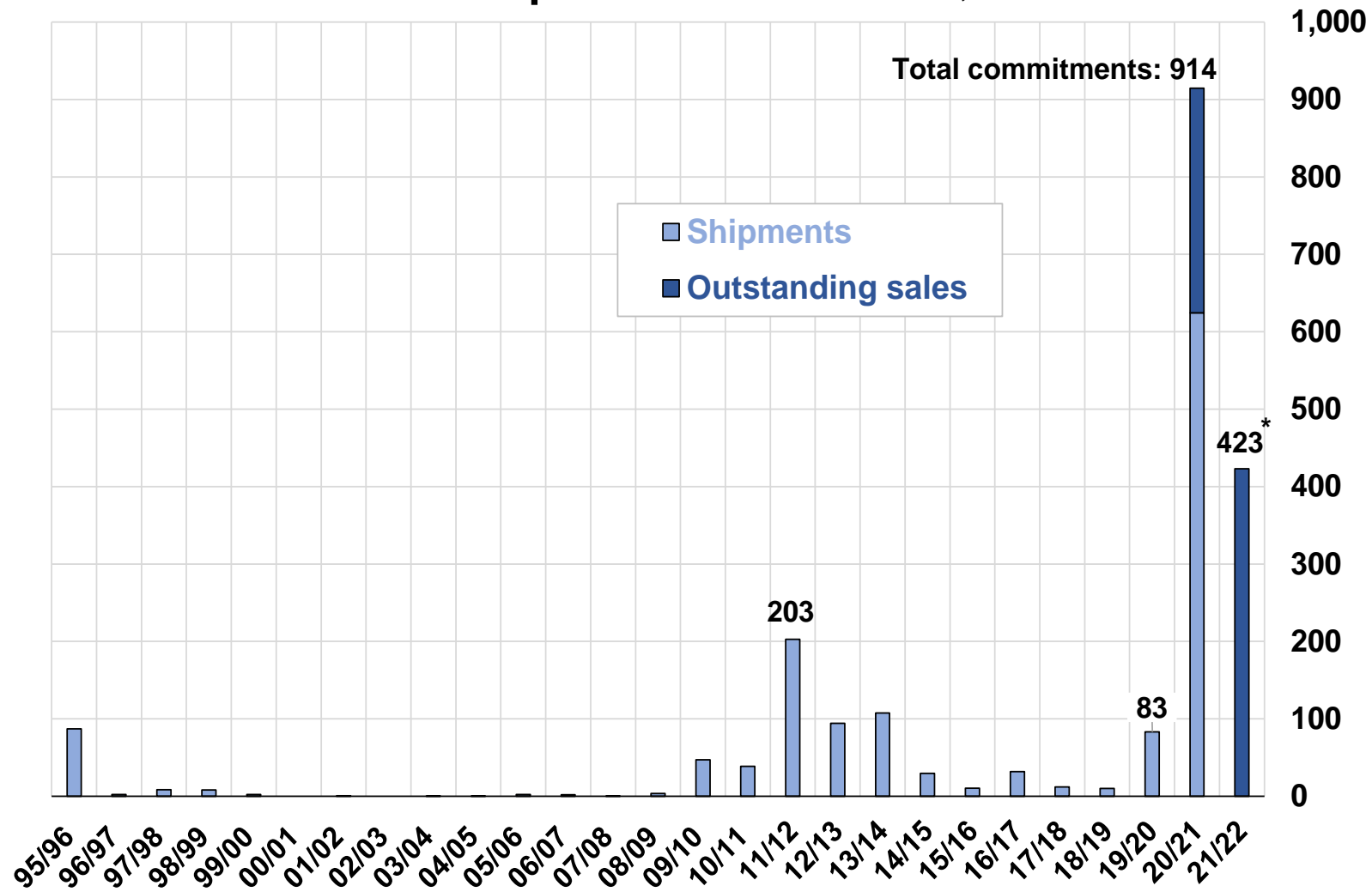


Source: Brock Associates

www.Hertz.ag



U.S. Corn Exports/Sales to China, million bu.



Source: USDA FAS

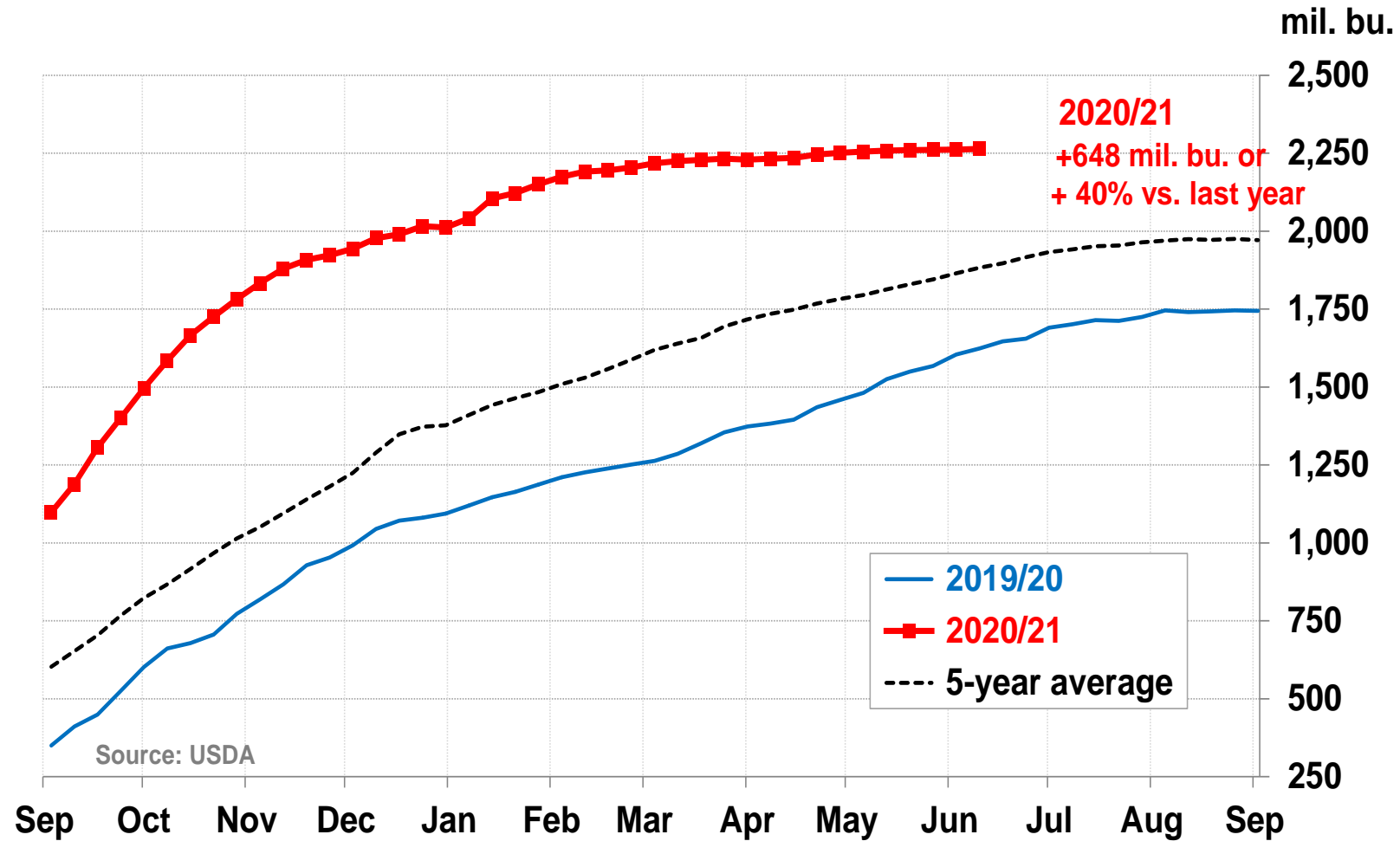
* next marketing year sales as of June 10

Source: Brock Associates

www.Hertz.ag



U.S. Soybean Export Commitments

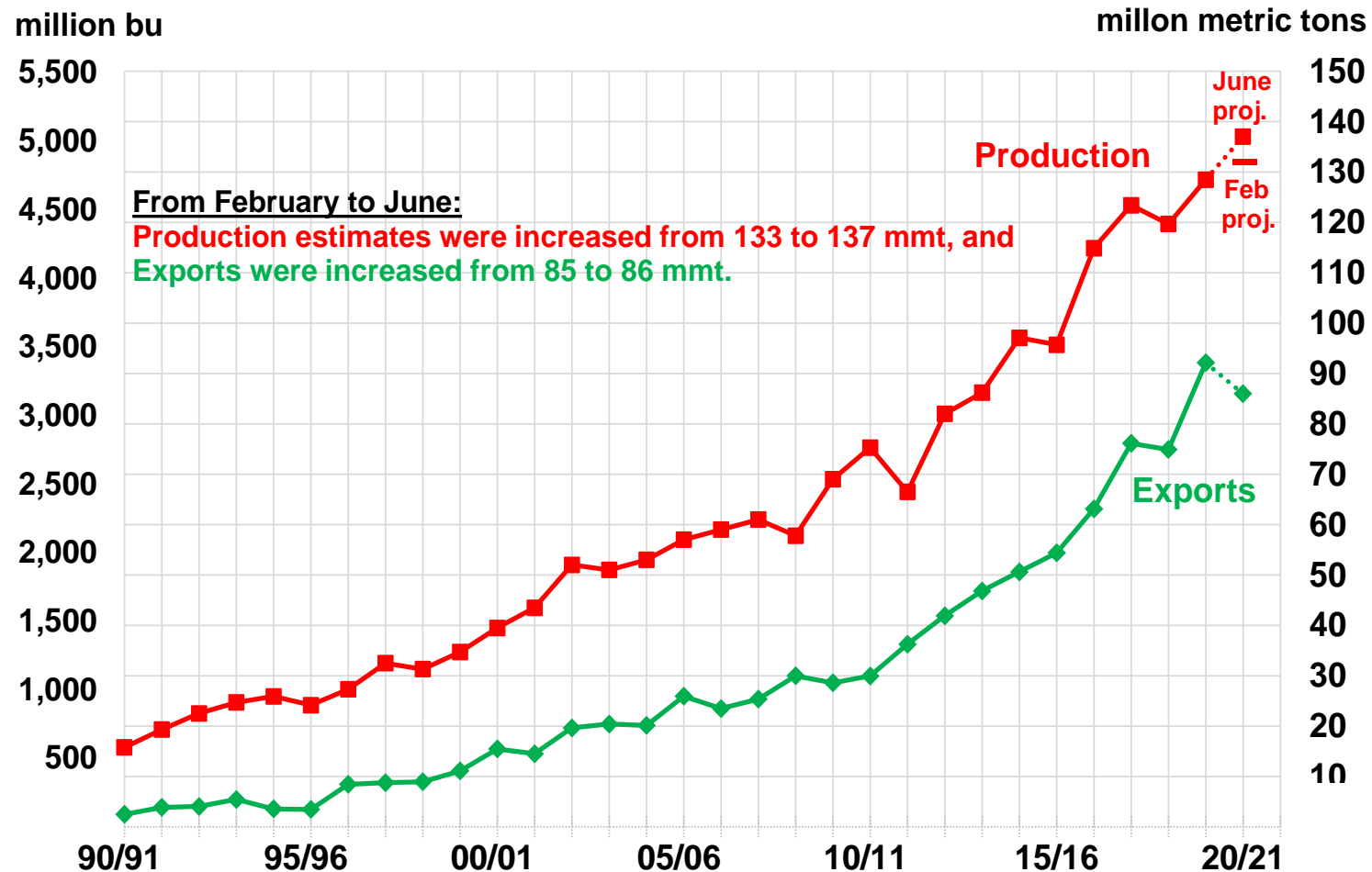


Source: Brock Associates

www.Hertz.ag



Brazil Soybean Production and Exports



Source: Brock Associates

www.Hertz.ag

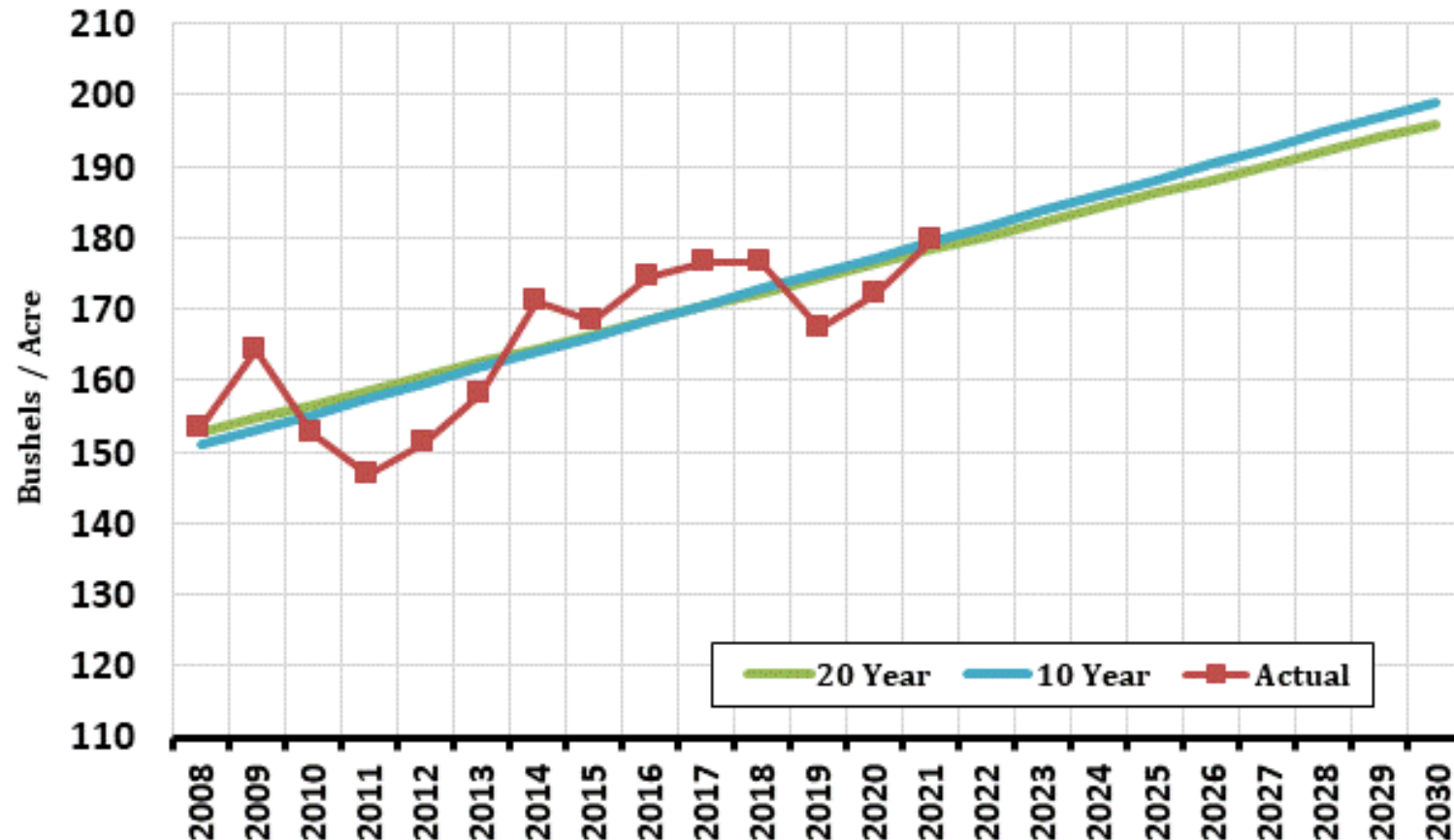


Corn Market



U.S. Corn Yield

Actual vs. Various Trendlines



Updated: 07/12/2021

The Hightower Report

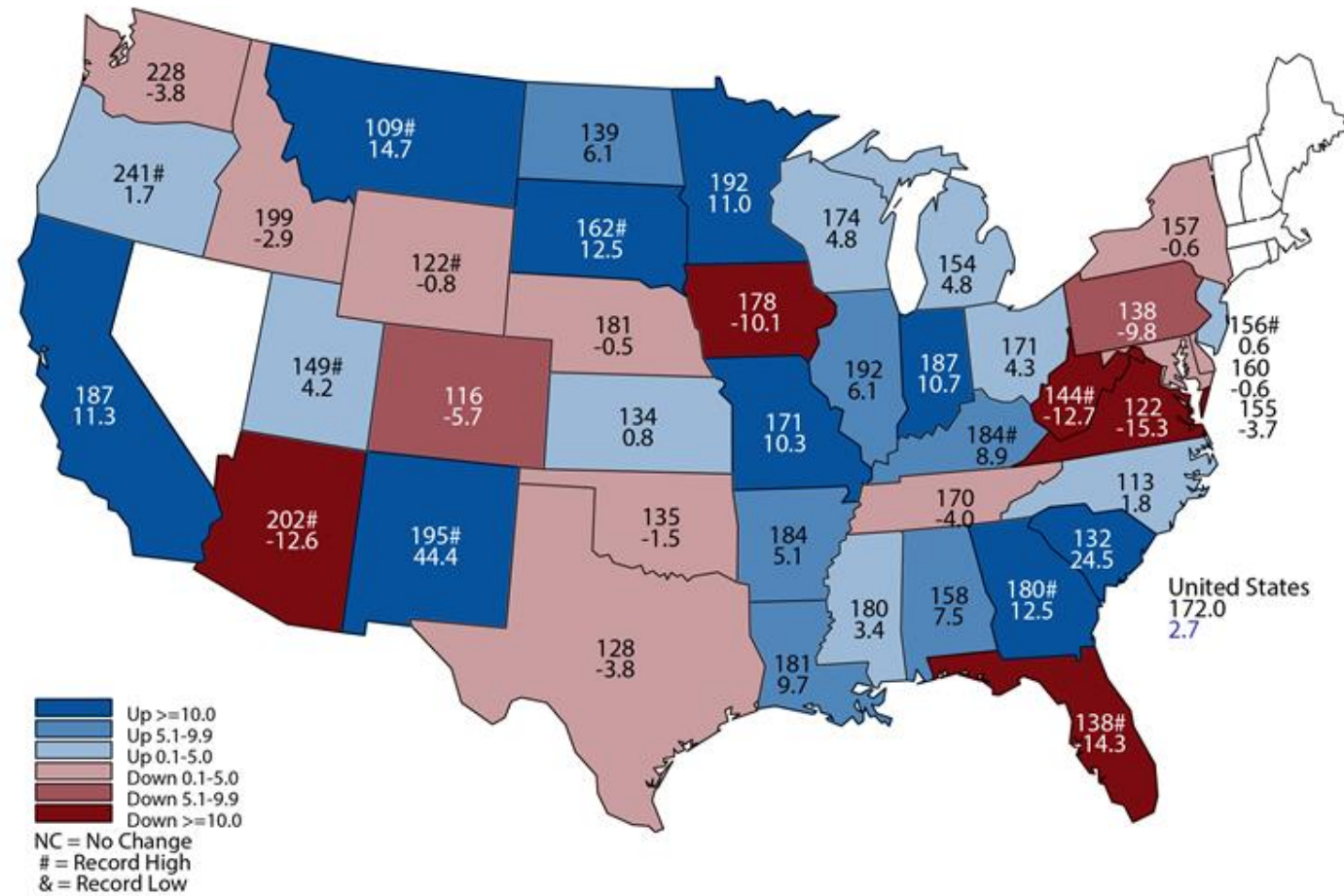


Source: CME Group
www.Hertz.ag



2020 U.S. Corn Yield

Bushels and Change From Year Previous



1/12/2021



Source: USDA-NASS
www.Hertz.ag



U.S. Corn Supply and Use

Marketing Year (2020= 9/1/20 to 8/31/21)		2017	2018	2019	2020	2021
Area Planted	(mil. acres)	90.2	88.9	89.7	90.7	92.7
Yield	(bu./acre)	176.6	176.4	167.5	172.0	179.5
Production	(mil. bu.)	14,609	14,340	13,620	14,182	15,165
Beg. Stocks	(mil. bu.)	2,293	2,140	2,221	1,919	1,082
Imports	(mil. bu.)	36	28	42	25	25
Total Supply	(mil. bu.)	16,939	16,509	15,883	16,127	16,272
Feed & Residual	(mil. bu.)	5,304	5,429	5,897	5,725	5,725
Ethanol	(mil. bu.)	5,605	5,378	4,857	5,050	5,200
Food, Seed, & Other	(mil. bu.)	1,451	1,425	1,430	1,420	1,415
Exports	(mil. bu.)	2,438	2,066	1,778	2,850	2,500
Total Use	(mil. bu.)	14,799	14,288	13,963	15,045	14,840
Ending Stocks	(mil. bu.)	2,140	2,221	1,919	1,082	1,432
Season-Average Price	(\$/bu.)	3.36	3.61	3.56	4.40	5.60

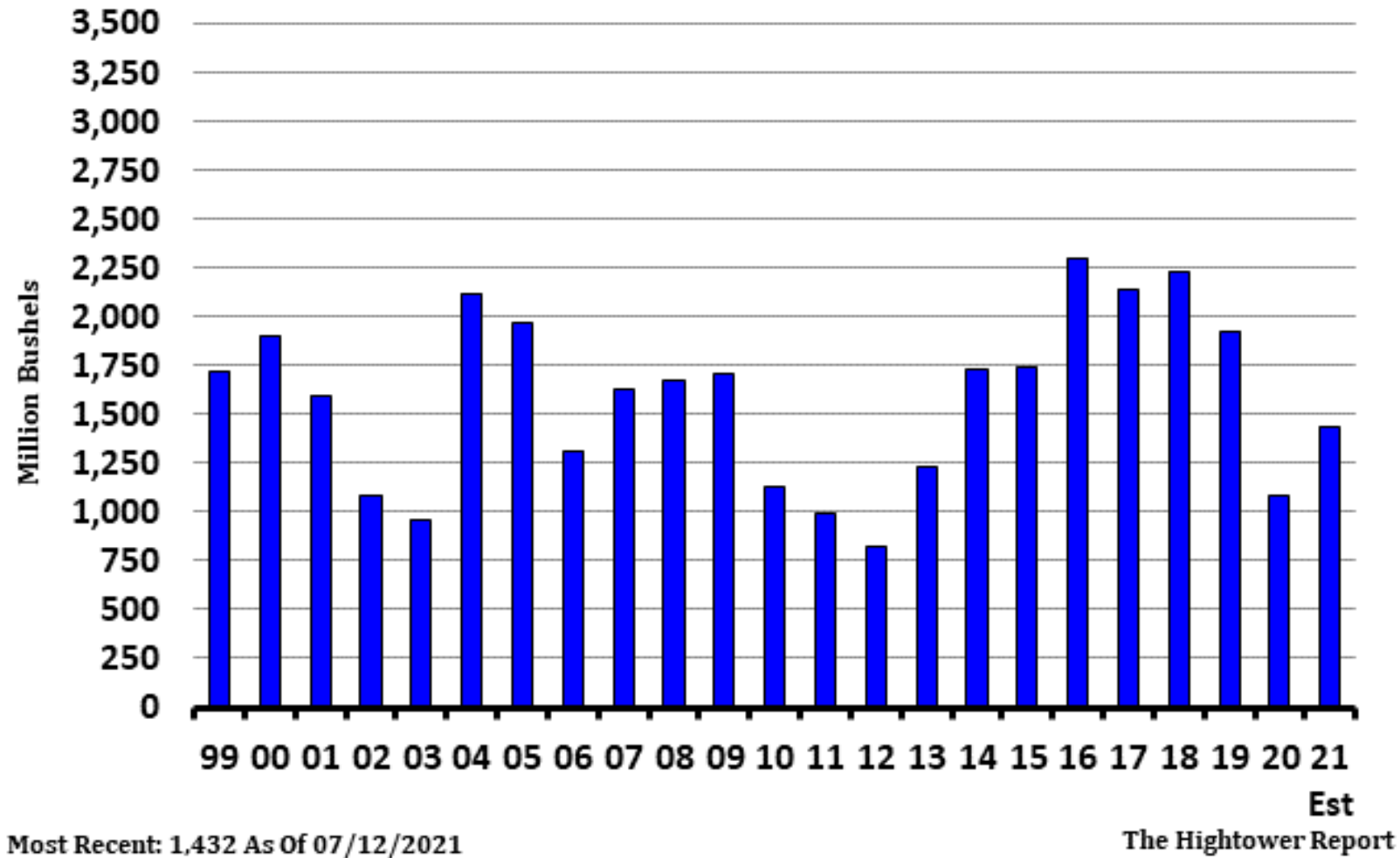


Source: USDA-WAOB

www.Hertz.ag



U.S. Corn Ending Stocks



Source: CME Group

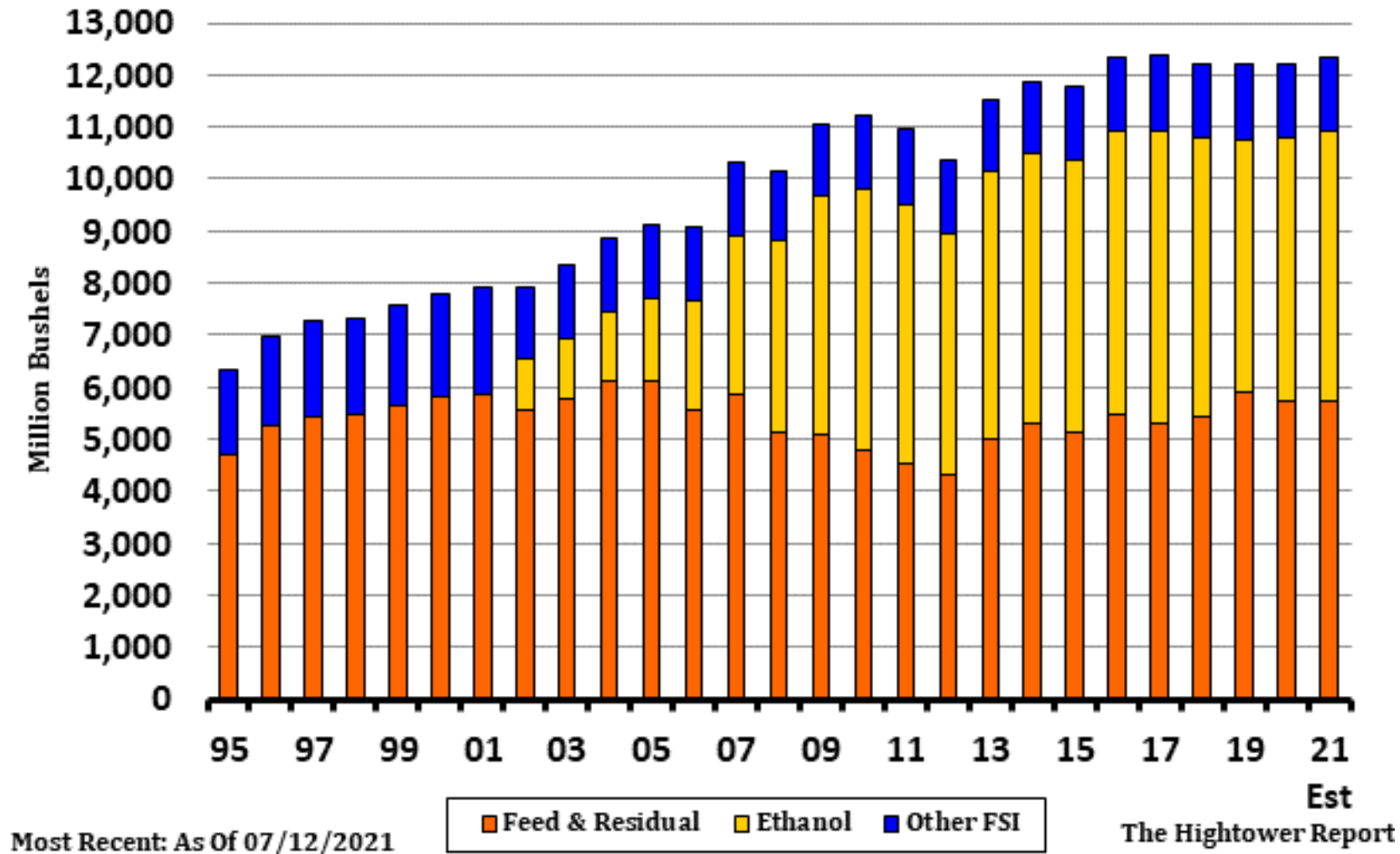
www.Hertz.ag



Demand



U.S. Corn Total Usage



Source: CME Group

www.Hertz.ag



U.S. Corn Exports



Most Recent: 2,500 As Of 07/12/2021

The Hightower Report

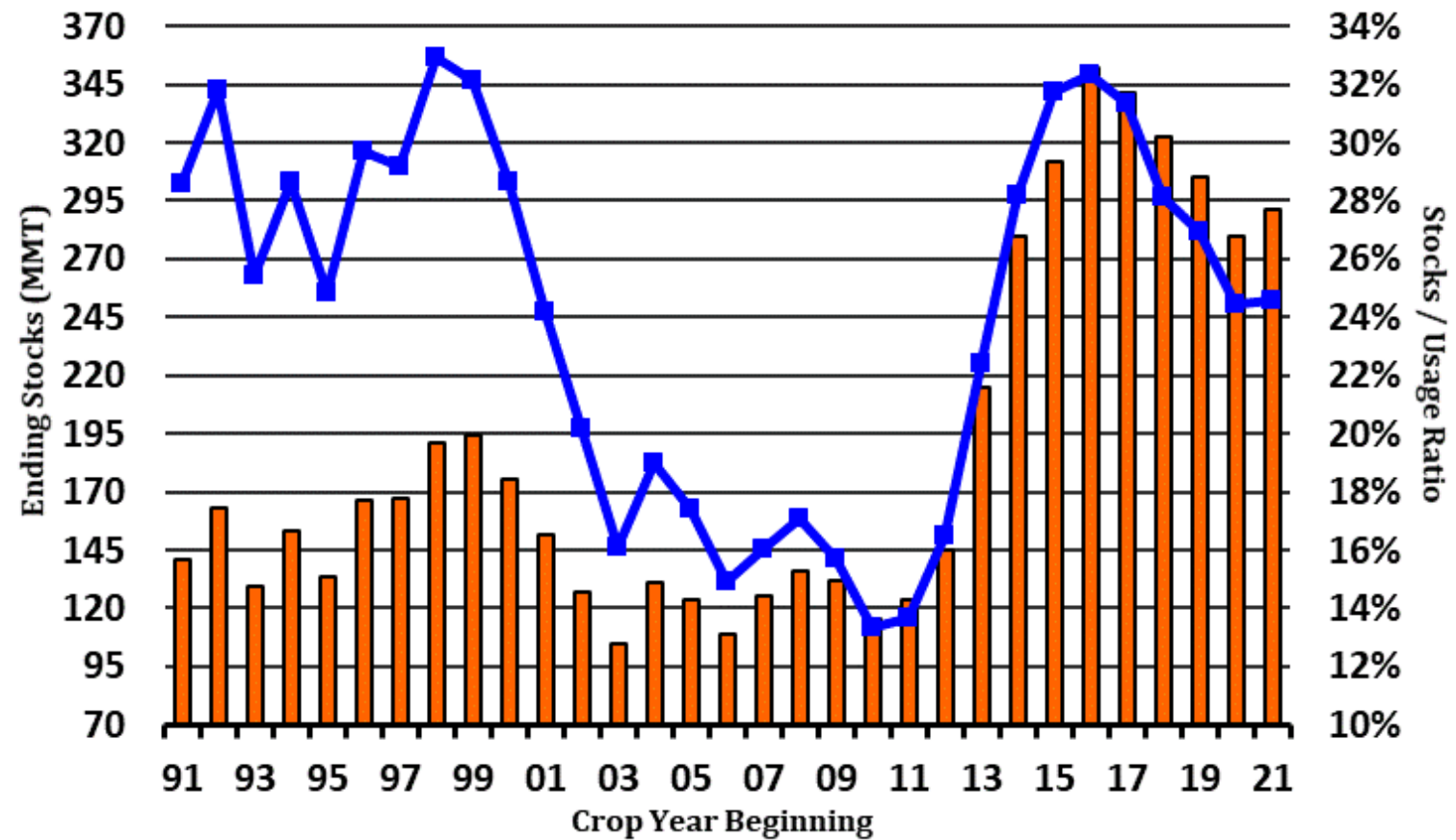


Source: CME Group

www.Hertz.ag



World Corn Ending Stocks and Stocks/Use



The Hightower Report | Source: USDA

Most Recent: As Of 07/12/2021

Ending Stocks Stocks / Usage Ratio



Source: CME Group

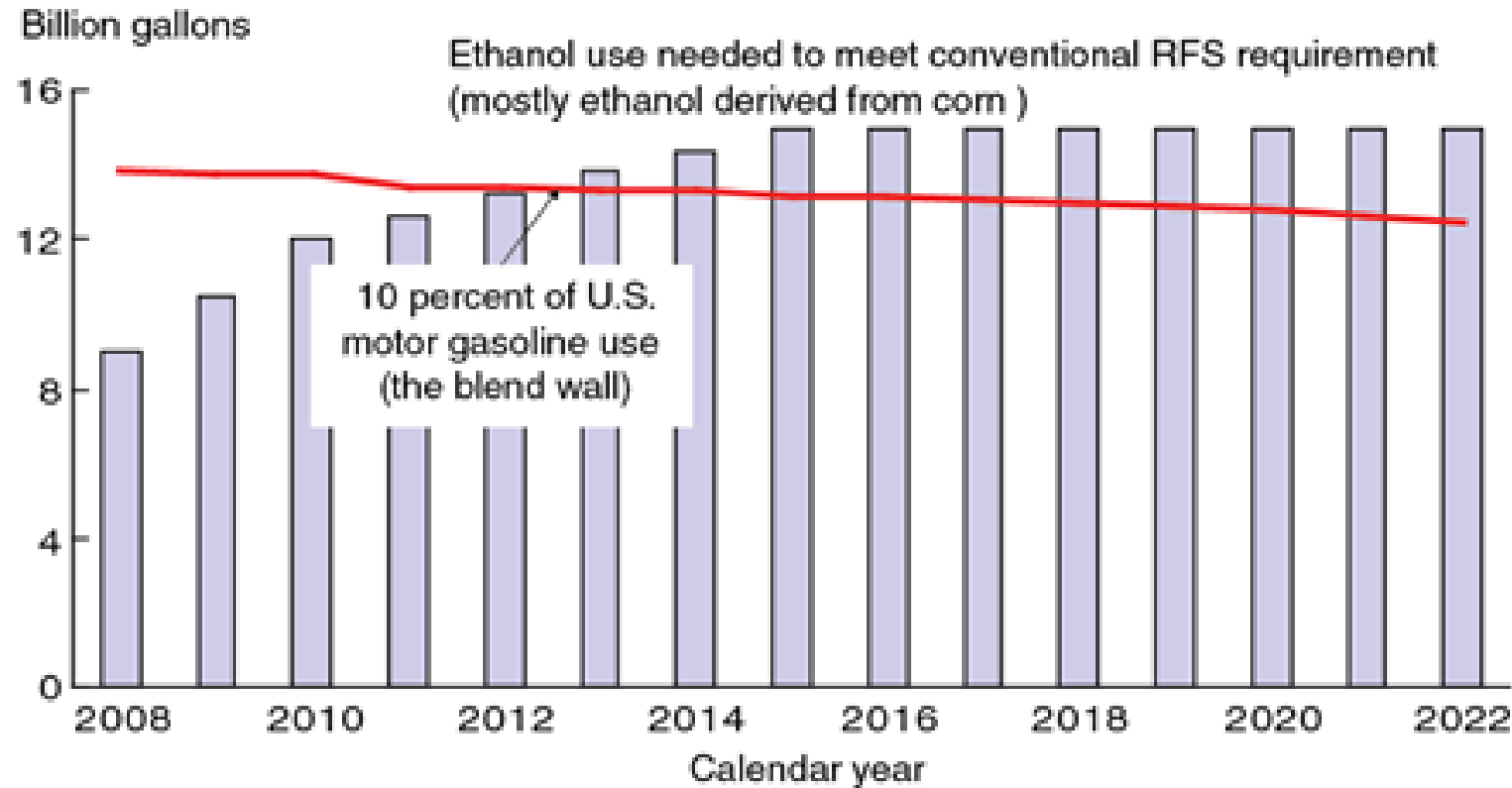
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Ethanol



E10 Blend Wall and Ethanol Use Needed to Comply With Conventional RFS



RFS = Renewable Fuel Standard. E10 = 10-percent ethanol/gasoline blend.

Sources: USDA, Economic Research Service calculations derived from U.S. Department of Energy, Energy Information Administration, *Annual Energy Outlook, 2013* and the Energy Independence and Security Act of 2007.



Source: USDA

www.Hertz.ag



August 2021 Crude Oil

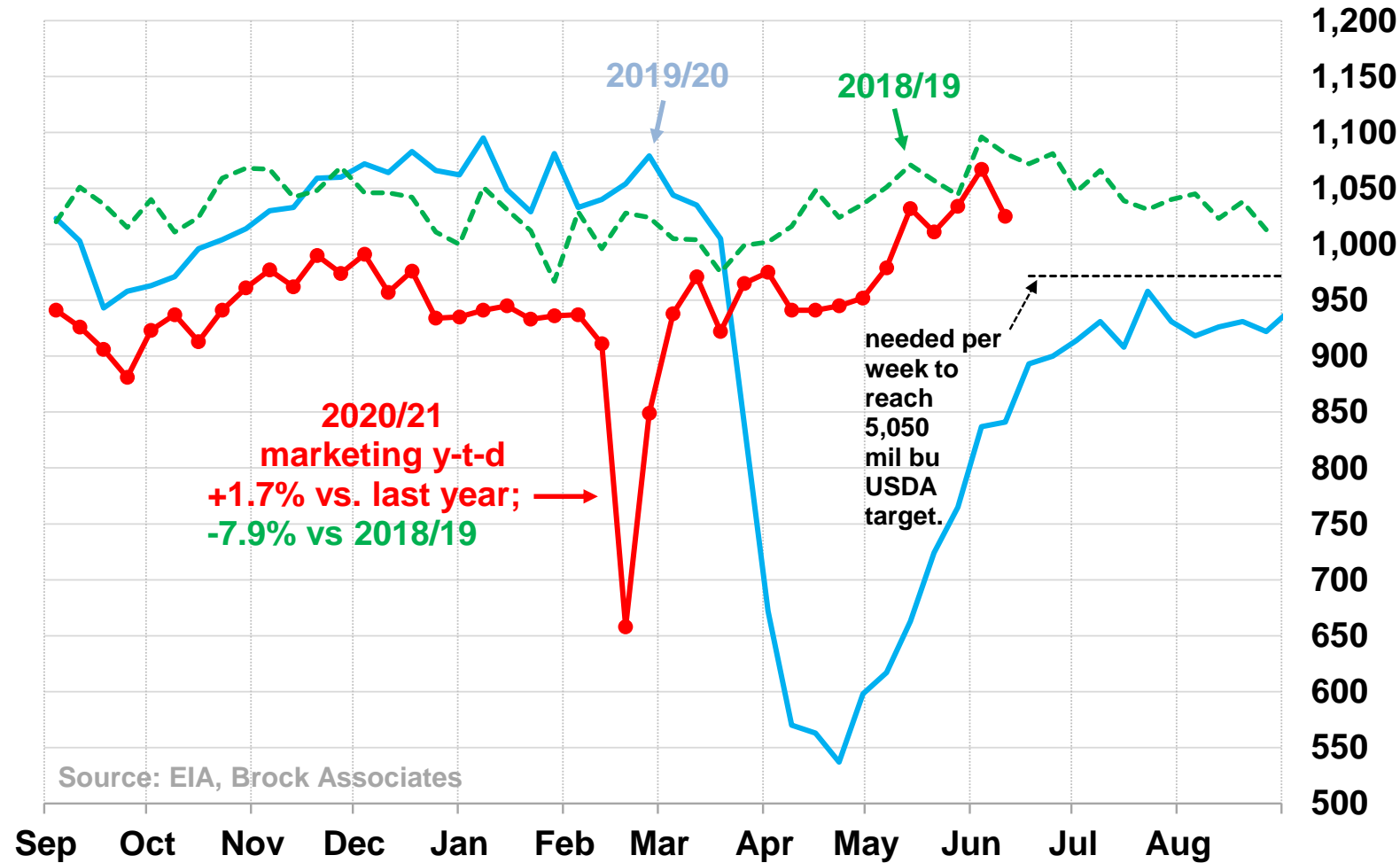


Source: Brock Associates

www.Hertz.ag



Weekly Ethanol Production (1,000 barrels/day)

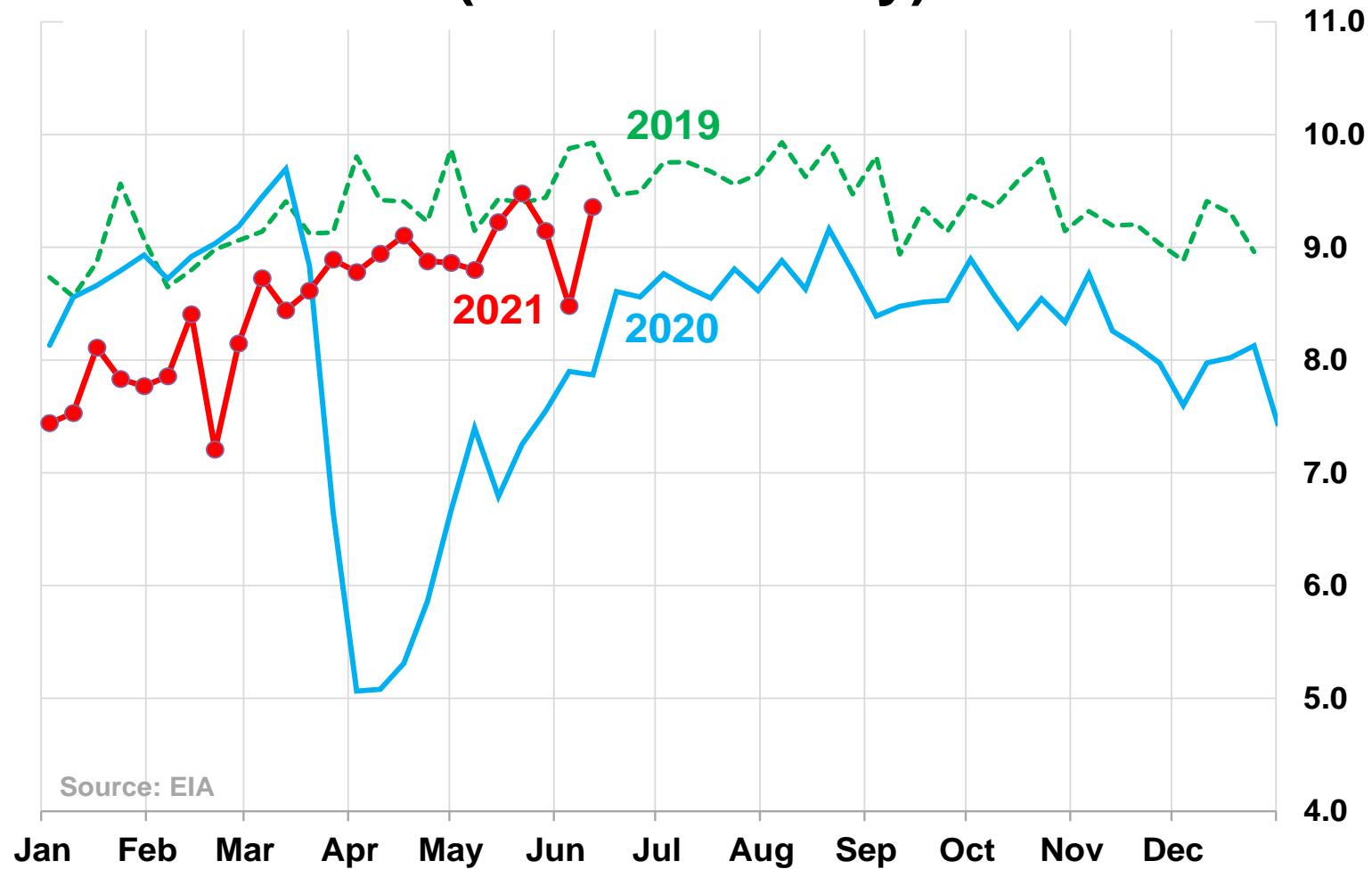


Source: Brock Associates

www.Hertz.ag



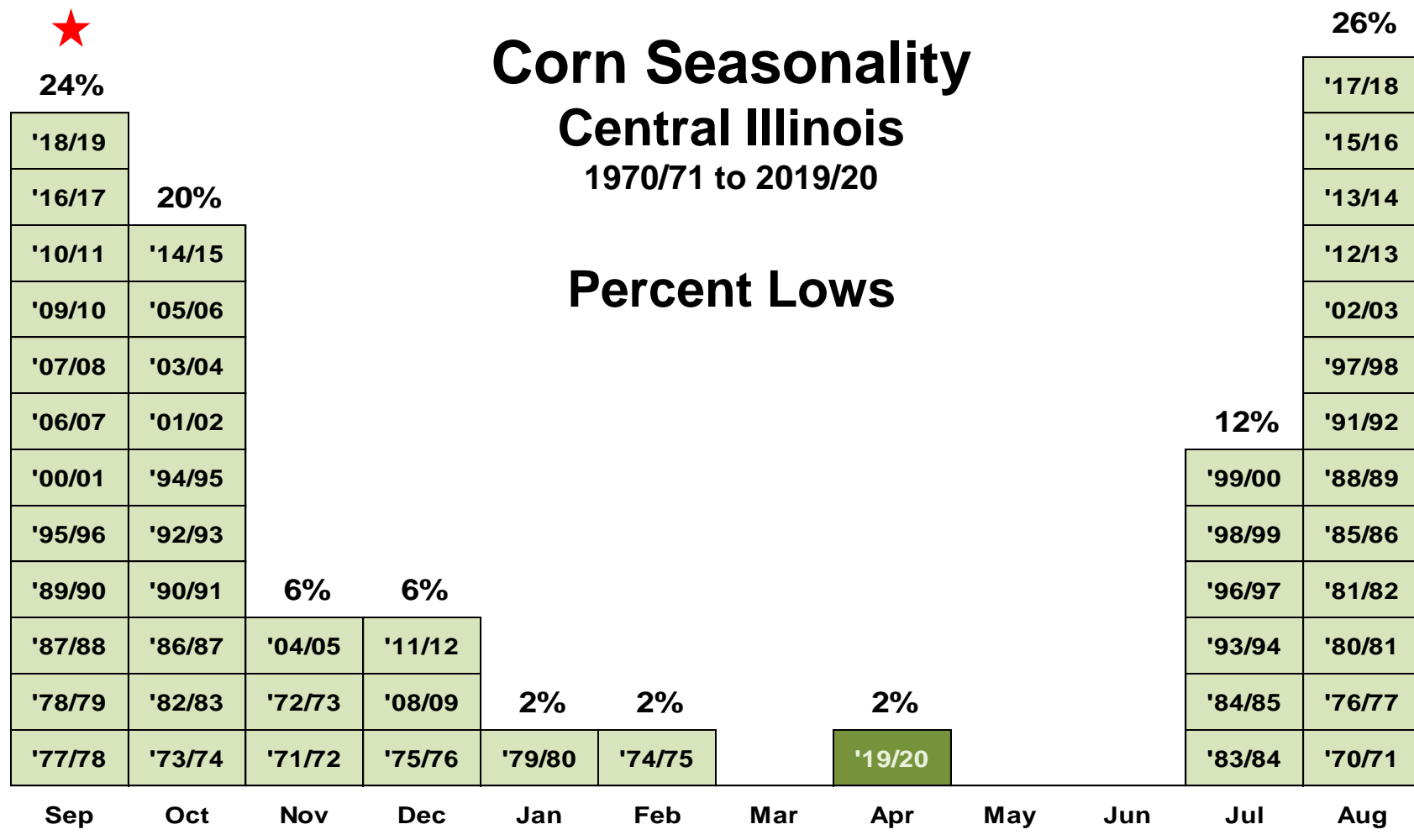
Weekly Gasoline Demand (million bbl/day)



Source: Brock Associates

www.Hertz.ag





Source: USDA AMS, Brock Associates

Marketing year begins September 1

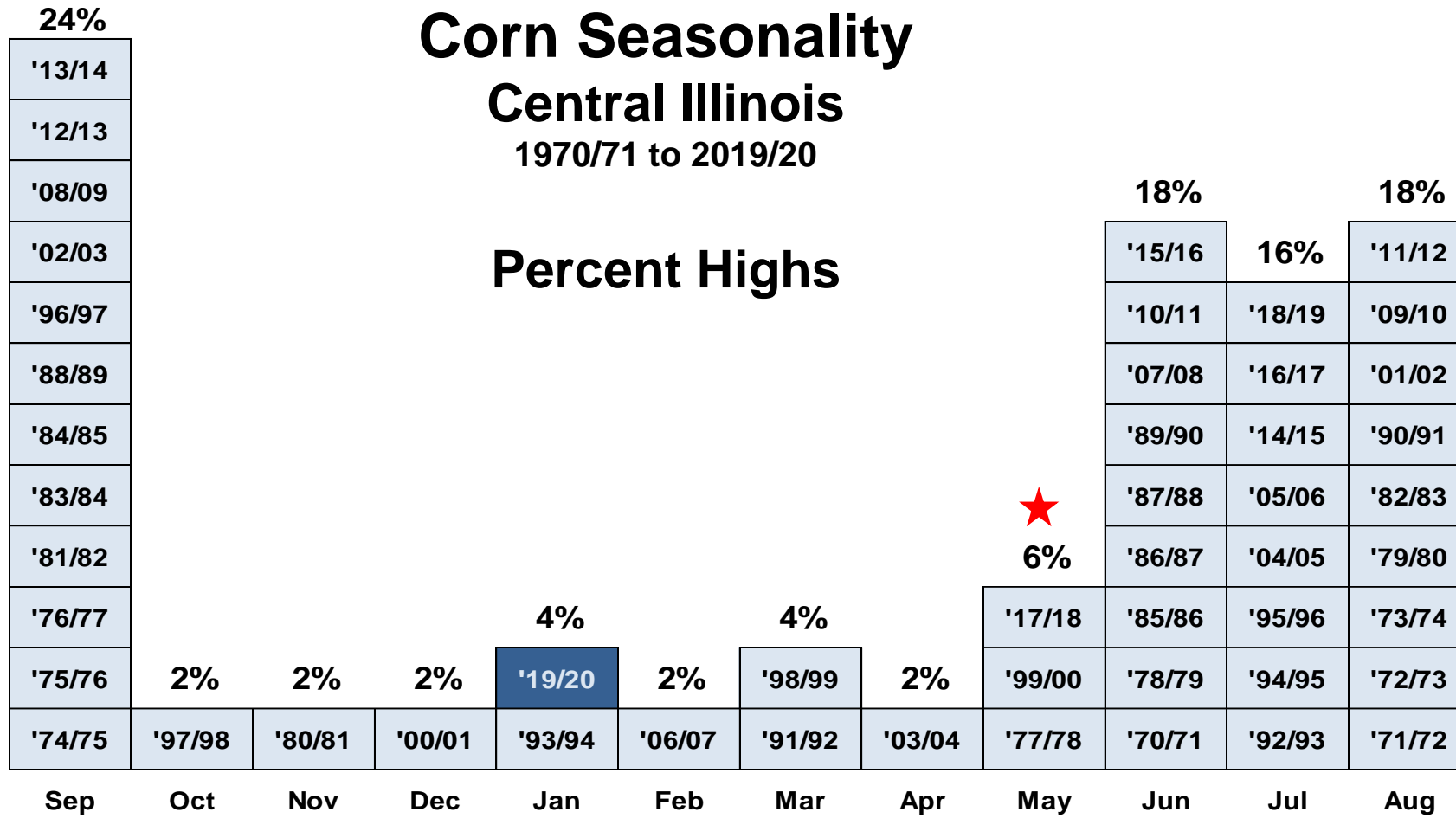
★ Indicates the low for the 20/21 marketing year so far



Source: Brock Associates

www.Hertz.ag





Source: USDA AMS, Brock Associates

Marketing year begins September 1

★ Indicates the high for the 20/21 marketing year so far

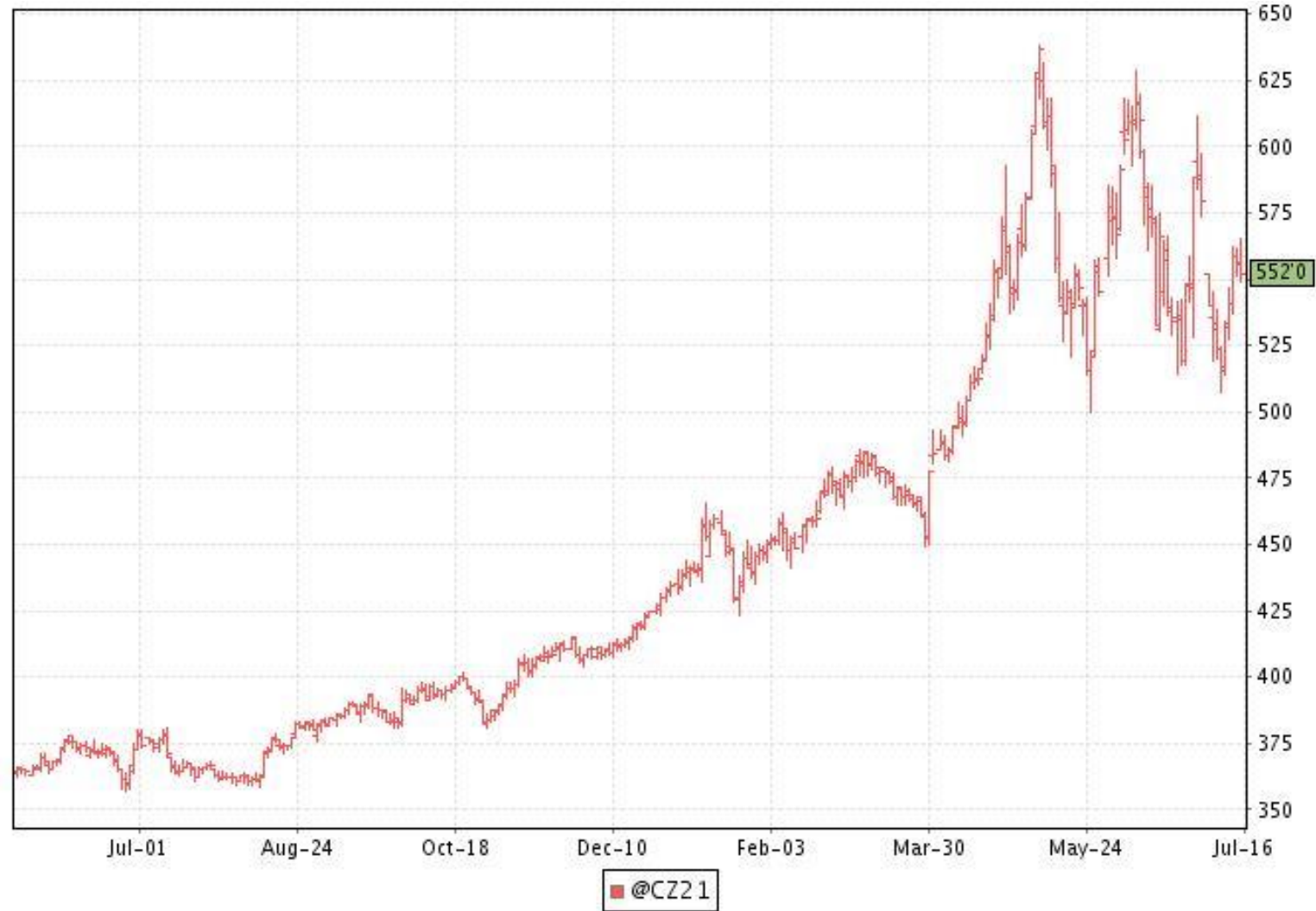


Source: Brock Associates

www.Hertz.ag



December 2021 Corn Chart

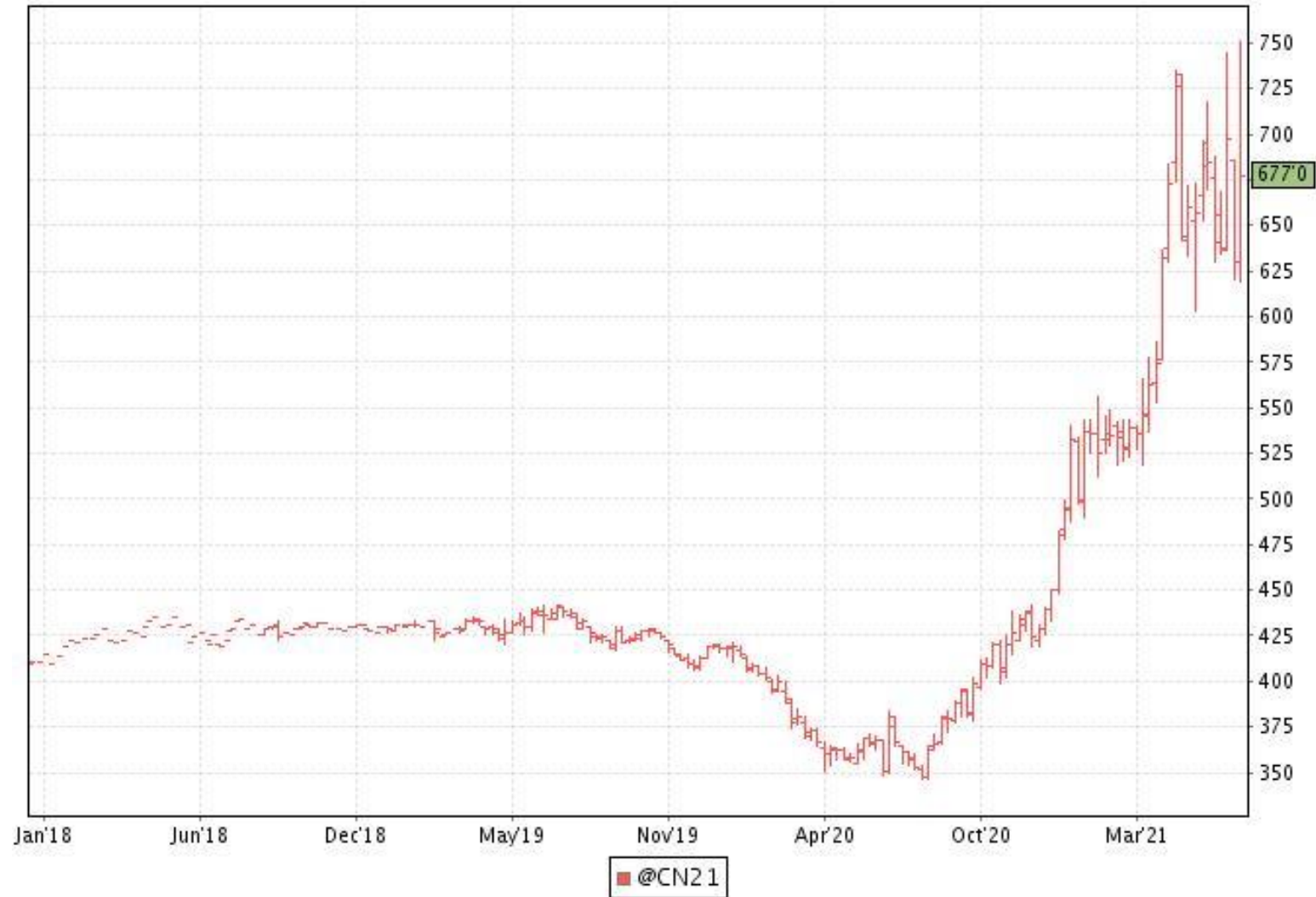


Source: DTN

www.Hertz.ag



Corn Continuous Weekly Chart



Source: DTN

www.Hertz.ag



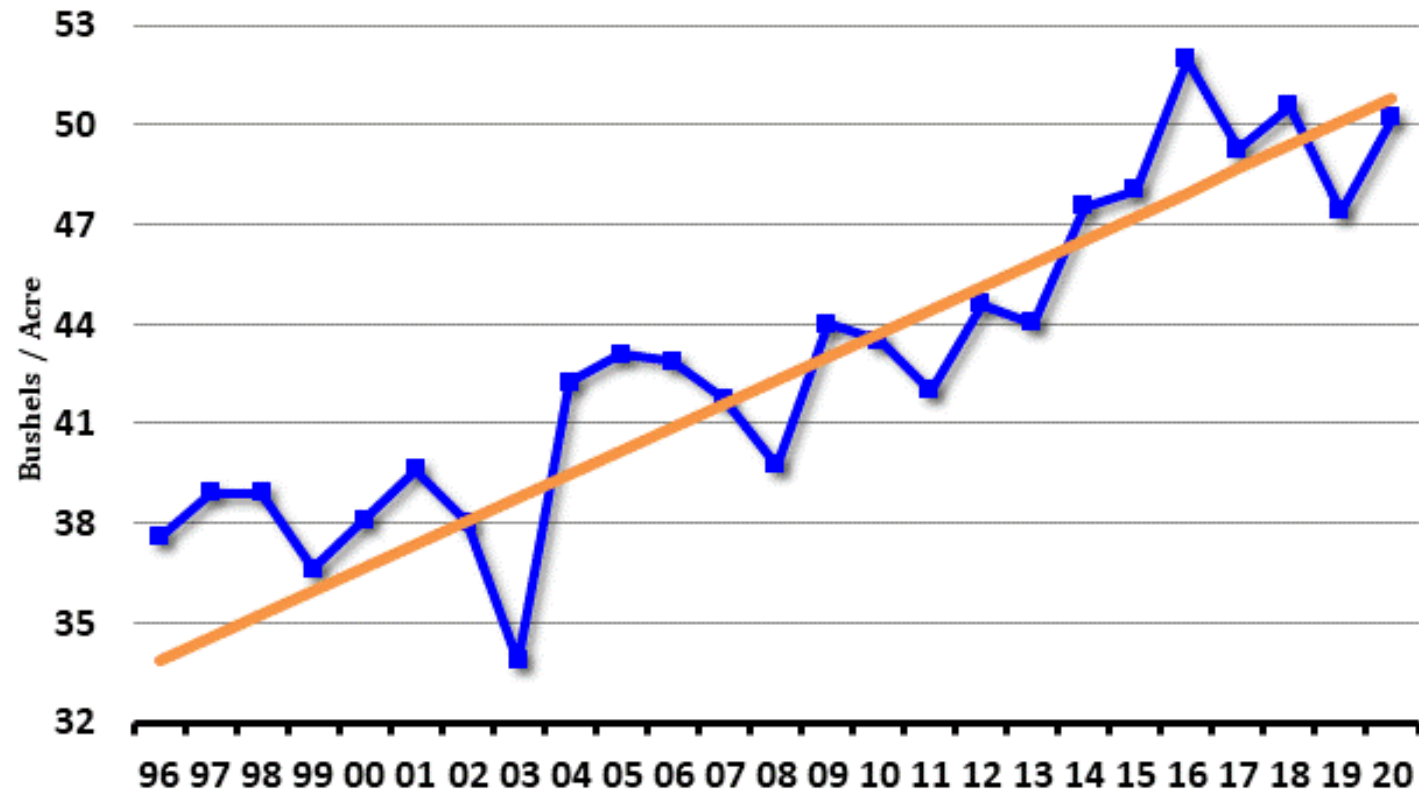
Soybean Market



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U.S. Soybean Yield Actual vs. Trendline



Updated: 07/12/2021

Actual Trend

The Hightower Report

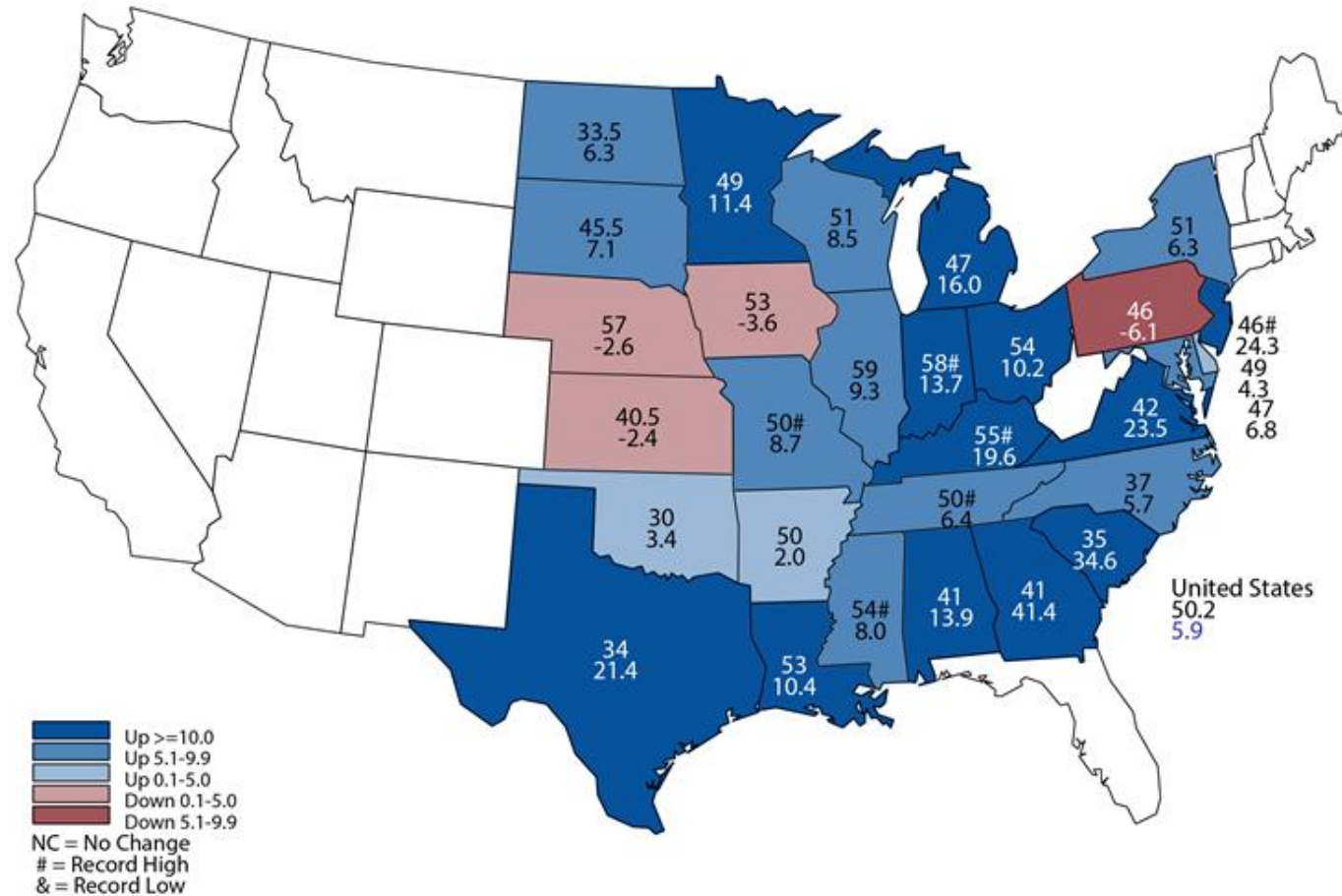


Source: CME Group
www.Hertz.ag



2020 U.S. Soybean Yield

Bushels and Change From Year Previous



1/12/2021

Source: USDA-NASS

www.Hertz.ag



U.S. Soybean Supply and Use

Marketing Year (2020 = 9/1/20 to 8/31/21)		2017	2018	2019	2020	2021
Area Planted	(mil. acres)	90.2	89.2	76.1	83.1	87.6
Yield	(bu./acre)	49.3	50.6	47.4	50.2	50.8
Production	(mil. bu.)	4,412	4,428	3,552	4,135	4,405
Beg. Stocks	(mil. bu.)	302	438	909	525	135
Imports	(mil. bu.)	22	14	15	20	35
Total Supply	(mil. bu.)	4,735	4,880	4,476	4,680	4,575
Crush	(mil. bu.)	2,055	2,092	2,165	2,170	2,225
Seed & Residual	(mil. bu.)	113	127	105	106	119
Exports	(mil. bu.)	2,129	1,752	1,682	2,270	2,075
Total Use	(mil. bu.)	4,297	3,971	3,952	4,545	4,420
Ending Stocks	(mil. bu.)	438	909	525	135	155
Season-Average Price	(\$/bu.)	9.33	8.48	8.57	11.05	13.70

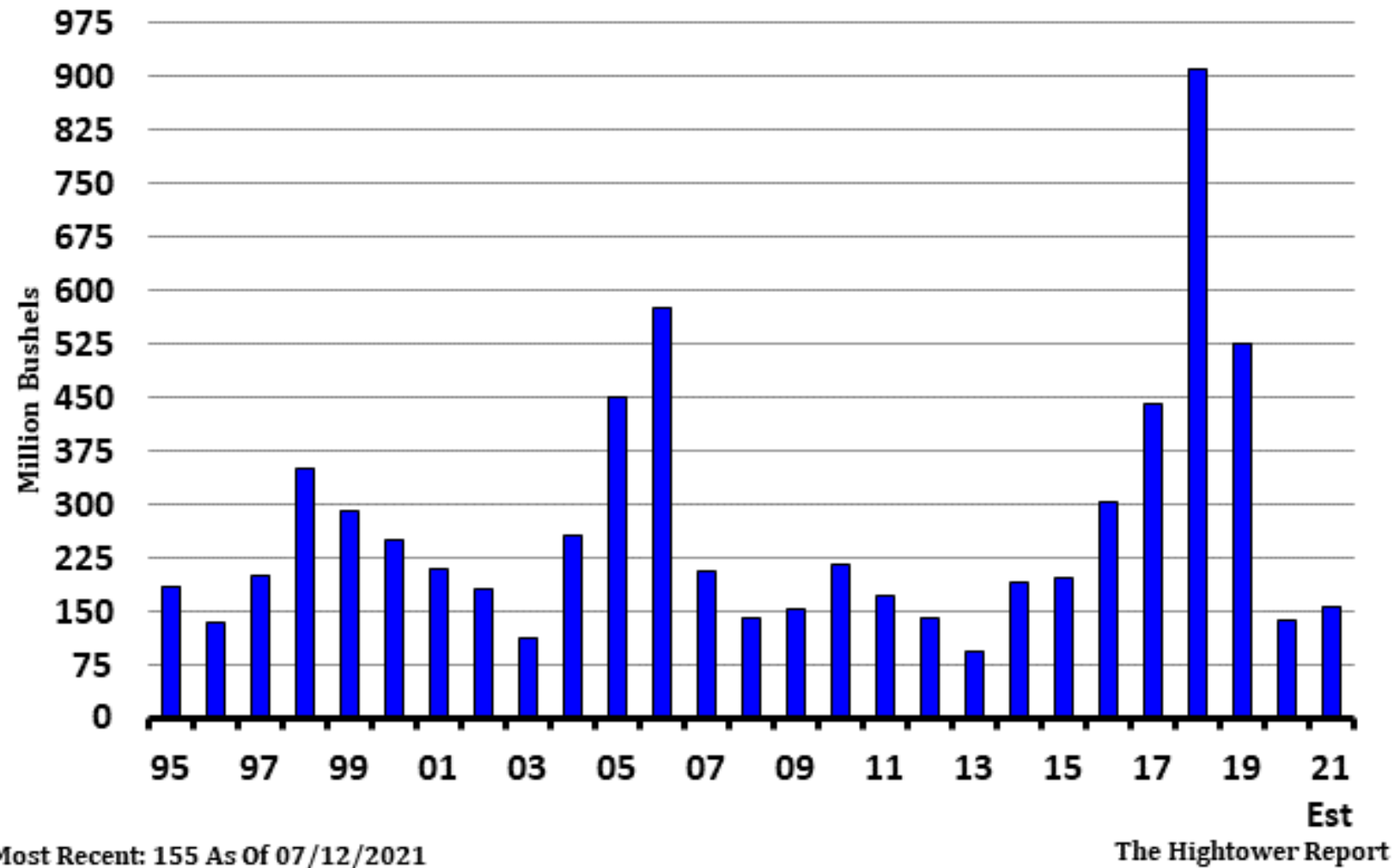


Source: USDA-WAOB

www.Hertz.ag



U.S. Soybean Ending Stocks



Source: CME Group

www.Hertz.ag



U.S. Soybean Exports



Most Recent: 2,075 As Of 07/12/2021

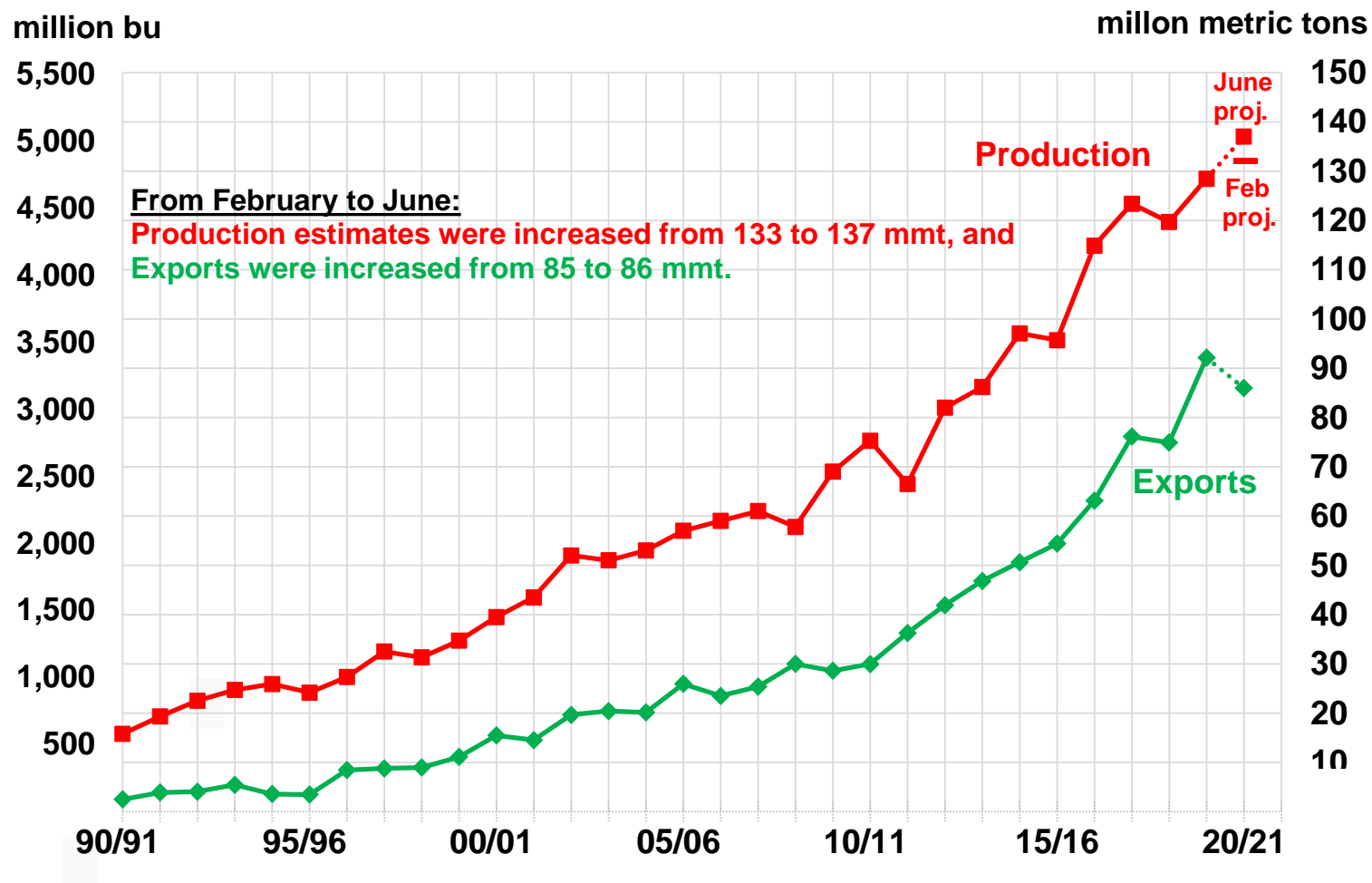
The Hightower Report



Source: CME Group
www.Hertz.ag



Brazil Soybean Production and Exports

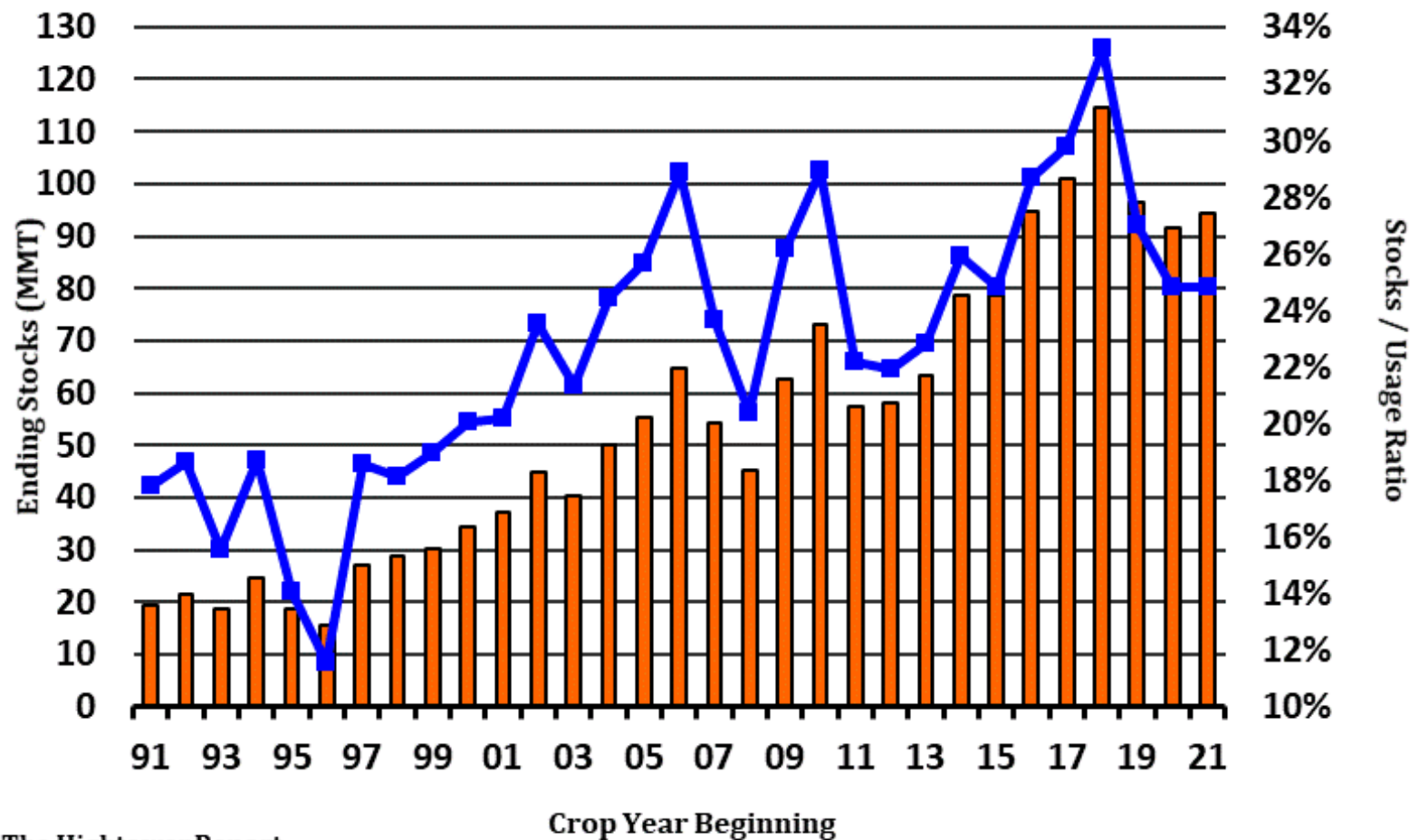


Source: Brock Associates

www.Hertz.ag



World Soybean Ending Stocks and Stocks/Use



The Hightower Report

Most Recent: As Of 07/12/2021

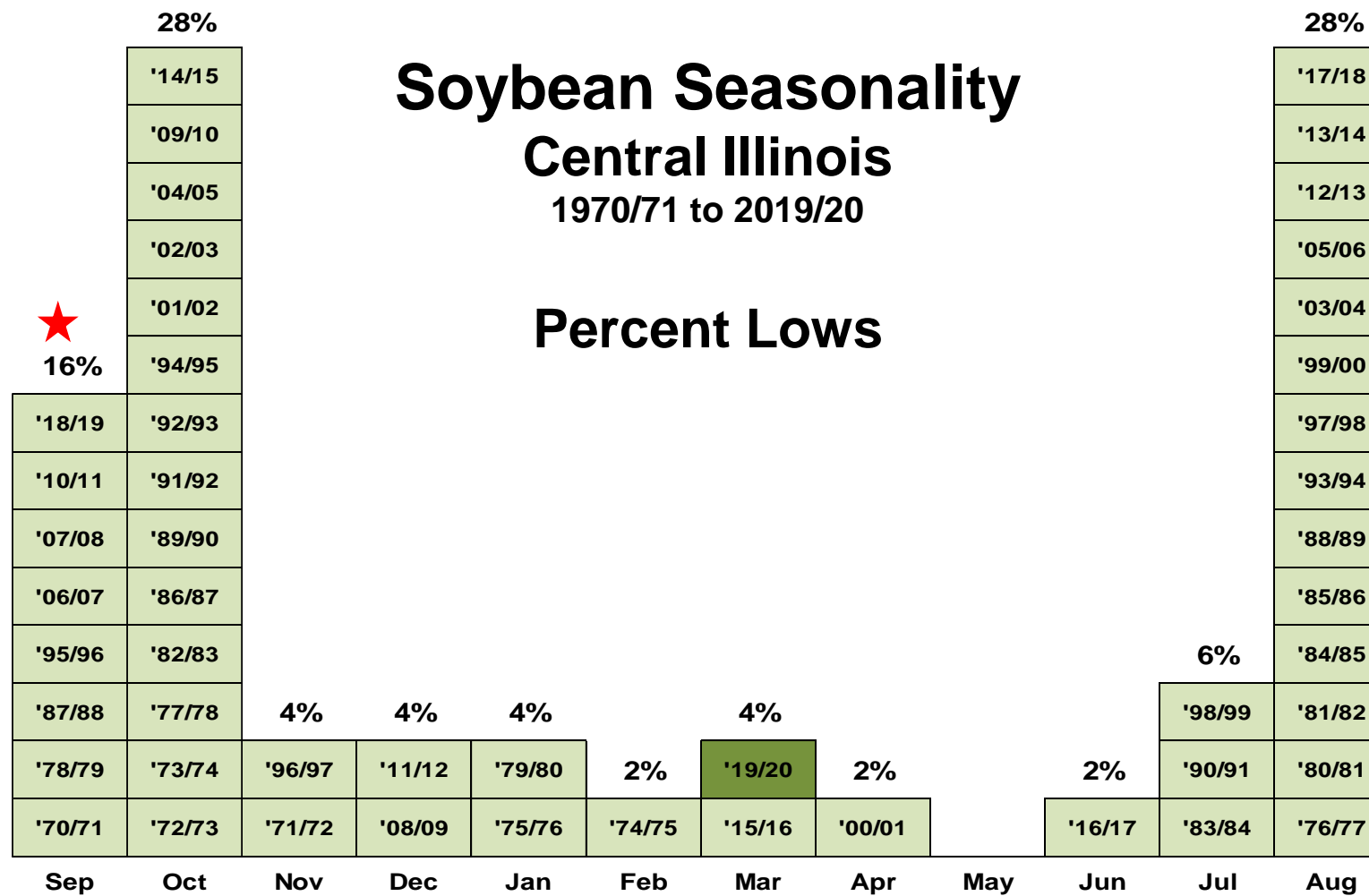
Ending Stocks Stocks / Usage Ratio



Source: CME Group

www.Hertz.ag





★ Indicates the low for the 20/21 marketing year so far



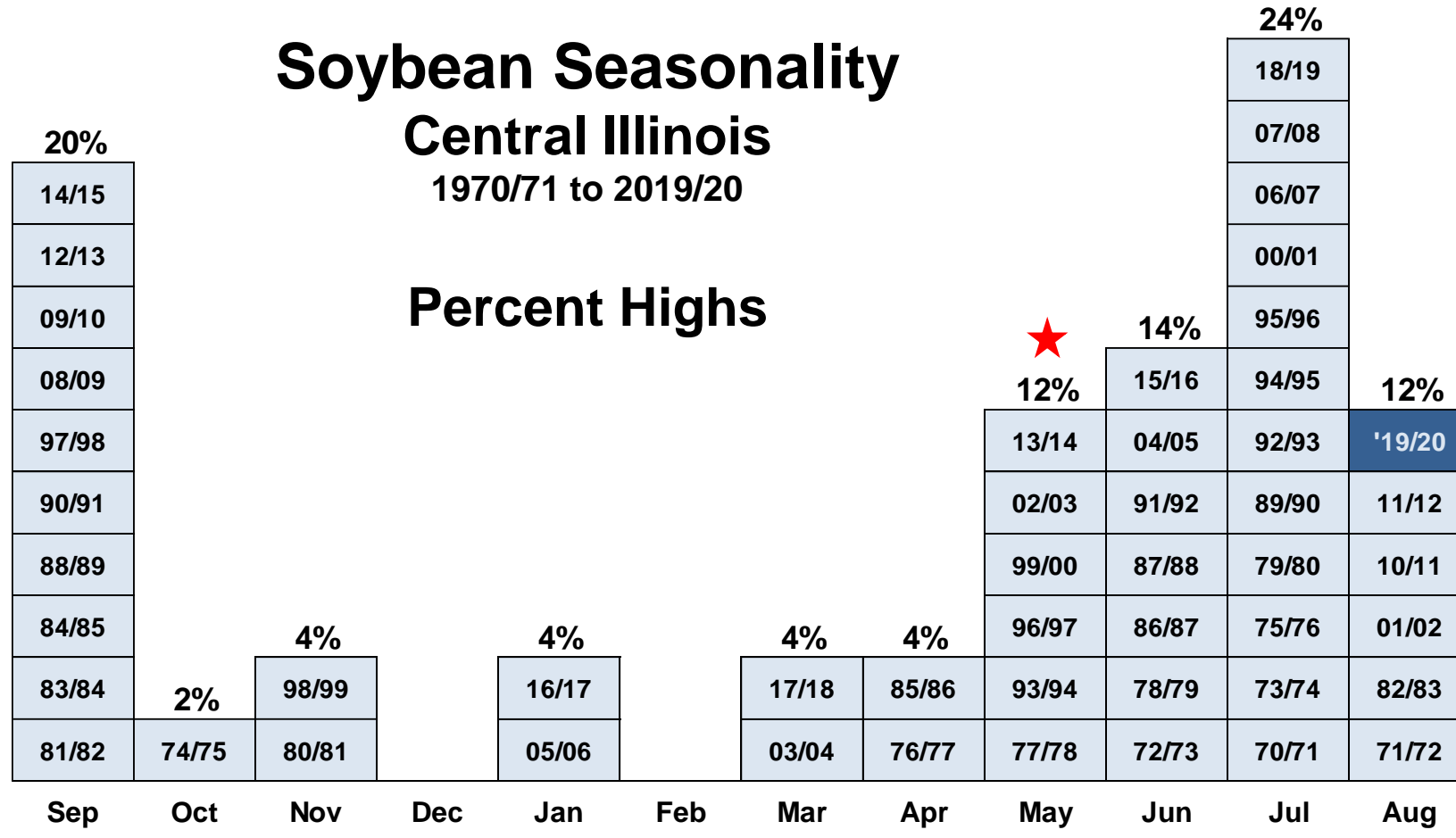
Source: Brock Associates

www.Hertz.ag



Soybean Seasonality Central Illinois 1970/71 to 2019/20

Percent Highs



Source: USDA AMS, Brock Associates

Marketing Year begins Sept 1

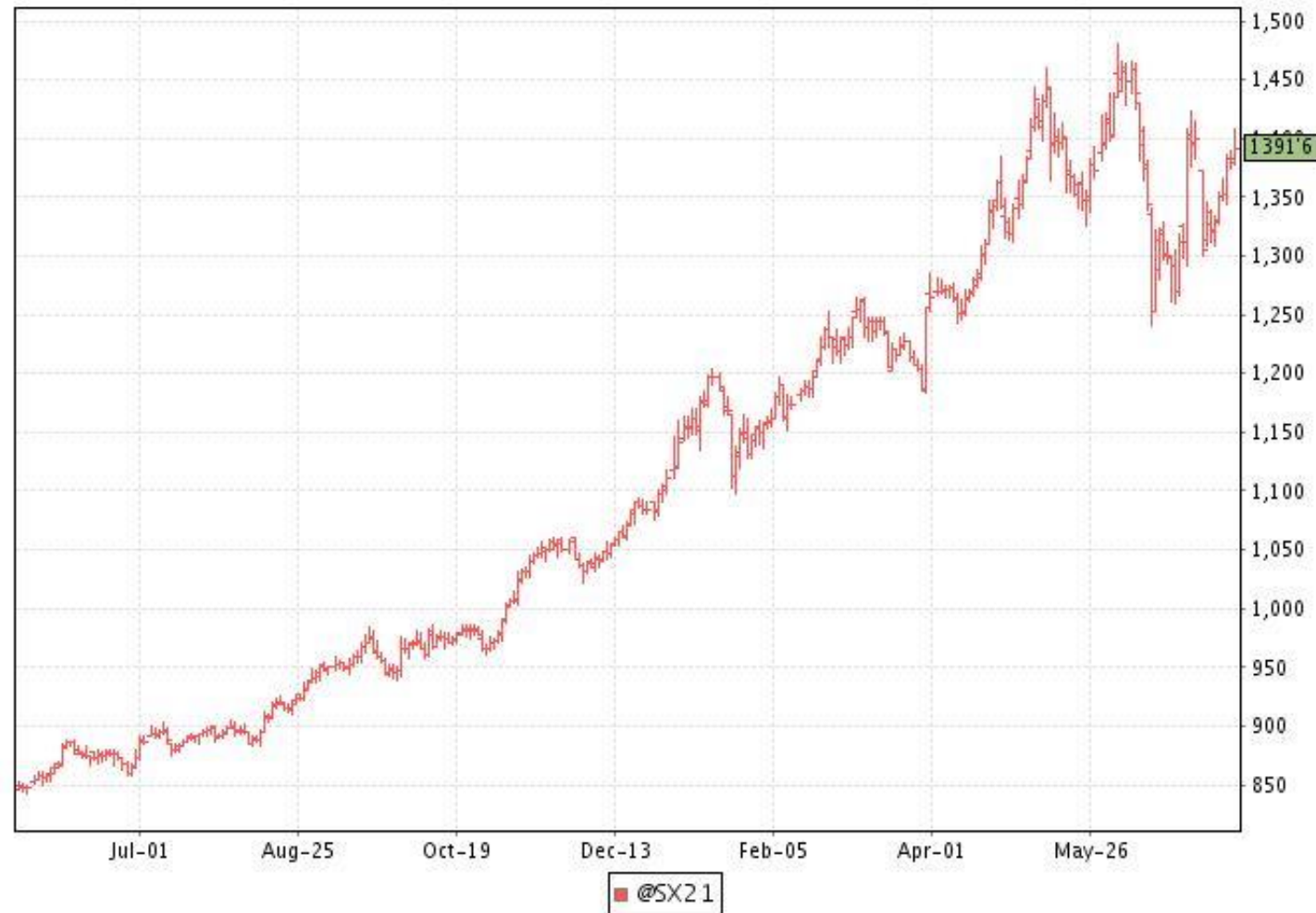
★ Indicates the high for the 20/21 marketing year so far



Source: Brock Associates
www.Hertz.ag



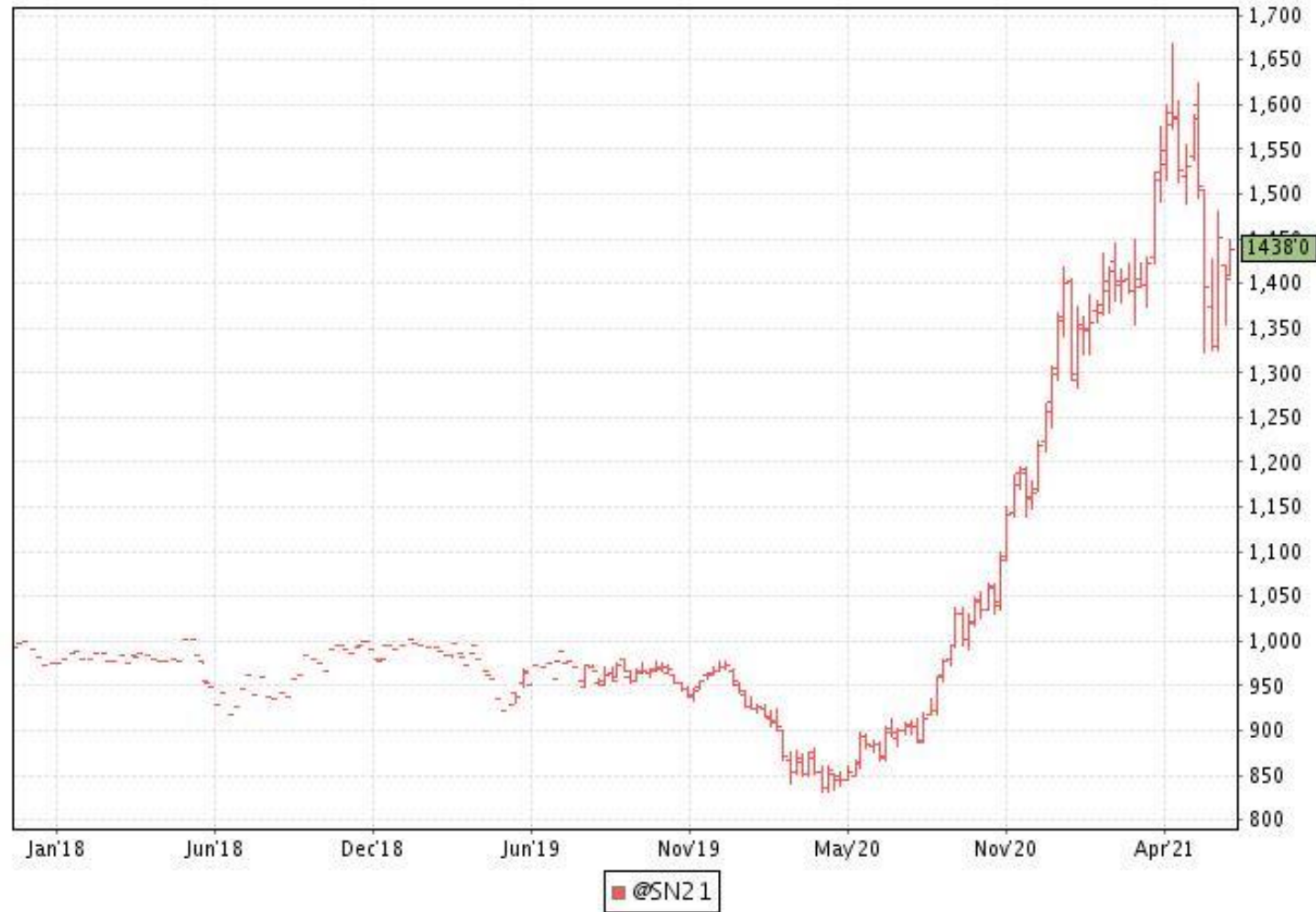
November 2021 Soybean Chart



Source: DTN
www.Hertz.ag



Soybean Continuous Weekly Chart



Source: DTN

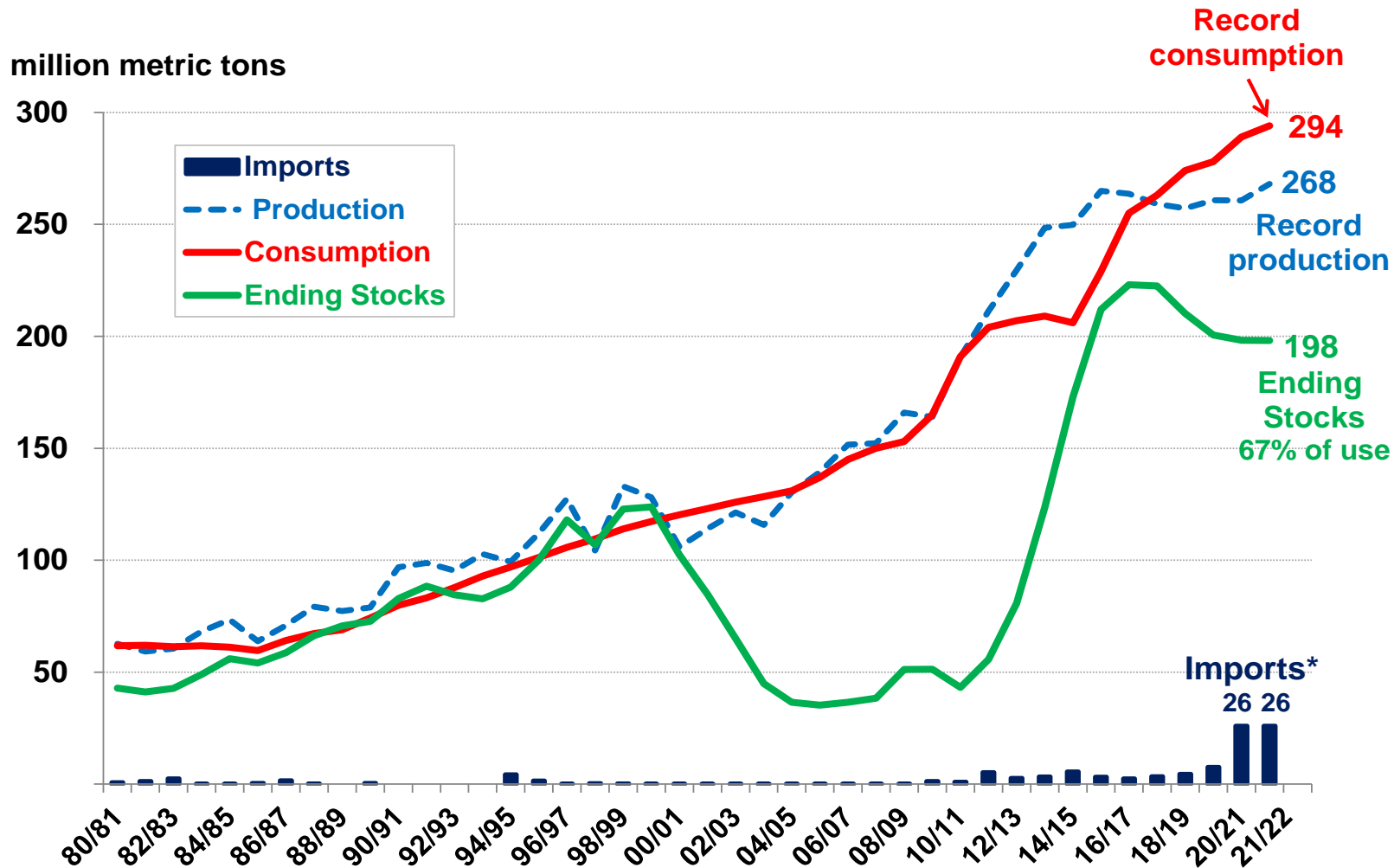
www.Hertz.ag



Trade with China



China Corn Fundamentals



Source: USDA, June 2021

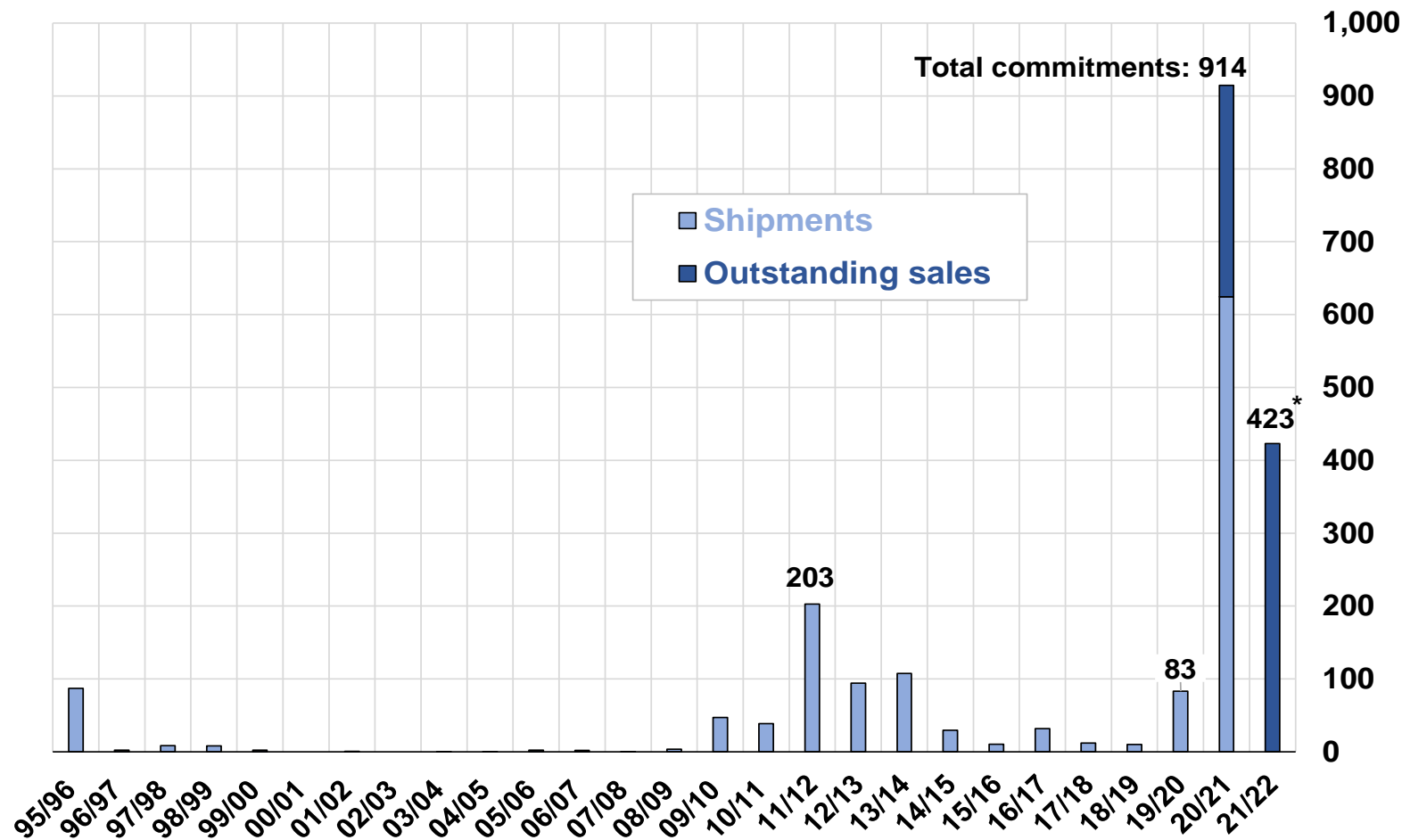
*26 million metric tons = 1.02 billion bushels



Source: Brock Associates
www.Hertz.ag



U.S. Corn Exports/Sales to China (million bu.)



Source: USDA FAS

* next marketing year sales as of June 10

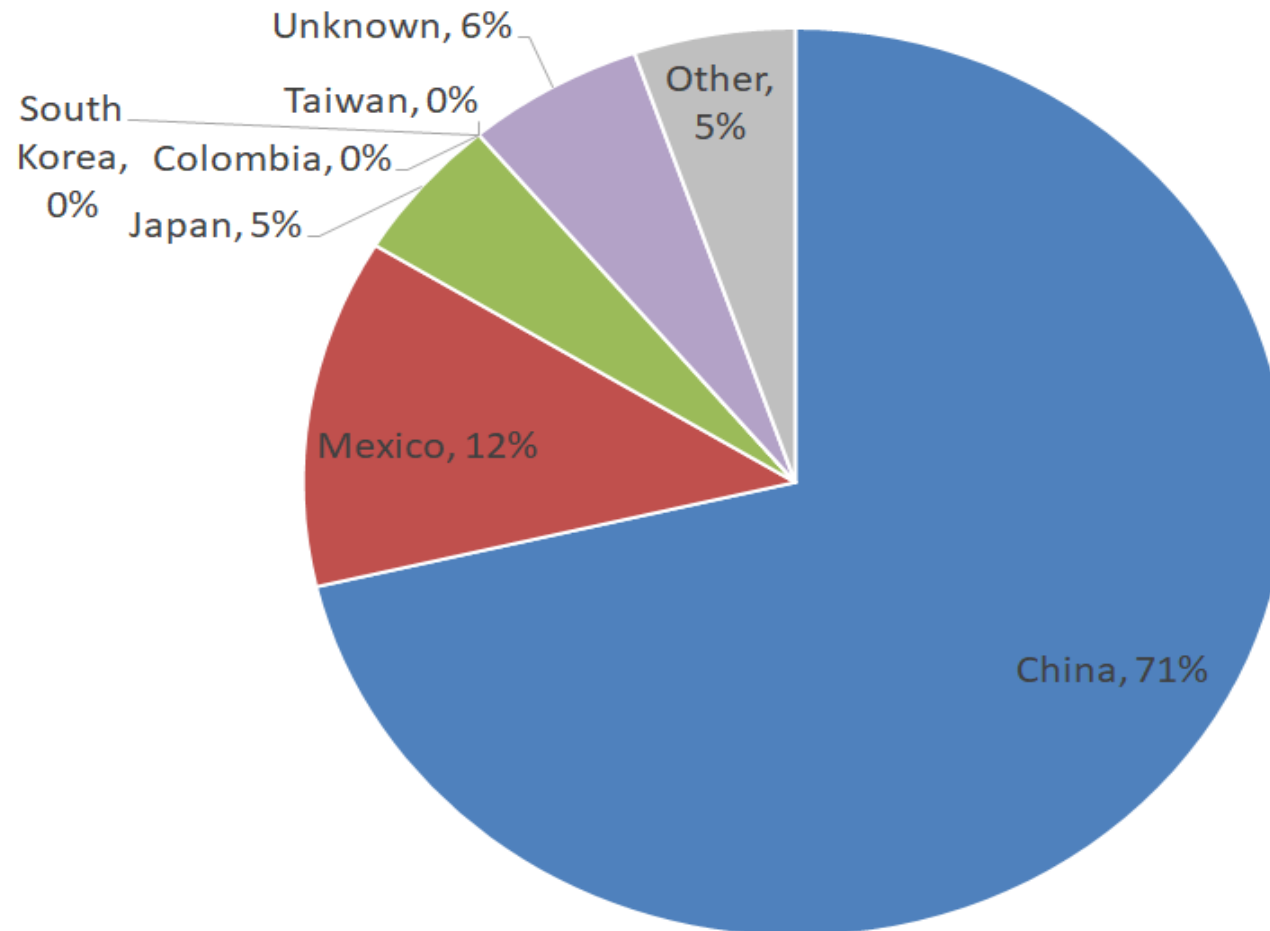


Source: Brock Associates

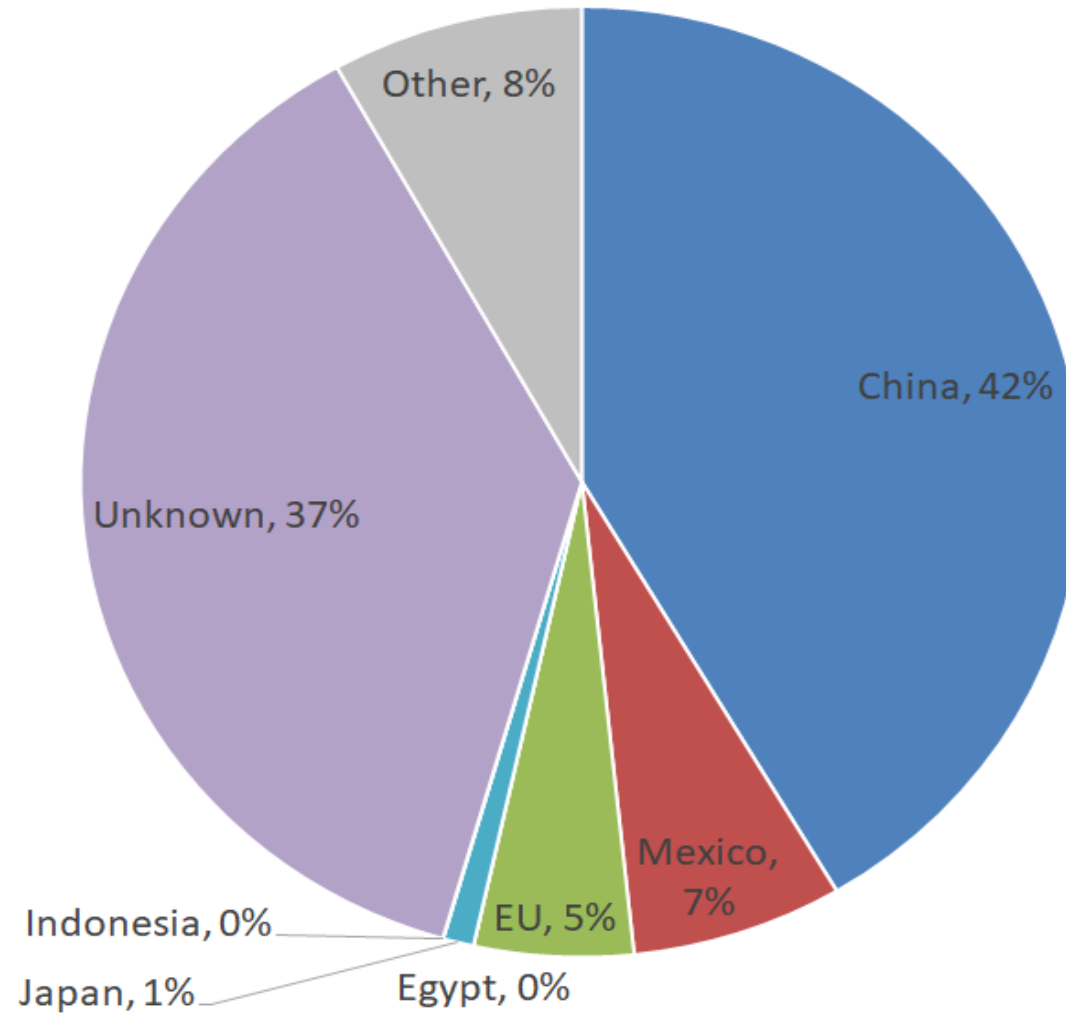
www.Hertz.ag



Advance Corn Export Sales



Advance Soybean Export Sales



China thoughts...

- The hog herd is nearly back to pre–Africa Swine Fever numbers.
- Feed demand for the hog herd has driven significant demand.
- Chinese government is pumping substantial \$ into precision ag and genetics.
- What is the Chinese government's ultimate goal...To take over all agriculture and agribusiness in China?



Source: Brock Associates

www.Hertz.ag



Outlook



Key Factors

- Demand
 - *China*
- Economic growth
- U.S. dollar
- Tight supplies of all grains in the US
- Government Payments
- Asset prices
 - *Equities due for a correction*
- Tax Policy
- Population Growth
 - *Population of 9 billion by 2050*



Source: Brock Associates

www.Hertz.ag



Farmland Leases

Speaker:

Jeff Troendle

President of Hertz Farm Management

JeffT@Hertz.ag





Summer 2021

Farmland Leases



Frequently Asked Questions

My tenant has been farming my ground for a number of years, but we've never written anything down. We've always just agreed to a fixed price per acre. Do I have an enforceable lease with my tenant?



Frequently Asked Questions

Yes, your lease is enforceable but only for one year at a time.

Legally, you must terminate the oral lease in writing if you wish to make a change.



Frequently Asked Questions

I have a farm in Iowa and mailed a statutory termination notice to my tenant on August 25 via regular mail, not certified mail. Is my termination notice valid if I can prove that my tenant read the notice?



Lease Termination Deadlines:

Iowa – September 1st

Illinois – November 1st

Indiana – Oral lease: 3 months prior to end of lease
– Written lease: 3 months prior to end of lease or as specified in the lease

Minnesota – Same as Indiana

Missouri – 60 days prior to end of lease

Nebraska – Oral lease: September 1st
– Written lease: September 1st or as specified in the lease

Wisconsin – October 1st



Frequently Asked Questions

No, your lease is not legally terminated. Unless your tenant agrees to voluntarily sign another notice, he/she has the right to operate your farm under the same terms as last year.



Purpose of a Lease

To define the split of income, expenses, and responsibilities of farm owner and farm operator



LEASES ARE IMPORTANT FOR EXPRESSION OF EXPECTATIONS:

Appearance

Access

Maintenance

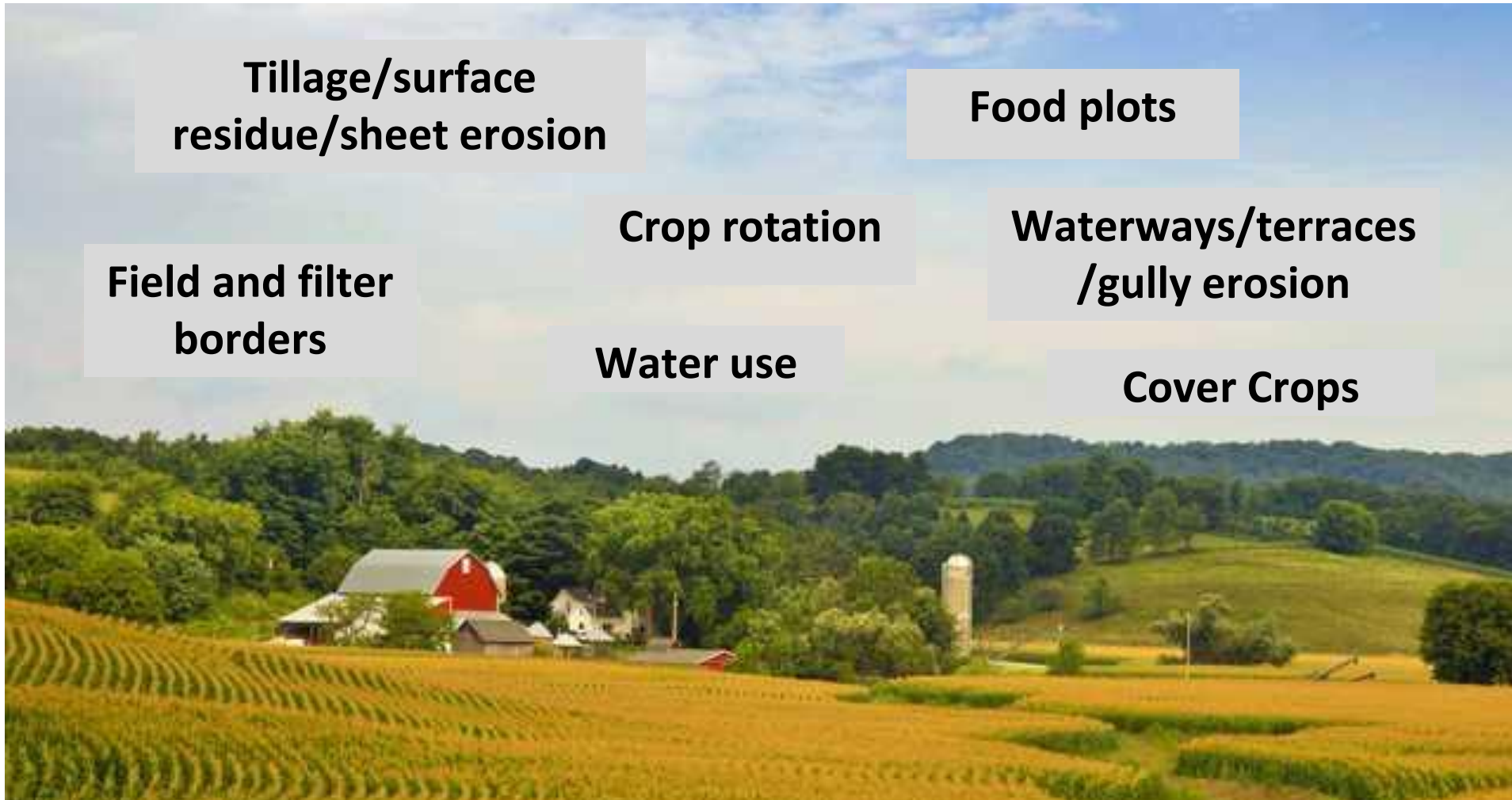
Chemical Practices

Conservation & Maintenance

CRP/CSP



Conservation & Maintenance



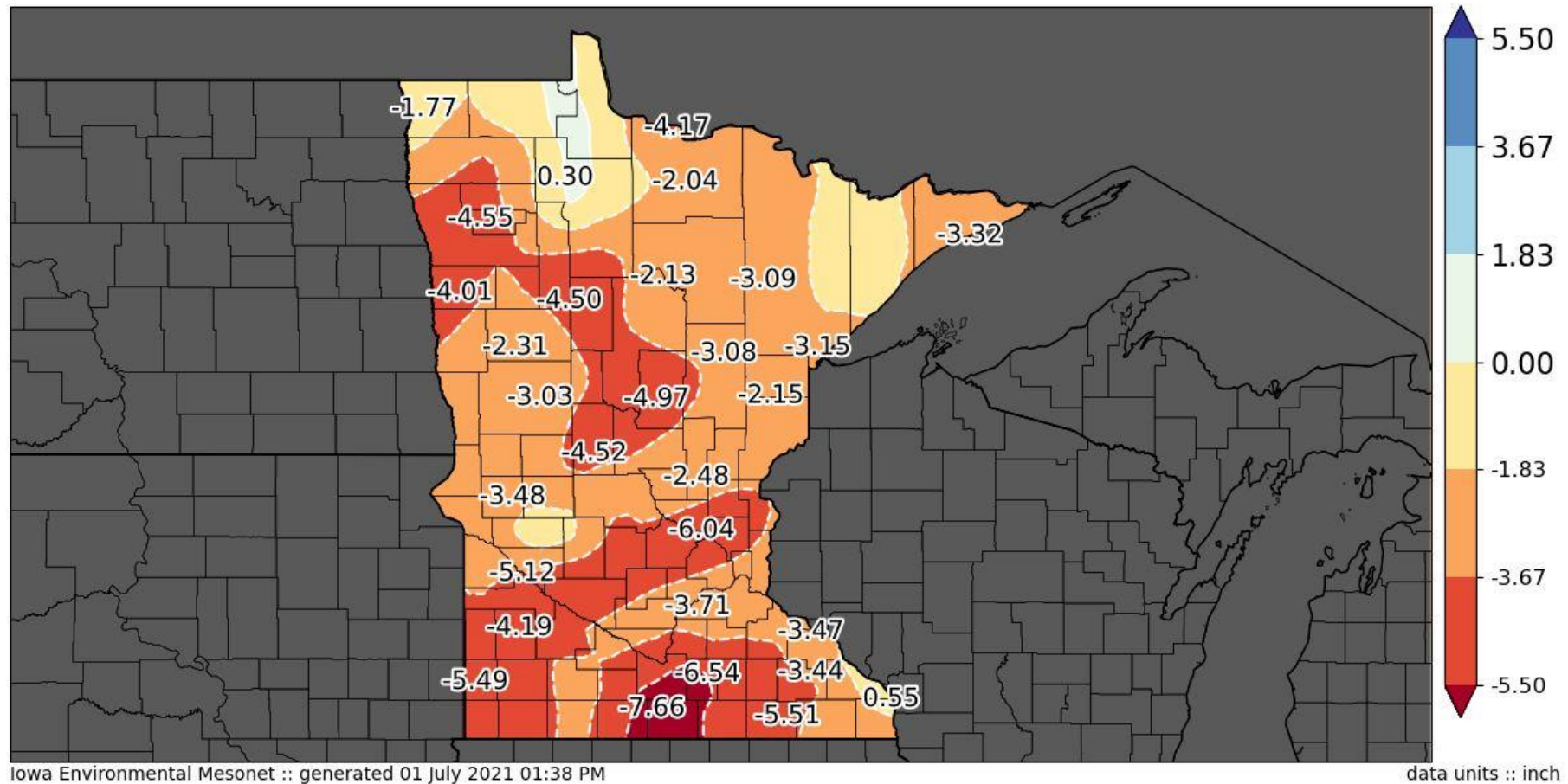
Climate Change?



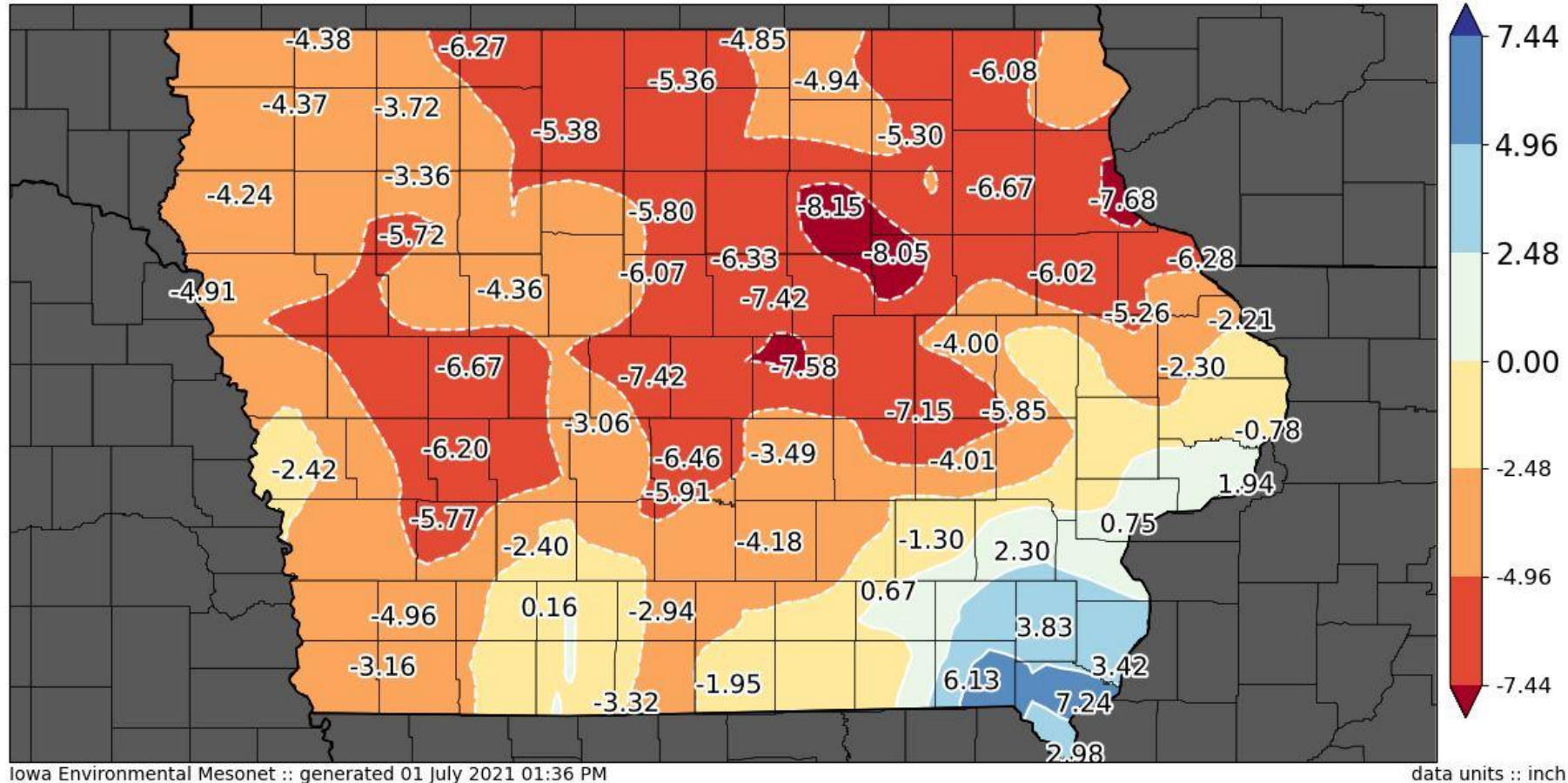
Climate Change?



Departure from Normal Precipitation April 1 – June 30

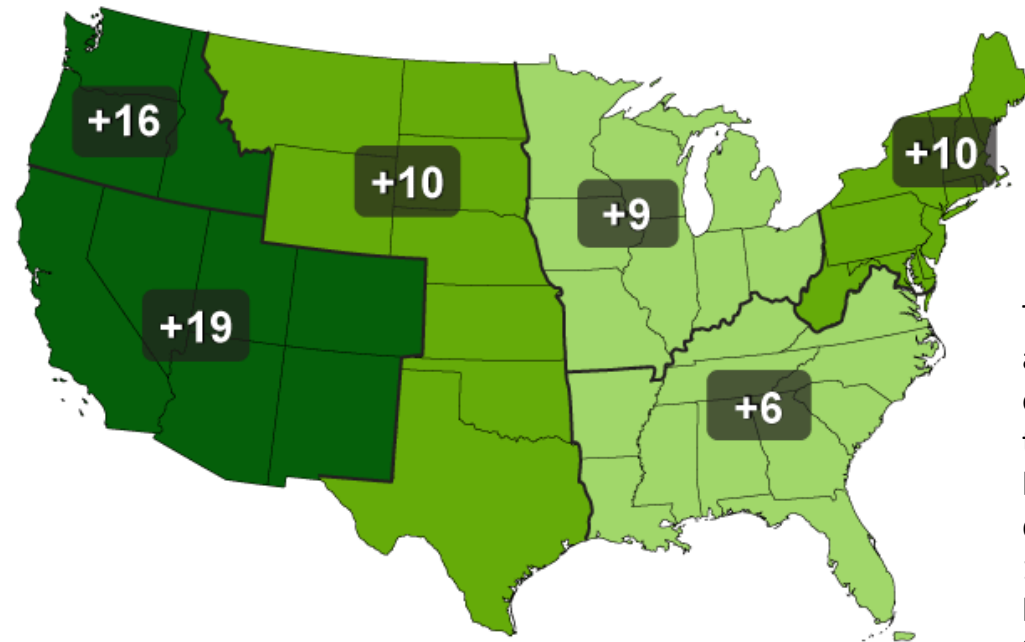


Departure from Normal Precipitation April 1 – June 30



Longer Growing Seasons

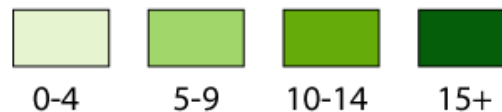
Observed Increase in Frost-Free Season Length



The frost-free season length, defined as the period between the last occurrence of 32°F in the spring and the first occurrence of 32°F in the fall, has increased in each U.S. region during 1991-2012 relative to 1901-1960. Increases in frost-free season length correspond to similar increases in growing season length. (Figure source: NOAA NCDC / CICS-NC).



Change in Annual Number of Days



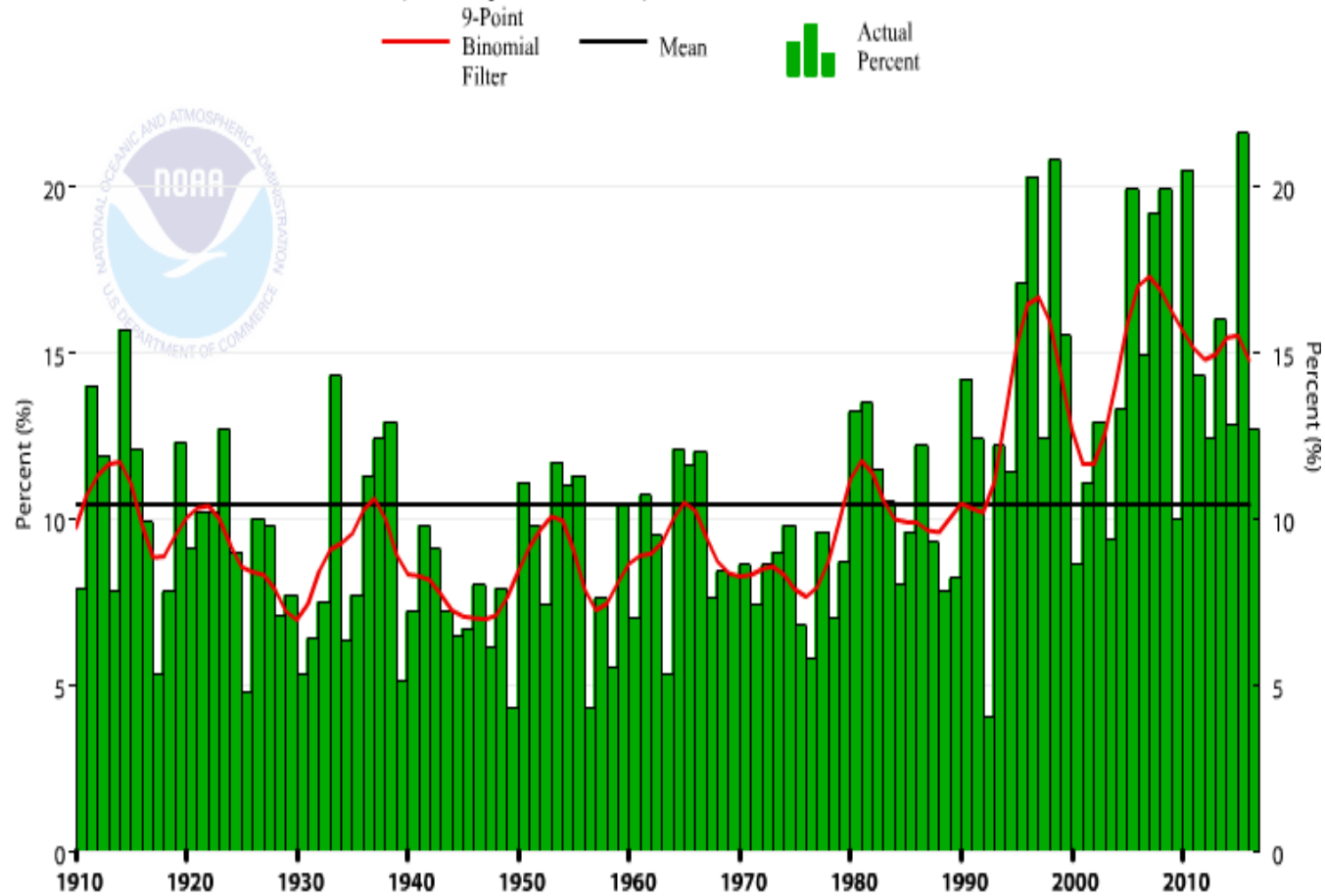
Source: <http://nca2014.globalchange.gov/>

www.Hertz.ag



Extreme Precipitation

Contiguous U.S. Extremes in 1-Day Precipitation (Step 4*)
Annual (January-December) 1910-2016



Source: National Oceanic and Atmospheric Administration
www.Hertz.ag



Erosion – Protect Soil from Big Rains



The Result of 8" of Rain followed by 6" of Rain!!!



Cover Crops

Who Receives the Benefits?



Who Should Pay the Cost?



Waterways



CRP/CSP



- Conservation reserve
- Conservation stewardship
- Transferability of contracts and income
- Required practices and expenses



LEASES ARE IMPORTANT FOR EXPRESSION OF EXPECTATIONS:

Fertilizer Balance

Fences

Improvements

Information

Insurance

Manure



Fertilizer Balance

Soil testing, crop removal vs application rates

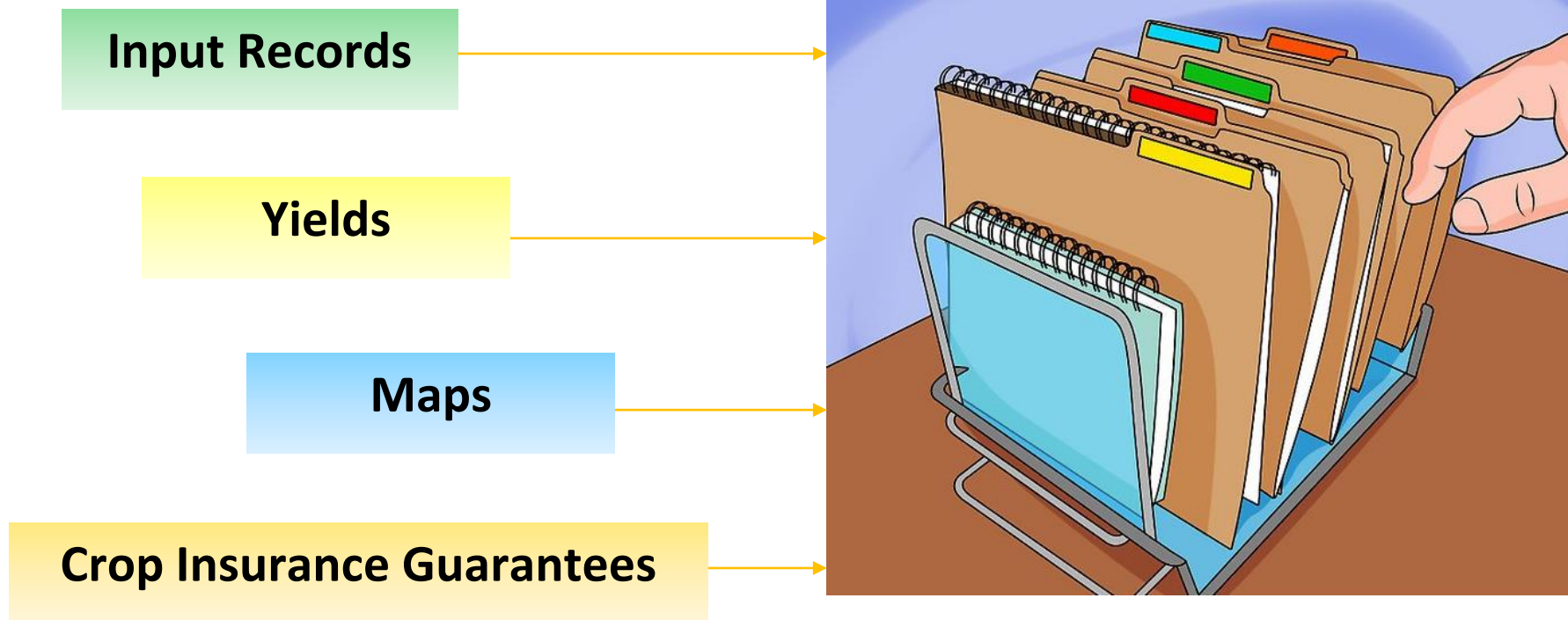


Variable Rate Application



Information

Access and ownership of input records, yields, maps, crop insurance guarantees



Factors to Consider

1. **Owner's Goals and Objectives**
2. **Net Income Projections**
3. **Land Quality/Productivity**
4. **Capital Requirements and Cash Flow**
5. **Risk versus Rewards – Crop Insurance**
6. **Effects of Bio-Fuels and New Technology**
7. **Control**
8. **Landowner's Other Income**
9. **Improvements**
10. **Tax Implications**



Factors to Consider

Owner's Goals and Objectives

- Immediate income and cash flow versus making improvements that will enhance income long-term and market value
- Long-Term versus Short-Term Ownership
- Will the farm be retained by the next generation
- Conservation
- Maintaining Family Heritage (Buildings)



Factors to Consider

Land Quality/Productivity

The higher the quality of the land, and the more improvements the greater advantage to having a share of the crop



High-quality



vs

Low-quality





Factors to Consider

Tax Implications

- **§179 Deductions**
- **§168(k) Bonus Depreciation**
- **Social Security Ramification**
- **Estate Tax Ramifications**
- **Deductibility of Certain Expenses**
- **QBI Deduction**



Farm Lease Alternatives

1. Traditional 50/50 Crop Share

2. Variation to 50/50 Crop Share

- Operator pays more of the inputs
- Operator pays a cash rent in addition to one-half of the inputs



Farm Lease Alternatives

3. Custom Operation

- **Landowner: 100% of Income and Expenses**
- **Guarantees Landowner control**
- **Owner maximizes return from their land, improvements, and management**
- **Helps large farming operations stay below government payment limitations**
- **Helps young farmers spread costs without more risk**



Farm Lease Alternatives

4. Modified Crop Share

- Landowner receives a negotiated percentage of the crop and government payments and pays 100% of the seed, fertilizer, and herbicides
- Typical range is 75-80% to Landowner
- Operator receives the balance percentage in return for machinery and labor
- Each party pays their respective share of crop insurance, drying, and storage



Farm Lease Alternatives

5. Net Share

- **Owner receives a specified percentage of crop (usually 30% to 40%)**
- **Farm operator pays all input costs**
- **Owner pays for crop insurance, drying, and storage on owner's share of crop**



Farm Lease Alternatives

6. Cash Rent

- **Guaranteed Income**
- **Less Control**
- **Lower Risk ? ?**
- **UCC-1**
- **Rent Collection in a Challenging Growing Season**
- **Fertilizer–Requirements**
- **Tax Treatment**



Farm Lease Alternatives

UCC-1

- **Iowa, Minnesota, and Nebraska landowners must file a UCC-1 with the Secretary of State to secure deferred rent payments.**
- **Illinois landowners have a statutory landlord's lien and are not required to file a UCC-1. However, prospective grain buyers must be notified of the landowner's lien.**



Farm Lease Alternatives

7. Flex/Variable Cash Leases

- Cash rent lease with a variable component
- Shares risks without actively participating
- No “locked-in” rental rate
- Landowner can be guaranteed a base rent, plus a potential flex payment
- Landowner receives the actual yields on the farm



Types of Flexible Leases

- Based on Crop Yield Only
- Based on Prices Only
- Based on Gross Income (Yield and Price)
- Based on Net Income (Yield and Price minus Inputs)
- Based on Crop Insurance Parameters



Flex Lease Example

- APH = 190
- Spring Price = \$4.58

APH x Spring Price x 35% = Rent

190 x \$ 4.58 x 0.35 = \$305/Acre



Flex Lease Example

- Base Rent \$250
- Flex = 35% over \$750/Acre on Corn
40% over \$550/Acre on Soybeans

Corn				Soybeans		
Yield		Price		Yield		Price
220		\$4.50		65		\$11.00
220 x \$4.50 = \$990				65 x \$11.00 = \$715		



Flex Lease Example

	CORN	SOYBEANS
GROSS INCOME:	\$ 990	\$ 715
PRICE/ACRE:	- \$ 750	- \$ 550
TRIGGER INCOME:	\$ 240	\$ 165
	x 35%	x 40%
BONUS RENT:	\$ 84.00	\$ 66.00
BASE RENT:	+ \$ 250.00	+ \$ 250.00
TOTAL RENT:	\$ 334.00	\$ 316.00

Average Rent \$325/Acre



So, now what?





2022 LEASE COMPARISON

High Producing Farm

200 Acres in Midwest Region

ASSUMPTIONS:

Cropland Acres	200.0	Corn Base	100.0	Bean Base	100.0
<u>CROP</u>	<u>ACRES</u>	<u>YIELD</u>	<u>\$/BU</u>		
Corn	100.0	220	\$4.50		
Soybeans	100.0	65	\$11.00		
Crop Insurance Payment	0.0				
Government Program Pmt/A	0.0				
Cash Rent/Tillable Acre	\$325	Buildings	\$0		

INCOME

			MODIFIED	50/50	40/60	
			CROP SHARE	CROP SHARE	NET SHARE	CASH RENT
	\$/Acre					
Corn	990	99,000	79,200	49,500	39,600	
Soybeans	715	71,500	57,200	35,750	28,600	
Government Program Payment	0	0	0	0	0	
Crop Insurance Payment						
Cash Rent - Land	325					65,000
Building/CRP/Pasture		0	0	0	0	0
TOTAL INCOME		\$170,500	\$136,400	\$85,250	\$68,200	\$65,000



		CUSTOM	80/20 MODIFIED CROP SHARE	50/50 CROP SHARE	40/60 NET SHARE	CASH RENT
EXPENSES	\$/Acre					
Corn - Seed	120	12,000	12,000	6,000	0	
Fertilizer	150	15,000	15,000	7,500	0	
Crop Insurance	20	2,000	1,600	1,000	800	
Dry and Store	40	4,000	3,200	2,000	1,600	
Custom Hire	140	14,000	0	0	0	
Pesticide	65	6,500	6,500	3,250	0	
Soybeans- Seed	70	7,000	7,000	3,500	0	
Fertilizer	60	6,000	6,000	3,000	0	
Pesticides	65	6,500	6,500	3,250	0	
Custom Hire	120	12,000	0	0	0	
Crop Insurance	15	1,500	1,200	750	600	
Storage	8	800	640	400	320	
Property Taxes		5,000	5,000	5,000	5,000	5,000
Repairs	500	500	500	500	500	500
Management Fees		12,788	12,276	8,525	6,820	5,200
Int. on Operating @ 6%	6%	2,970	2,385	1,193	0	0
Insurance - Liability	100	100	100	100	100	100
- Property		0	0	0	0	0
TOTAL EXPENSES		\$108,658	\$79,901	\$45,968	\$15,740	\$10,800
NET INCOME		\$61,843	\$56,499	\$39,283	\$52,460	\$54,200
NET INCOME/TILLABLE ACRE		\$309.21	\$282.50	\$196.41	\$262.30	\$271.00



Farm Lease Summary

PRICE RANGE	CORN	SOYBEANS	CASH RENT
HIGH	\$5.25	\$13.25	\$375.00
MEDIUM	\$4.50	\$11.00	\$325.00
LOW	\$3.75	\$8.75	\$275.00



Farm Lease Summary

Net Income Per Acre					
PRICE RANGE	CUSTOM	80/20 MODIFIED CROP SHARE	50/50 CROP SHARE	40/60 NET SHARE	CASH RENT
HIGH	\$453	\$395	\$266	\$318	\$317
MEDIUM	\$309	\$283	\$196	\$262	\$271
LOW	\$165	\$169	\$126	\$206	\$225



Where are rents headed?

Average Cash Rents by State

<u>Year</u>	<u>Illinois</u>	<u>Iowa</u>	<u>Minnesota*</u>	<u>Nebraska **</u>
2021	<u>N/A</u>	232	<u>N/A</u>	238
2020	270	222	194	226
2019	263	219	181	225
2018	260	222	192	210
2017	260	219	198	220
2016	283	230	213	234
2015	295	246	236	247
2014	323	260	248	260
2013	339	270	246	280
2012	331	252	224	270

****Average for Irrigated cropland**

***Average for Southwest Region**

**Sources: Iowa State University, University of Minnesota,
University of Nebraska, and ISPFARMA**



Where are rents headed?

- **Competition – Rent paid by neighbors**
- **Commodity Prices (Expectation)**
- **Government Farm Program**
- **Input Costs**
- **Past Yields**
- **Drainage/Irrigation**
- **Soil Productivity/Farmability**



Farmland Leases

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