



2020 FARMLAND UPDATE

RANDY HERTZ
Randy.Hertz@Hertz.ag
800.593.5263
www.Hertz.ag



www.Hertz.ag





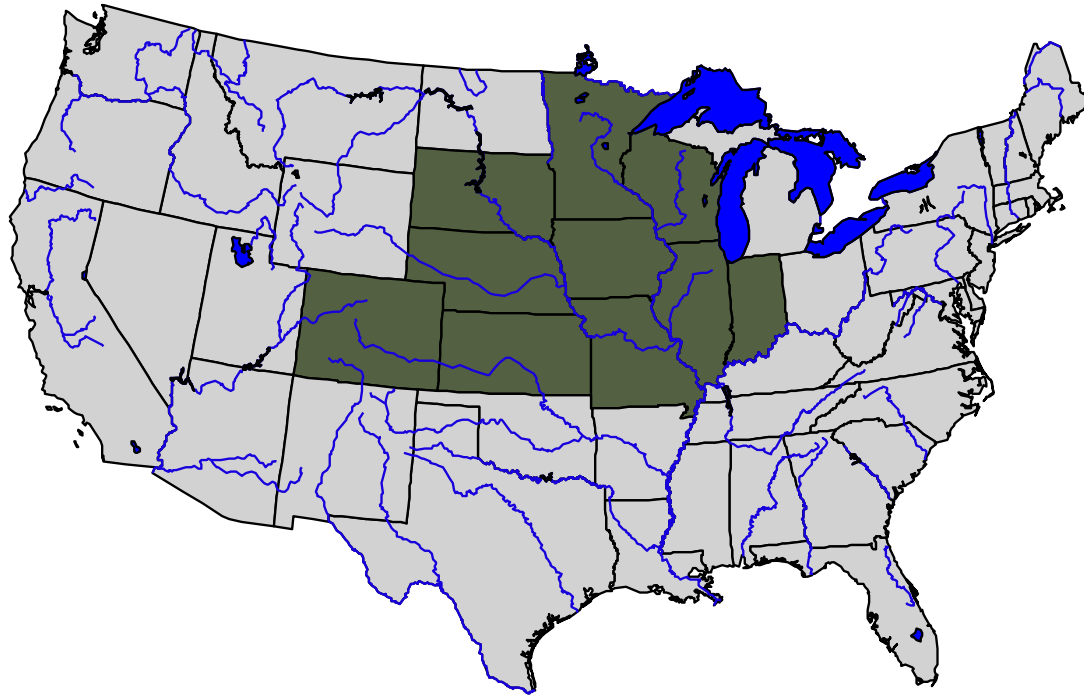
Caring for You and Your Farm®

- Professional Farm Management
- Farmland Sales & Acquisitions
- Farmland Auctions
- Farmland Valuations





- 2019 – Appraised 745 Properties... 112,000+ Acres
- 2019 – Sold 293 Farms... 30k+ acres... >\$212mm
- 2019 – Managing 2,600+ Farms & 573,000 Acres



Today's Agenda

1. Discuss Farmland Issues
2. Discuss Major Forces in the Farmland Market
3. Discuss Current Farmland Market



Climate Change

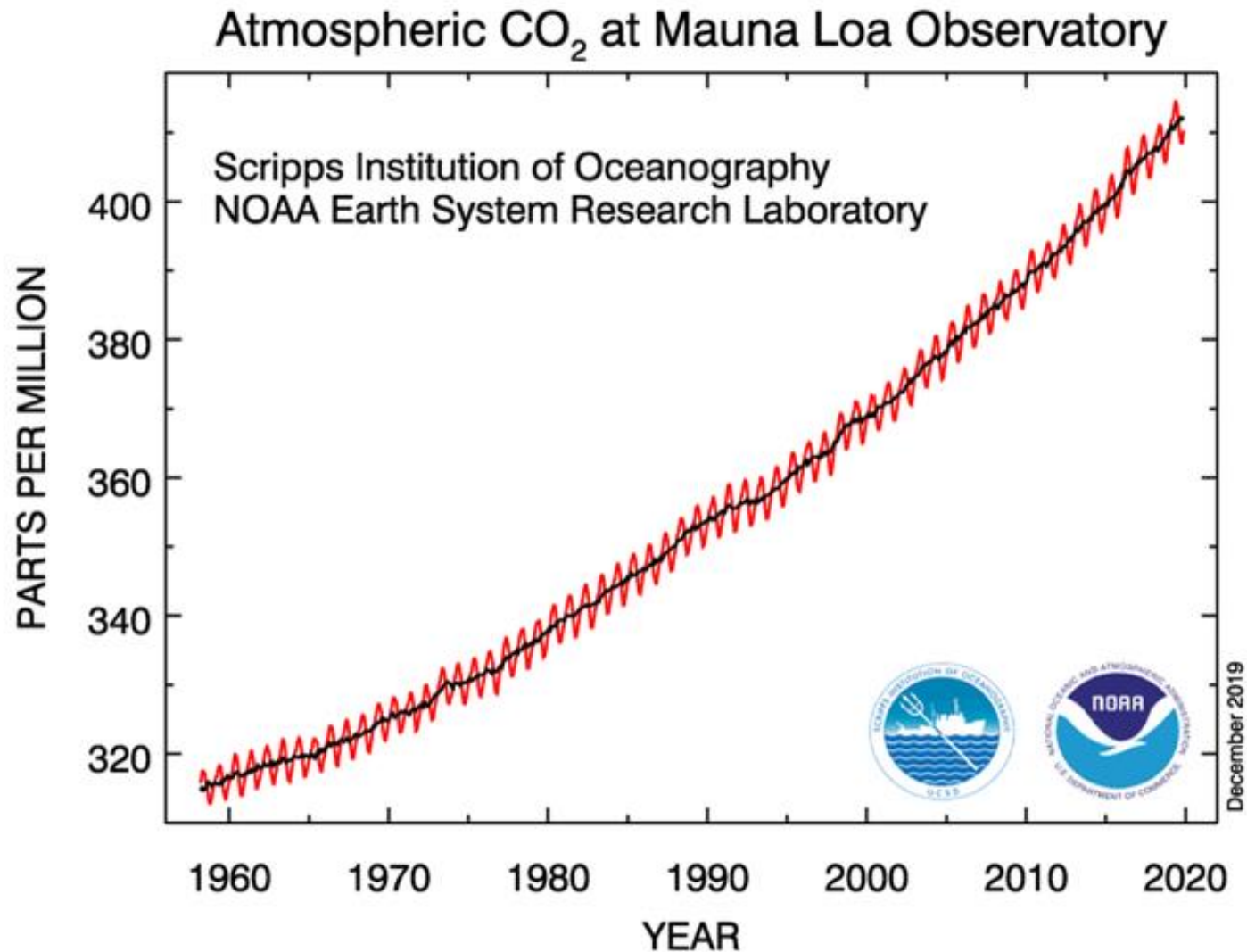


What is Changing

- Carbon dioxide
- Water vapor (humidity)
- Temperature
- Precipitation

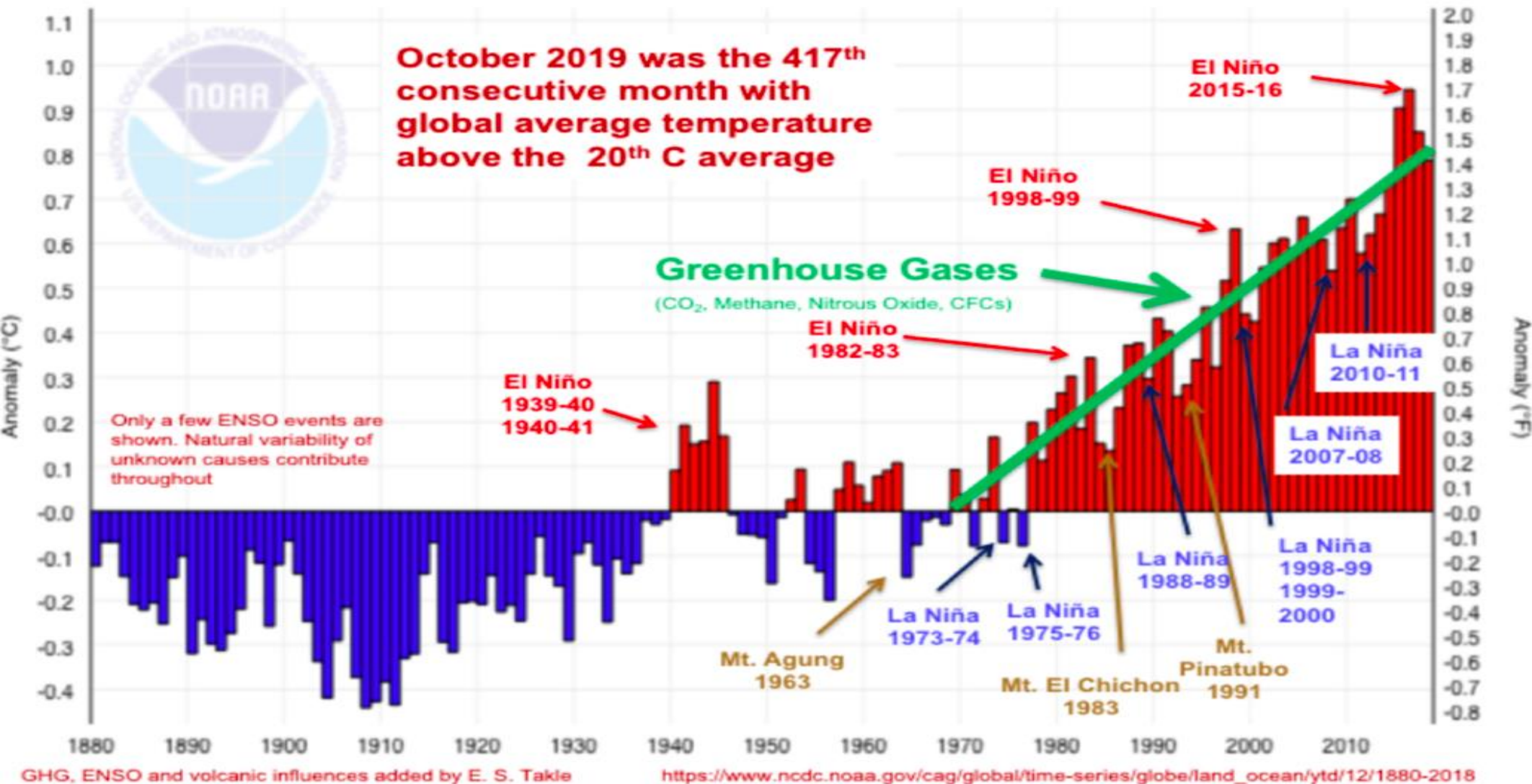


Carbon Dioxide Changes



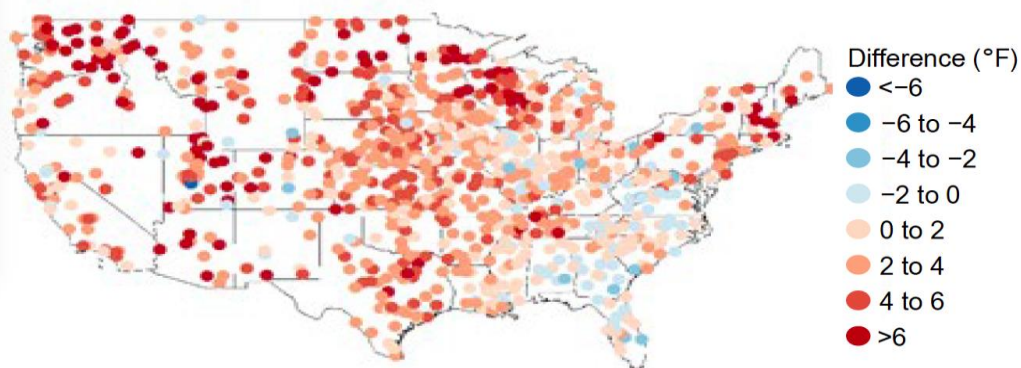
Ocean Temperature

Annual Global Land and Ocean Temperature Anomalies from 20th C Average 1880-2018

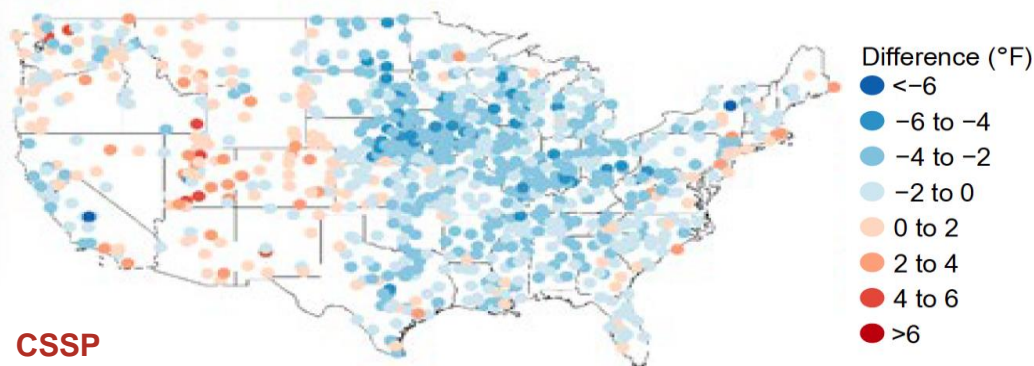


Cooler Warm Days and Warmer Cold Days

Change in Coldest Temperature of the Year
1986–2016 Average Minus 1901–1960 Average



Change in Warmest Temperature of the Year
1986–2016 Average Minus 1901–1960 Average



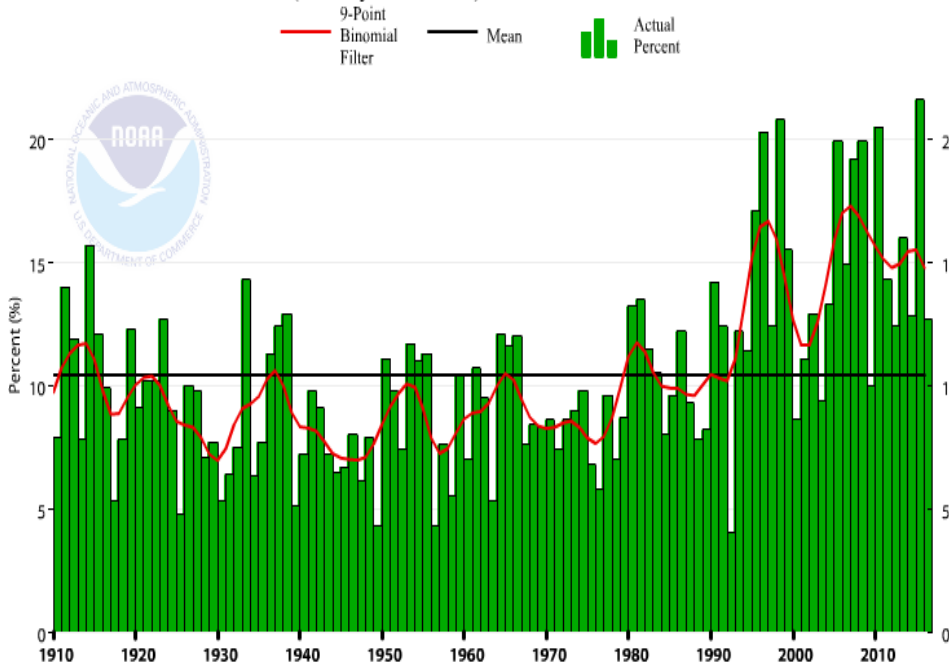
| NCA Region | Change in Coldest Day of the Year | Change in Warmest Day of the Year |
|--------------------|-----------------------------------|-----------------------------------|
| Northeast | 2.83°F | -0.92°F |
| Southeast | 1.13°F | -1.49°F |
| Midwest | 2.93°F | -2.22°F |
| Great Plains North | 4.40°F | -1.08°F |
| Great Plains South | 3.25°F | -1.07°F |
| Southwest | 3.99°F | 0.50°F |
| Northwest | 4.78°F | -0.17°F |

CSSP

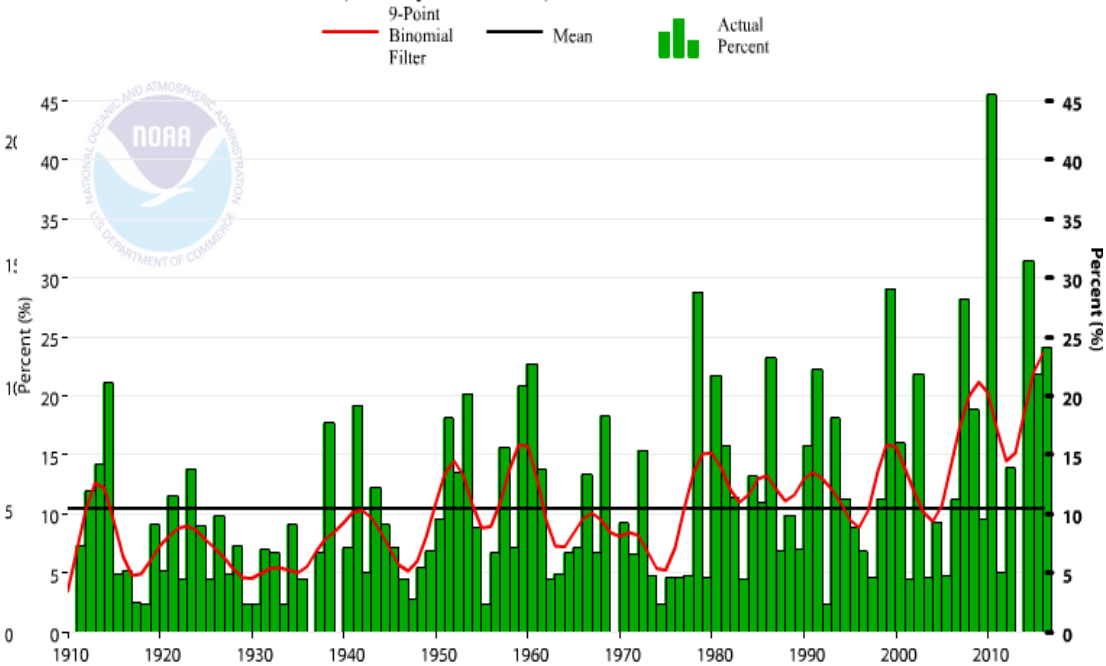


Extreme Precipitation

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



Upper Midwest Extremes in 1-Day Precipitation (Step 4*)
Annual (January-December) 1910-2016



Source: National Oceanic and Atmospheric Administration

www.Hertz.ag

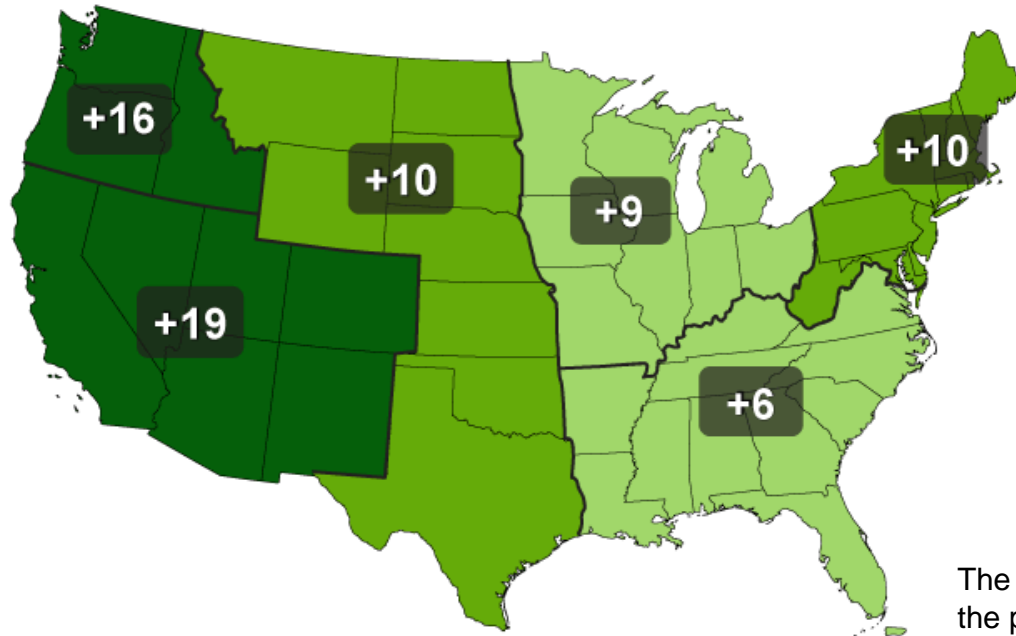


Erosion – Protect Soil from Big Rains

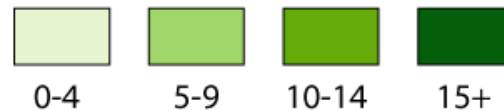


Longer Growing Seasons

Observed Increase in Frost-Free Season Length



Change in Annual Number of Days



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).

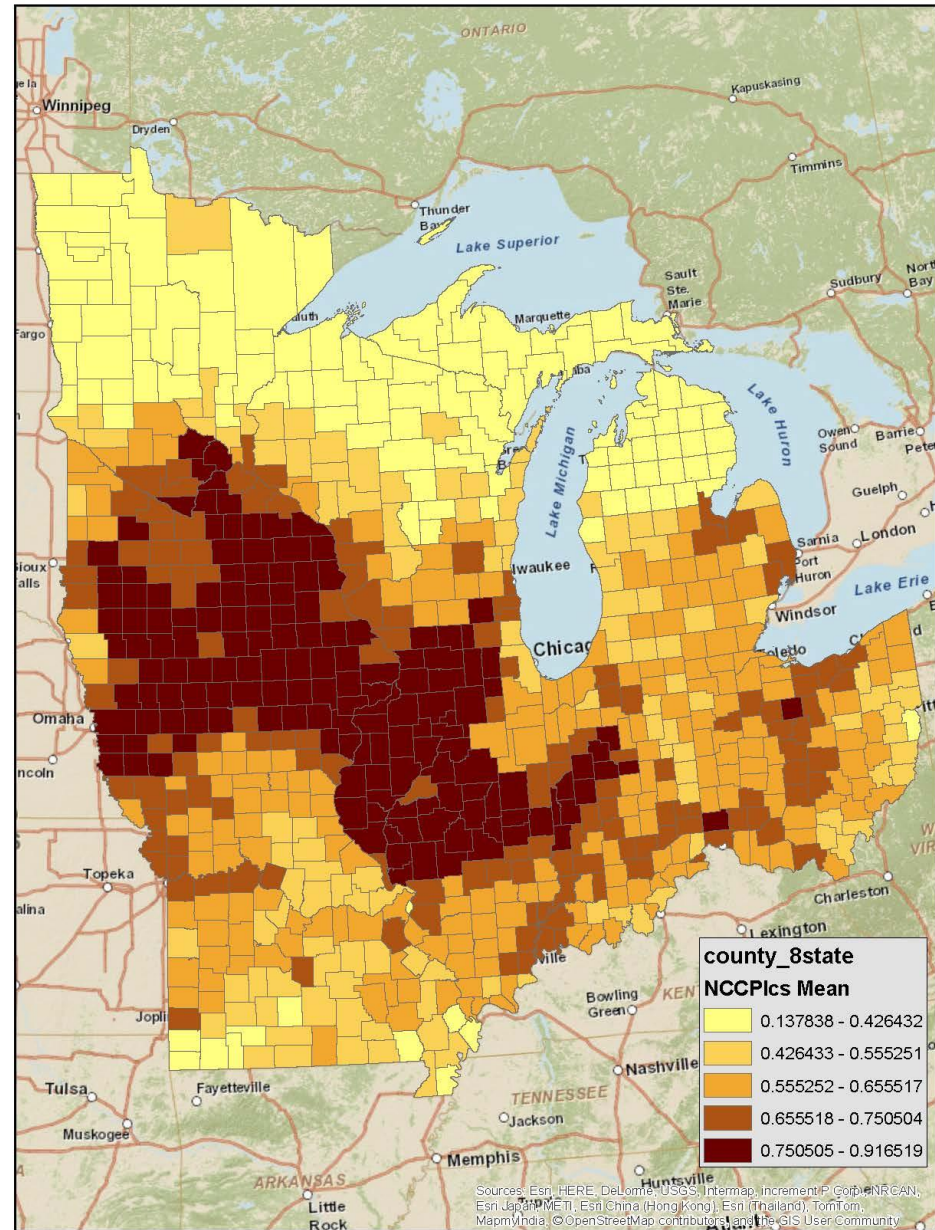


Source: <http://nca2014.globalchange.gov/>

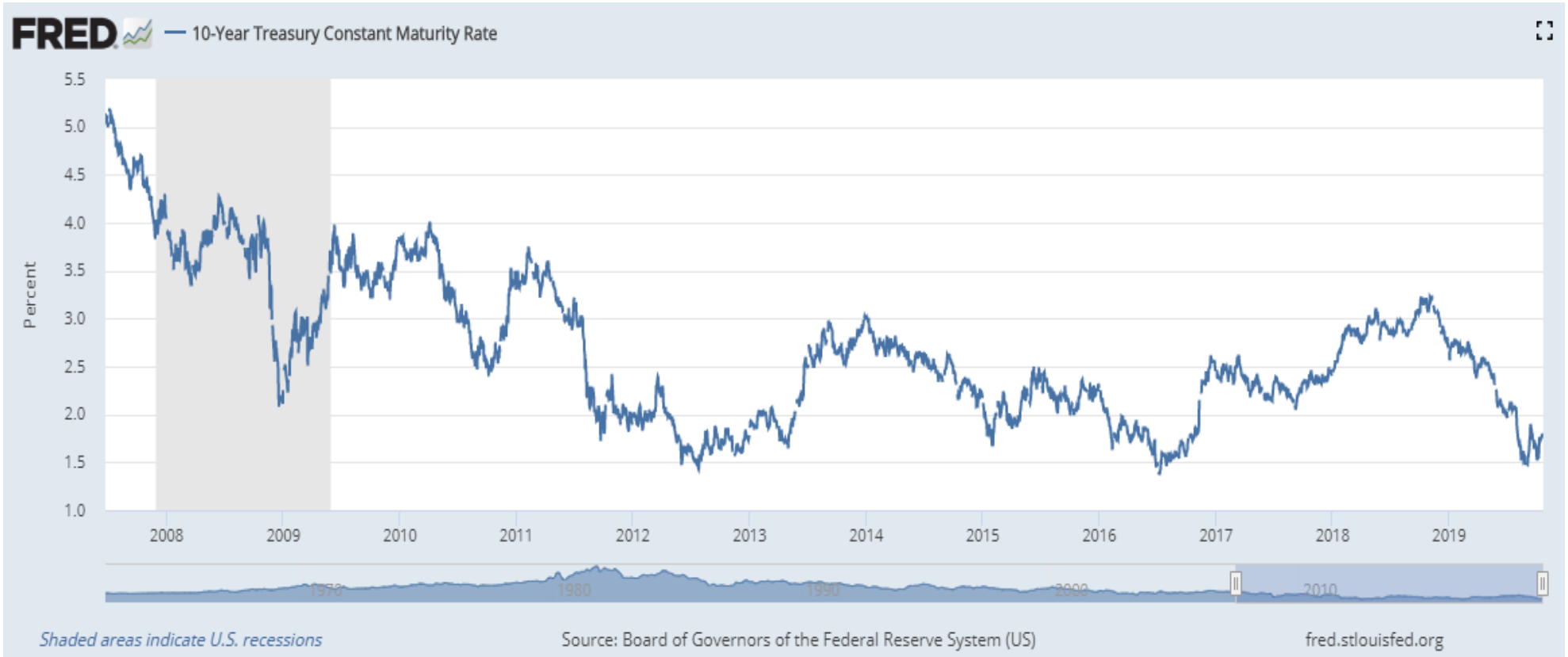
www.Hertz.ag



Location of Most Productive Soil



Low Interest Rates & Cap Rates – Surplus Capital



Note: Shaded area indicates U.S. recession



Source: St. Louis Federal Reserve Bank

www.Hertz.ag



Forces Affecting Land Values

- Low Interest Rates and Attractive Borrowing Rates

- Fixed Interest Rate Farm Mortgages
 - 3 year 3.83%
 - 5 year 3.90%
 - 10 year 4.21%
 - 15 year 4.45%
 - 20 year 4.62%
 - 25 year 4.74%
 - 30 year 4.82%



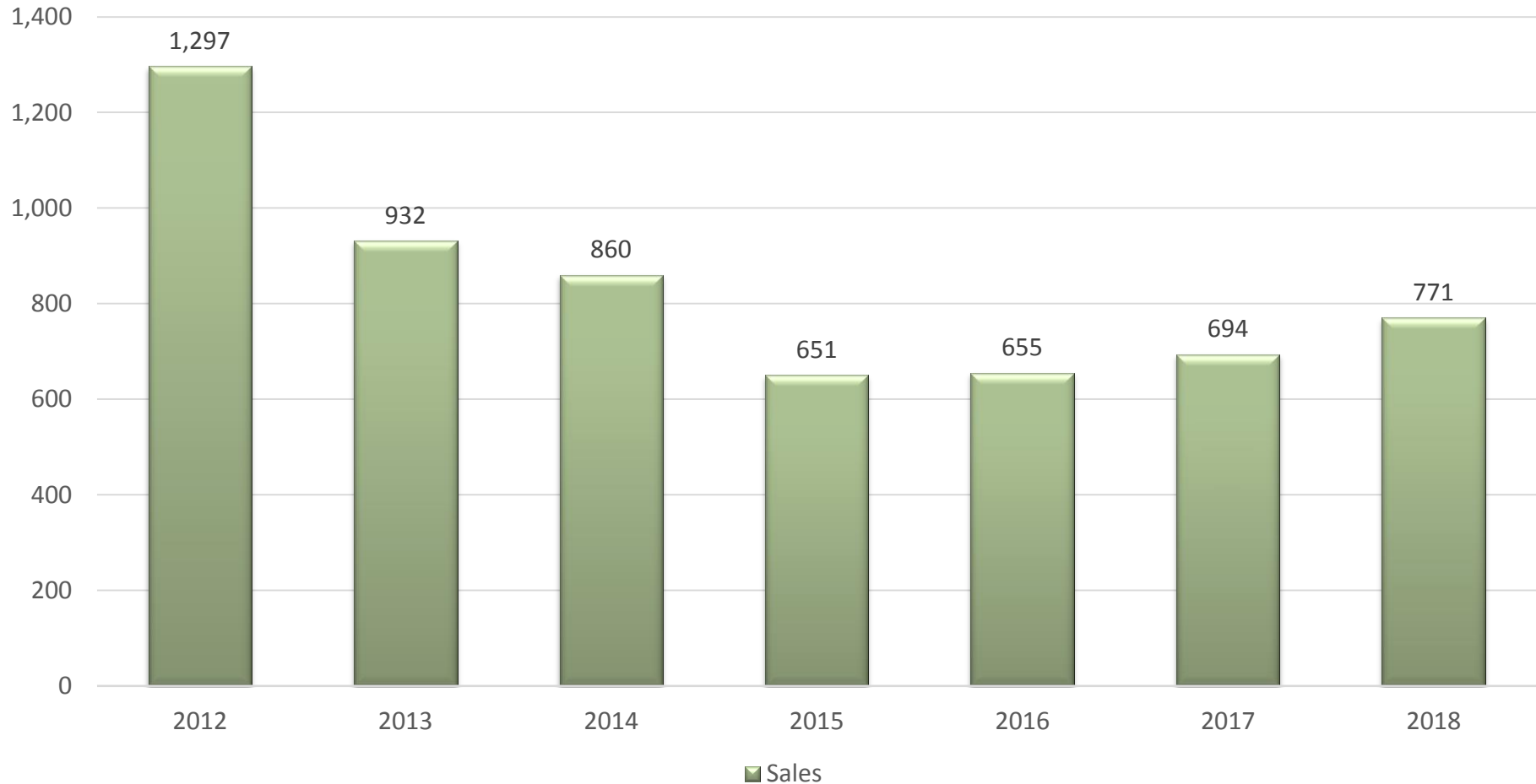
New Loans and Refinancing at Great Rates

Source: Compeer Financial / Farm Credit

www.Hertz.ag



Few Quality Farms for Sale – Fewer Iowa Farmland Sales



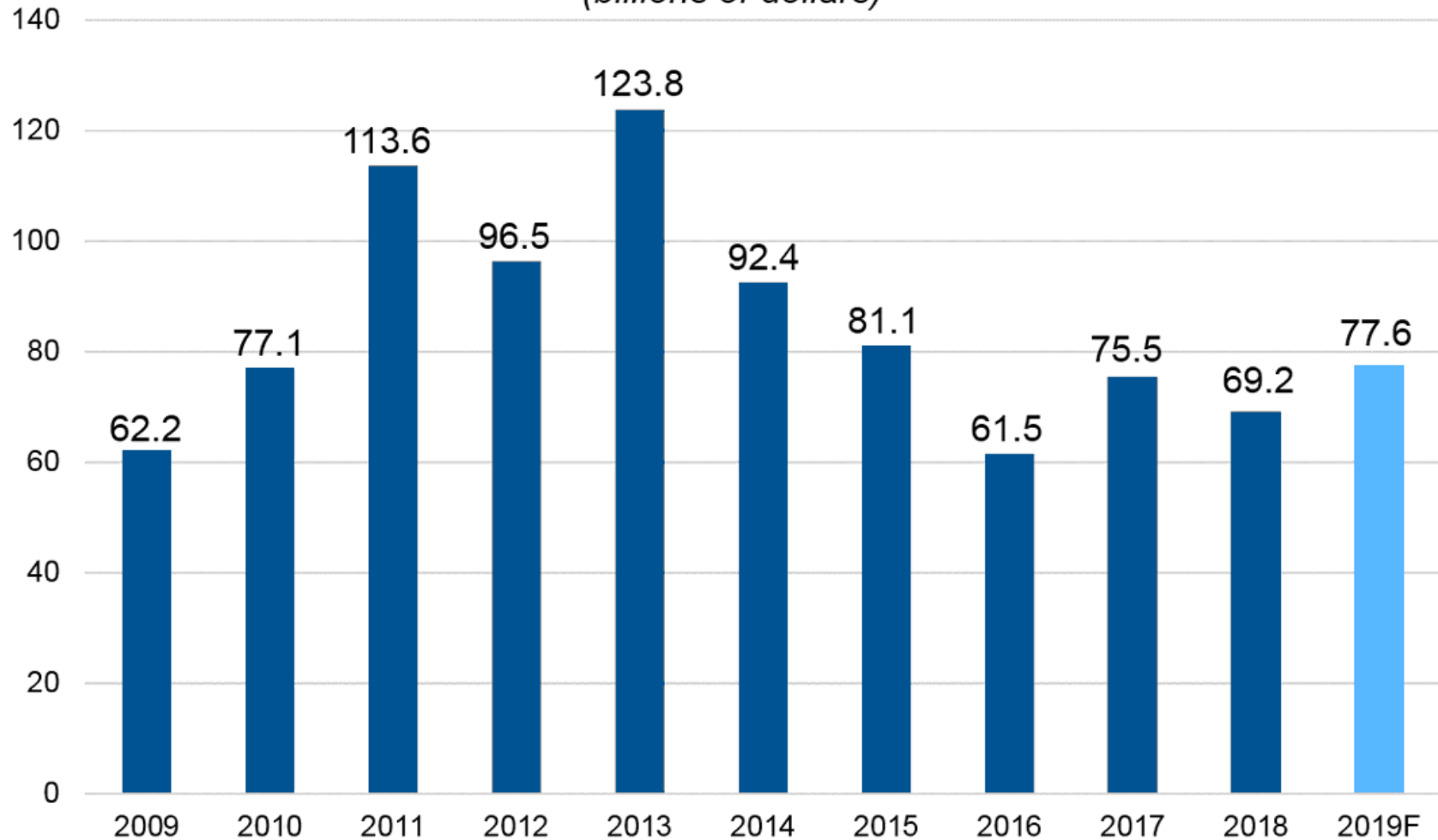
Source: Farm Credit Services of America

www.Hertz.ag



Drop In Net Farm Income

(billions of dollars)



'F' represents the forecast as of Feb. 2019.



Source: USDA Economic Research Service

www.Hertz.ag



Drop In Corn Prices



Source: DTN

www.Hertz.ag



Drop In Soybean Prices



Source: DTN

www.Hertz.ag



Tariffs Disrupt Trade – Especially China

| Destination | Calendar 2017 | Calendar 2018 | Q1-2019 | % change vs. Q1-2018 |
|------------------------|---------------|---------------|-------------|----------------------|
| China/Hong Kong | 23.7 | 13.1 | 3.4 | -38% |
| Canada | 20.6 | 20.7 | 4.9 | 1% |
| Mexico | 18.6 | 19.0 | 4.5 | 3% |
| EU-28 | 11.4 | 13.5 | 3.4 | 8% |
| Japan | 11.9 | 12.9 | 3.2 | 2% |
| South Korea | 6.9 | 8.3 | 2.1 | 2% |
| Taiwan | 3.3 | 3.9 | 0.8 | -2% |
| Indonesia | 2.9 | 3.1 | 0.8 | 1% |
| Philippines | 2.6 | 3.0 | 0.7 | -8% |
| Vietnam | 2.5 | 4.0 | 1.0 | 5% |
| Colombia | 2.5 | 2.9 | 0.7 | -9% |
| All Others combined | 31.2 | 35.1 | 8.8 | 5% |
| Total: | 138.2 | 139.6 | 34.3 | -3.5% |

Source: USDA GATS



Source: Brock Associates

www.Hertz.ag



NAFTA Dead-USMCA

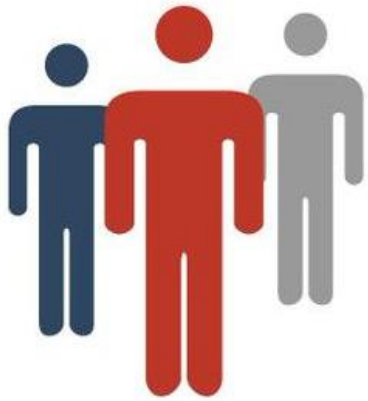
Hopefully approved soon...

\$39.7 billion

Value of U.S. Agricultural Exports
to Canada and Mexico in 2018

28%

Percent of Total U.S. Agricultural
Exports Sold to Canada (# 1 market)
and Mexico (#2 market)



333,480

American Jobs Supported by U.S.
Agricultural Exports to Canada and Mexico



Source: ISU – Chad Hart / USDA-FAS

www.Hertz.ag



Crop Insurance

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------|--------------|--------------|-------------|--------------|-------------|-------------|--------------|--------------|------|
| Corn | | | | | | | | | |
| Projected Price | 6.01 | 5.68 | 5.65 | 4.62 | 4.15 | 3.86 | 3.96 | 3.96 | 4.00 |
| Harvest Price | 6.32 | 7.50 | 4.39 | 3.49 | 3.82 | 3.49 | 3.49 | 3.68 | N/A |
| Soybeans | | | | | | | | | |
| Projected Price | 13.49 | 12.55 | 12.87 | 11.36 | 9.74 | 8.85 | 10.15 | 10.16 | 9.54 |
| Harvest Price | 12.14 | 15.39 | 12.87 | 9.65 | 8.91 | 9.75 | 9.75 | 8.60 | N/A |

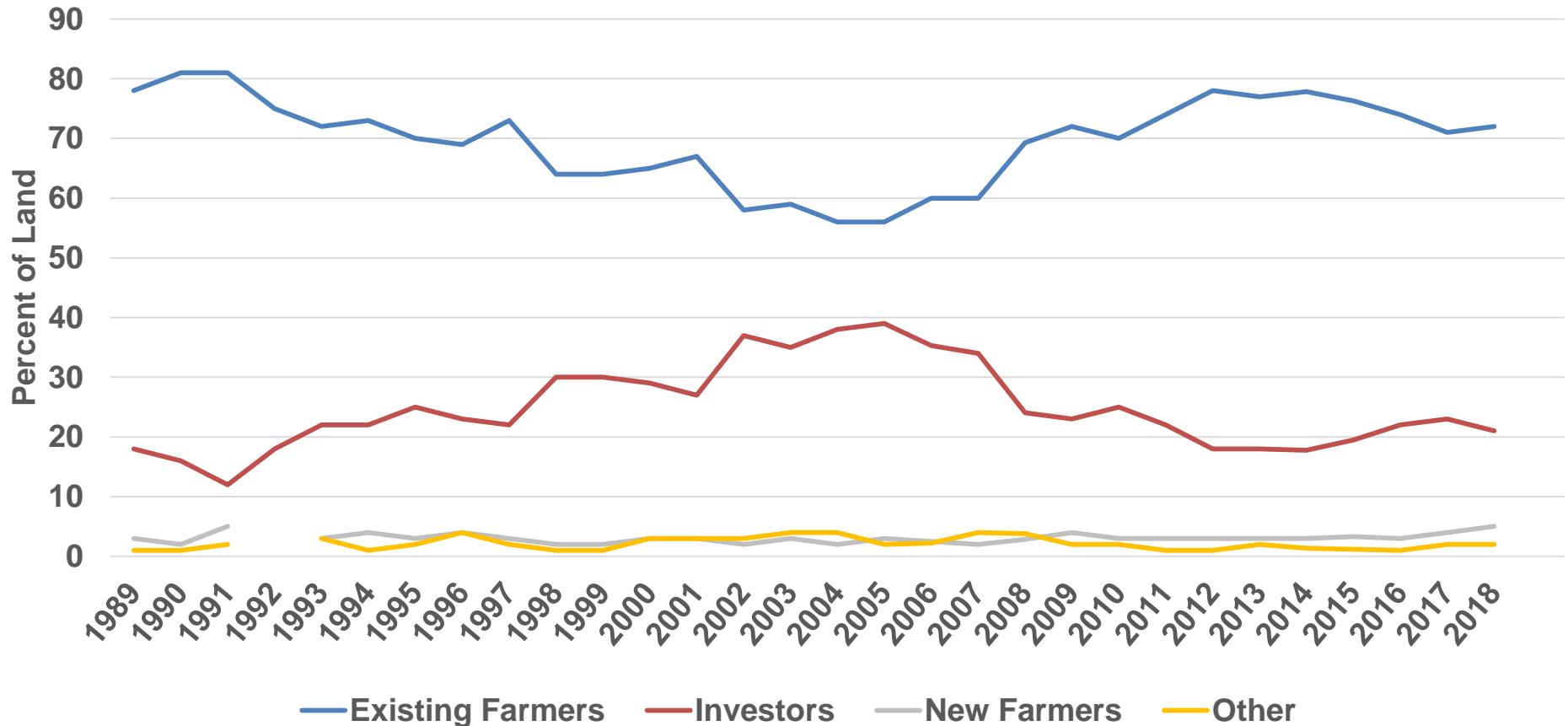


Source: FarmdocDaily

www.Hertz.ag



Who Is Buying Iowa Farmland?



Source: Iowa State University, Center for Agricultural and Rural Development
www.Hertz.ag



Key Factors

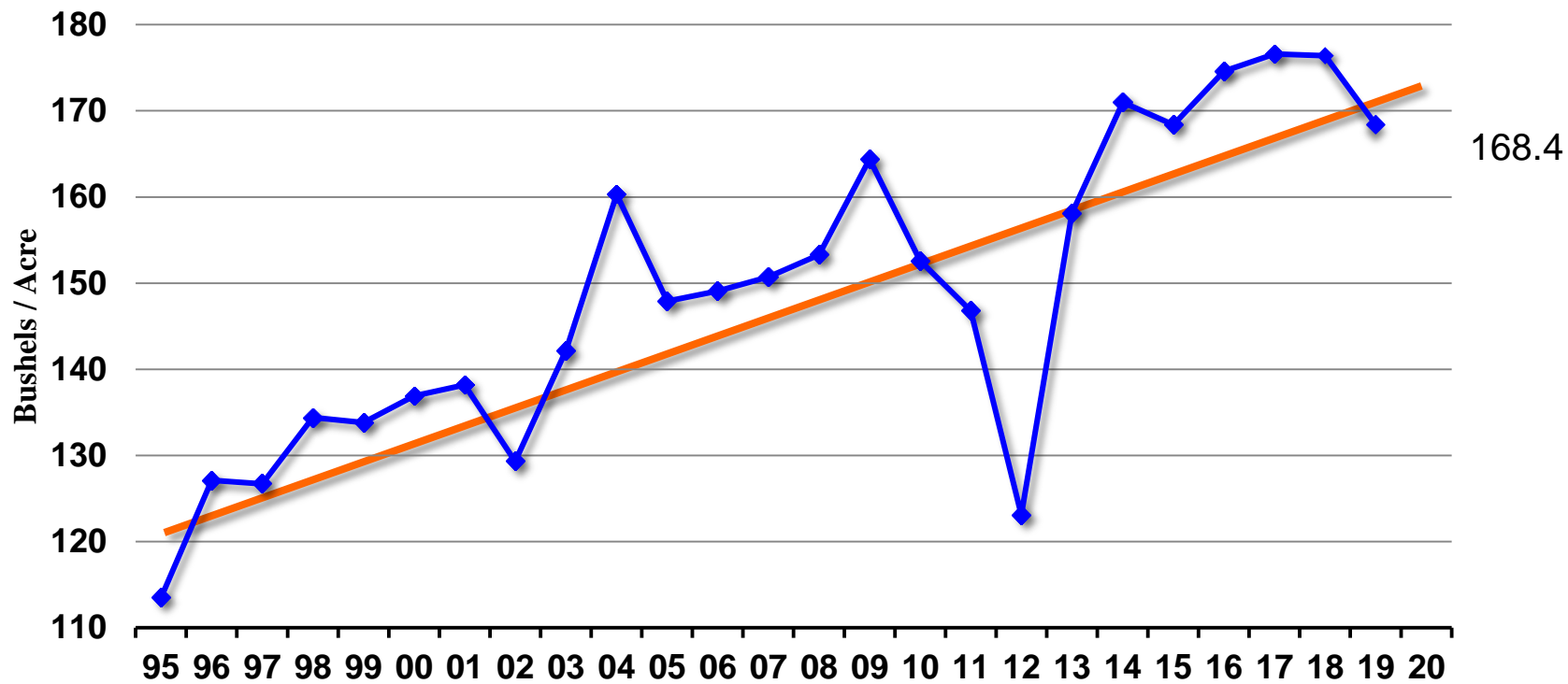
- **Trade Tariffs**
 - *USMCA*
 - *China*
- **Economic growth**
- **U.S. dollar**
- **Crude oil**
 - *Conflict in the Middle East*
- **Conservation Reserve Program**
 - *Increase from 24 to 27 million acres by 2023*
- **Asset prices**
 - **Equities due for a correction?**
- **Brexit Impact**
- **Population Growth**
 - *Population of 9 billion by 2050*

Source: Brock Associates

www.Hertz.ag



Great Corn Yields – and Getting Better



Updated: 10/10/2019 – 168.4

Actual

Trend Line

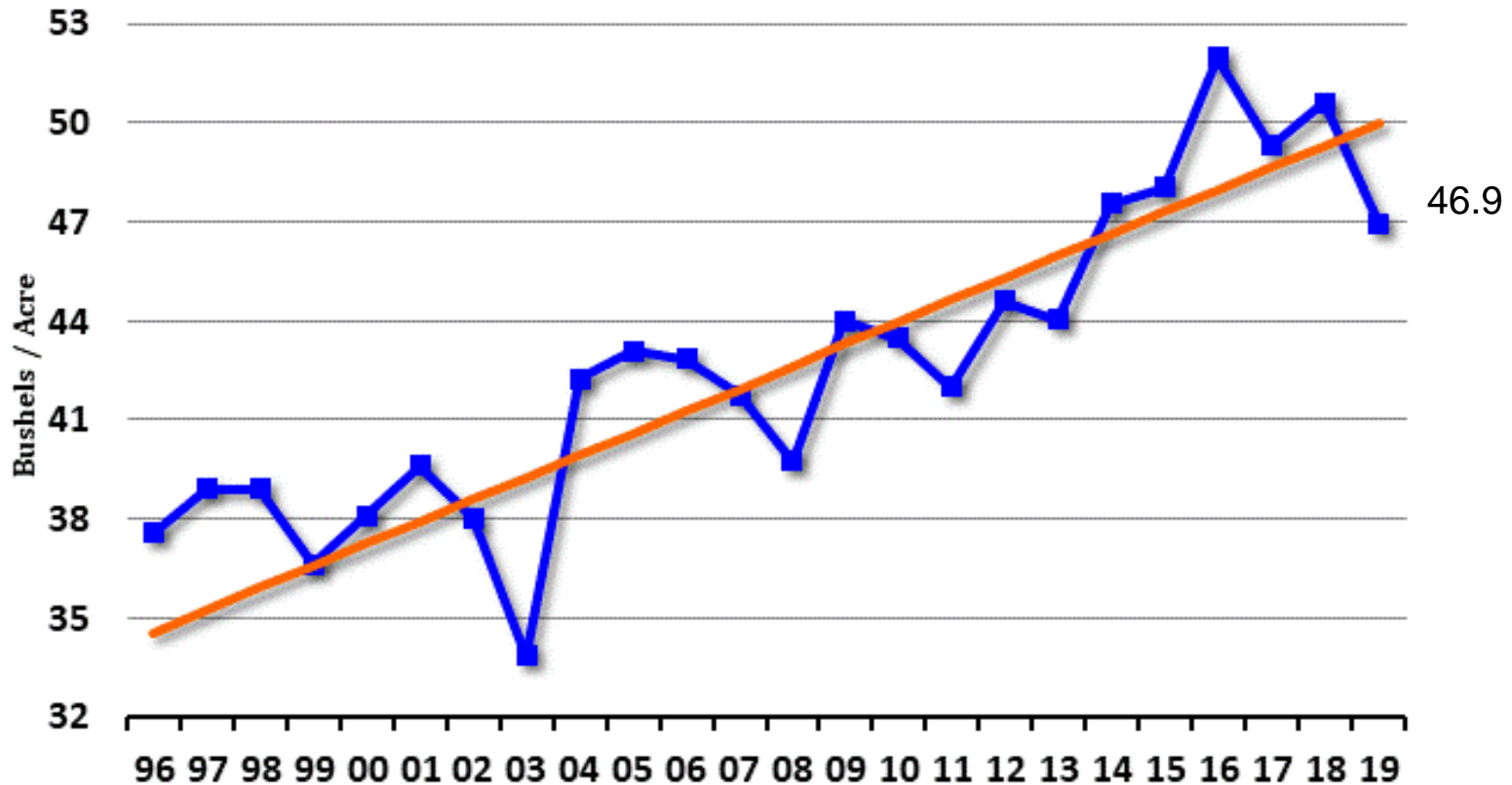


Source: CME Group

www.Hertz.ag



Great Soybean Yields – and Getting Better



Updated: 10/10/2019



The Hightower Report



Source: CME Group

www.Hertz.ag



Farmland Values

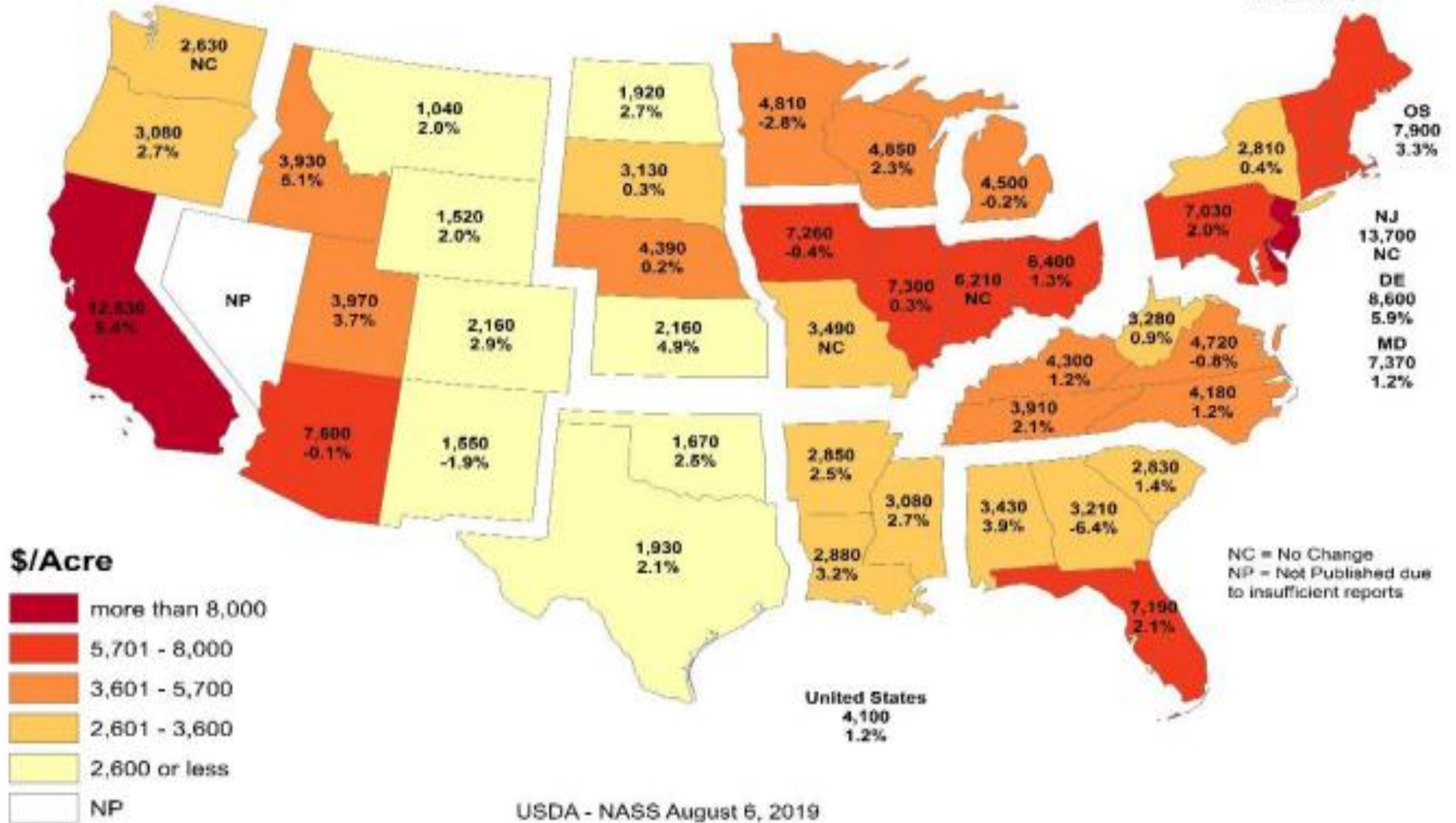
Farmland values are a barometer of the economic health and wealth of the farming economy.



2019 Cropland Value by State

Dollars per Acre and Percent Change from 2018

OS includes CT, MA, ME, NH, RI, VT



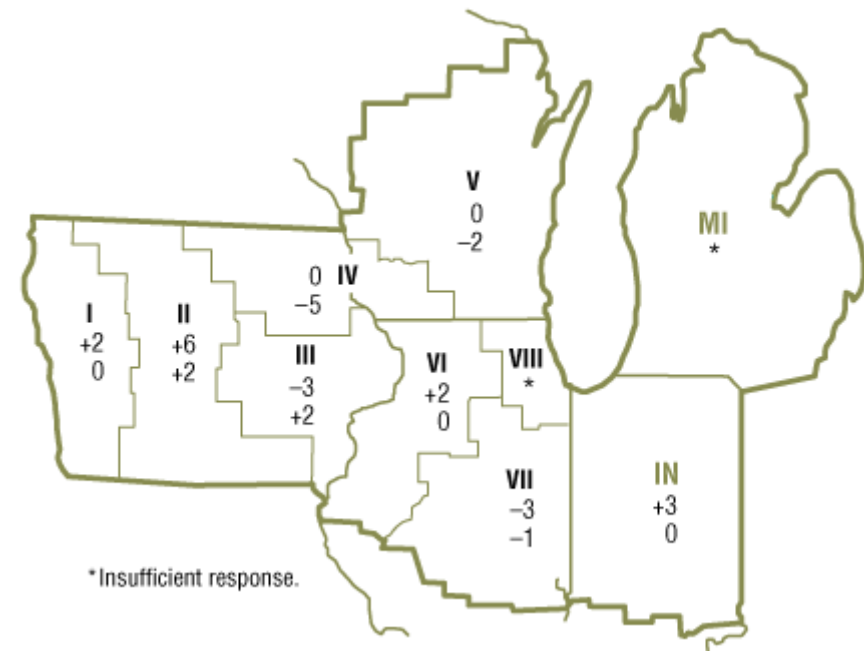
USDA - NASS August 6, 2019



Chicago Federal Reserve Study

Percent Change in Dollar Value of “Good” Farmland

| | July 1, 2019 to October 1, 2019 | October 1, 2018 to October 1, 2019 |
|------------------|---------------------------------------|--|
| Illinois | -1 | -1 |
| Indiana | +3 | 0 |
| Iowa | +2 | 0 |
| Michigan | * | * |
| Wisconsin | 0 | -2 |
| Seventh District | +1 | -1 |



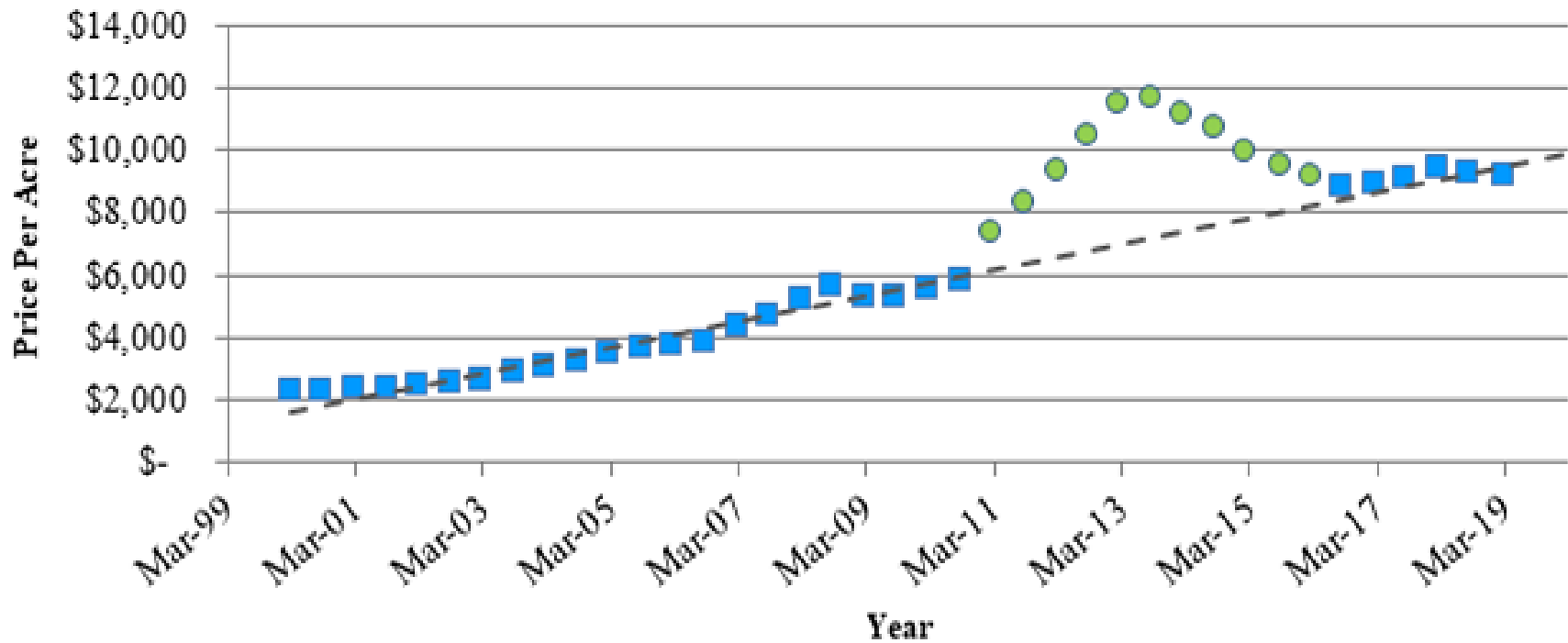
Source: Federal Reserve Bank of Chicago, AgLetter,
No. 1986, November 2019

www.Hertz.ag



High Quality Iowa Cropland Values

High Quality Iowa Cropland Values



Data is from Iowa Realtors Land Institute surveys

Analysis by Hertz Appraisal Services



Iowa REALTORS® Land Institute

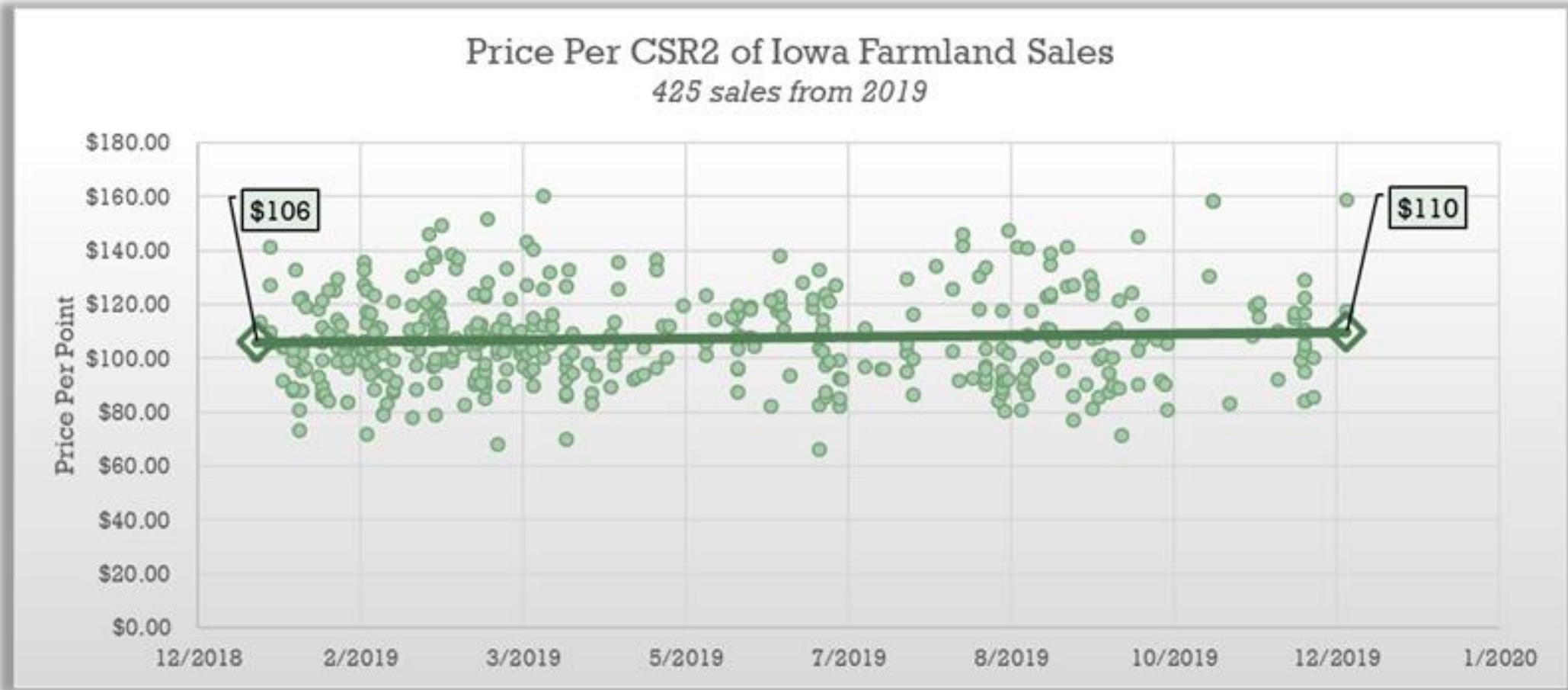
September 2018 – March 2019 -1.0%

March 2019 – September 2019 +0.8%

September 2018 – September 2019 -0.2%



Price per CSR2 per Crop Acre

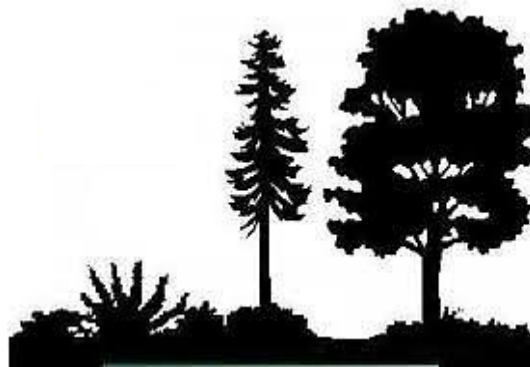


Analysis completed by Hertz Appraisal Services



Demand v. Supply

- Demand for Recreational Land
- Demand for Home Sites
- Demand for Development Land



Farmland: Financial Performance

Table 1. Asset Return Characteristics

| Asset/Index | Annual Ave. | Standard | Coefficient | Correlation |
|-------------------|-------------------------|-----------|--------------|-------------|
| | Return | Deviation | of Variation | |
| | ----- 1970 - 2017 ----- | | | |
| US Ave Farm (all) | 10.15% | 6.46% | 0.637 | 1 |
| S&P500 | 7.02% | 16.47% | 2.347 | -0.261 |
| NASDAQ | 10.09% | 24.89% | 2.467 | -0.145 |
| EAFE | 6.32% | 20.37% | 3.222 | -0.228 |
| AAA | 8.71% | 2.79% | 0.320 | 0.064 |
| TCM10Y | 6.48% | 2.97% | 0.458 | 0.163 |
| Mort30F | 8.07% | 3.29% | 0.408 | 0.135 |
| All REITS | 9.08% | 19.90% | 2.191 | -0.135 |
| Gold | 7.51% | 22.56% | 3.006 | 0.300 |
| CPI | 3.91% | 2.83% | 0.724 | 0.663 |



Source: University of Illinois

www.Hertz.ag



Questions?

Hertz.ag or 800.592.LAND

Caring for You and Your Farm

www.Hertz.ag





WWW.HERTZ.AG

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

Follow Us on Social Media!

@HertzAgLand



www.Hertz.ag

