

# Farm Financial Outlook

Bryon Parman

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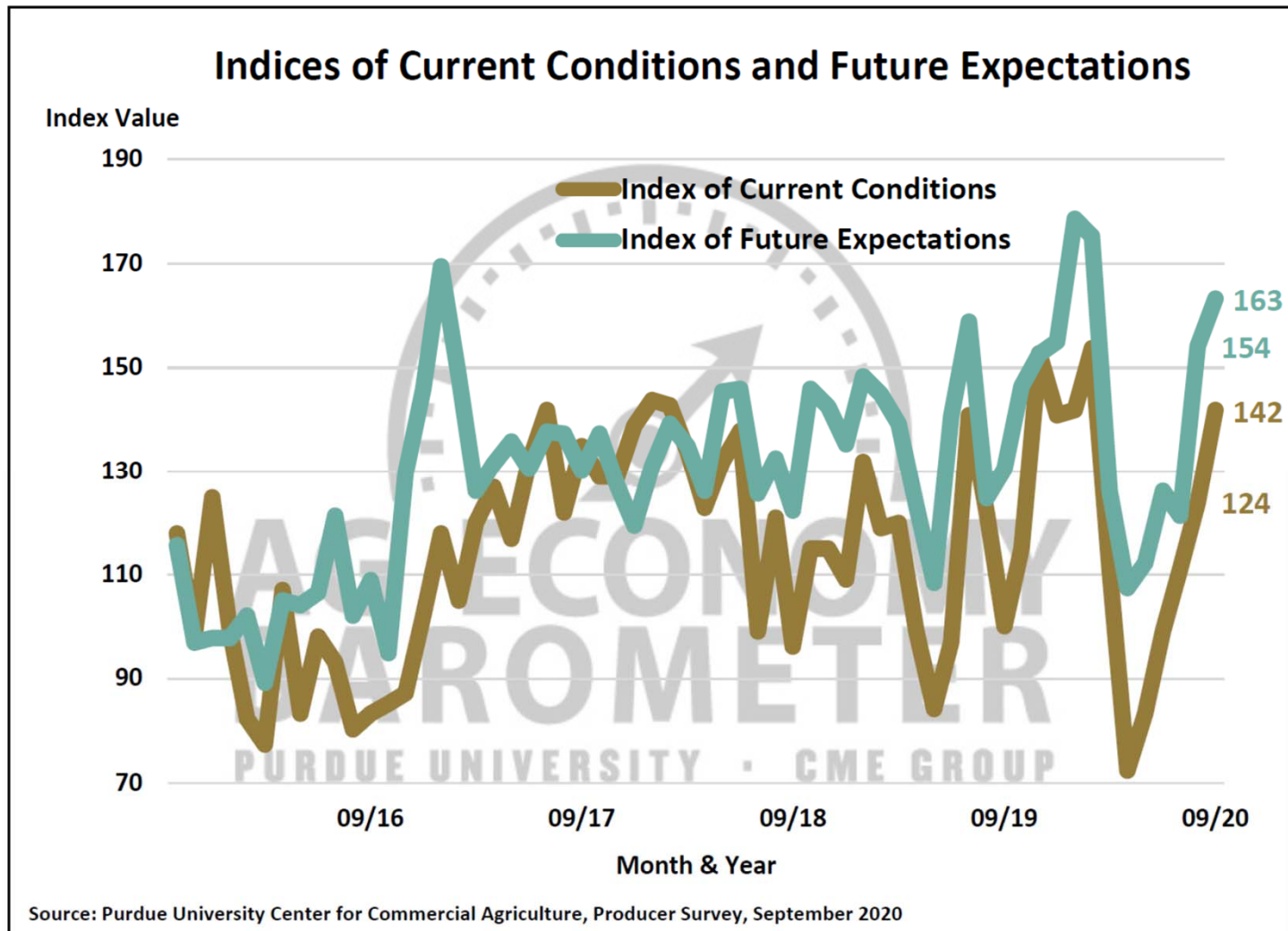
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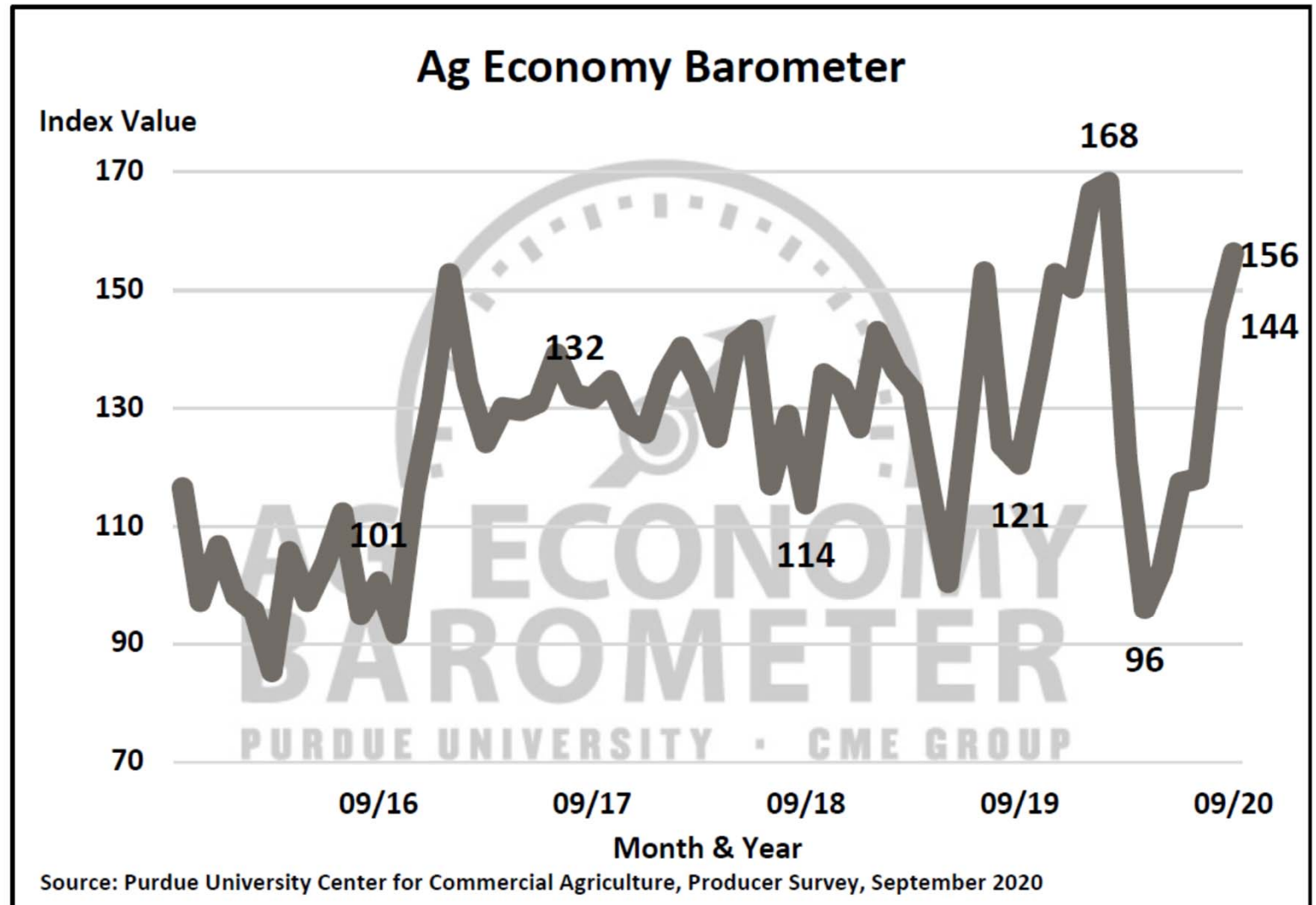
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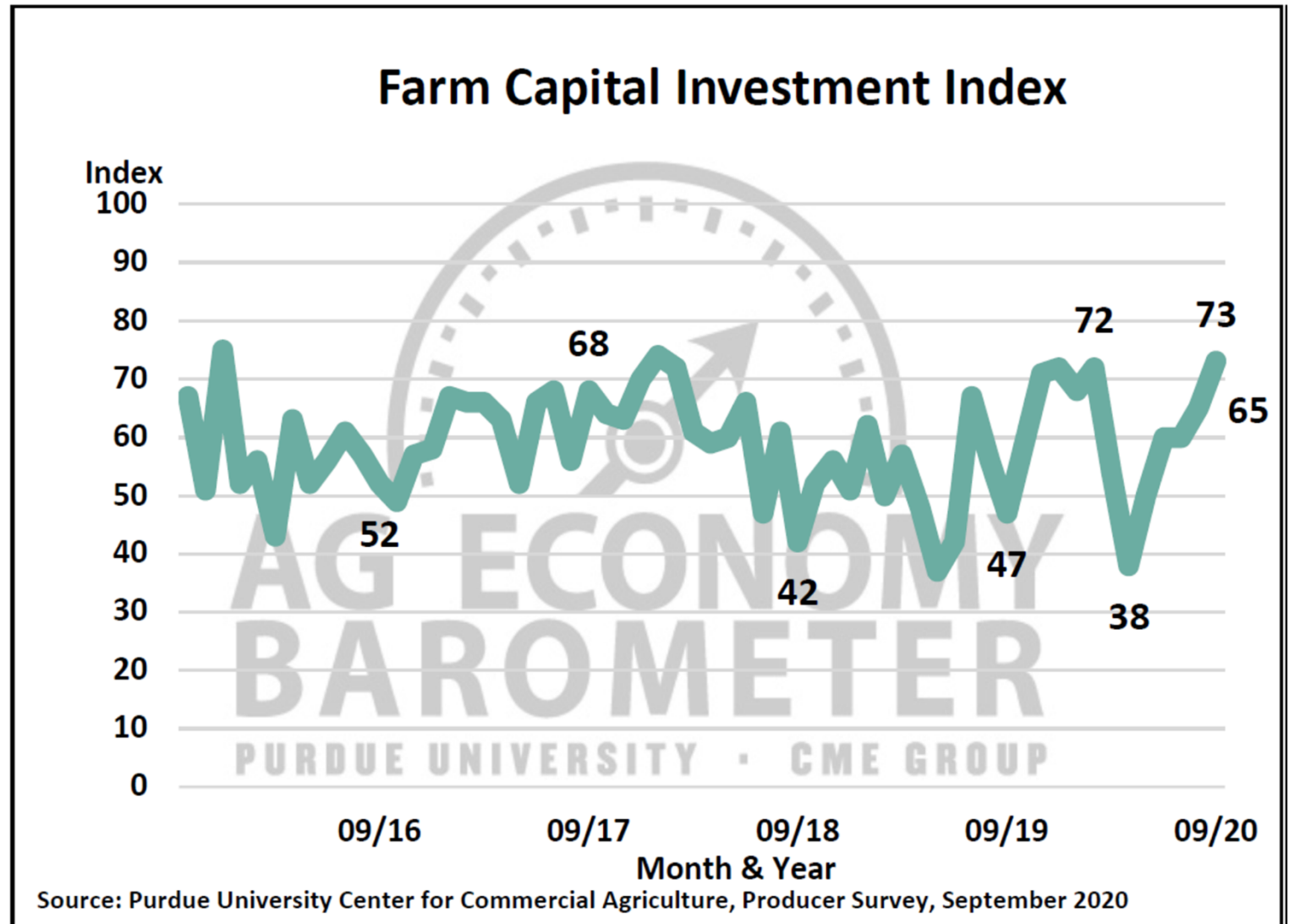
# Purdue University and CME Group Ag. Economy Barometer



# Purdue University and CME Group Ag. Economy Barometer



# Purdue University and CME Group Ag. Economy Barometer



|                                                                                                                                       | MN | MT | <b>ND</b> | SD | WI | Ninth District |
|---------------------------------------------------------------------------------------------------------------------------------------|----|----|-----------|----|----|----------------|
| Percent of respondents who reported <b><u>decreased levels</u></b> for the past three months compared with the same period last year: |    |    |           |    |    |                |
| Rate of loan repayments                                                                                                               | 33 | 33 | –         | 25 | –  | 35             |
| Net farm income                                                                                                                       | 81 | 83 | <b>90</b> | 94 | 60 | 85             |
| Farm household spending                                                                                                               | 52 | 50 | <b>60</b> | 50 | 40 | 53             |
| Farm capital spending                                                                                                                 | 74 | 83 | <b>80</b> | 88 | 60 | 78             |
| Loan demand                                                                                                                           | 20 | 33 | <b>10</b> | 6  | 20 | 15             |

|  | MN | MT | ND | SD | WI | Ninth District |
|--|----|----|----|----|----|----------------|
|--|----|----|----|----|----|----------------|

Percent of respondents who reported **increased levels** for the past three months compared with the same period last year:

|                               |    |    |           |    |    |    |
|-------------------------------|----|----|-----------|----|----|----|
| Loan renewals or extensions   | 52 | 17 | <b>60</b> | 38 | 40 | 37 |
| Referrals to other lenders    | 8  | 17 | –         | 6  | –  | 6  |
| Amount of collateral required | 15 | –  | <b>10</b> | 56 | 20 | 22 |
| Loan demand                   | 26 | –  | <b>35</b> | 25 | 20 | 26 |

|                                                                                             | MN | MT | <b>ND</b> | SD | WI | Ninth District |
|---------------------------------------------------------------------------------------------|----|----|-----------|----|----|----------------|
| Percent of respondents who <u><b>expect decreased</b></u> levels for the next three months: |    |    |           |    |    |                |
| Rate of loan repayments                                                                     | 33 | 50 | <b>45</b> | 40 | –  | 37             |
| Net farm income                                                                             | 81 | 83 | <b>70</b> | 81 | 40 | 76             |
| Farm household spending                                                                     | 48 | 67 | <b>55</b> | 44 | 20 | 49             |
| Farm capital spending                                                                       | 74 | 83 | <b>65</b> | 81 | 40 | 72             |
| Loan demand                                                                                 | 19 | –  | <b>20</b> | 19 | –  | 16             |

|                                                                                      | MN | MT | <b>ND</b> | SD | WI | Ninth District |
|--------------------------------------------------------------------------------------|----|----|-----------|----|----|----------------|
| Percent of respondents who expect <u>increased</u> levels for the next three months: |    |    |           |    |    |                |
| Loan renewals or extensions                                                          | 56 | 67 | <b>35</b> | 25 | 20 | 42             |
| Referrals to other lenders                                                           | 11 | –  | <b>11</b> | 7  | –  | 16             |
| Amount of collateral required                                                        | 15 | 33 | <b>5</b>  | 31 | –  | 8              |
| Loan demand                                                                          | 44 | 67 | <b>40</b> | 44 | 20 | 43             |

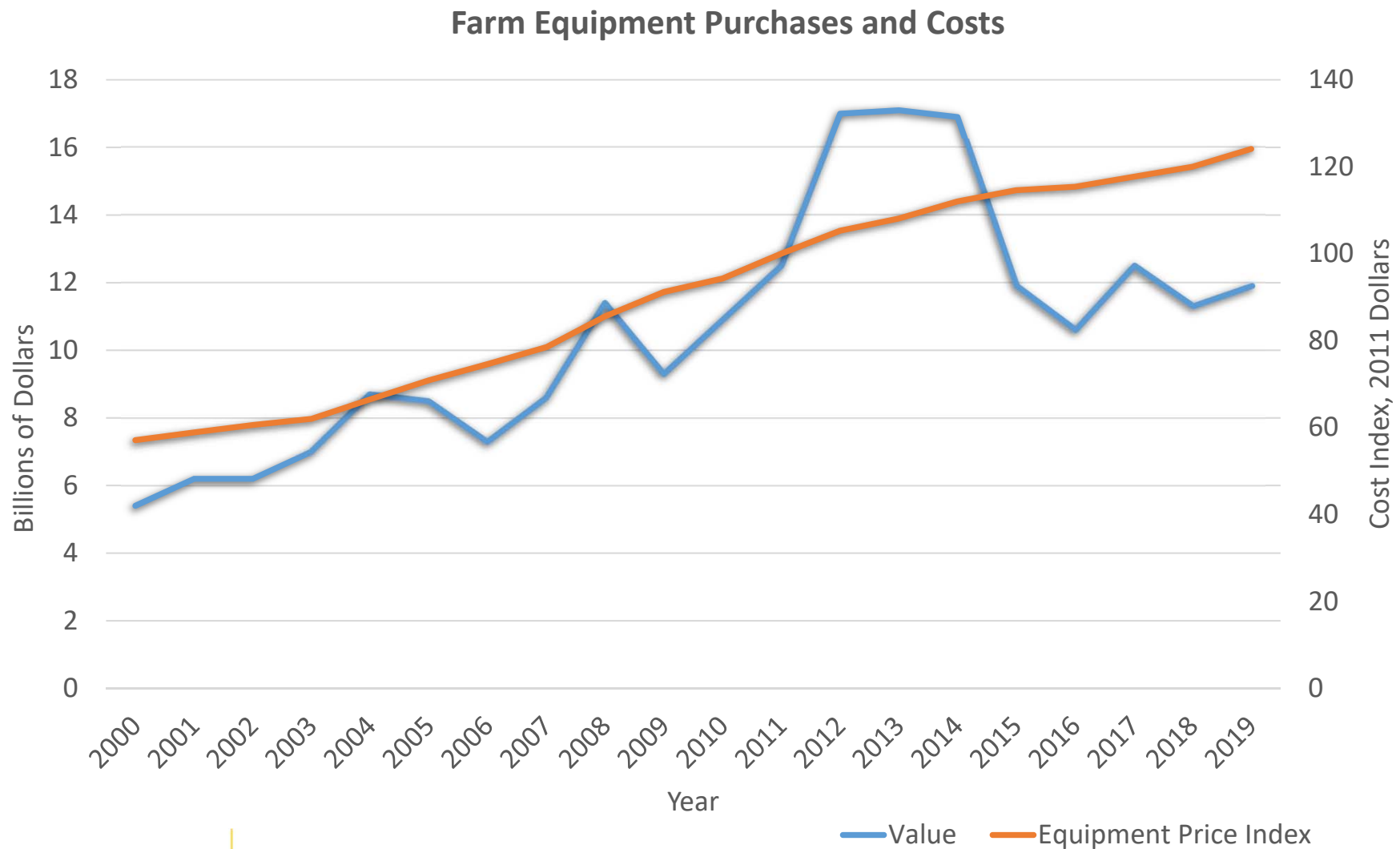


# Production Costs

- Equipment
- Labor
- Fertilizer
- Interest Rates
- Chemicals
- Propane
- Feed

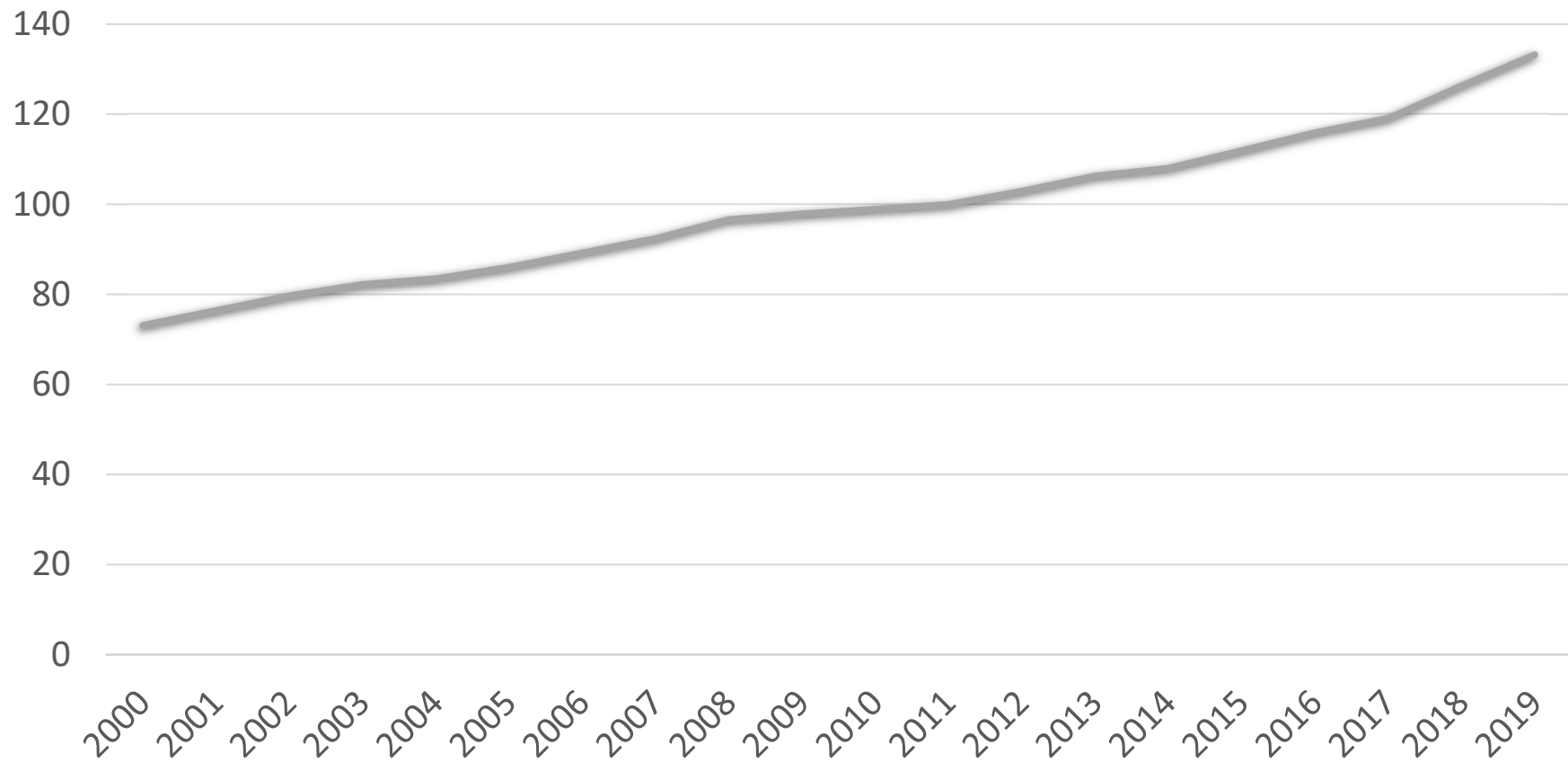


# Production Costs - Equipment



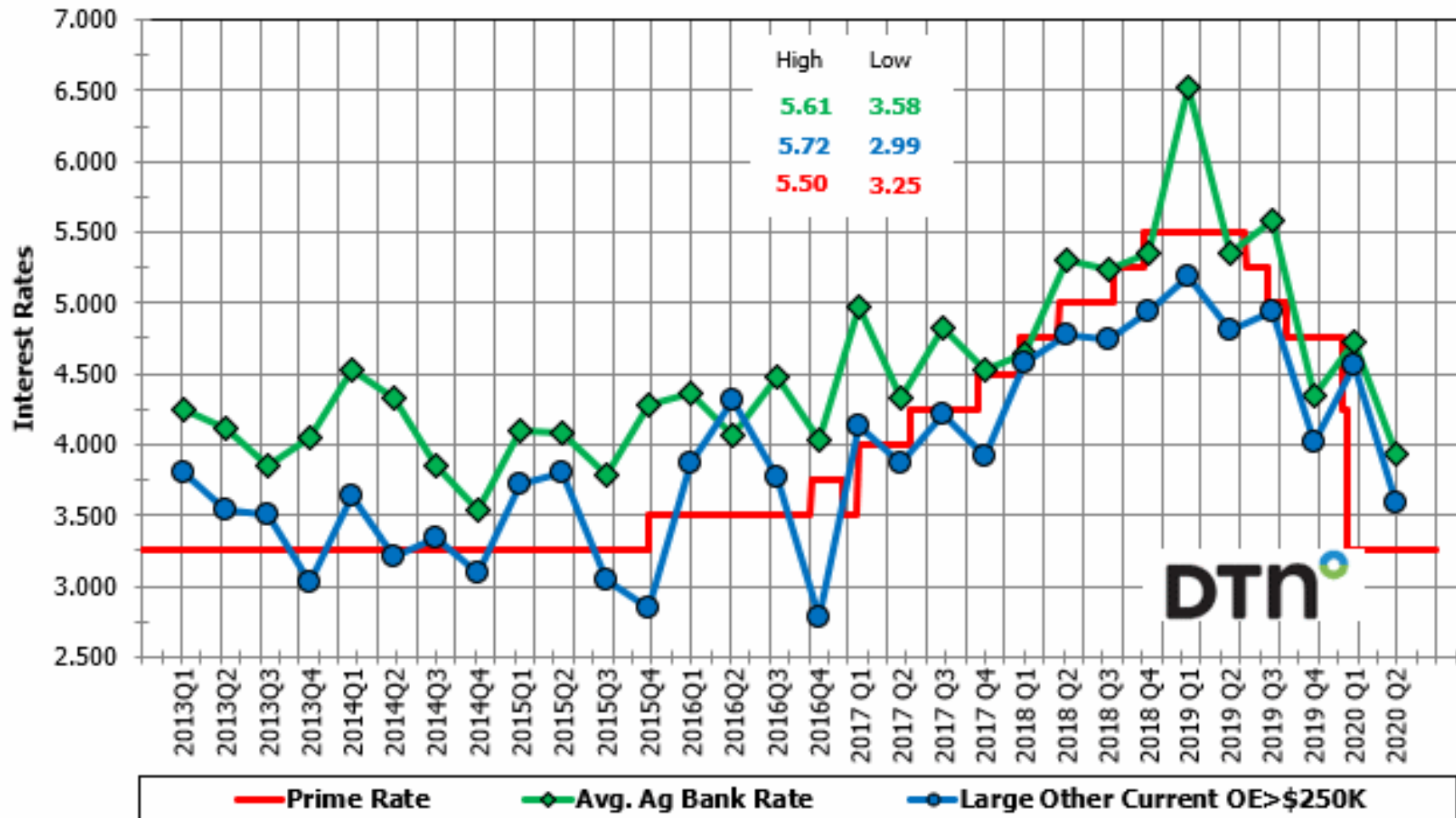
# Production Costs - Labor

Farm Labor Cost Index benchmark 2011 Dollars



# Farm Operating Rates

Updated 9/30/2020



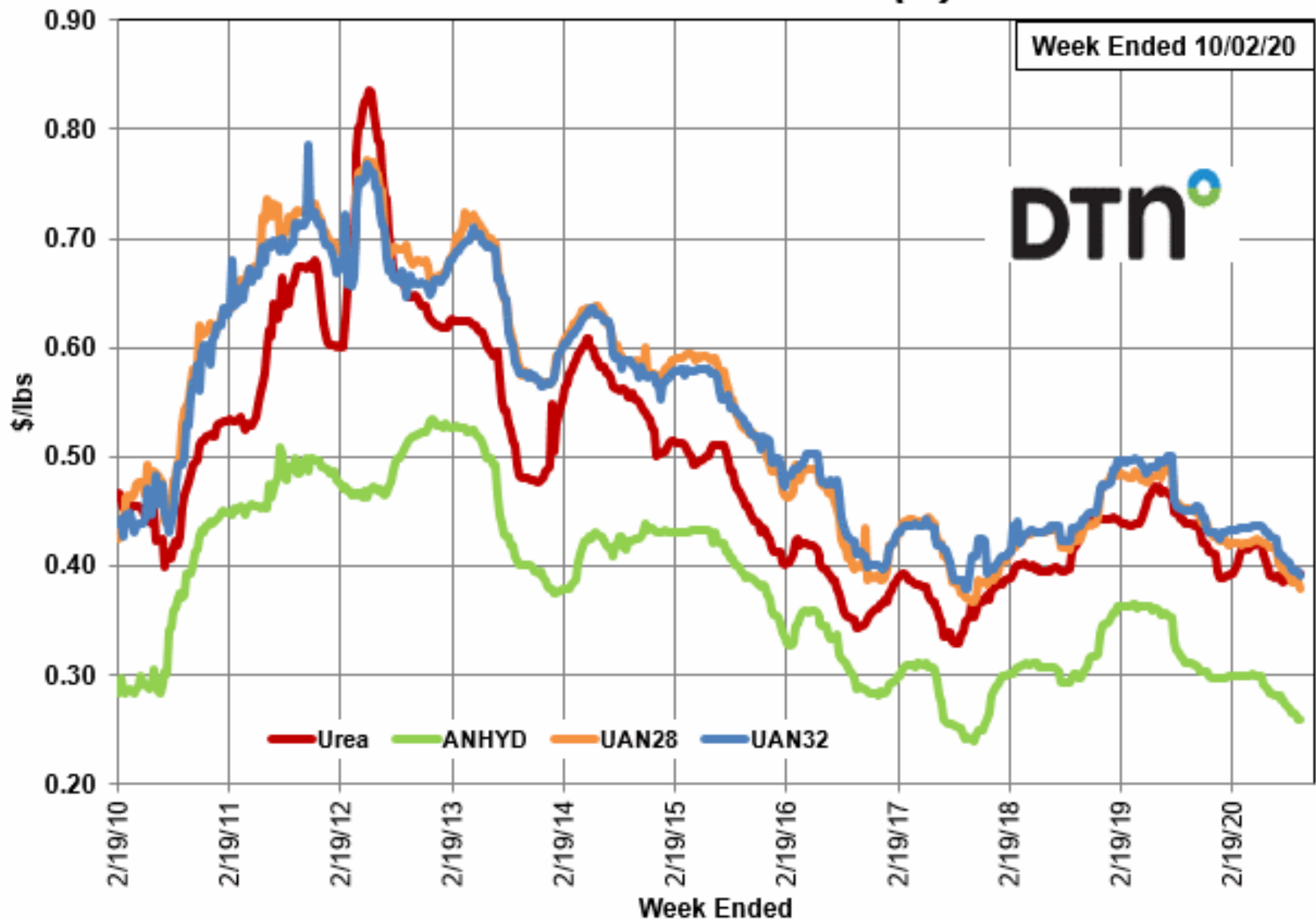
Farm operating rates remain near 60-year lows. Farm lenders with >\$25 million farm portfolios discount rates even further for loans >\$250K.

Source: DTN and Federal Reserve Data

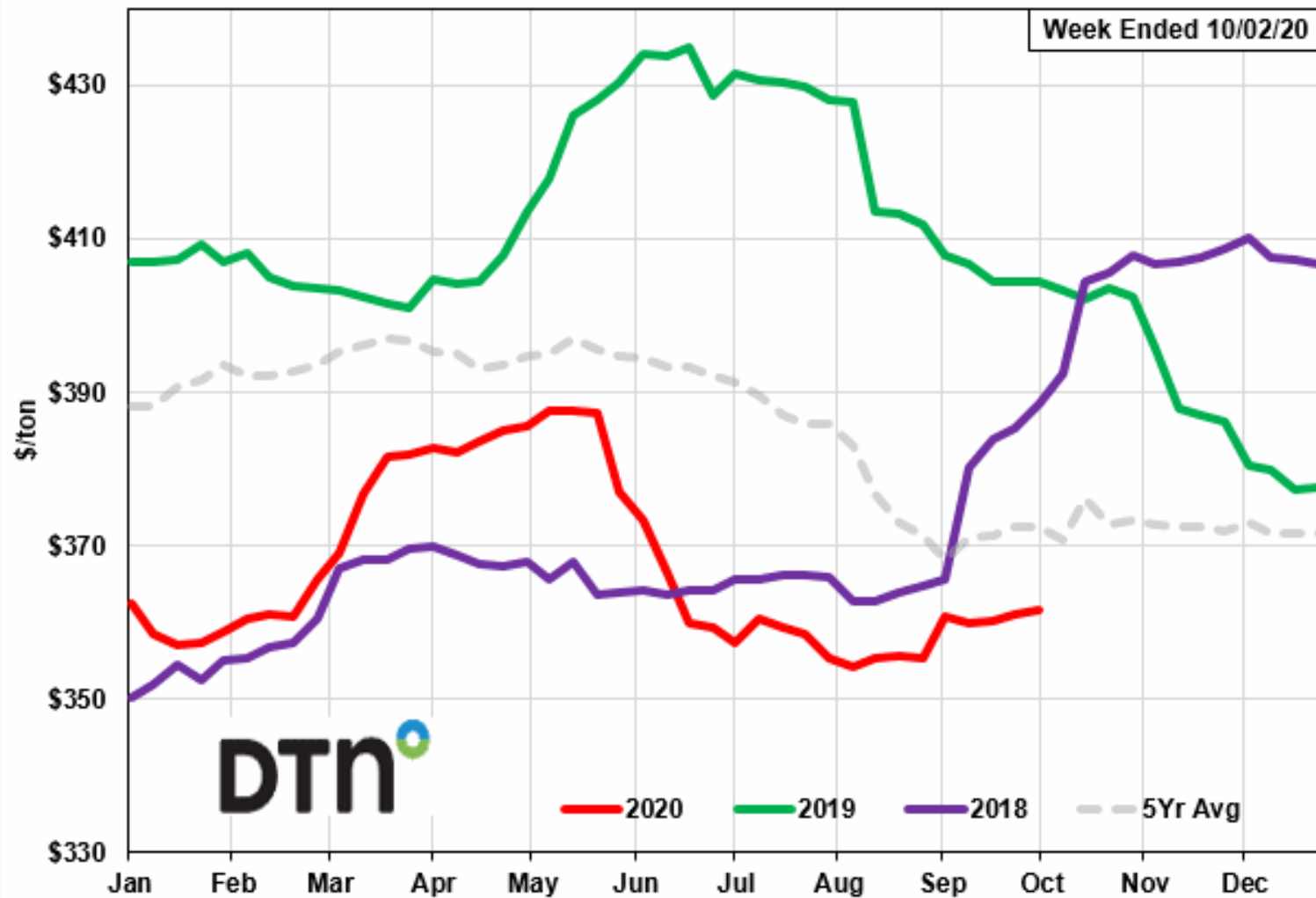
## Agricultural Interest rates from the Federal Reserve Bank of Minneapolis, Quarterly Survey of Agricultural Credit Conditions

|       |         | Operating |      | Machinery |      | Real Estate |      |
|-------|---------|-----------|------|-----------|------|-------------|------|
|       |         | Fixed     | Var. | Fixed     | Var. | Fixed       | Var. |
| Q3-18 | October | 6.1       | 5.9  | 6.1       | 5.8  | 5.9         | 5.6  |
| Q4-18 | January | 6.2       | 6.0  | 6.1       | 5.9  | 5.9         | 5.7  |
| Q1-19 | April   | 6.4       | 6.2  | 6.2       | 6.0  | 6.0         | 5.8  |
| Q2-19 | July    | 6.3       | 6.1  | 6.1       | 6.0  | 5.9         | 5.7  |
| Q3-19 | October | 6.1       | 5.9  | 5.9       | 5.8  | 5.7         | 5.5  |
| Q4-19 | January | 5.8       | 5.7  | 5.7       | 5.6  | 5.5         | 5.3  |
| Q1-20 | April   | 5.3       | 5.1  | 5.2       | 5.1  | 4.9         | 4.8  |
| Q2-20 | July    | 5.1       | 4.9  | 5.0       | 4.8  | 4.8         | 4.6  |

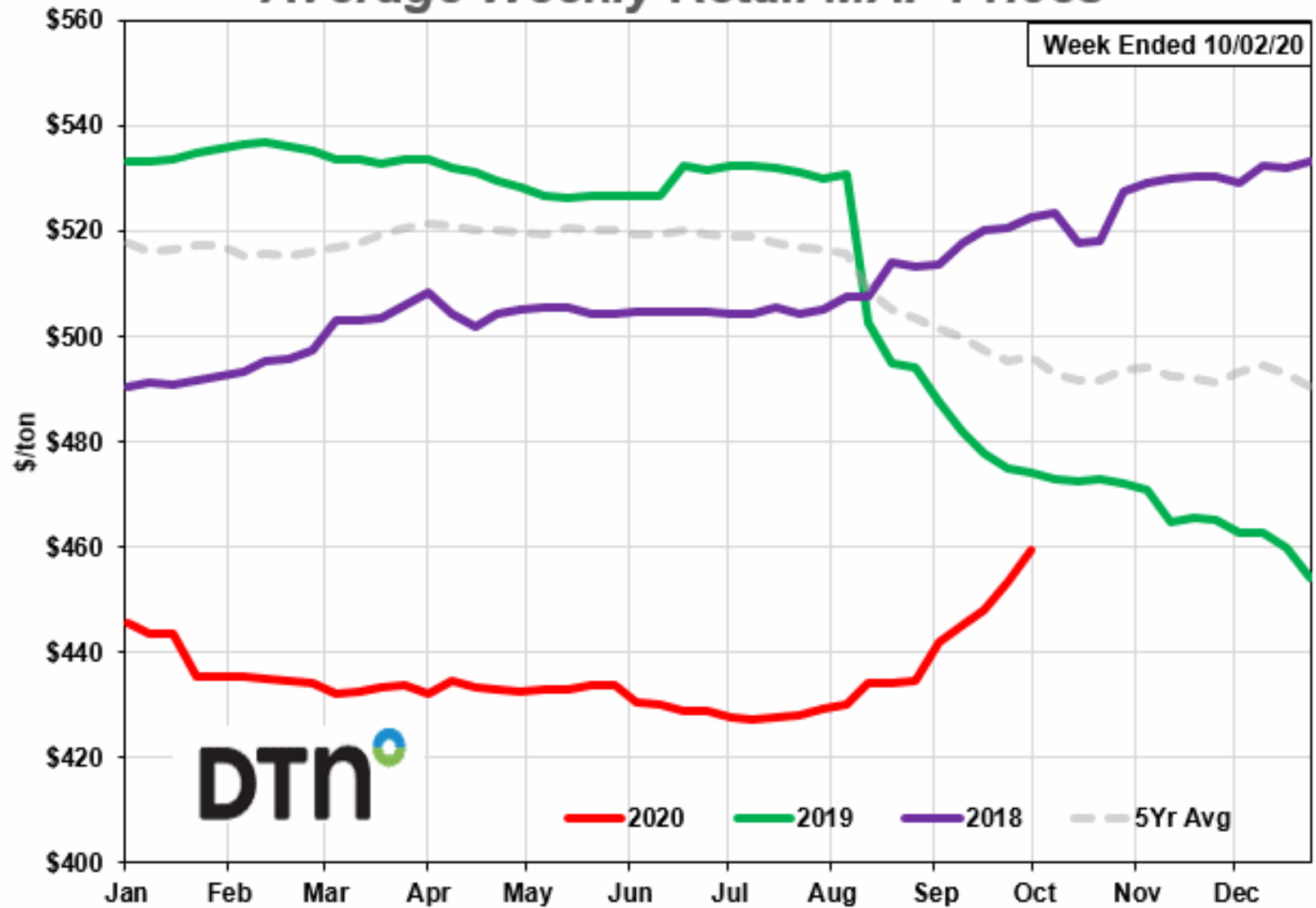
## Cost of N/lb. (\$)



## Average Weekly Retail Urea Prices

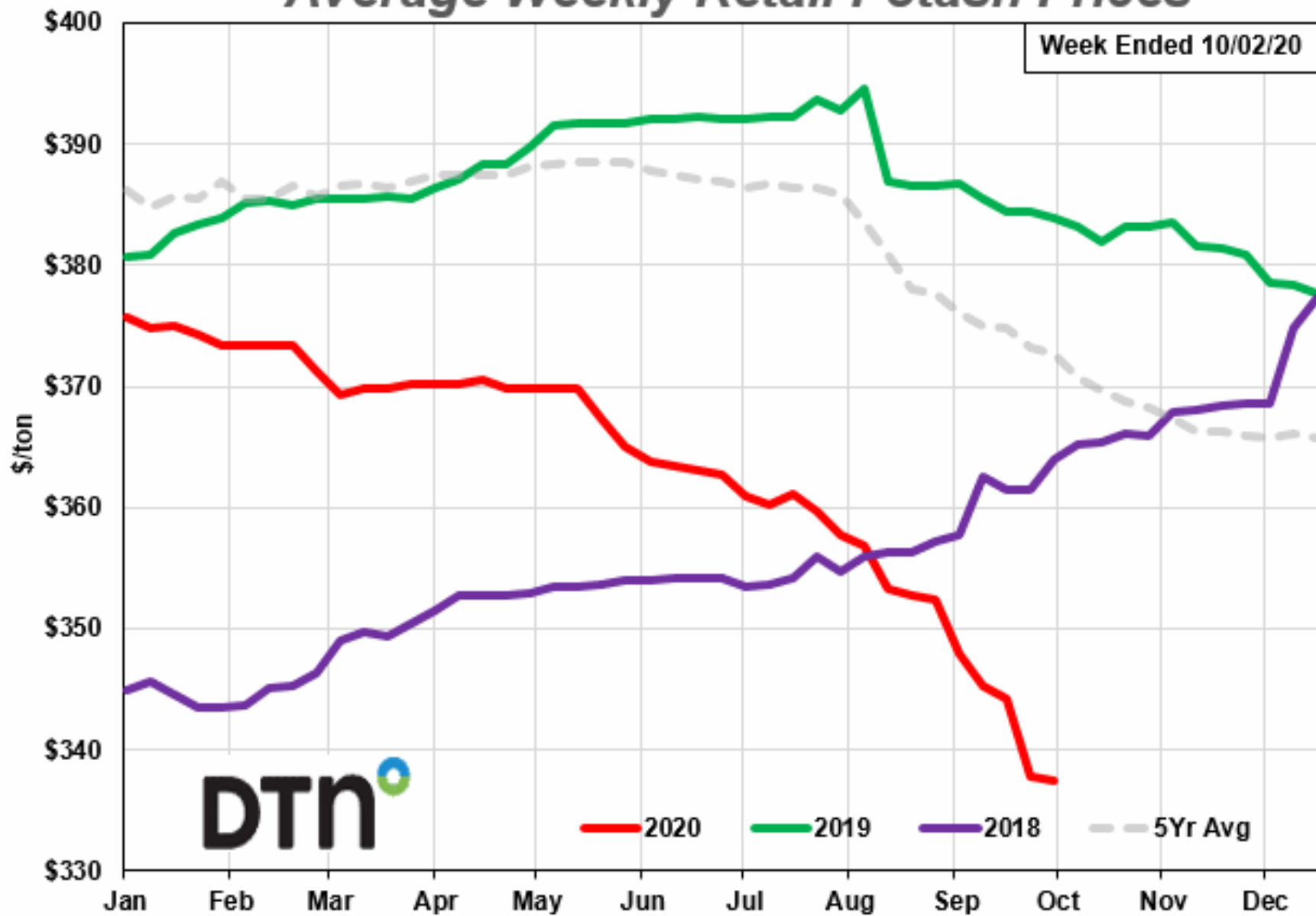


## Average Weekly Retail MAP Prices





## Average Weekly Retail Potash Prices



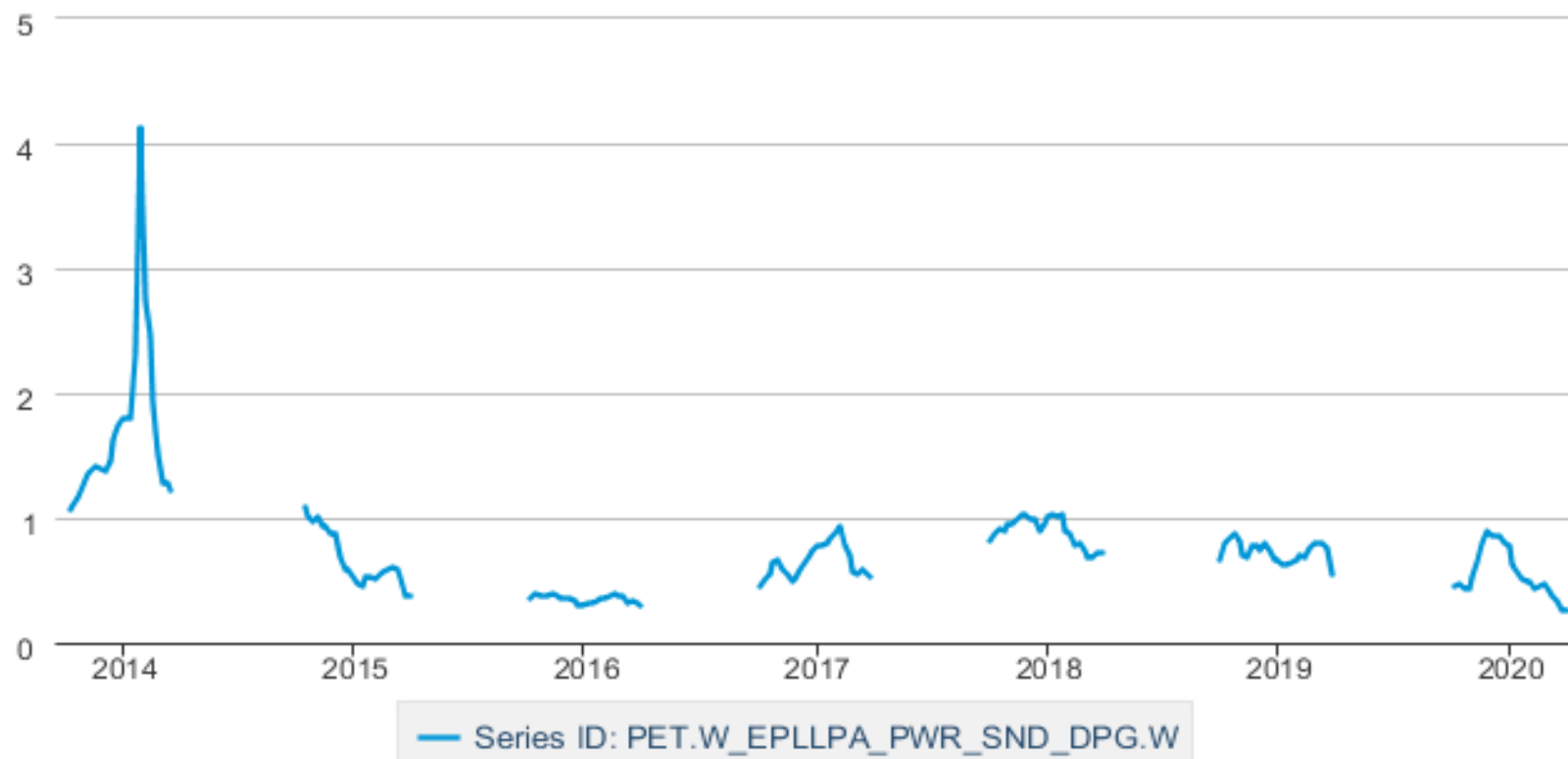
# 1 Year Fuel Prices - Diesel



# EIA Wholesale ND Propane Prices

## North Dakota Propane Wholesale/Resale Price, Weekly

Dollars per Gallon



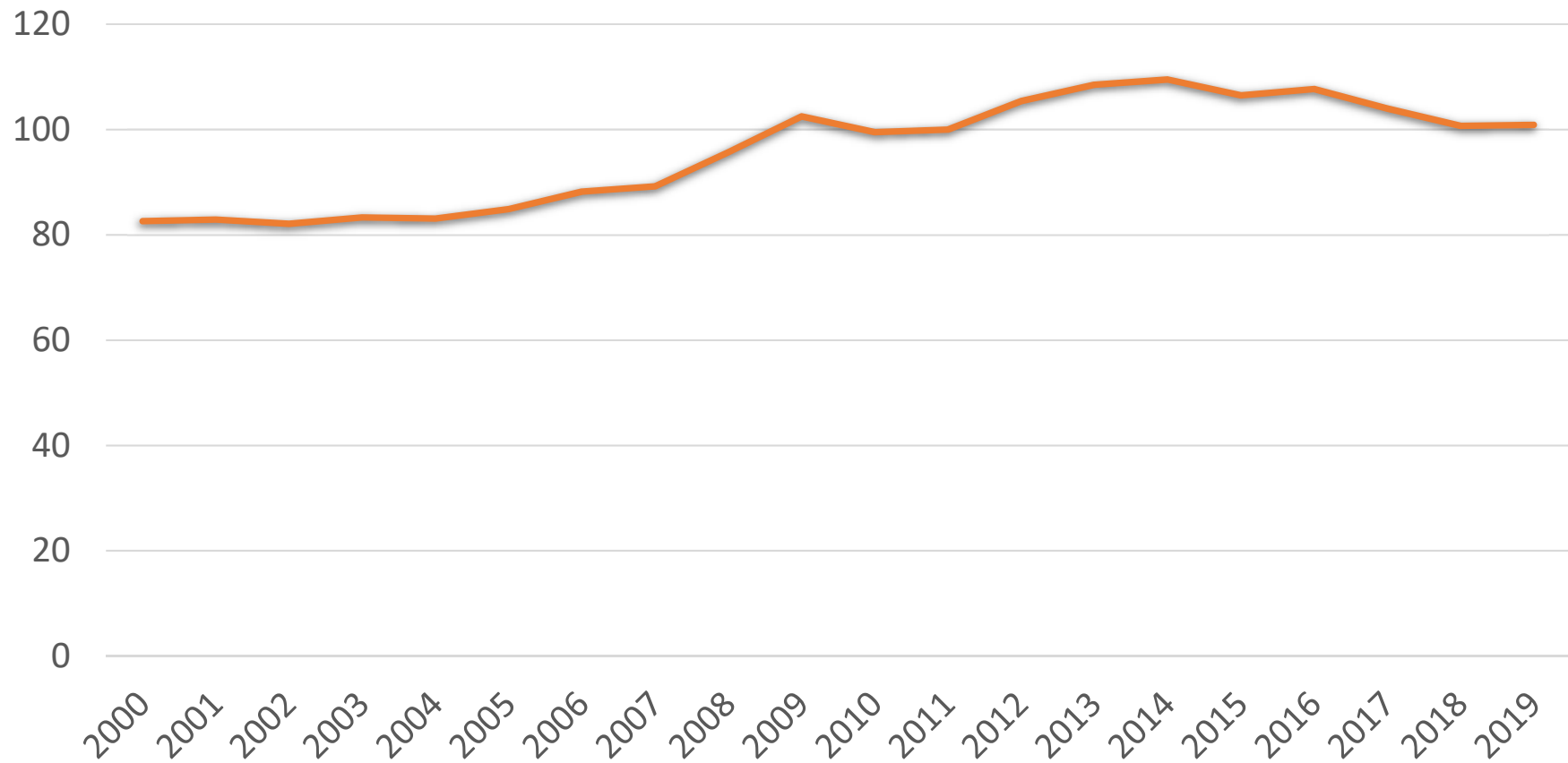
Source: U.S. Energy Information Administration

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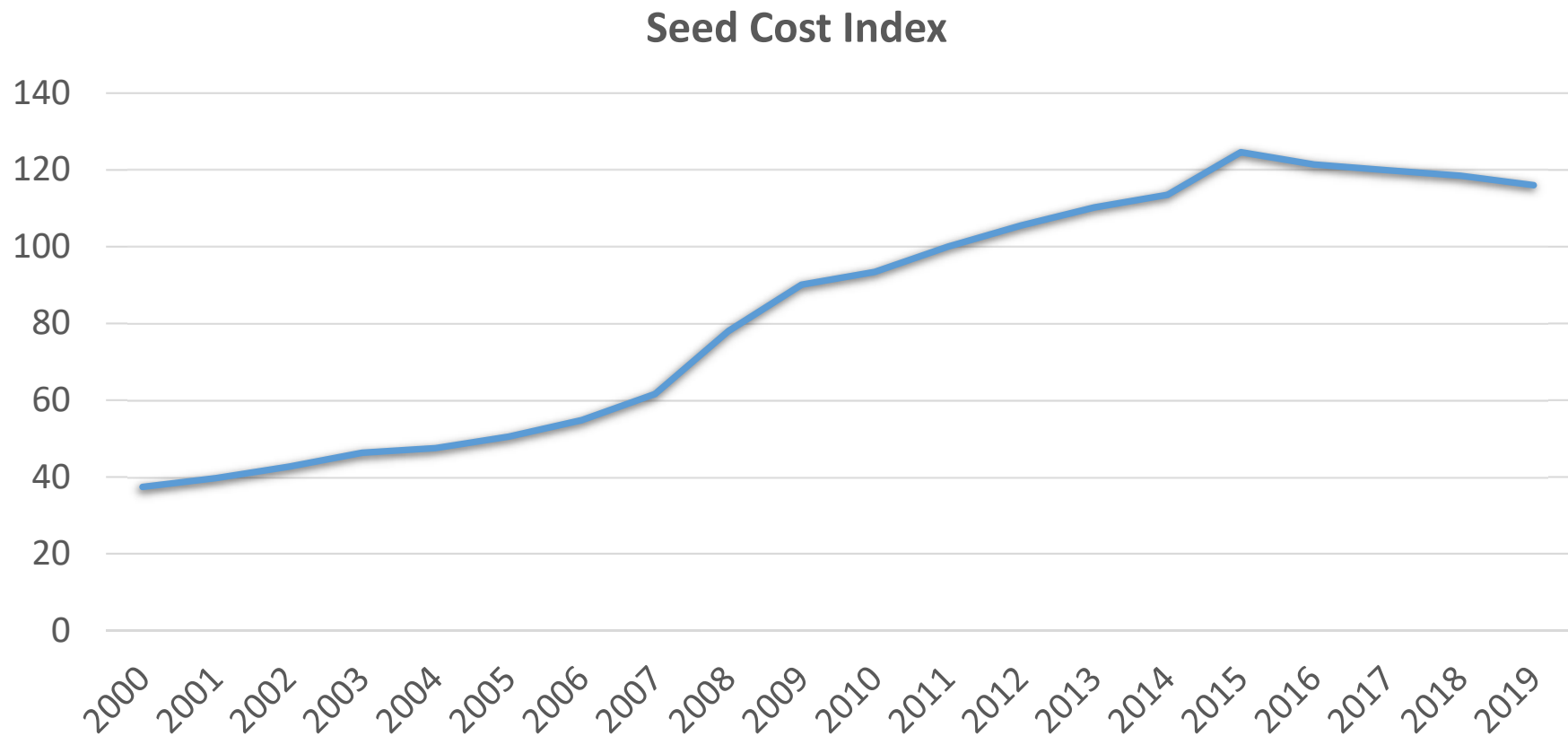
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# Chemical Price Index

Chemical Price Index 2011 Dollars



# Seed Cost Index in 2011 Dollars



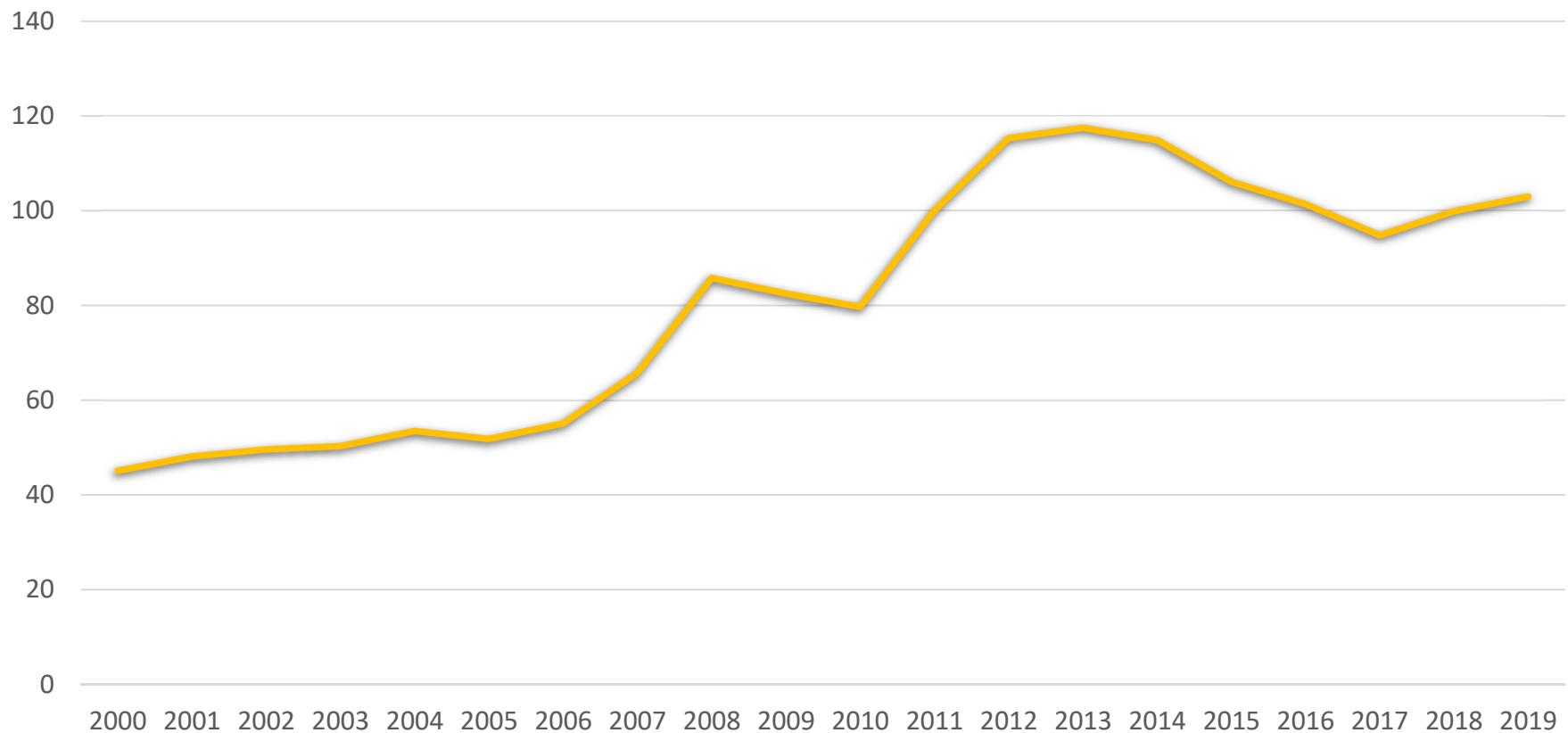
# Feeder Calf Index Cost Index

November Feeder Cattle Price Index 2011 Dollars



# Animal Feed Cost Index

Feed Cost Index in 2011 Dollars



# FAPRI (MIZZOU) Farm Production Expense Projections

## U.S. farm production expenses

| Calendar year             | 2018              | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   | 2025   |
|---------------------------|-------------------|--------|--------|--------|--------|--------|--------|--------|
|                           | (Billion dollars) |        |        |        |        |        |        |        |
| Feed                      | 53.84             | 59.44  | 58.93  | 58.17  | 59.74  | 61.27  | 62.08  | 62.63  |
| Purchased livestock       | 29.15             | 28.66  | 26.56  | 27.14  | 29.08  | 30.09  | 30.53  | 31.03  |
| Seed                      | 21.92             | 21.21  | 21.37  | 21.24  | 21.27  | 21.56  | 21.97  | 22.42  |
| Fertilizer and chemicals  | 38.65             | 37.85  | 38.50  | 39.07  | 40.56  | 41.61  | 42.14  | 42.96  |
| Fuels and electricity     | 19.24             | 18.94  | 18.09  | 18.74  | 20.62  | 21.79  | 22.44  | 23.24  |
| Interest                  | 20.64             | 20.66  | 17.63  | 16.68  | 16.09  | 15.72  | 15.56  | 15.59  |
| Contract and hired labor  | 33.80             | 34.72  | 35.89  | 35.99  | 37.09  | 38.25  | 39.41  | 40.58  |
| Capital consumption       | 29.93             | 28.81  | 28.24  | 28.15  | 28.11  | 28.15  | 28.31  | 28.47  |
| Rent to landlords         | 15.47             | 16.81  | 16.70  | 16.79  | 16.43  | 16.40  | 16.54  | 16.68  |
| All other                 | 81.18             | 81.61  | 82.77  | 84.24  | 86.62  | 88.85  | 90.64  | 92.49  |
| Total production expenses | 343.81            | 348.72 | 344.69 | 346.20 | 355.61 | 363.69 | 369.62 | 376.09 |

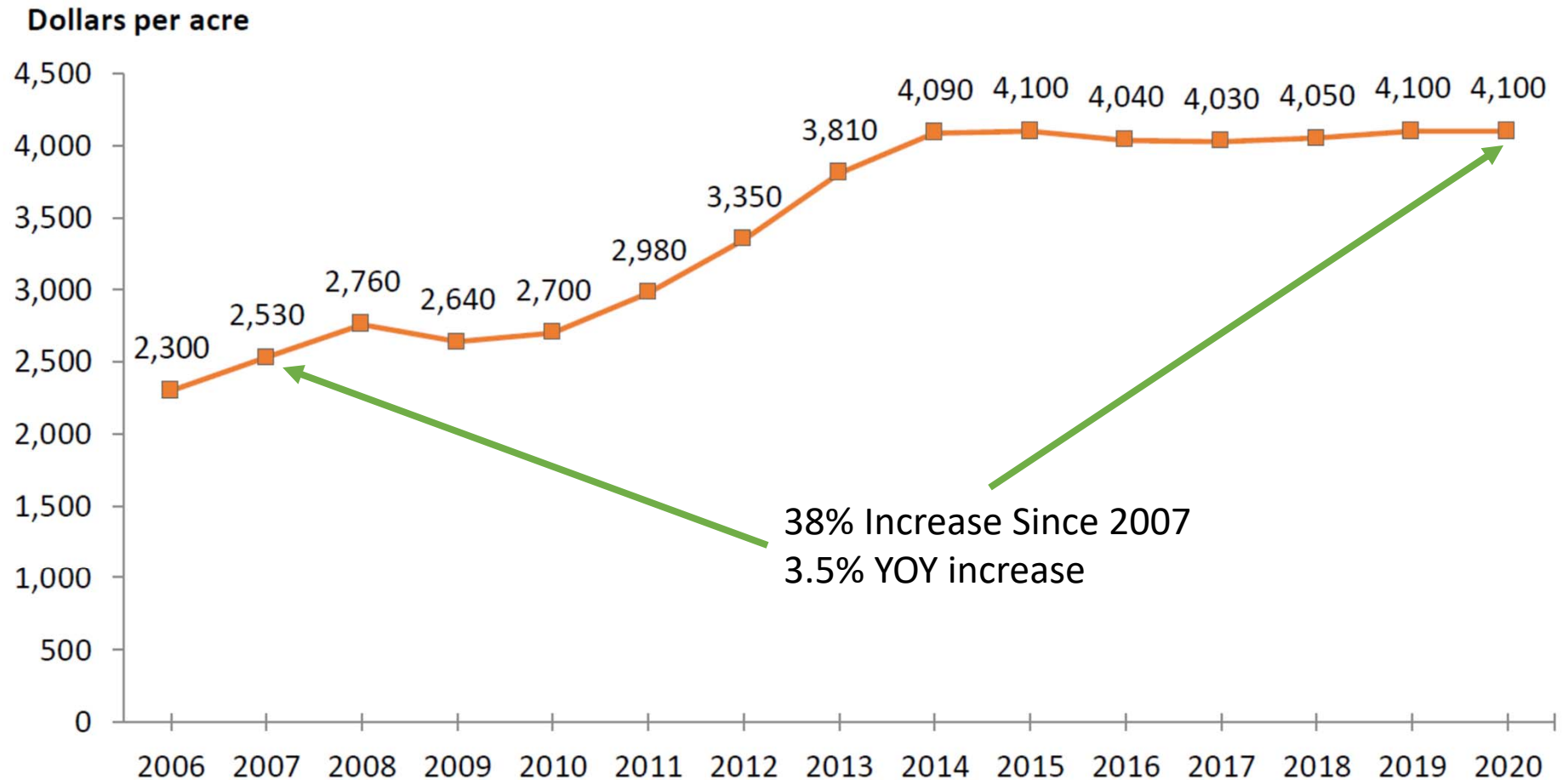


# Land Values and Cash Rents

- Have we seen the drop everyone has been expecting for 5 years?
- What are farmers around the country expecting into next year?
- How are new or capital crunched farmers handling potential expansion with high land prices?



# Average Cropland Value – United States: 2006-2020



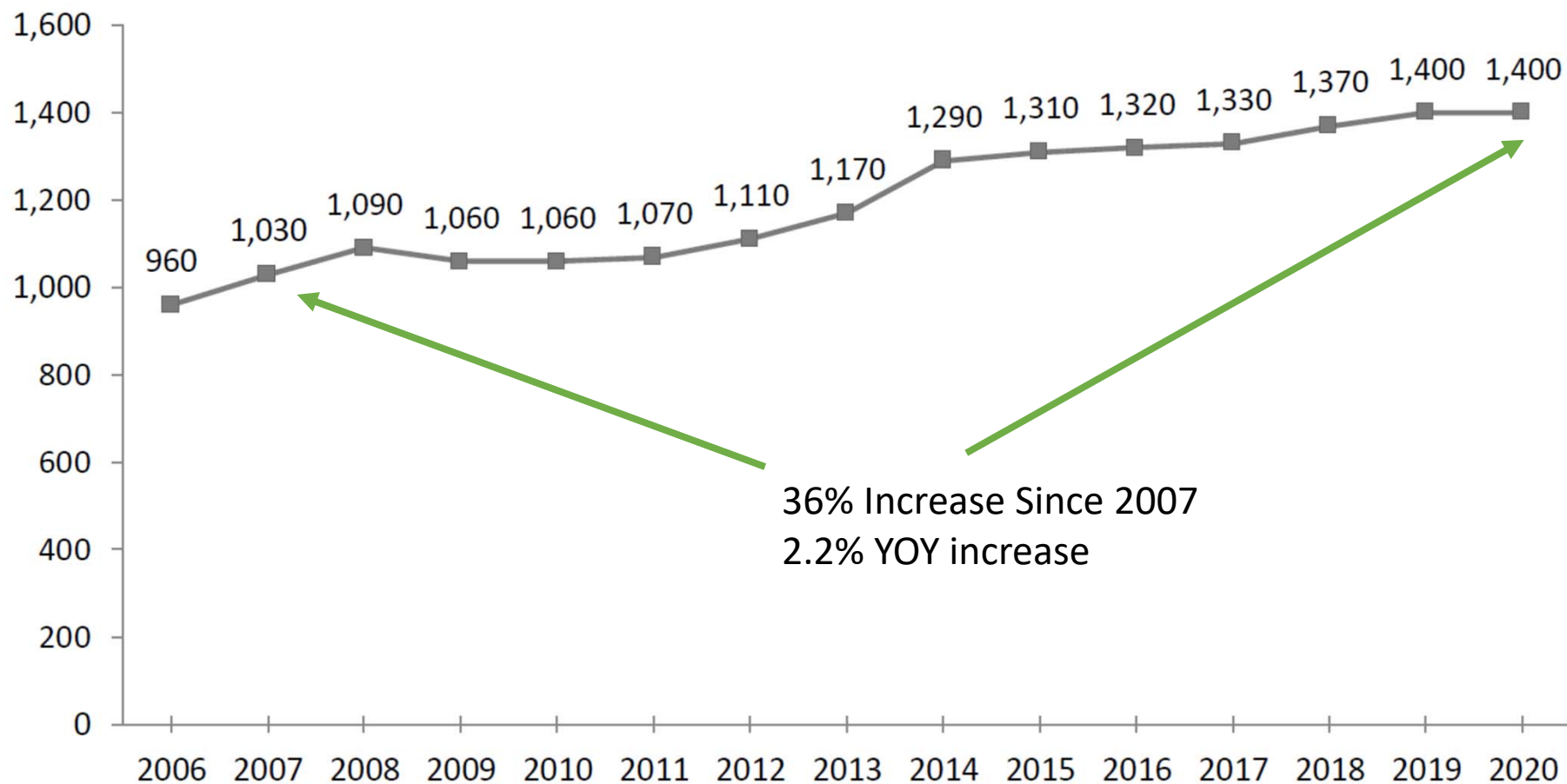
USDA - NASS  
August 6, 2020

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# Average Pasture Value – United States: 2006-2020

Dollars per acre



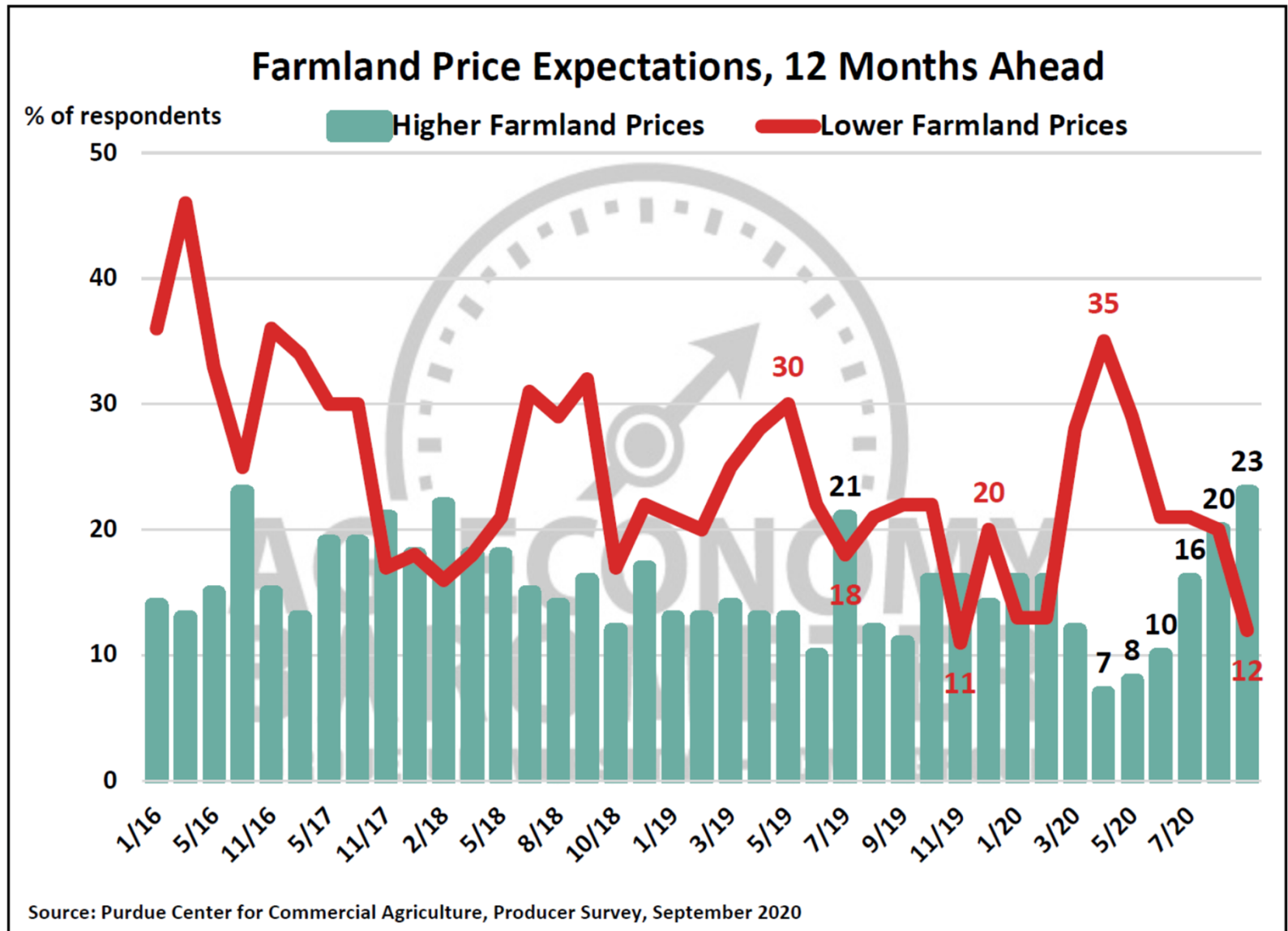
USDA - NASS

August 6, 2020

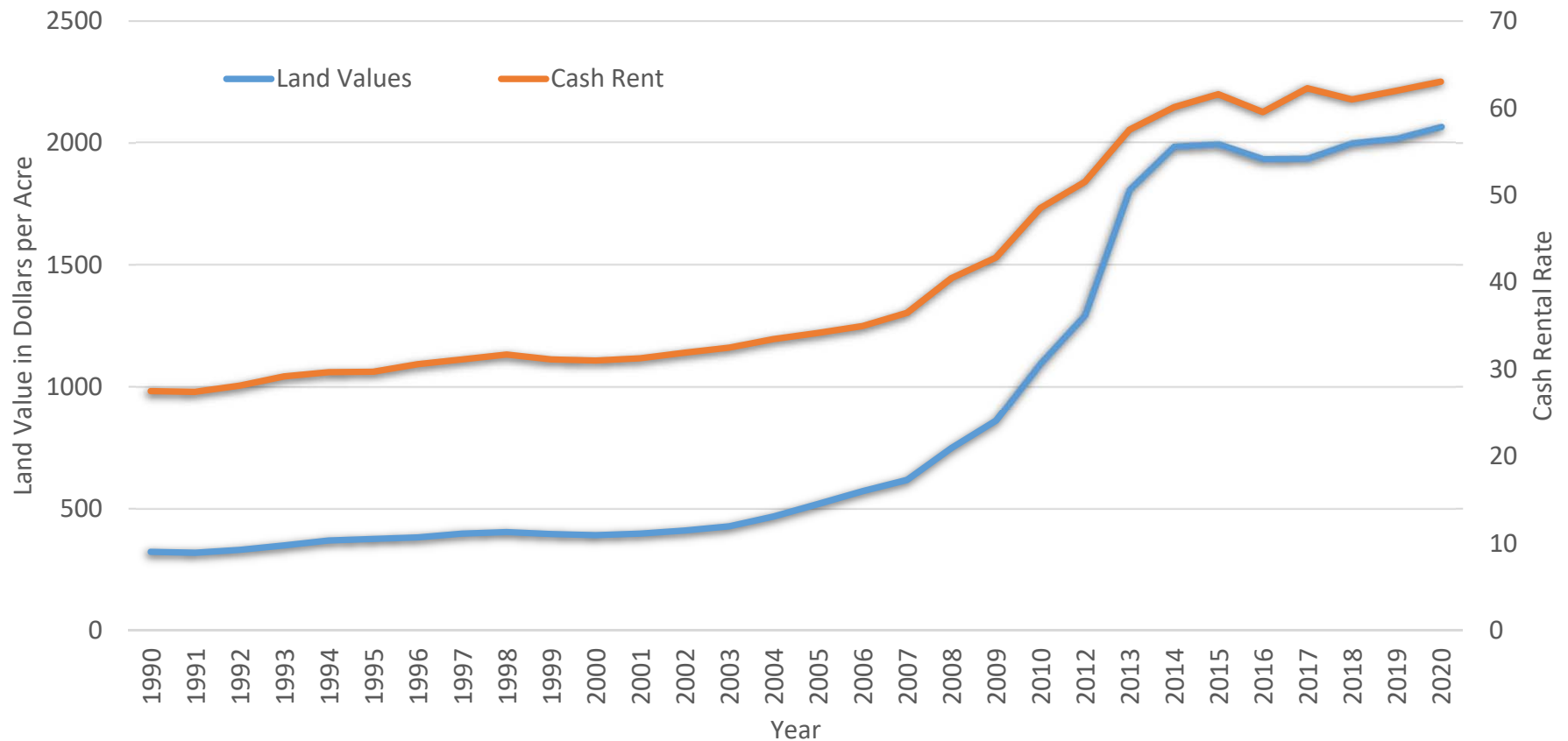
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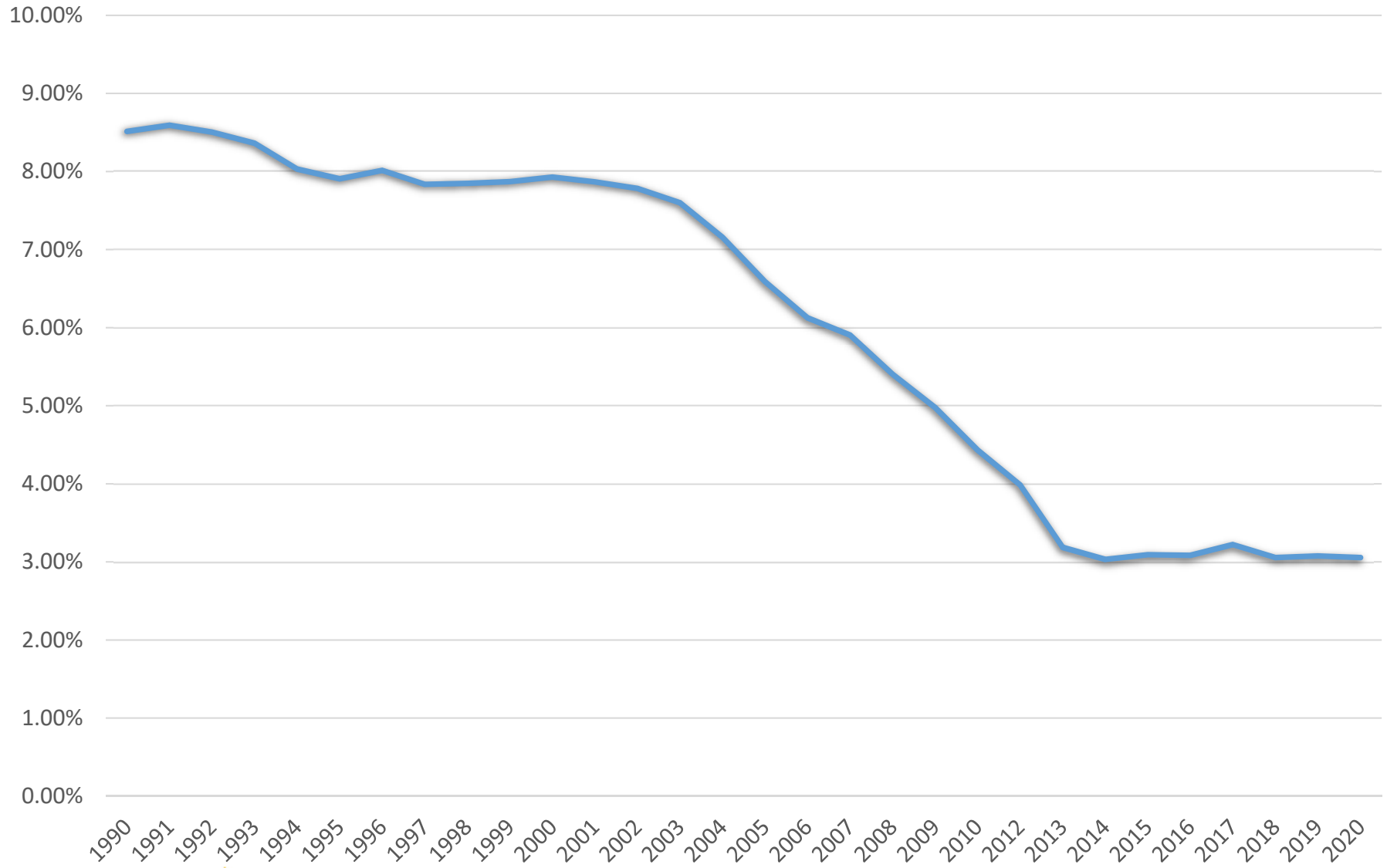
# Purdue University and CME Group Ag. Economy Barometer

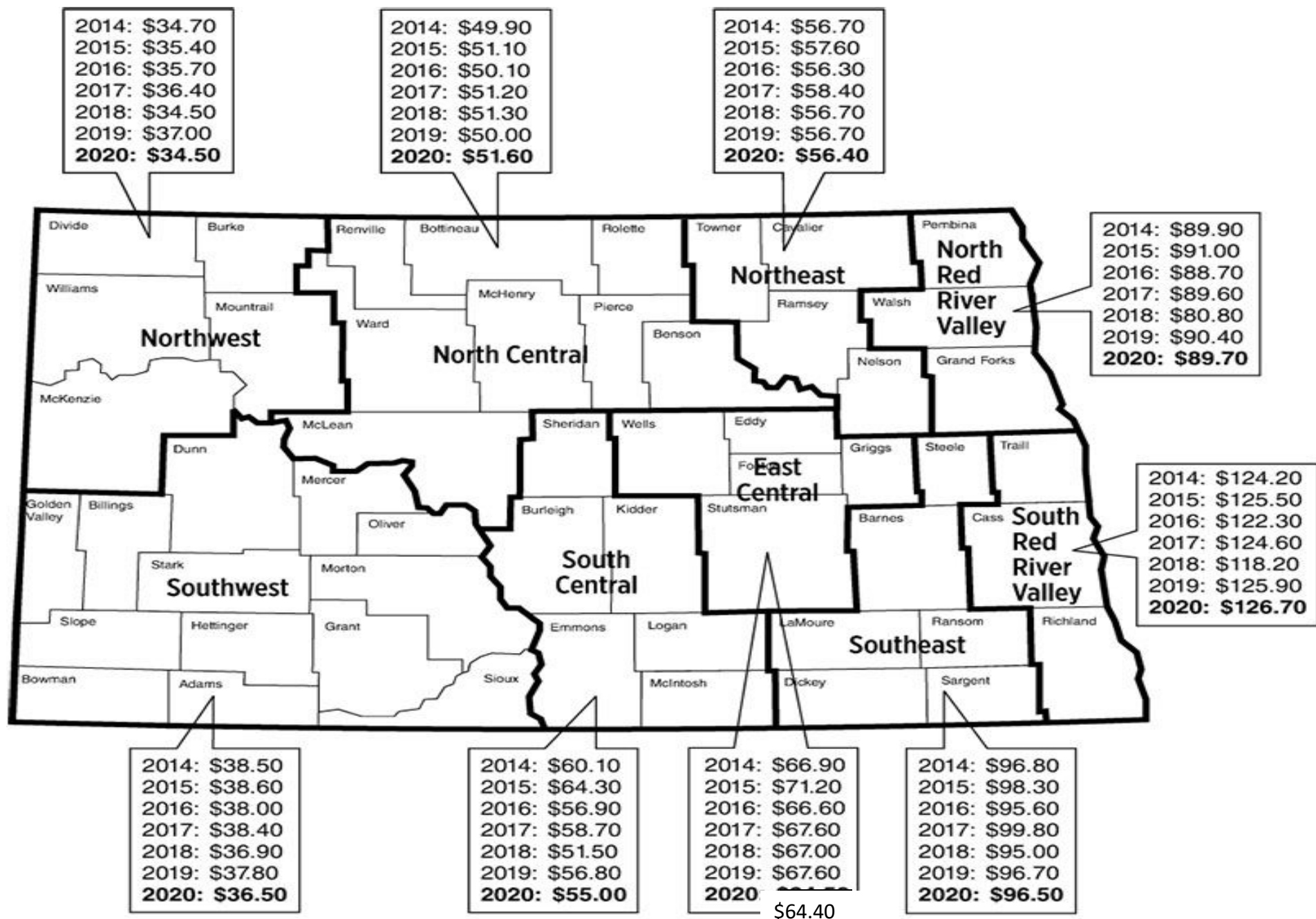


# North Dakota Cropland Values and Cash Rents – State Averages



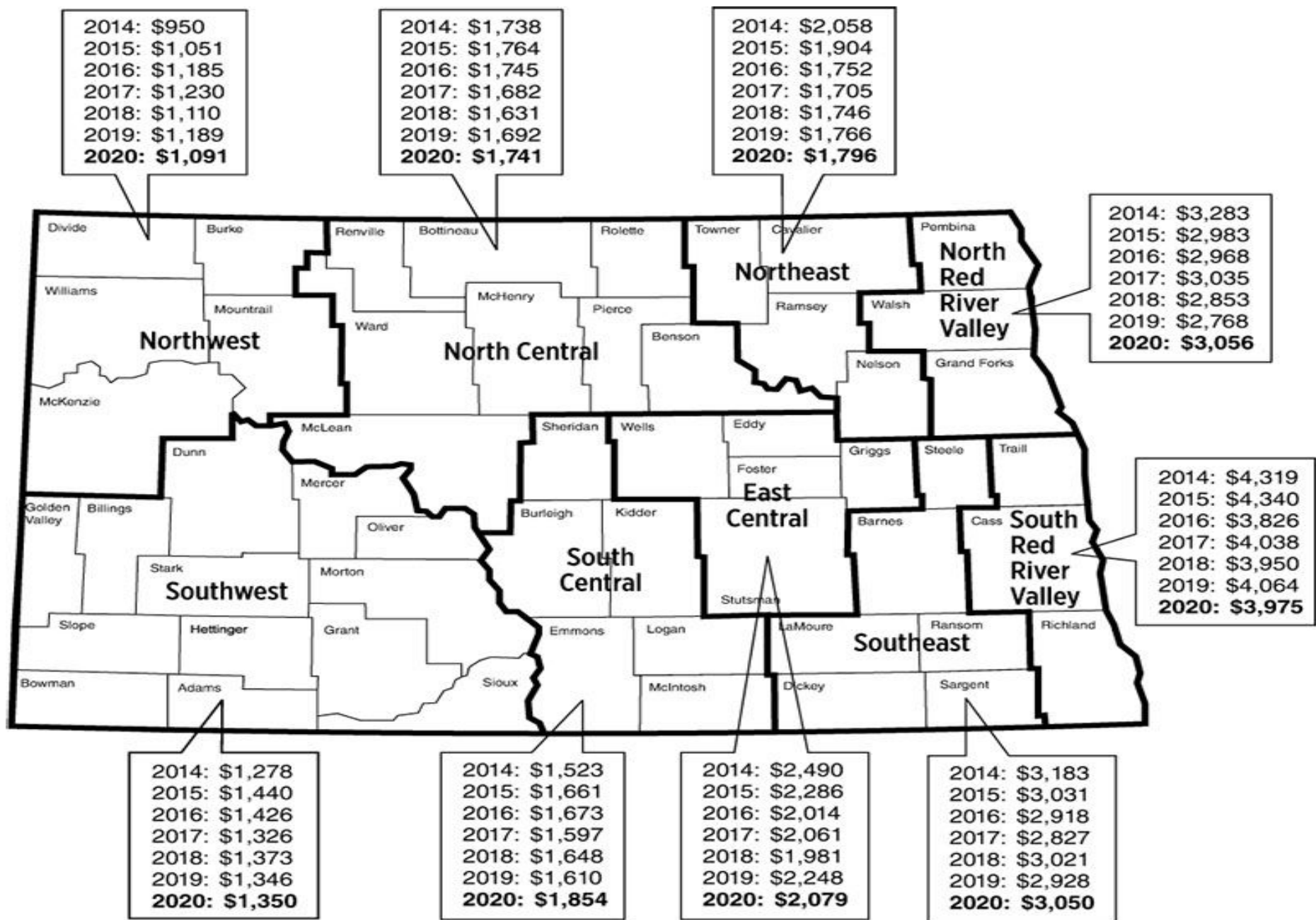
## Cropland Rent to Value Ratio





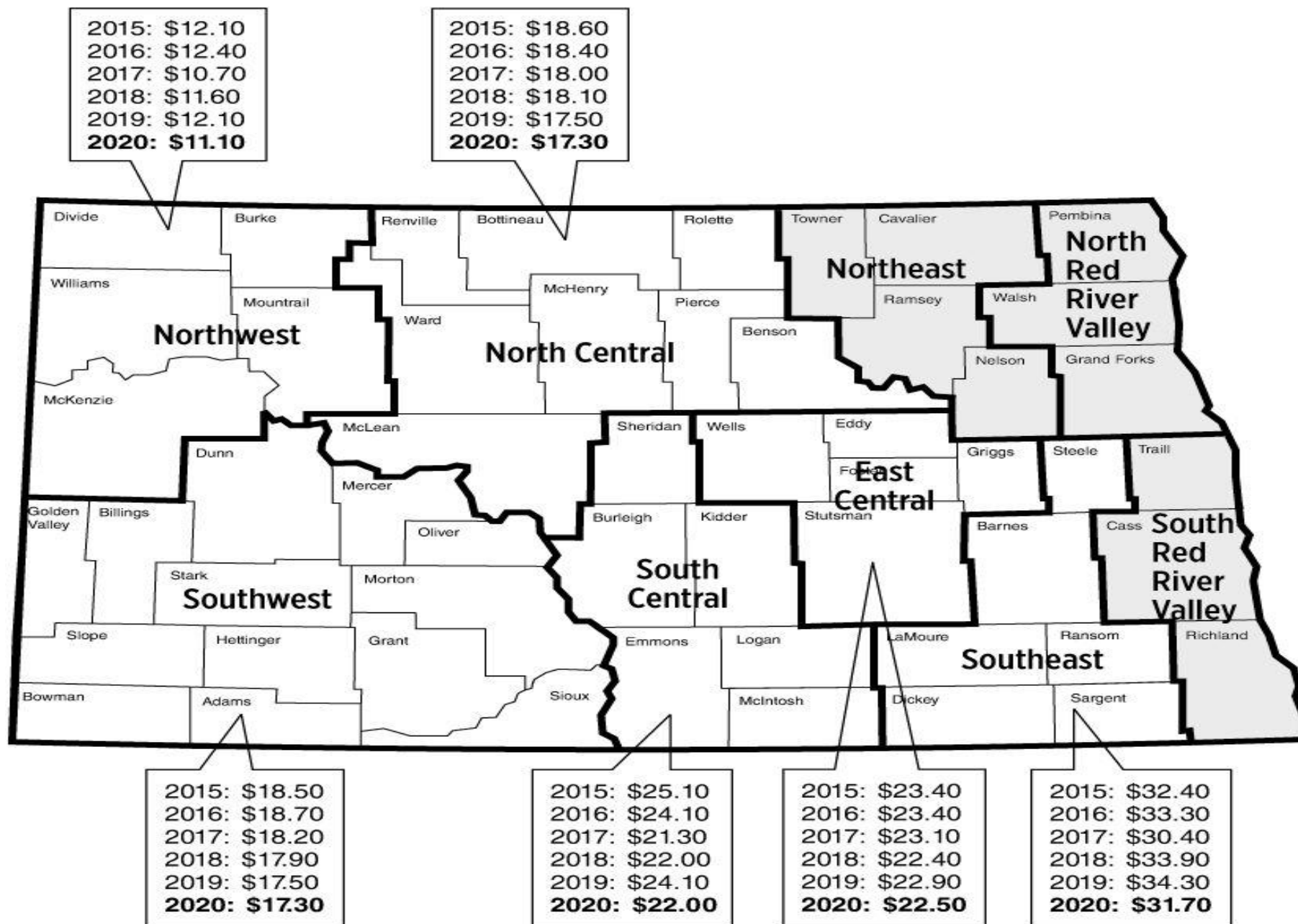
**Estimated average cash rent per acre of cropland  
in North Dakota from 2014 to 2020.**



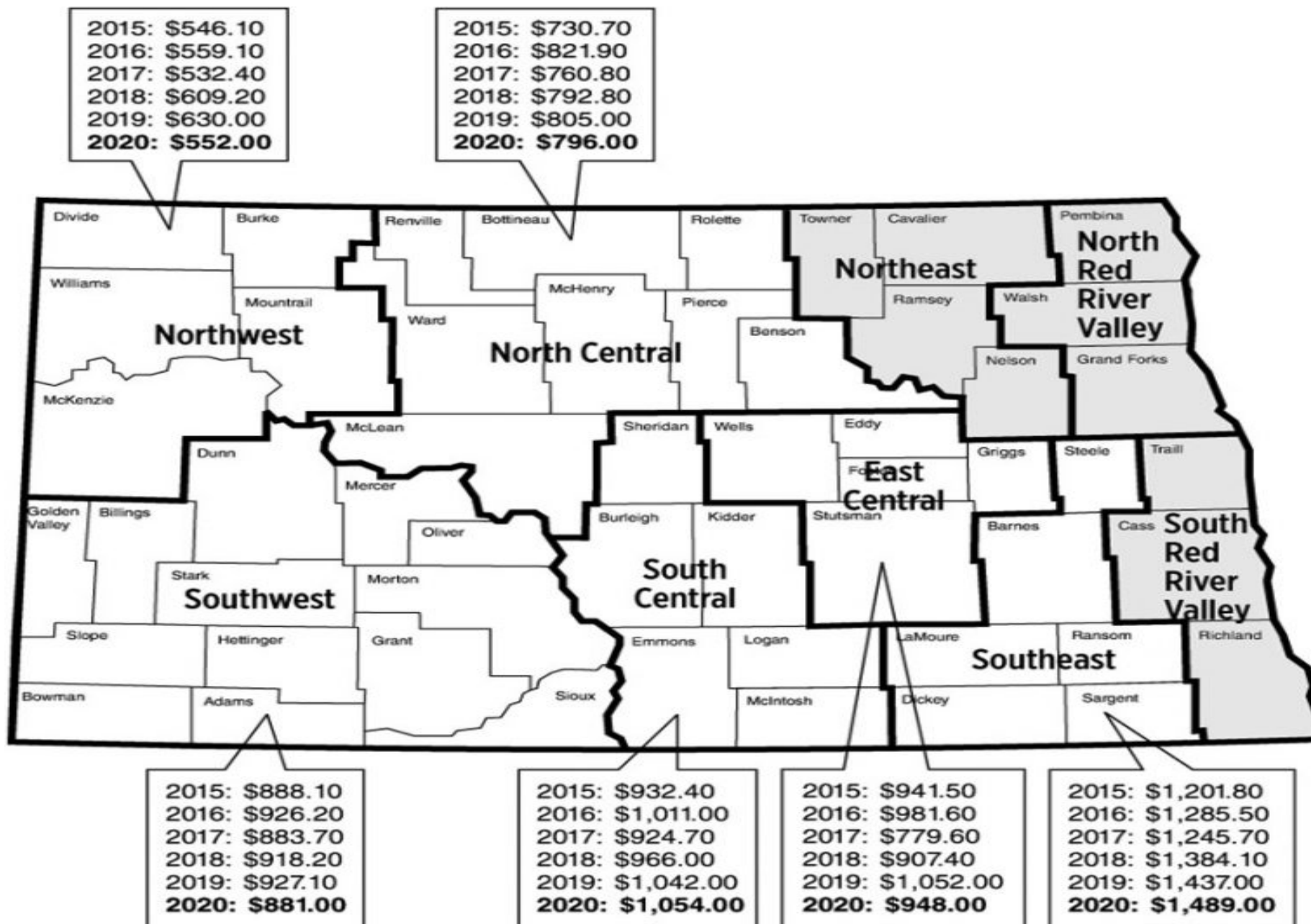


**Estimated average per-acre values of cropland  
in North Dakota from 2014 to 2020.**



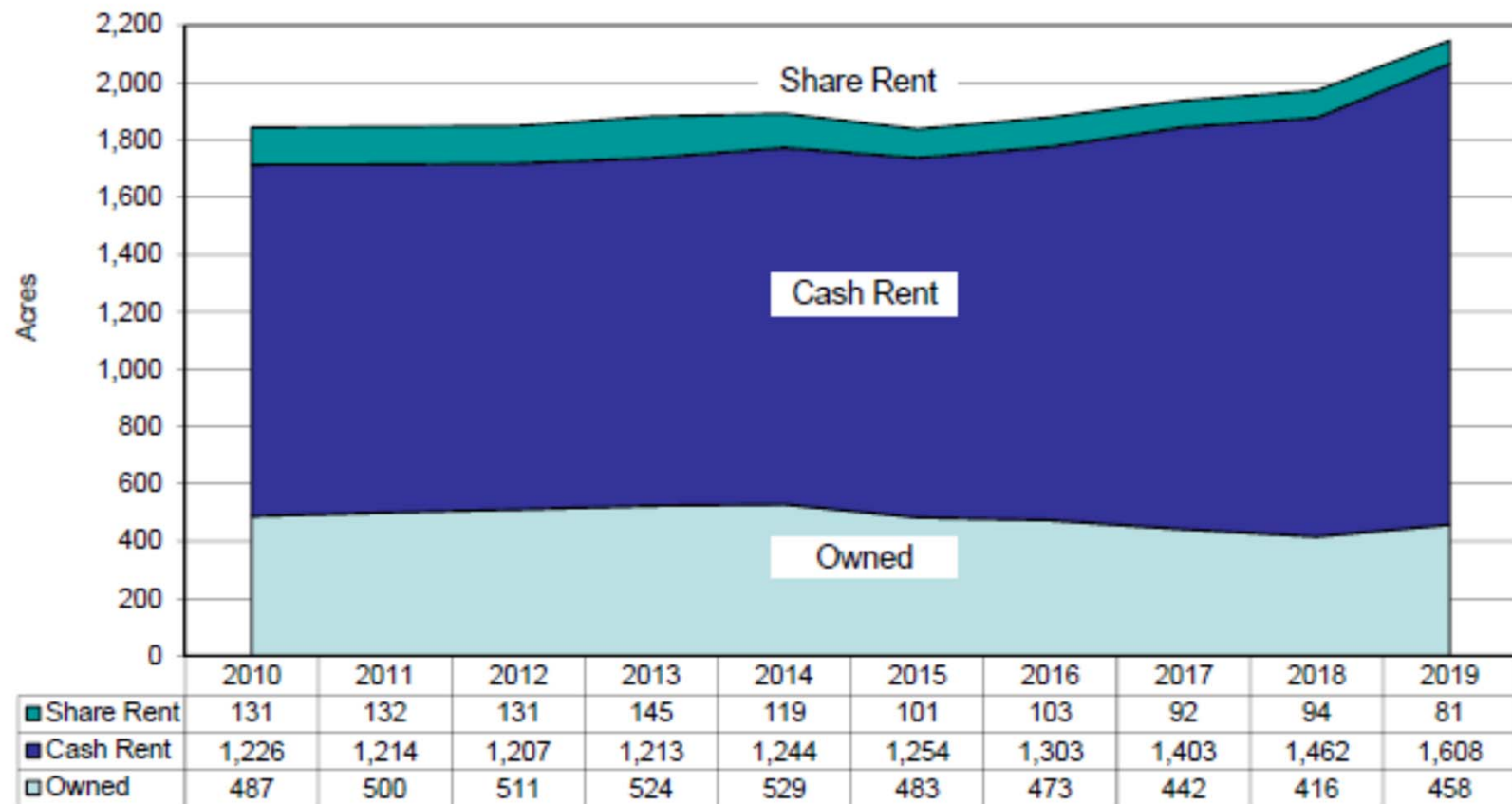


**Estimated average cash rent per acre of pasture  
in North Dakota from 2015 to 2020.**



**Estimated average per acre values of pasture  
in North Dakota from 2015 to 2020.**

**Figure 8. Crop Acreage Per Farm**  
N.D. Farm Business Management Education Program



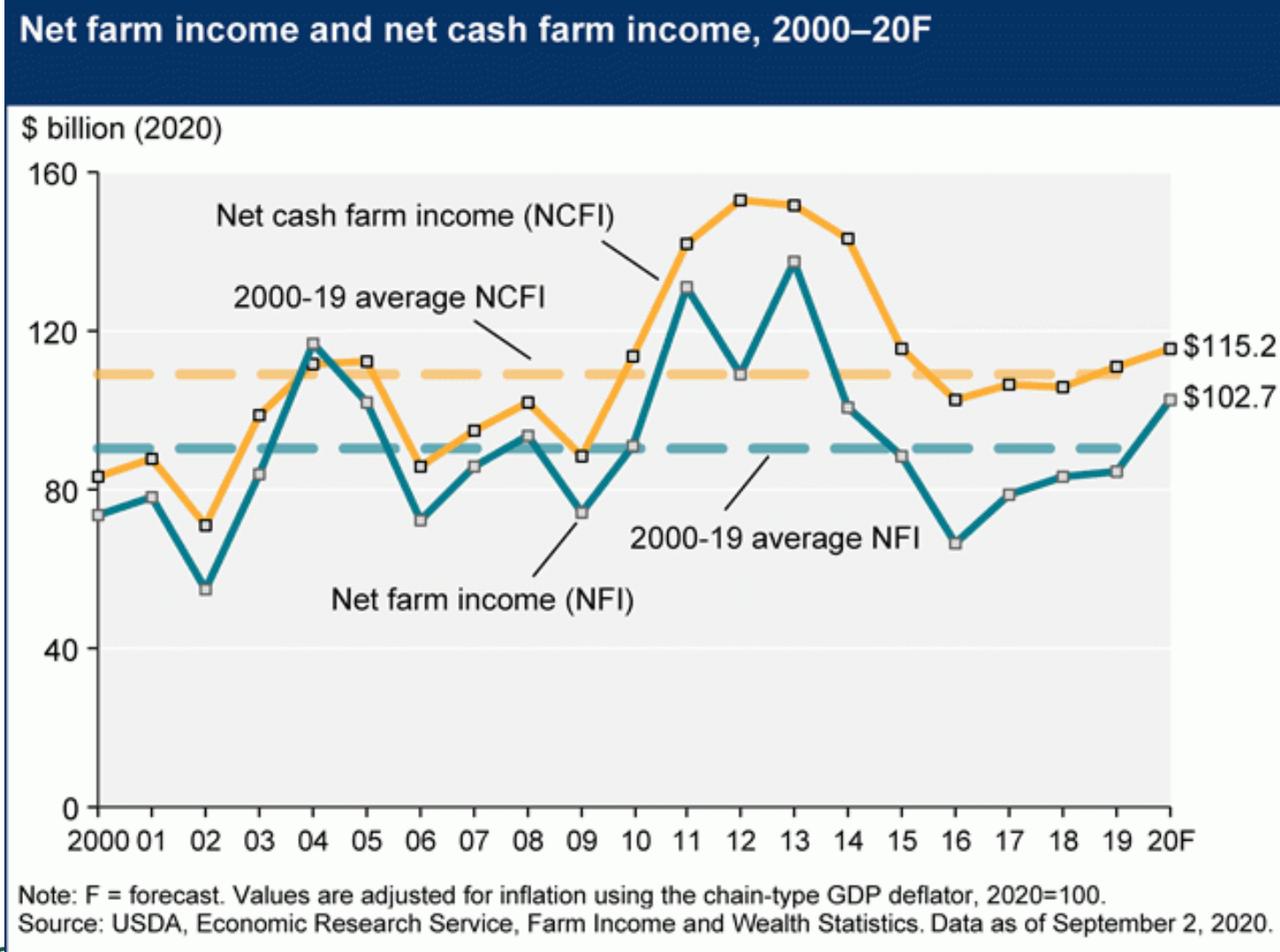
# Governmental Assistance and Net Farm Income

- A Large Share of Net Farm Income in ND over the last 3 years coming from one-off government programs
- How does Net Farm Income look for 2020/2021?

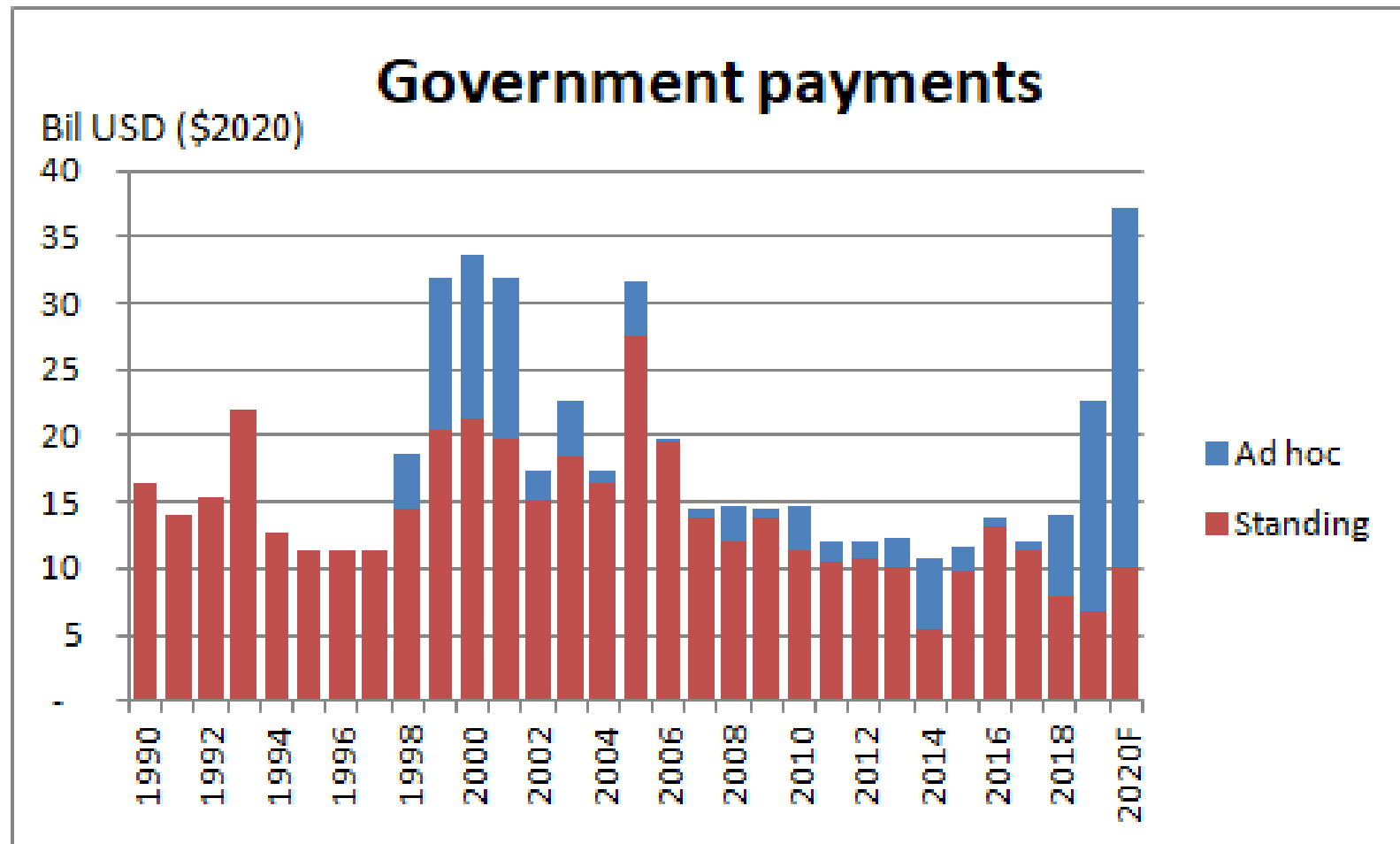




# Net Farm Income Up in 2020?



# Ad hoc vs. Standing Farm Government Payments



## 2018 Net Farm Income and Government Payments for the Low, Mid and Highest Net Farm Income Groups.

|                                            | State Avg. | Low 20%   | 40-60%    | High 20%    |
|--------------------------------------------|------------|-----------|-----------|-------------|
| <u>Gross cash farm income</u>              | \$772,147  | \$630,177 | \$640,028 | \$1,419,845 |
| Crop government payments                   | \$23,347   | \$17,734  | \$18,523  | \$46,221    |
| CRP payments                               | \$1,119    | \$1,119   | \$437     | \$1,623     |
| Other government payments (MFP & Disaster) | \$35,734   | \$25,106  | \$35,269  | \$57,246    |
| Total government payments                  | \$60,200   | \$43,959  | \$54,229  | \$105,090   |
|                                            |            |           |           |             |
| Net farm income                            | \$116,227  | -\$42,700 | \$80,927  | \$365,638   |

# 2019 Net Farm Income and Government Payments for the Low, Mid and Highest Net Farm Income Groups.

|                                            | State Avg. | Low 20%   | 40-60%    | High 20%    |
|--------------------------------------------|------------|-----------|-----------|-------------|
| Gross cash farm income                     | \$846,523  | \$954,899 | \$514,996 | \$1,534,550 |
| Crop government payments                   | \$16,943   | \$13,808  | \$7,367   | \$38,279    |
| CRP payments                               | \$1,222    | \$527     | \$1,044   | \$3,102     |
| Other government payments (MFP & Disaster) | \$68,404   | \$63,903  | \$43,275  | \$127,817   |
| Total government payments                  | \$86,569   | \$78,238  | \$51,686  | \$169,198   |
|                                            |            |           |           |             |
| Net farm income                            | \$74,100   | -\$96,157 | \$39,002  | \$317,478   |



# FAPRI U.S. Farm Income Projections to 2025

## U.S. farm income

| Calendar year              | 2018              | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  |
|----------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|
|                            | (Billion dollars) |       |       |       |       |       |       |       |
| Farm receipts              | 400.6             | 405.4 | 391.8 | 395.5 | 415.7 | 430.5 | 439.8 | 447.7 |
| Crops                      | 195.1             | 194.6 | 193.8 | 197.7 | 204.9 | 210.6 | 214.8 | 218.4 |
| Livestock                  | 176.3             | 176.0 | 163.2 | 168.9 | 180.9 | 189.0 | 193.2 | 196.5 |
| Farm-related               | 29.1              | 34.7  | 34.8  | 29.0  | 29.8  | 30.9  | 31.9  | 32.8  |
| Direct government payments | 13.7              | 22.4  | 32.8  | 15.3  | 12.1  | 10.5  | 9.5   | 9.0   |
| Gross cash income          | 414.2             | 427.8 | 424.5 | 410.8 | 427.7 | 441.0 | 449.3 | 456.7 |
| Nonmoney income            | 19.1              | 18.4  | 18.9  | 19.0  | 18.9  | 18.9  | 19.0  | 19.0  |
| Value of inventory change  | -8.2              | -13.7 | -0.2  | -1.5  | -0.3  | 0.0   | 0.3   | 0.4   |
| Gross farm income          | 425.1             | 432.4 | 443.3 | 428.3 | 446.4 | 459.9 | 468.6 | 476.1 |
| Cash expenses              | 311.4             | 317.5 | 313.9 | 315.7 | 325.1 | 333.1 | 338.9 | 345.2 |
| Total expenses             | 343.8             | 348.7 | 344.7 | 346.2 | 355.6 | 363.7 | 369.6 | 376.1 |
| Net cash income            | 102.8             | 110.3 | 110.6 | 95.1  | 102.7 | 107.9 | 110.5 | 111.6 |
| Net farm income            | 81.3              | 83.7  | 98.6  | 82.2  | 90.8  | 96.2  | 99.0  | 100.1 |
| Deflated (2020 \$)         | 84.7              | 85.2  | 98.6  | 81.2  | 88.9  | 92.9  | 93.9  | 93.3  |

# Concluding Comments

- Production costs and land values remain mostly flat or lower including land values and rental rates as well as interest rates
- Farmer optimism has improved since the early months of the pandemic
- 1-off government program payments have been a major life line for ND and US producers
- Projections for 2021 lower than 2020 in absence of assistance beyond disaster and 2018 farm bill payments. Projected to improve into 2022 and beyond