

Farm Financial Outlook: Could The Farm and Ranch Situation Improve During a Pandemic?

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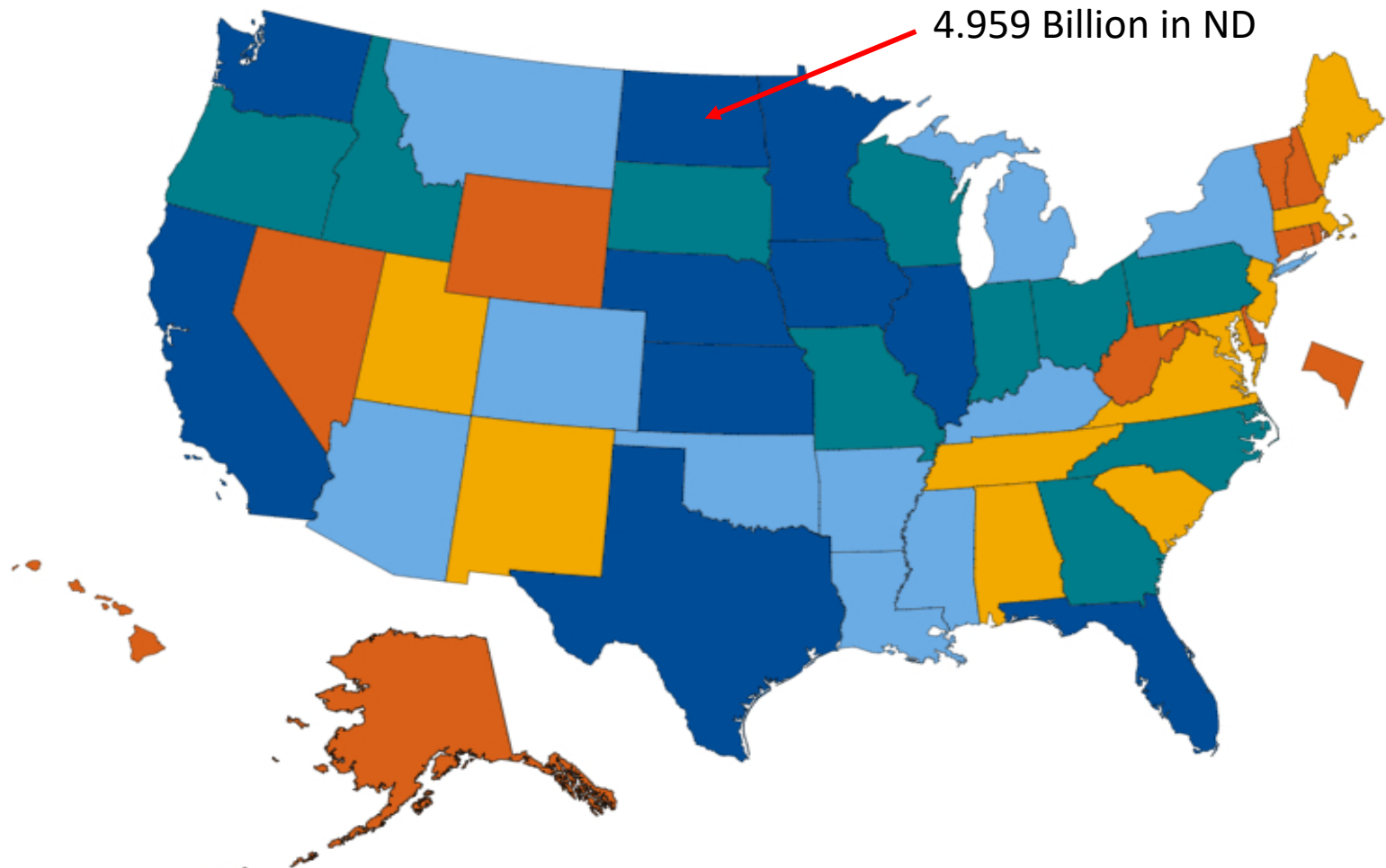
Department of Agribusiness and Applied
Economics

NDSU Extension



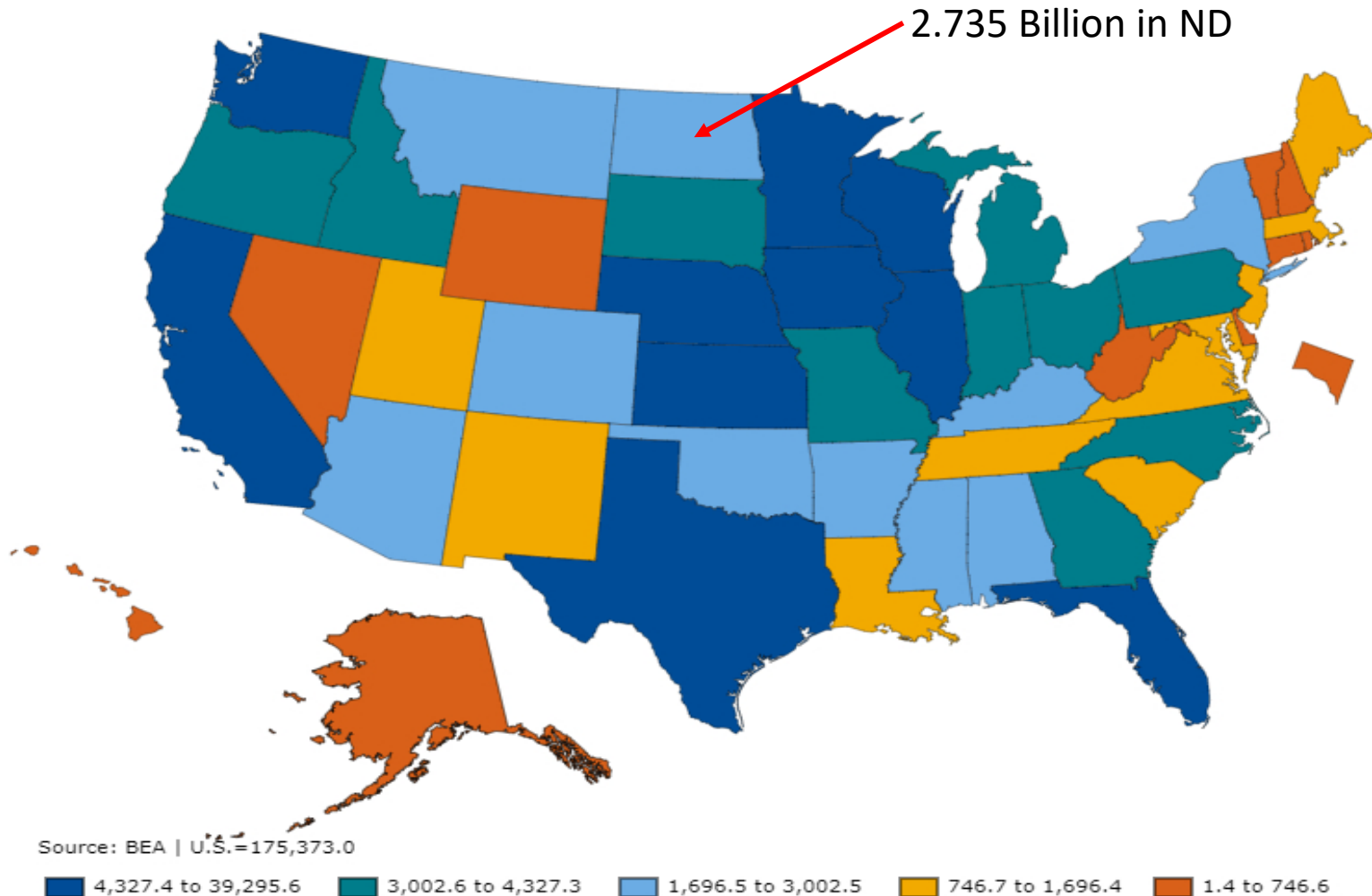
Agricultural GDP by State - 2012

United States, Gross domestic product (GDP) by state: Agriculture, forestry, fishing and hunting, 2012



Agricultural GDP by State - 2019

United States, Gross domestic product (GDP) by state: Agriculture, forestry, fishing and hunting, 2019



	MN	MT	ND	SD	WI	Ninth District
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Percent of respondents who reported **decreased levels** 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	90	94	60	85
Farm household spending	52	50	60	50	40	53
Farm capital spending	74	83	80	88	60	78
Loan demand	20	33	10	6	20	15

	MN	MT	ND	SD	WI	Ninth District
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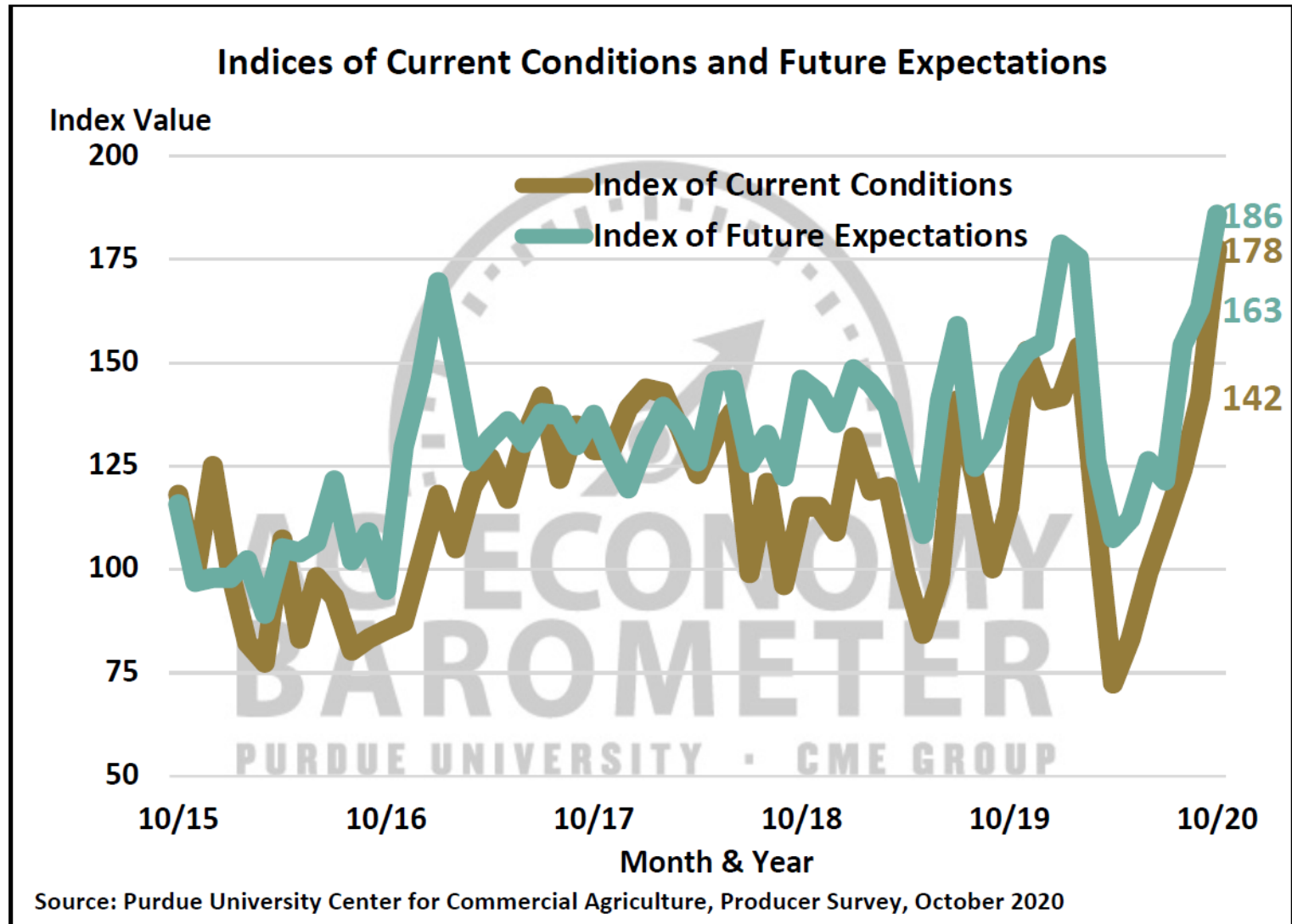
Percent of respondents who reported **increased levels** for the past three months compared with the same period last year:

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

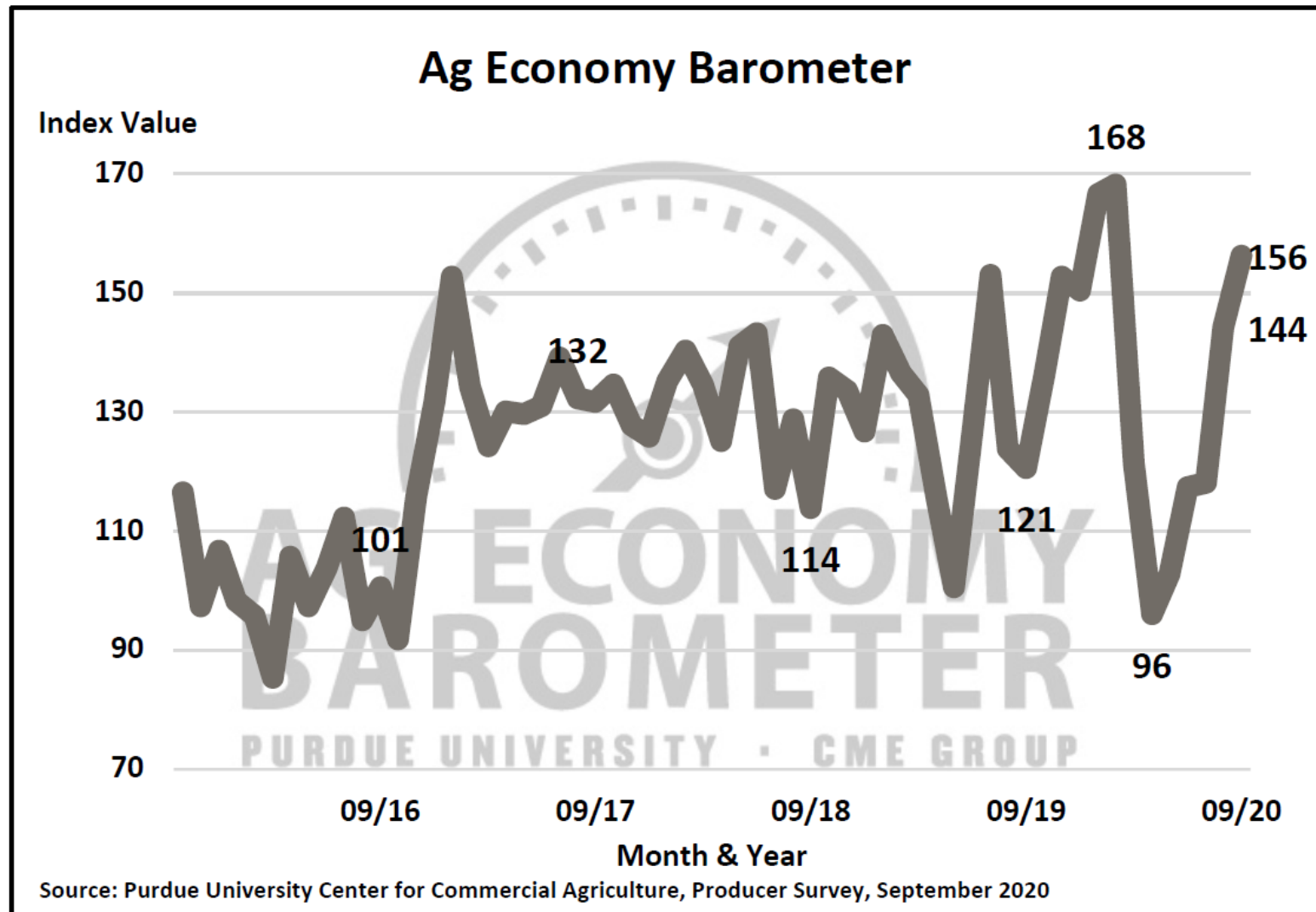
	MN	MT	ND	SD	WI	Ninth District
Percent of respondents who <u>expect decreased</u> levels for the next three months:						
Rate of loan repayments	33	50	45	40	–	37
Net farm income	81	83	70	81	40	76
Farm household spending	48	67	55	44	20	49
Farm capital spending	74	83	65	81	40	72
Loan demand	19	–	20	19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

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

Purdue University and CME Group Ag. Economy Barometer

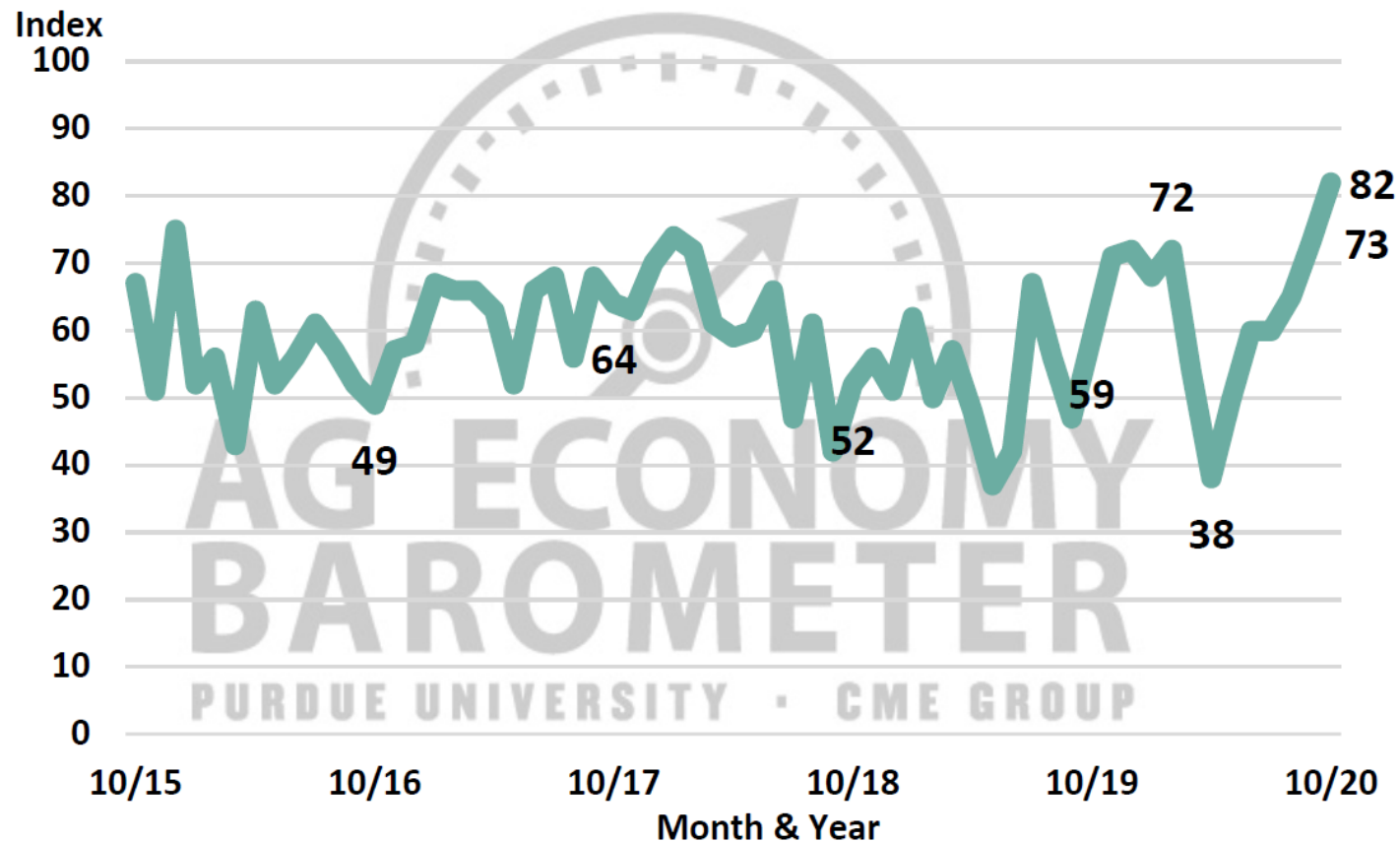


Purdue University and CME Group Ag. Economy Barometer



Purdue University and CME Group Ag. Economy Barometer

Farm Capital Investment Index



Source: Purdue University Center for Commercial Agriculture, Producer Survey, October 2020

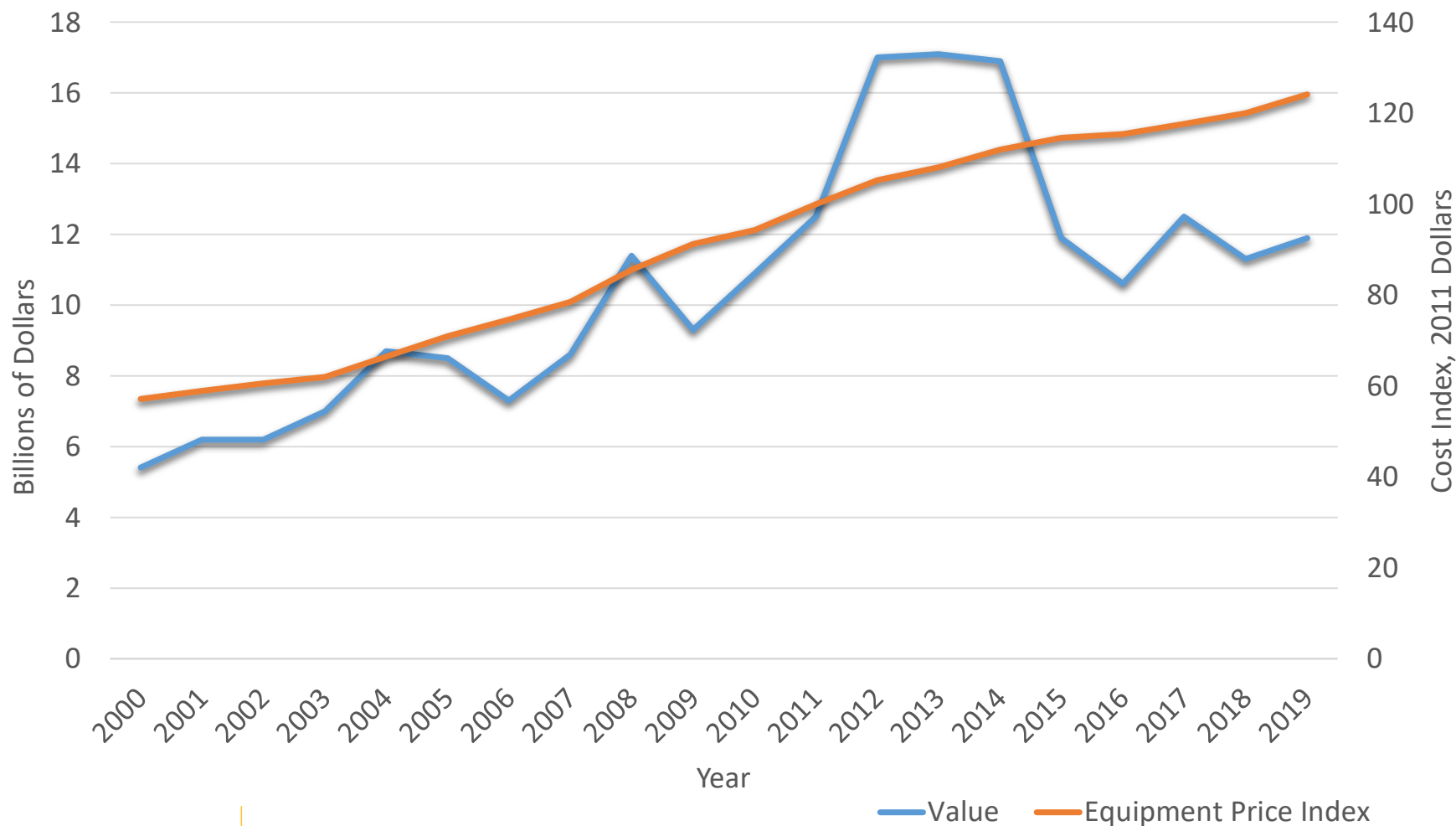
Production Costs

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

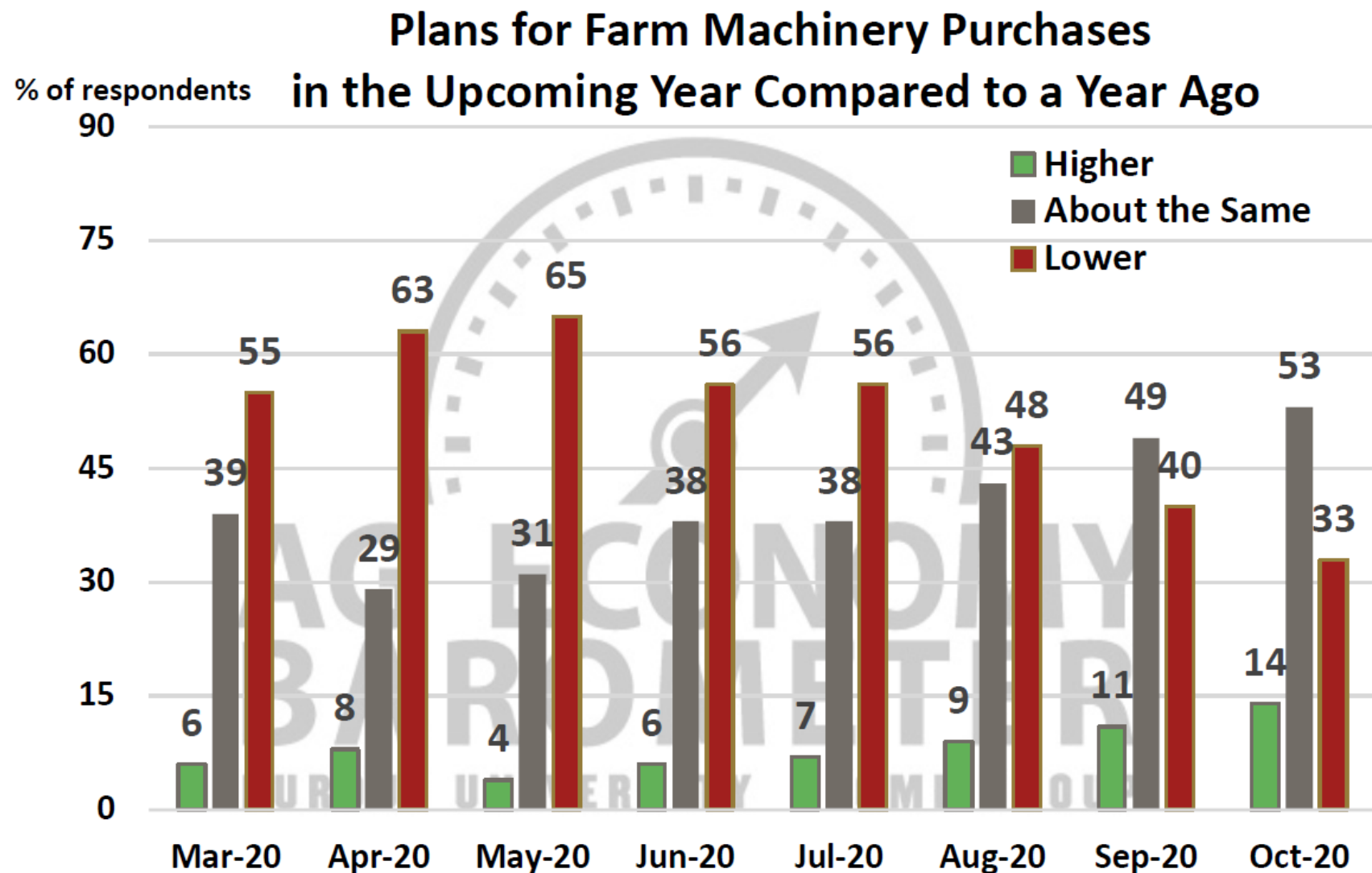


Production Costs - Equipment

Farm Equipment Purchases and Costs



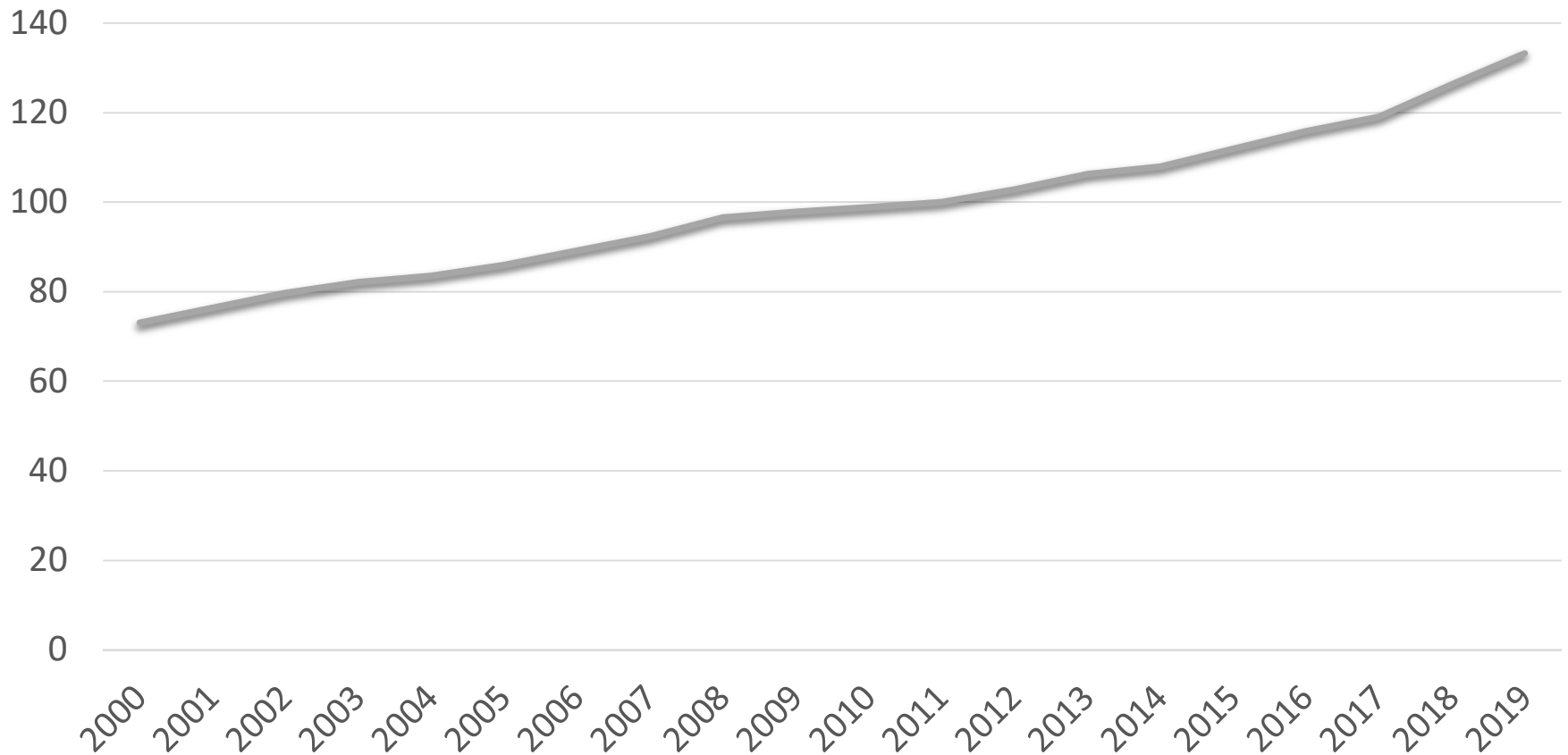
Machinery Purchase Expectations



Source: Purdue Center for Commercial Agriculture, Producer Survey, October 2020

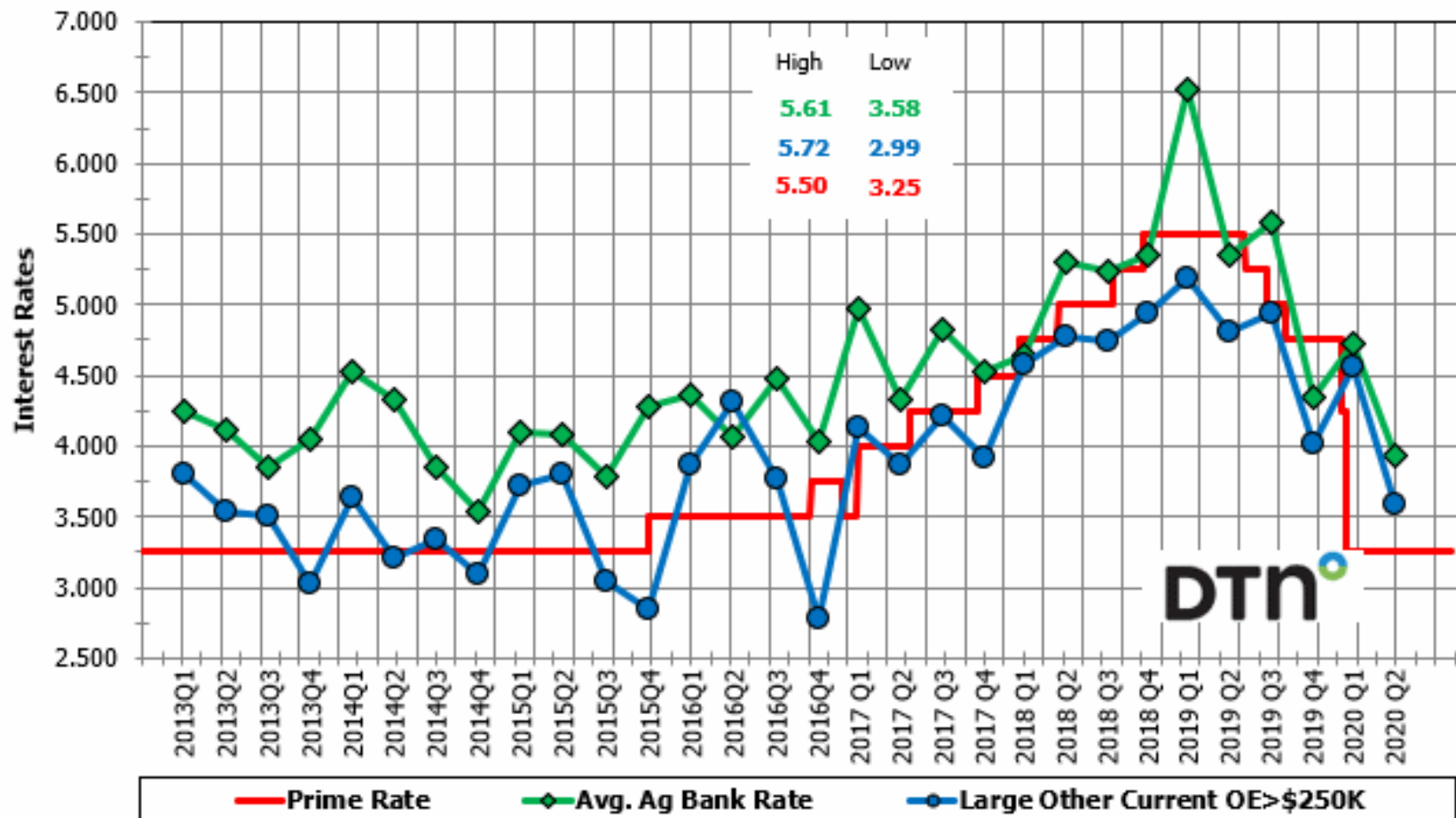
Production Costs - Labor

Farm Labor Cost Index benchmark 2011 Dollars



Farm Operating Rates

Updated 11/4/2020

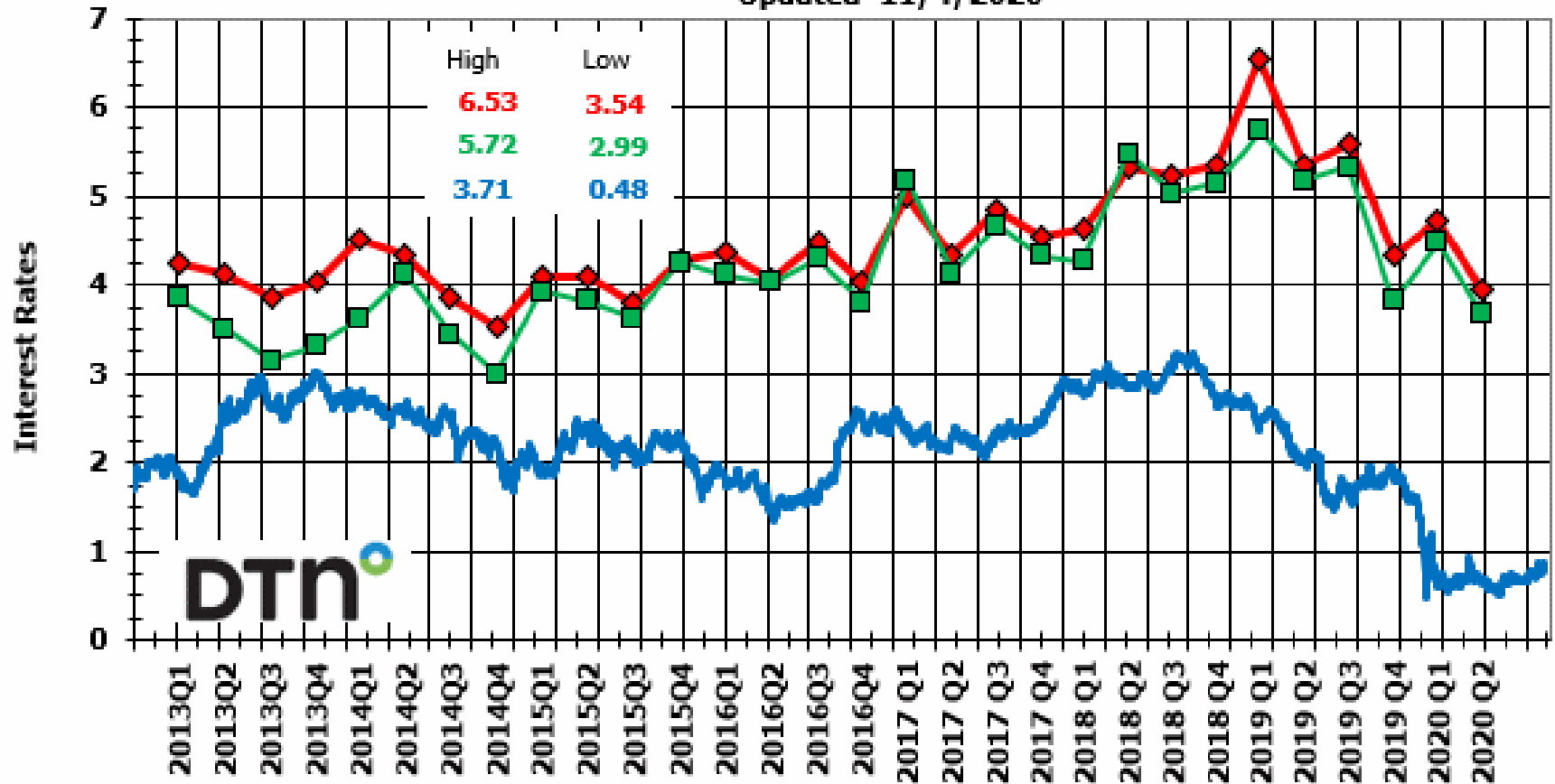


Farm operating rates remain near 60-year lows. Farm lenders with >\$25 million farm portfolios discount rates even further for loans >\$250K.

Source: DTN and Federal Reserve Data

Farm Real Estate Rates

Updated 11/4/2020



◆ Avg. Ag Bank Rate — 10-Year Treasury ■ Large Bank Rate for Loans >\$250K

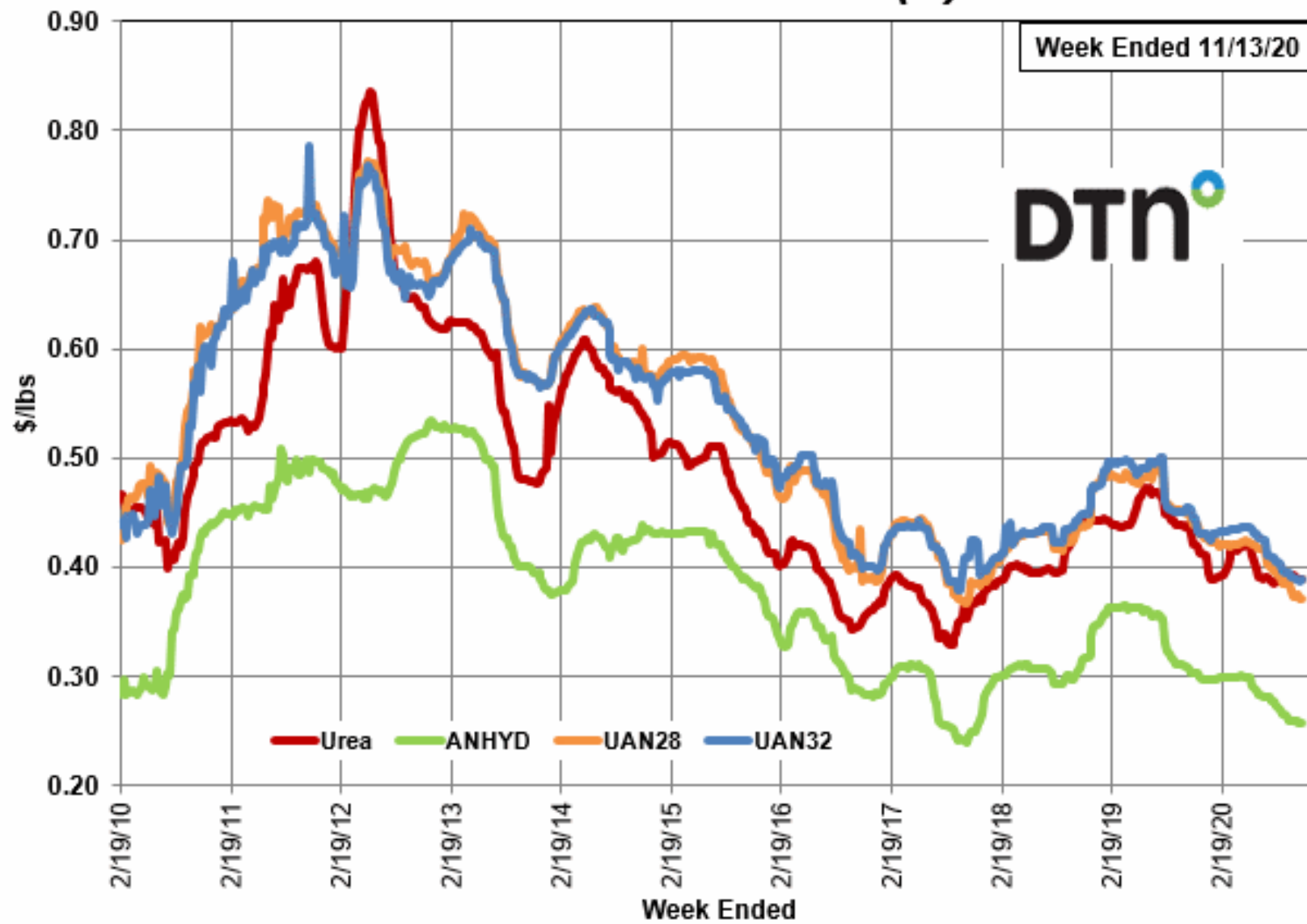
Interest rates on 10-year Treasuries and related mortgages have dived to new lows as world financial markets worry about recessions in Europe and elsewhere.

Source: DTN and Federal Reserve Data

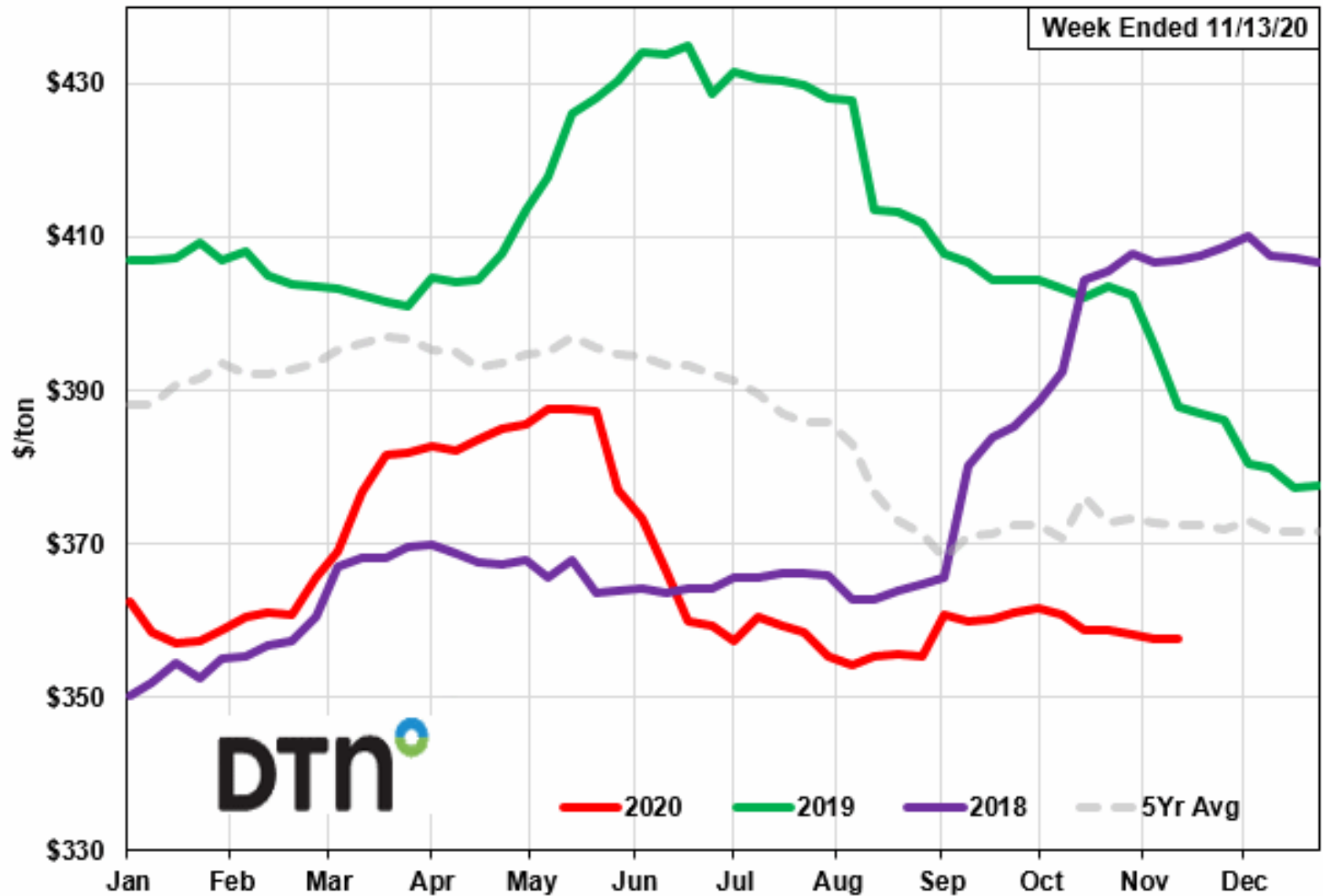
Agricultural Interest rates from the Federal Reserve Bank of Minneapolis, Quarterly Survey of Agricultural Credit Conditions

		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

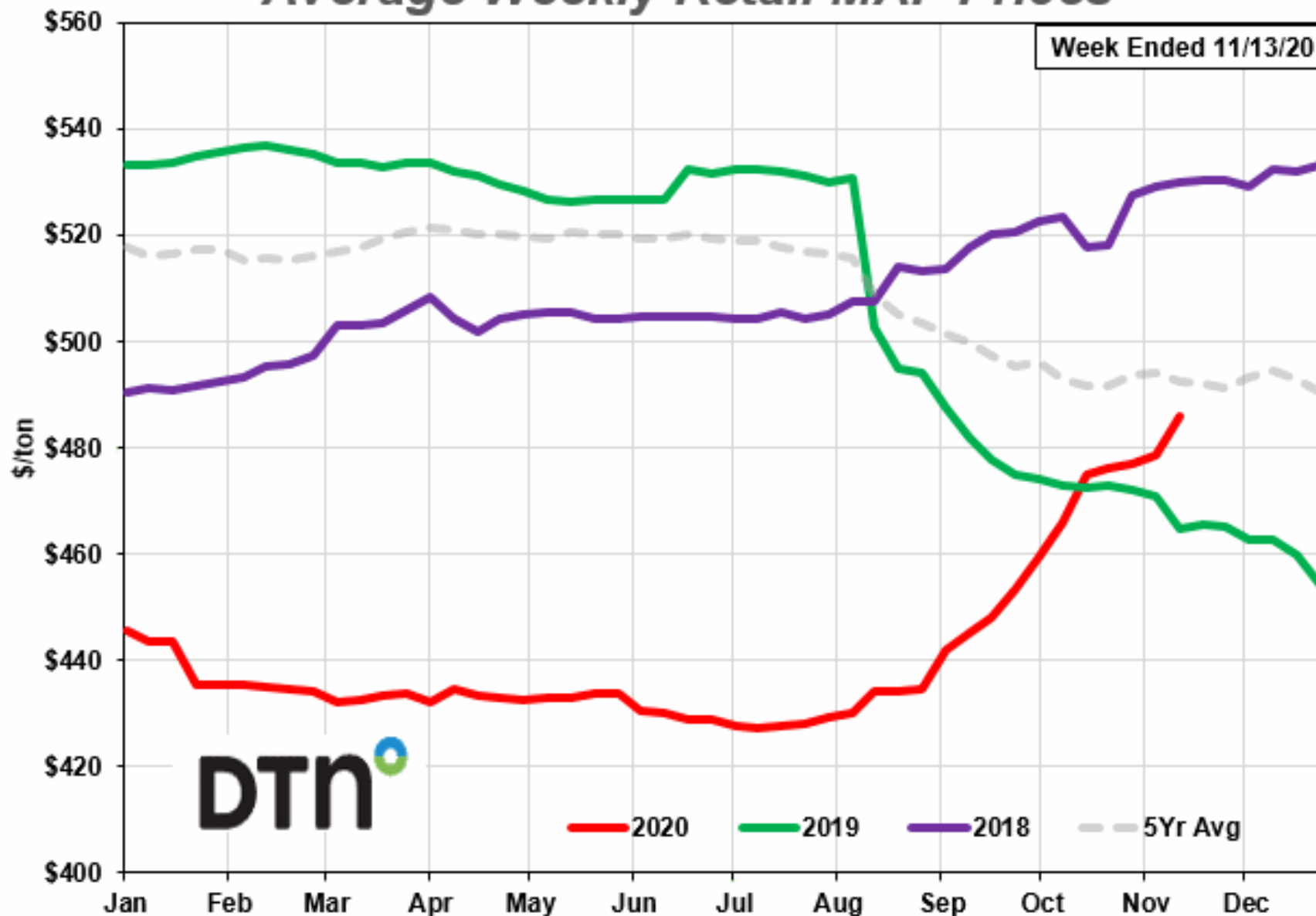
Cost of N/lb. (\$)



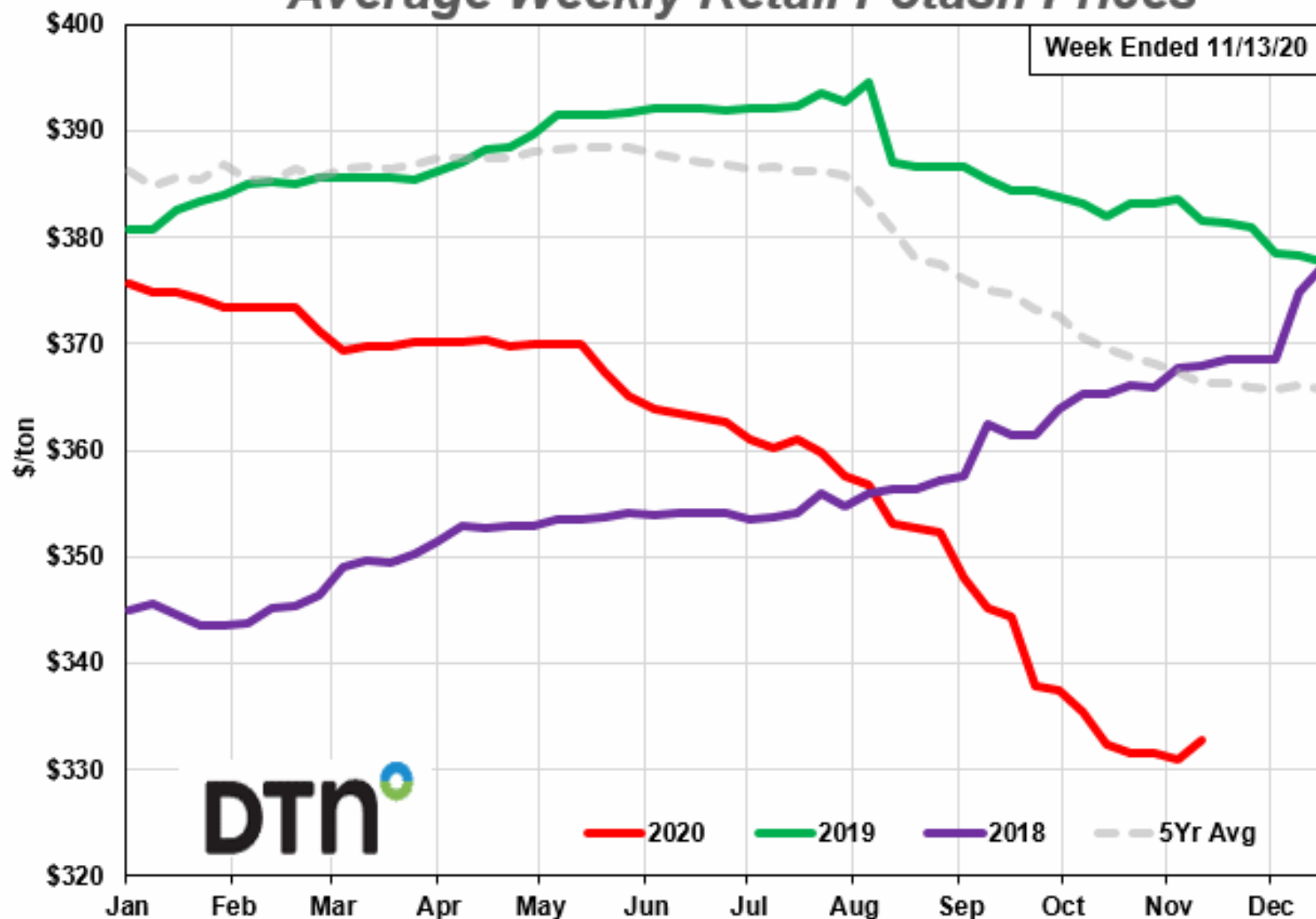
Average Weekly Retail Urea Prices



Average Weekly Retail MAP Prices



Average Weekly Retail Potash Prices

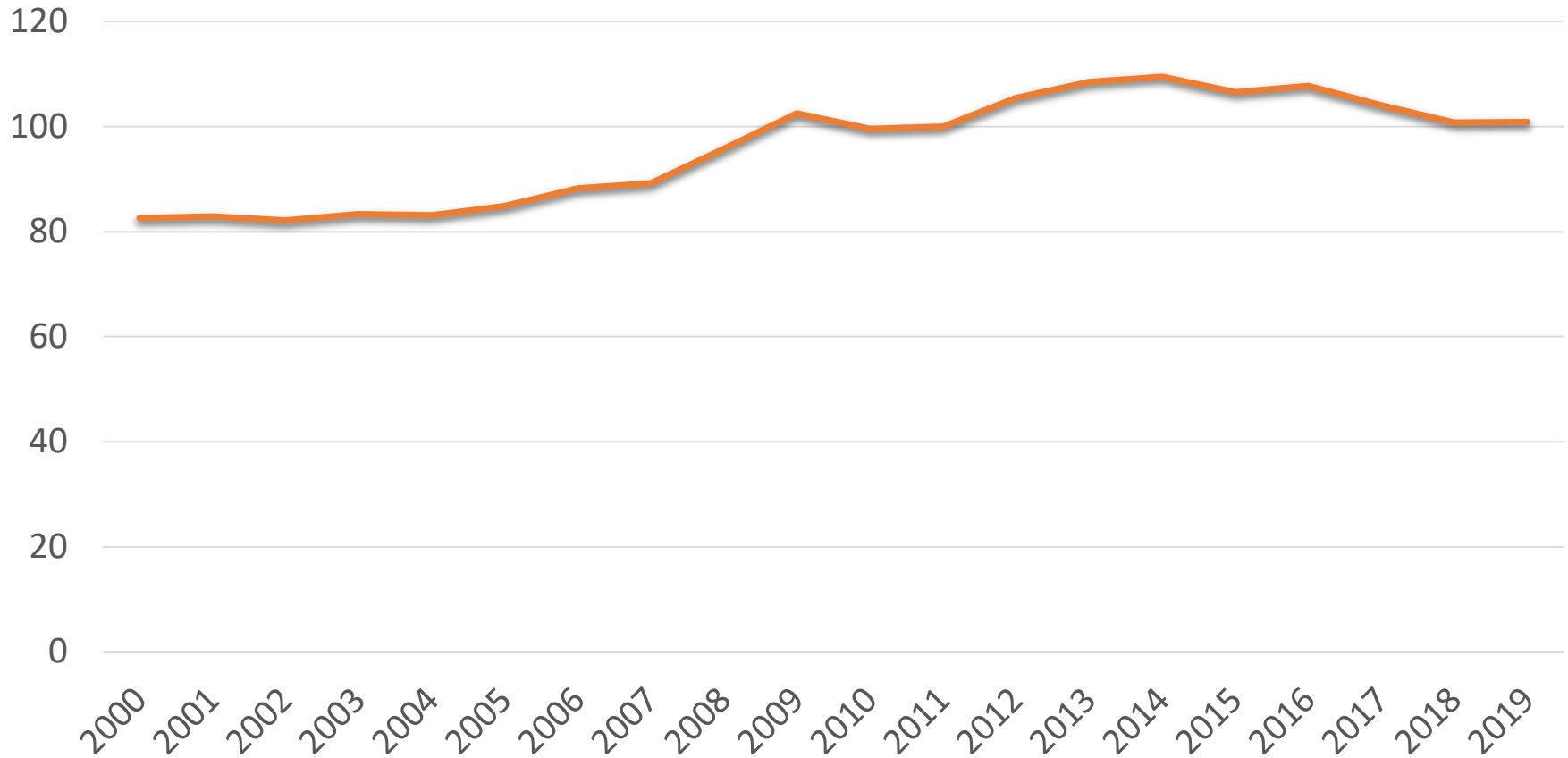


5 Year Jamestown Fuel Prices - Diesel

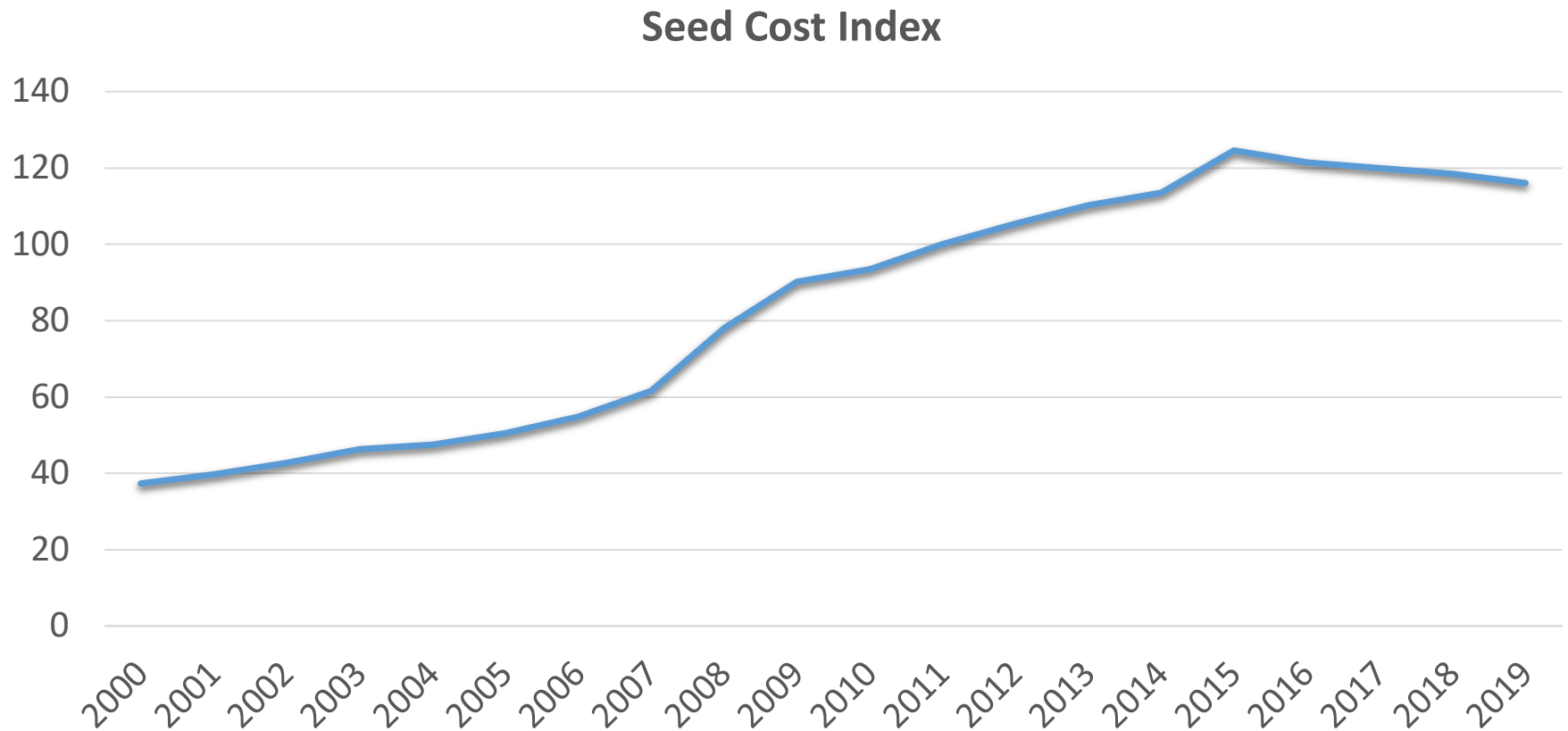


Chemical Price Index

Chemical Price Index 2011 Dollars



Seed Cost Index in 2011 Dollars



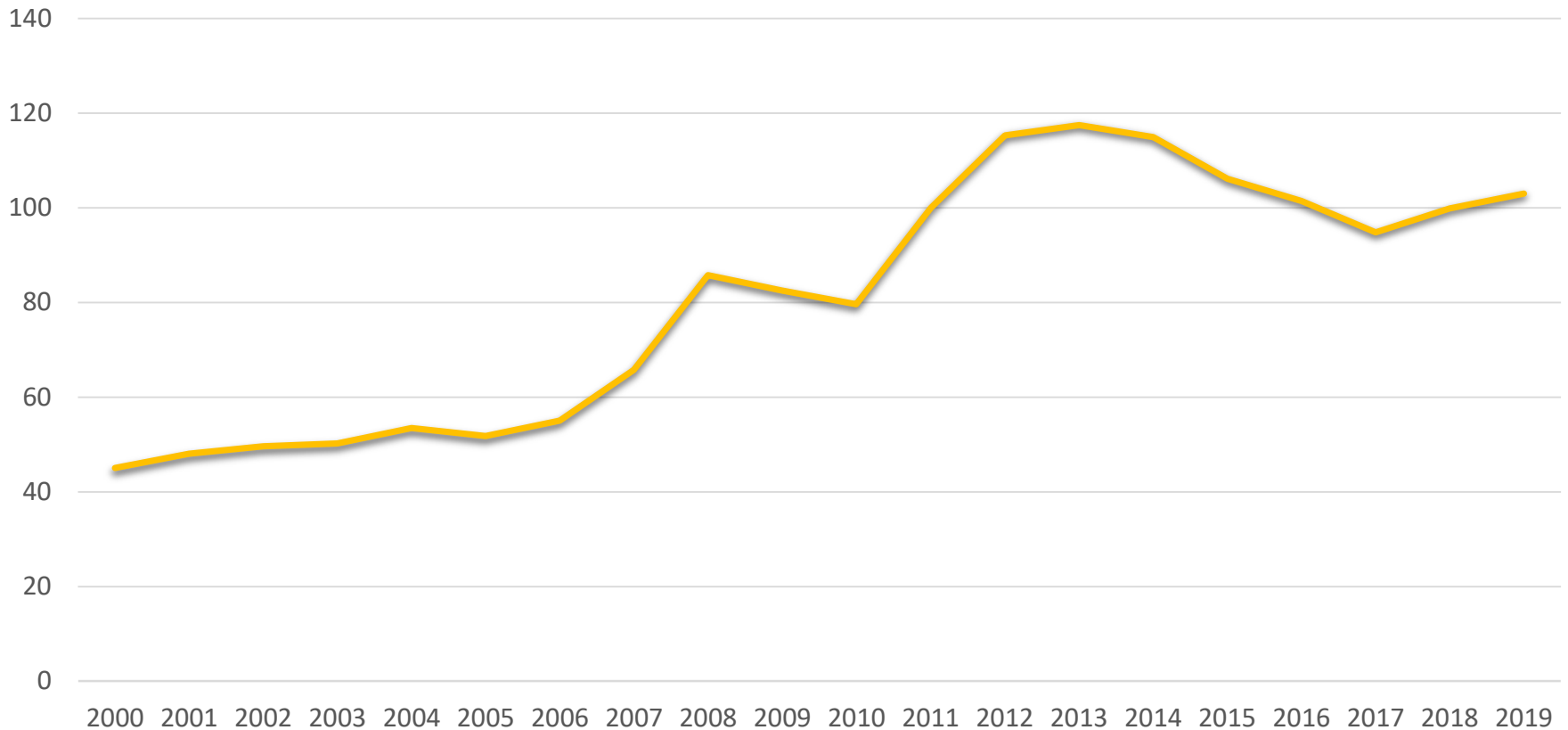
Feeder Calf Index Cost Index

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

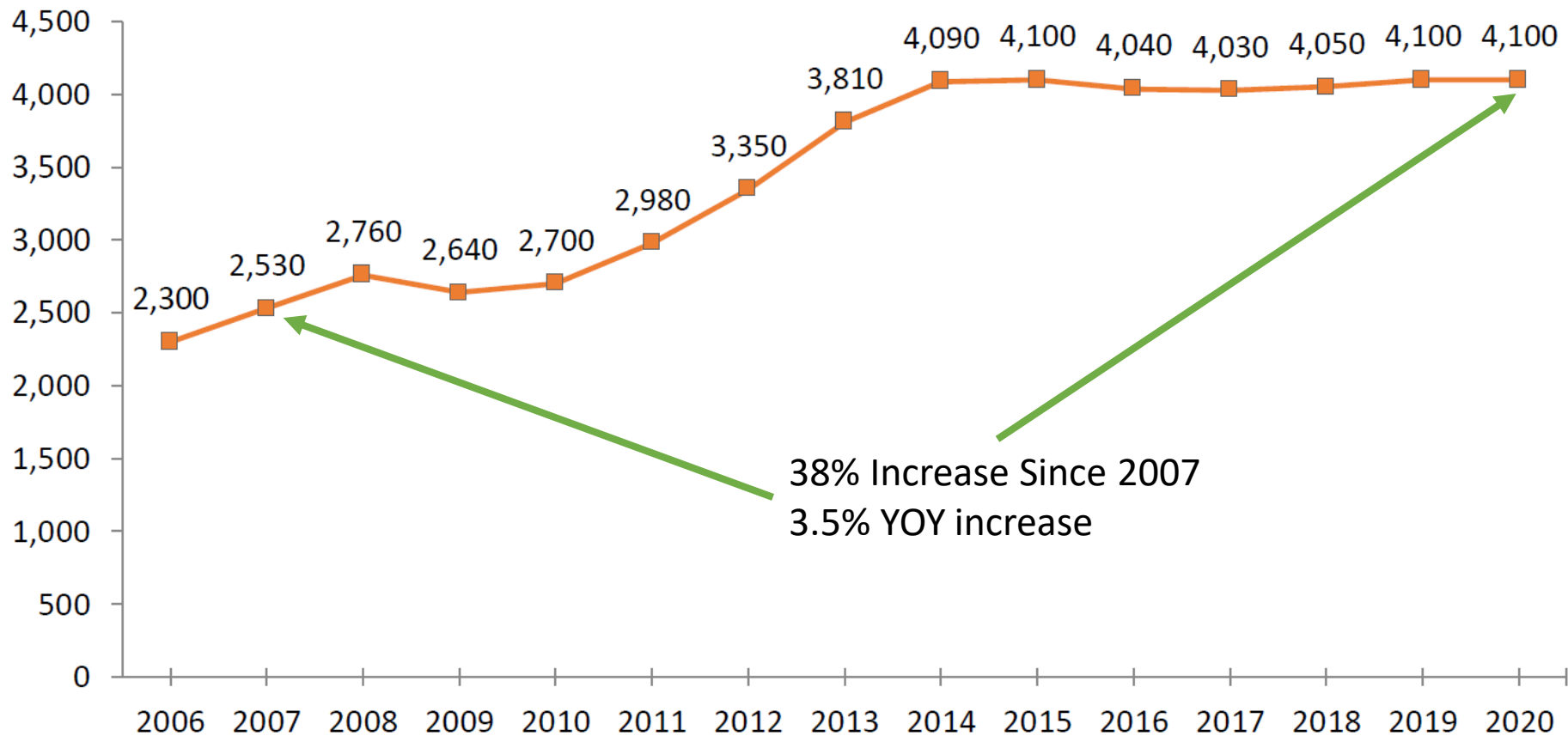
Land Values and Cash Rents

- 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

Dollars per acre



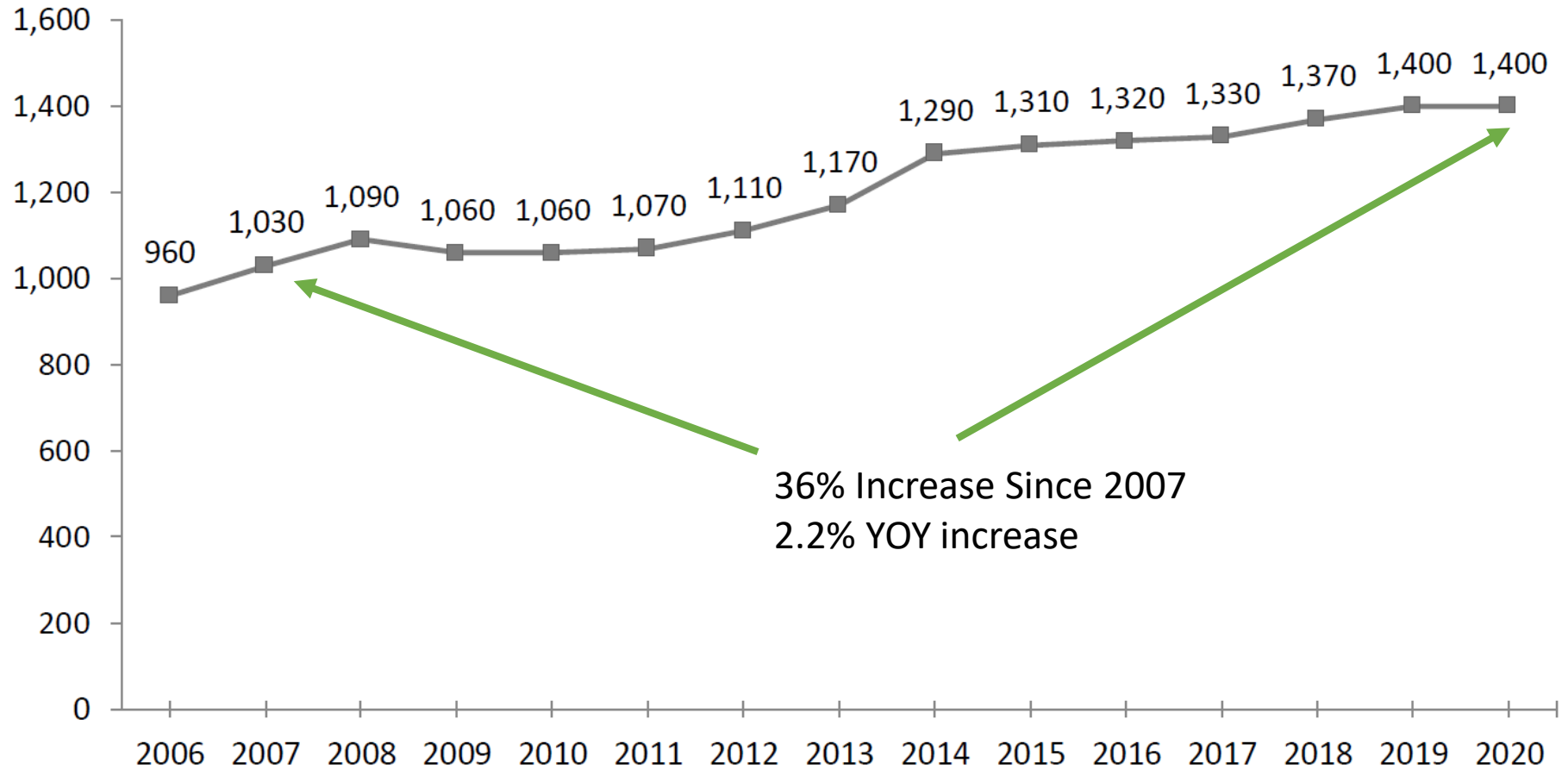
USDA - NASS
August 6, 2020

NDSU

EXTENSION AGRIBUSINESS

Average Pasture Value – United States: 2006-2020

Dollars per acre



USDA - NASS

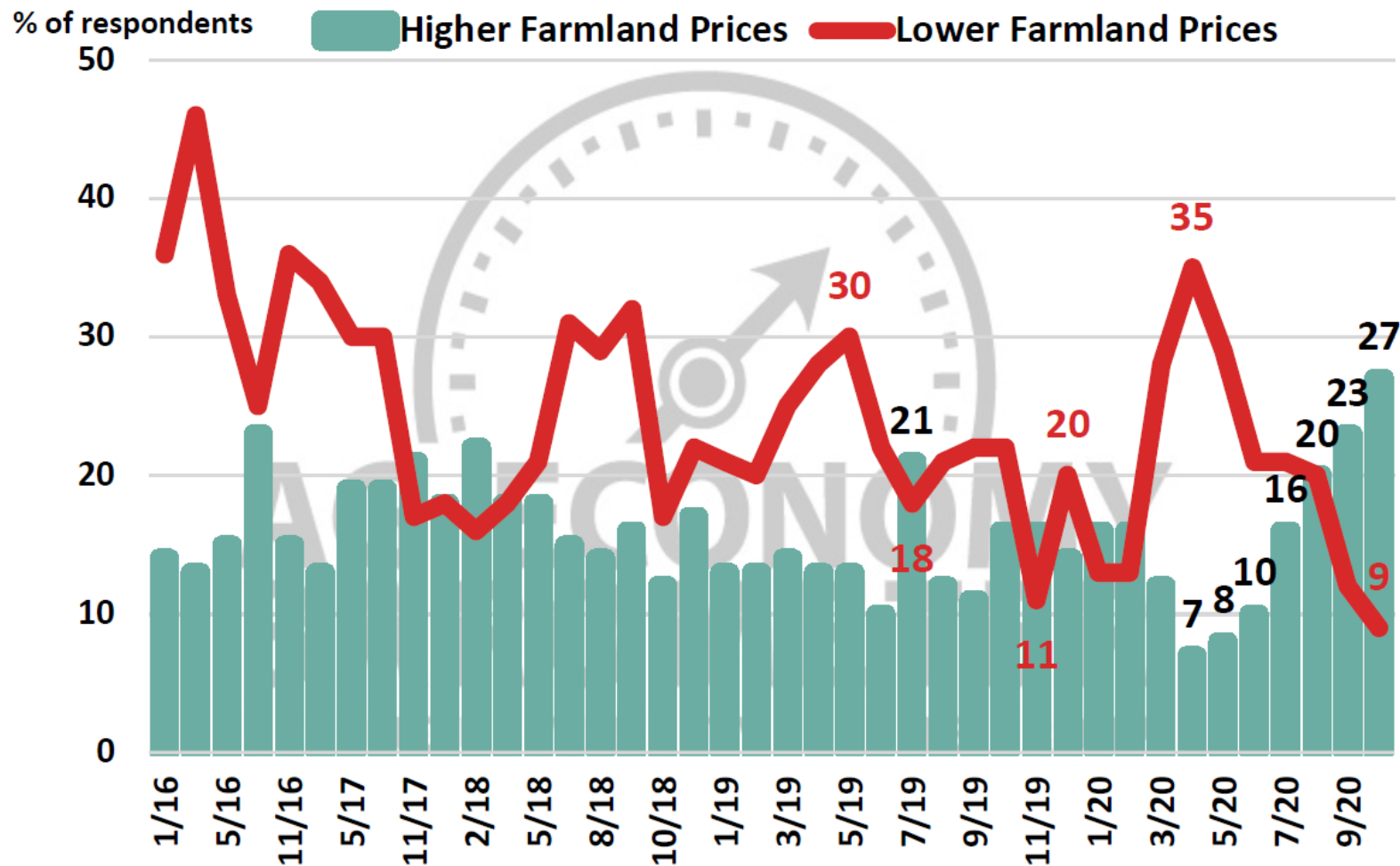
August 6, 2020

NDSU

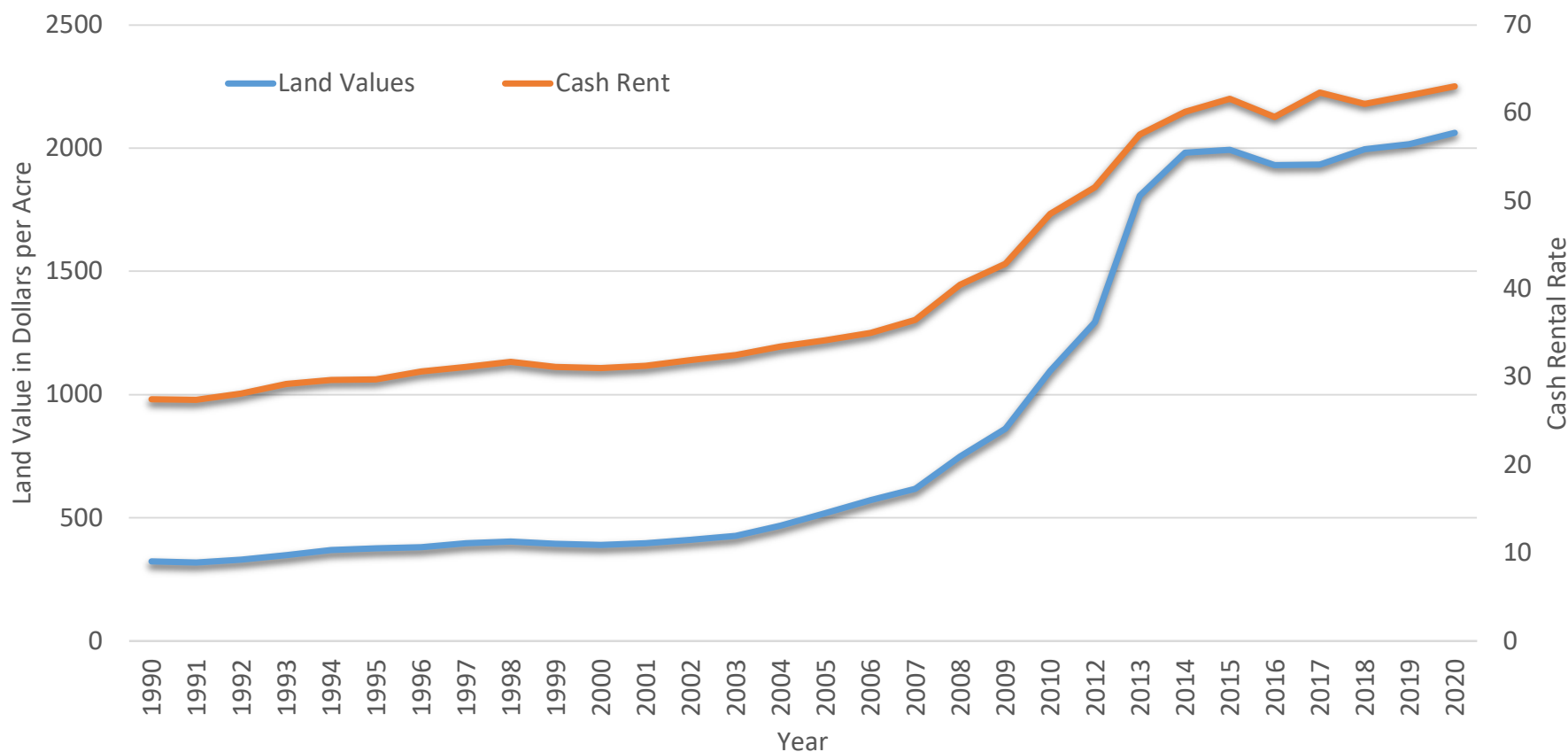
EXTENSION AGRIBUSINESS

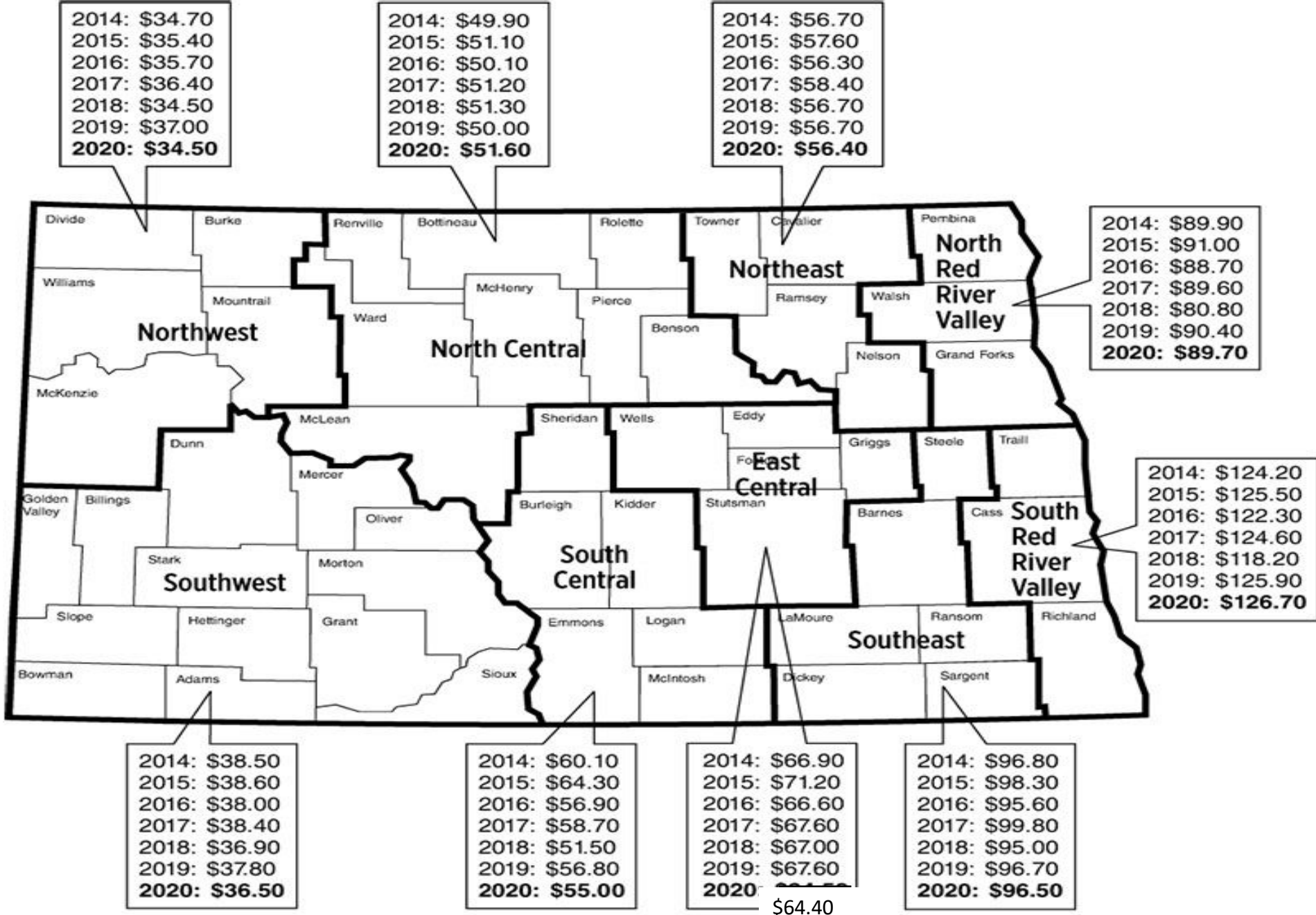
Purdue University and CME Group Ag. Economy Barometer

Farmland Price Expectations, 12 Months Ahead

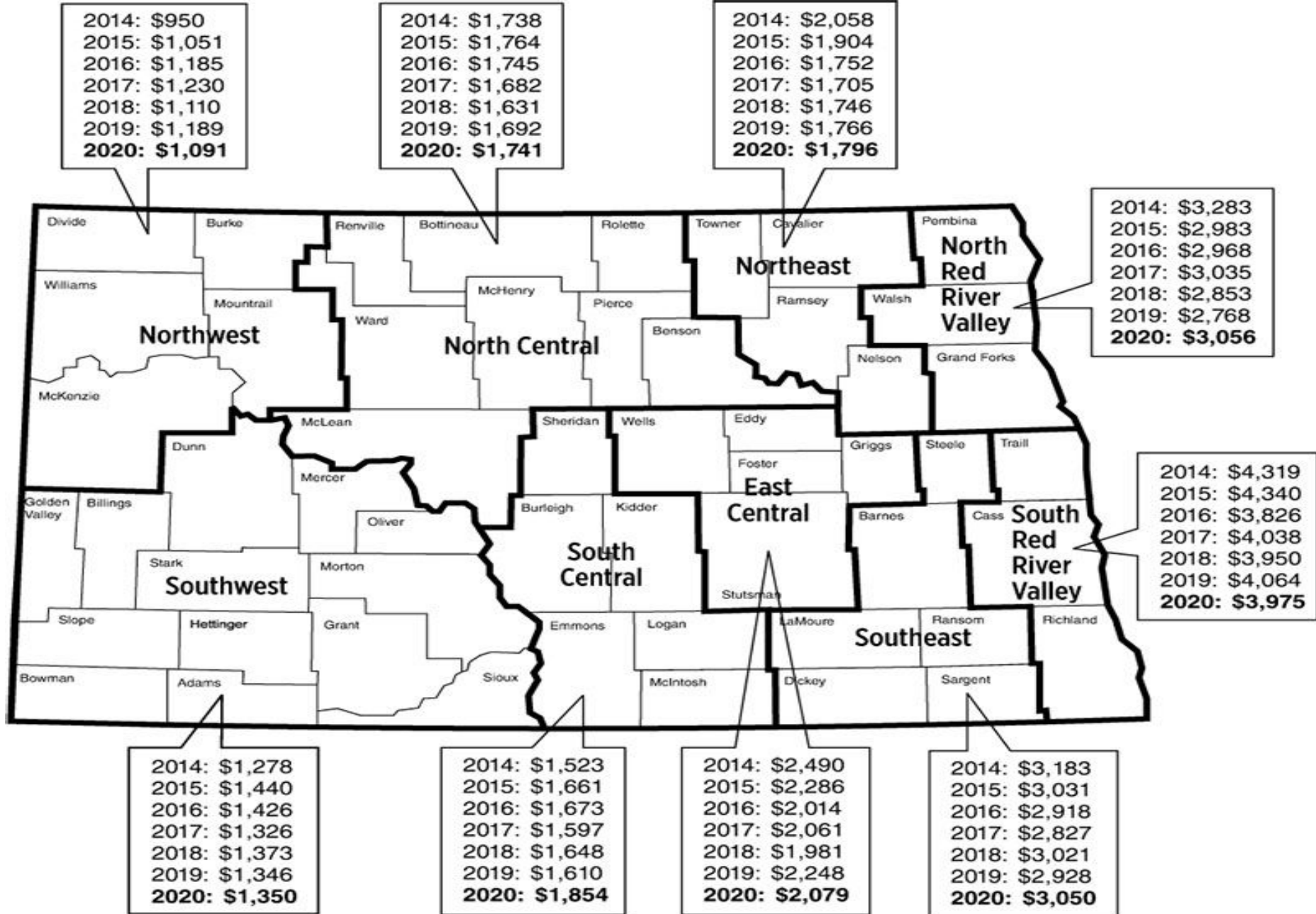


North Dakota Cropland Values and Cash Rents – State Averages

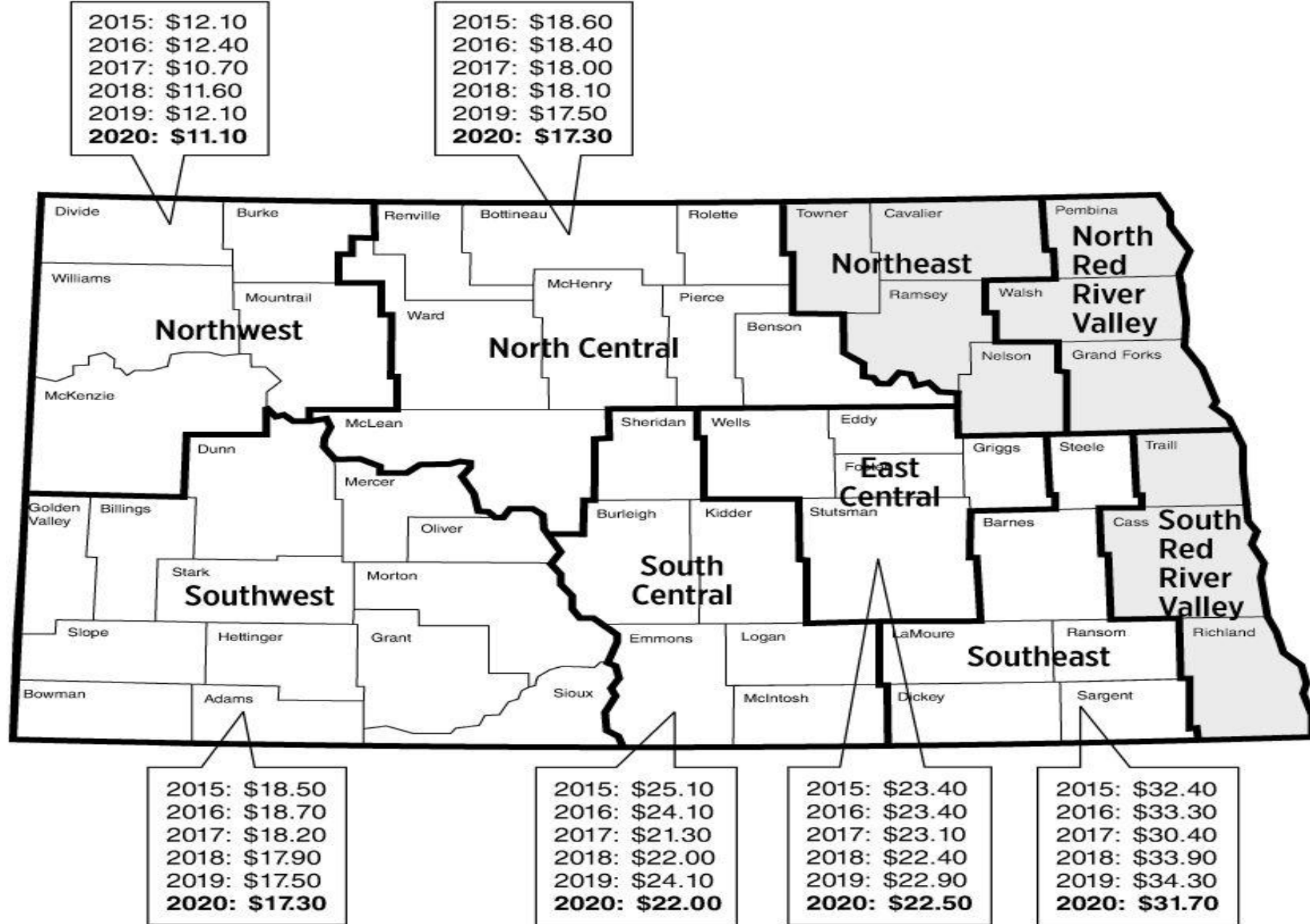




Estimated average cash rent per acre of cropland in North Dakota from 2014 to 2020.



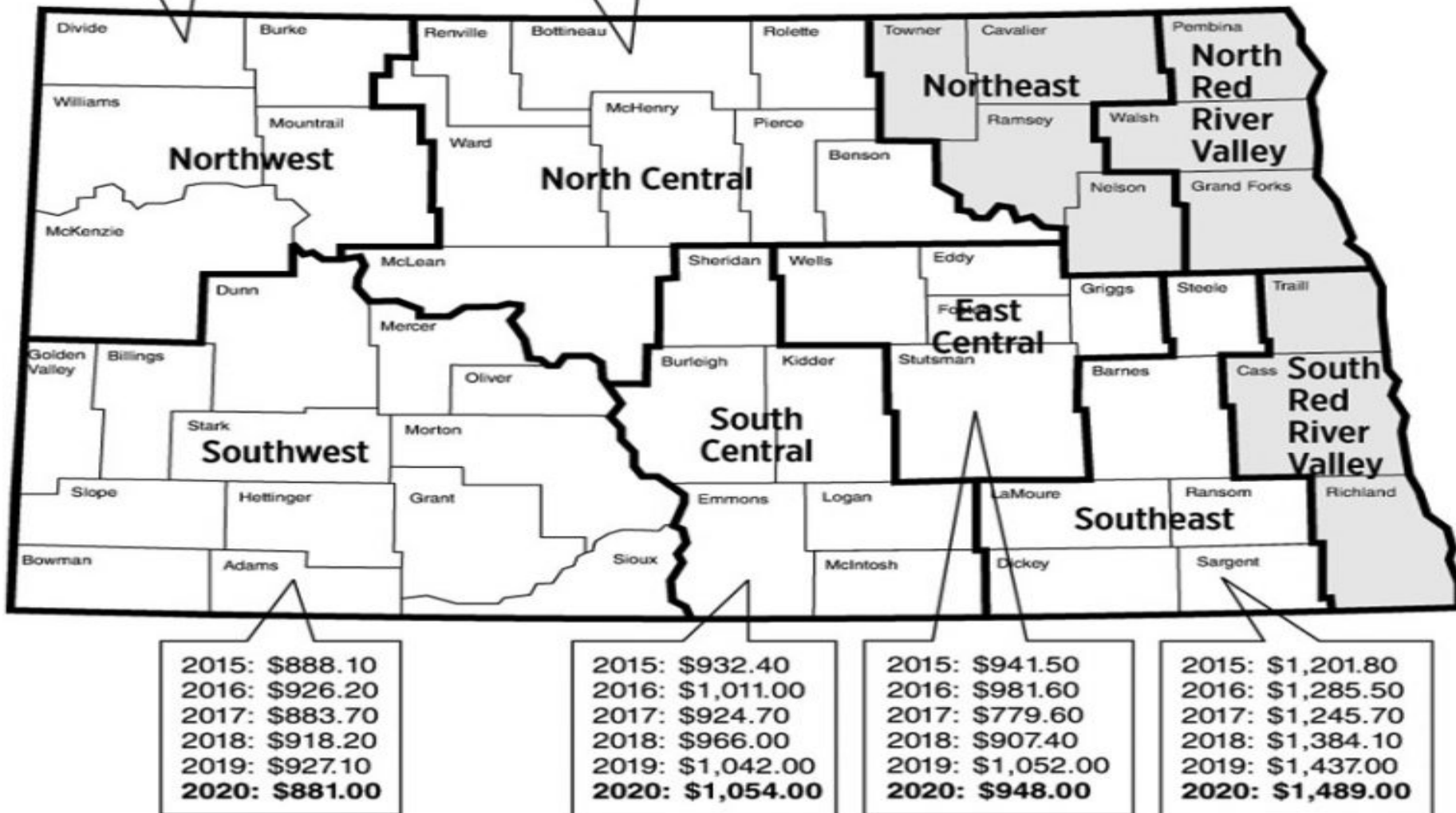
Estimated average per-acre values of cropland in North Dakota from 2014 to 2020.



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

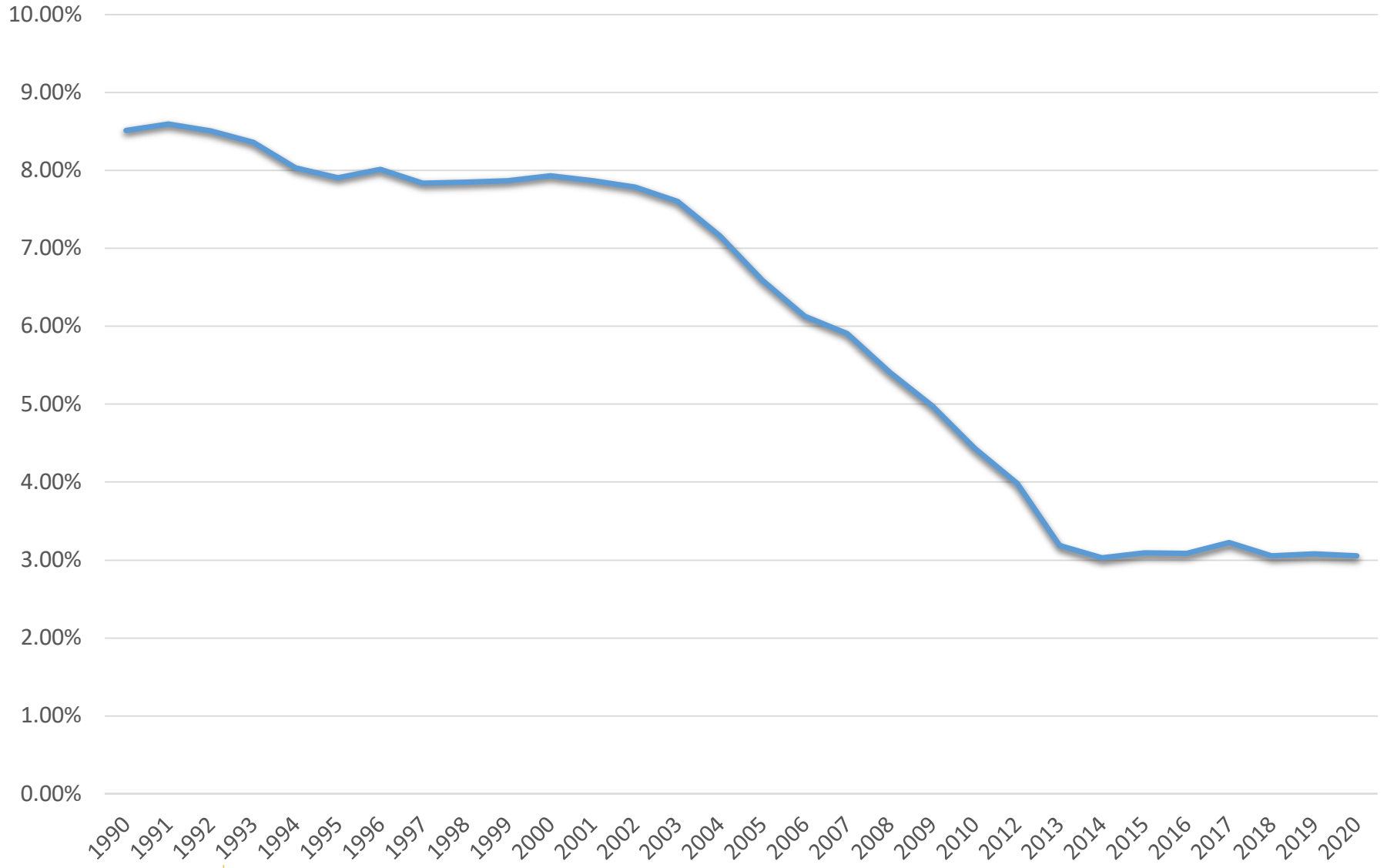
2015: \$546.10
2016: \$559.10
2017: \$532.40
2018: \$609.20
2019: \$630.00
2020: \$552.00

2015: \$730.70
2016: \$821.90
2017: \$760.80
2018: \$792.80
2019: \$805.00
2020: \$796.00

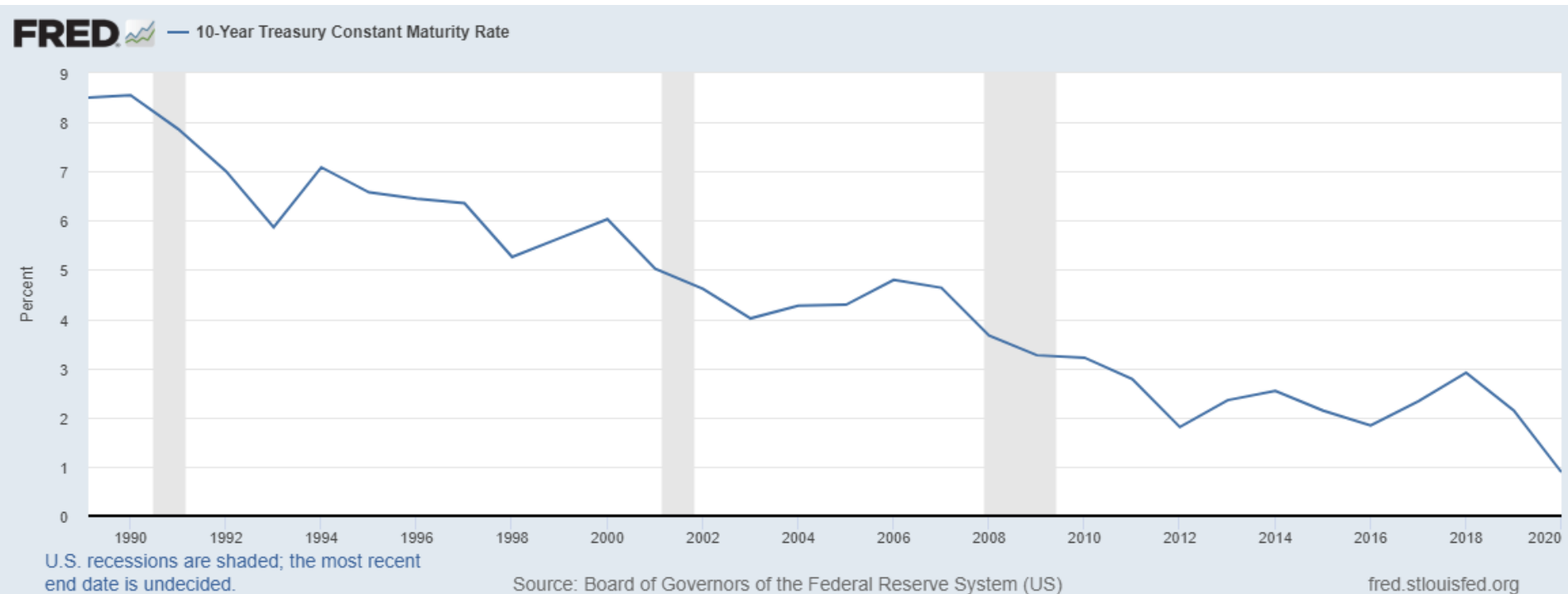


**Estimated average per acre values of pasture
in North Dakota from 2015 to 2020.**

Cropland Rent to Value Ratio



St Louis Federal Reserve 10- Year T-Bond Constant Maturity



Compared to today, what are your expectations for cash rents in your area in 2021? Higher, lower, or about the same?

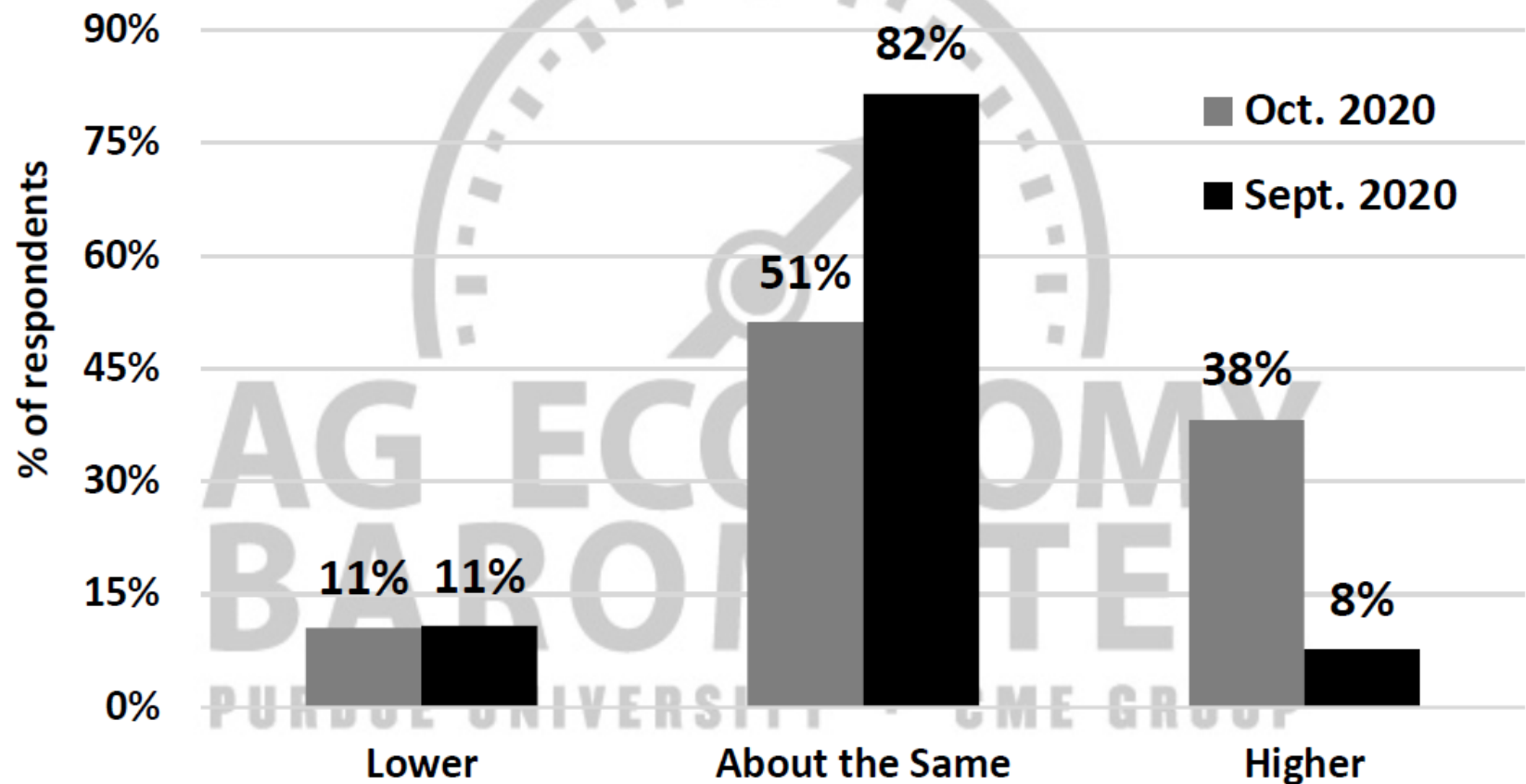
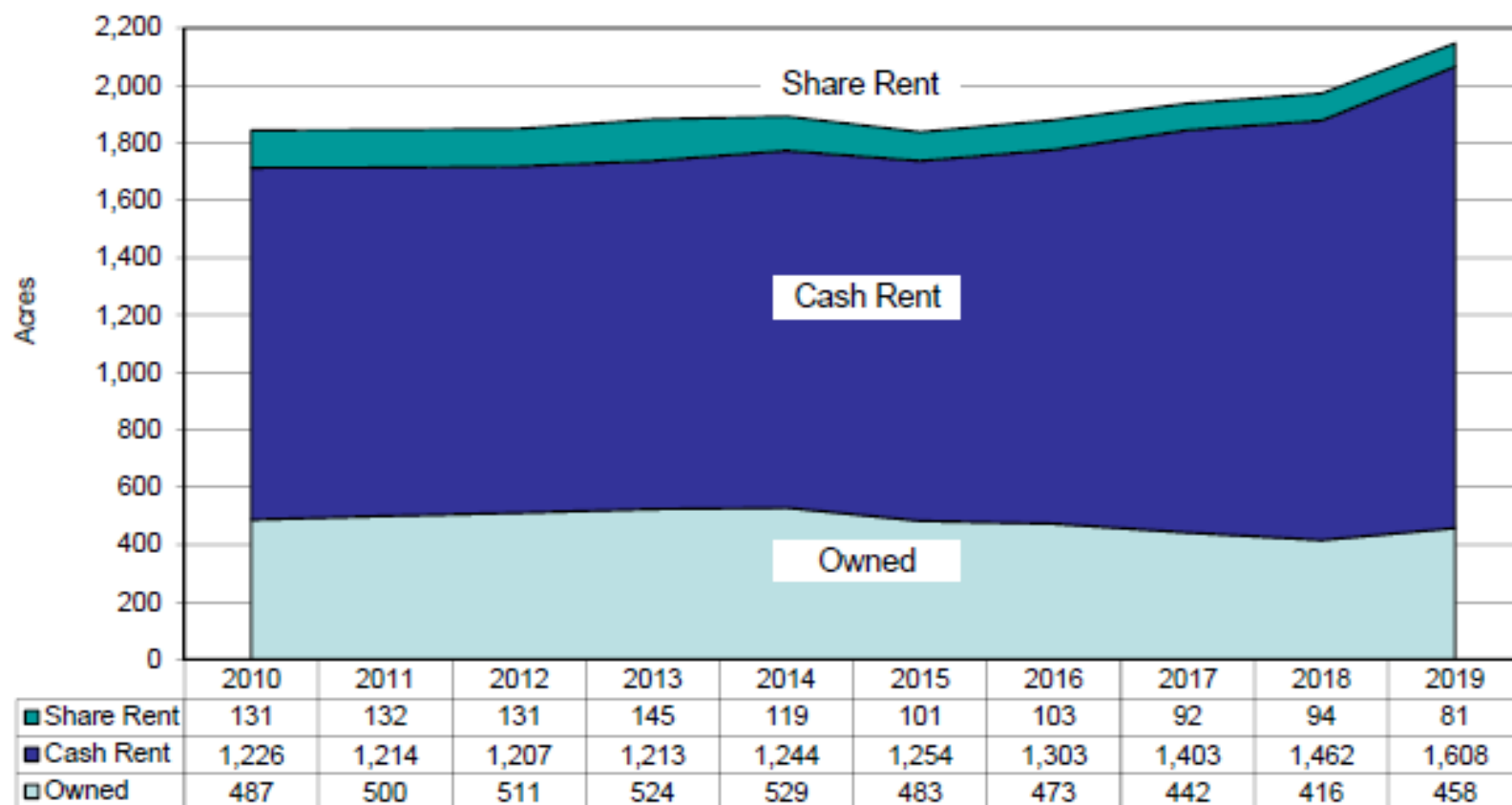


Figure 8. Crop Acreage Per Farm
N.D. Farm Business Management Education Program



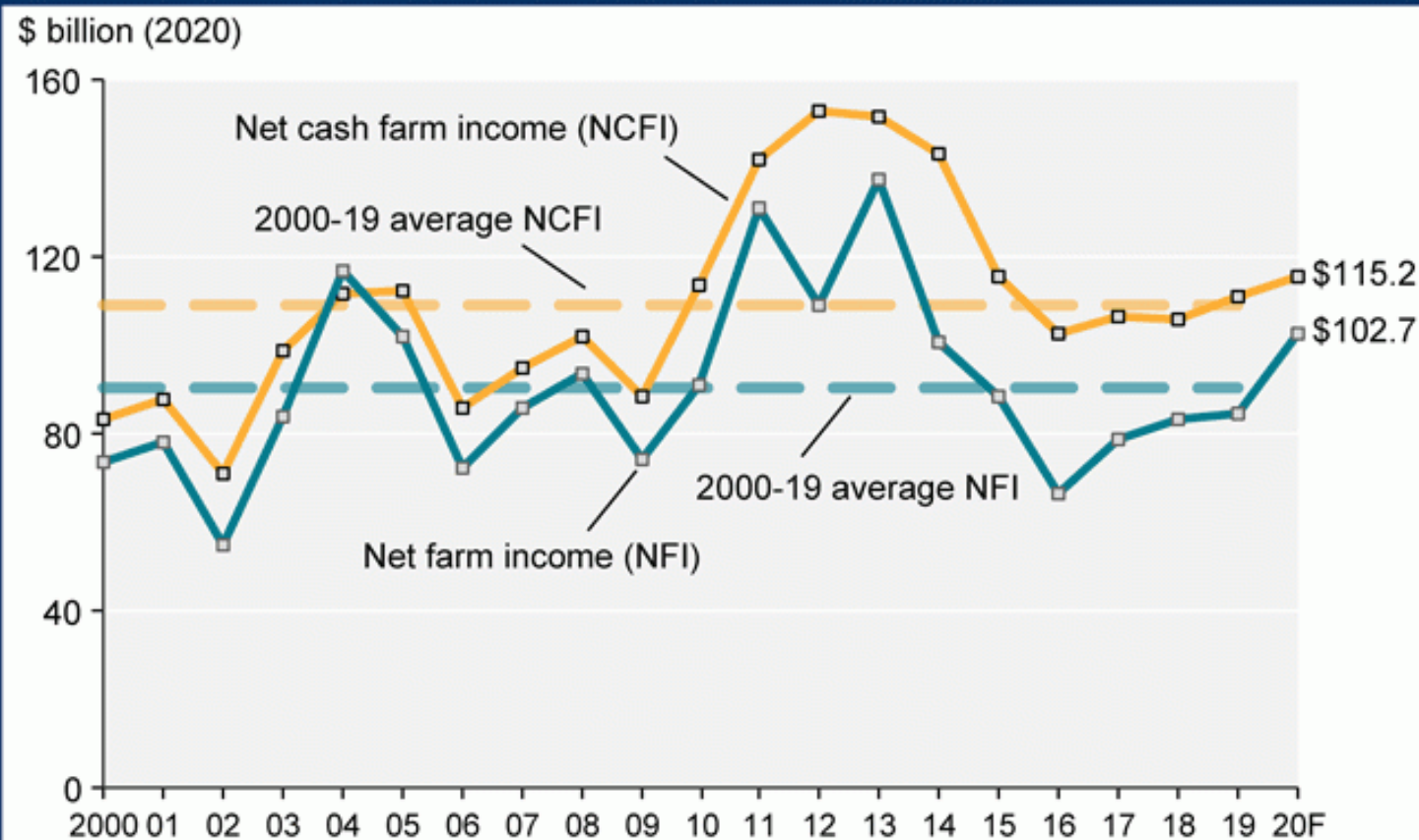
Governmental Assistance and Net Farm Income

- 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?

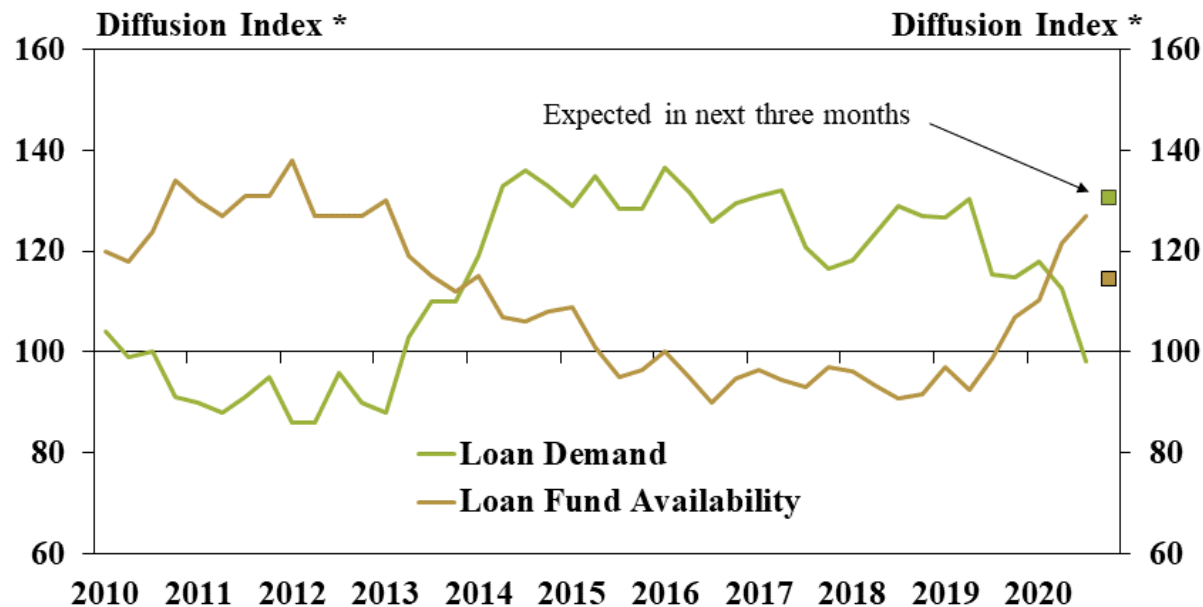
Net farm income and net cash farm income, 2000–20F



Note: F = forecast. Values are adjusted for inflation using the chain-type GDP deflator, 2020=100.
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 2, 2020.

Kansas City Federal Reserve Data

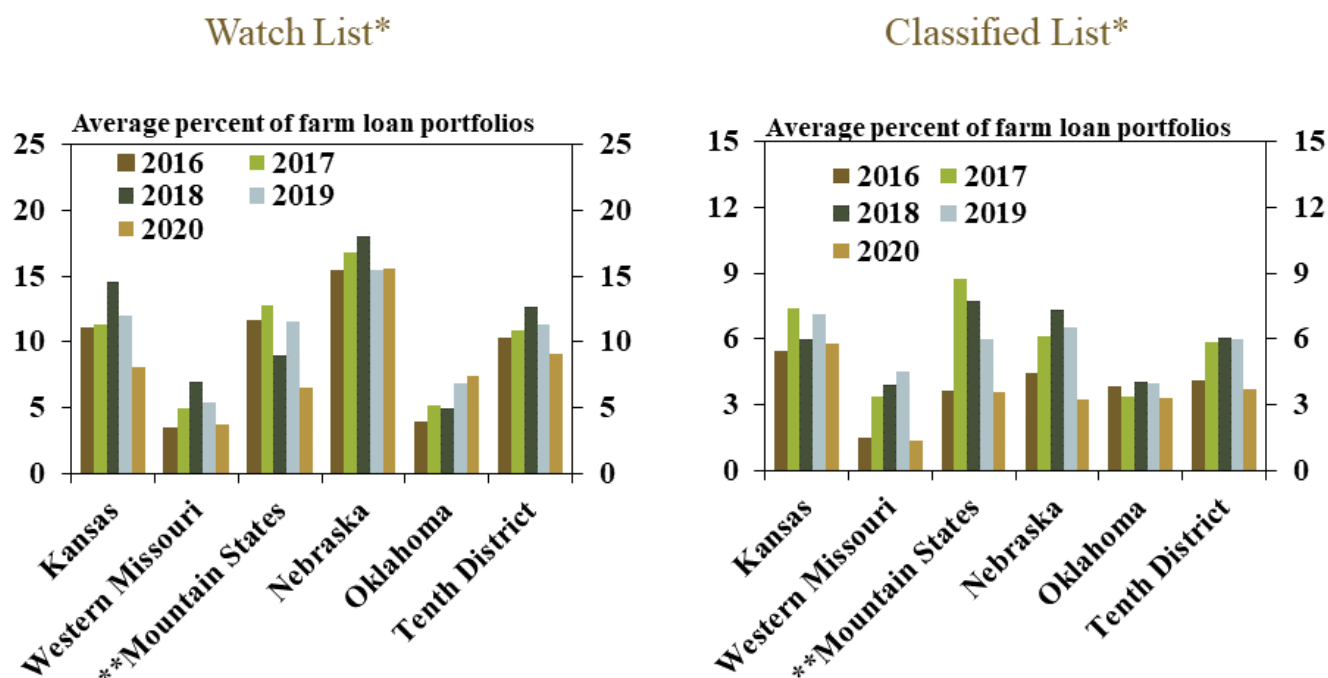
Chart 3: Tenth District Farm Loans



*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

Kansas City Federal Reserve Data

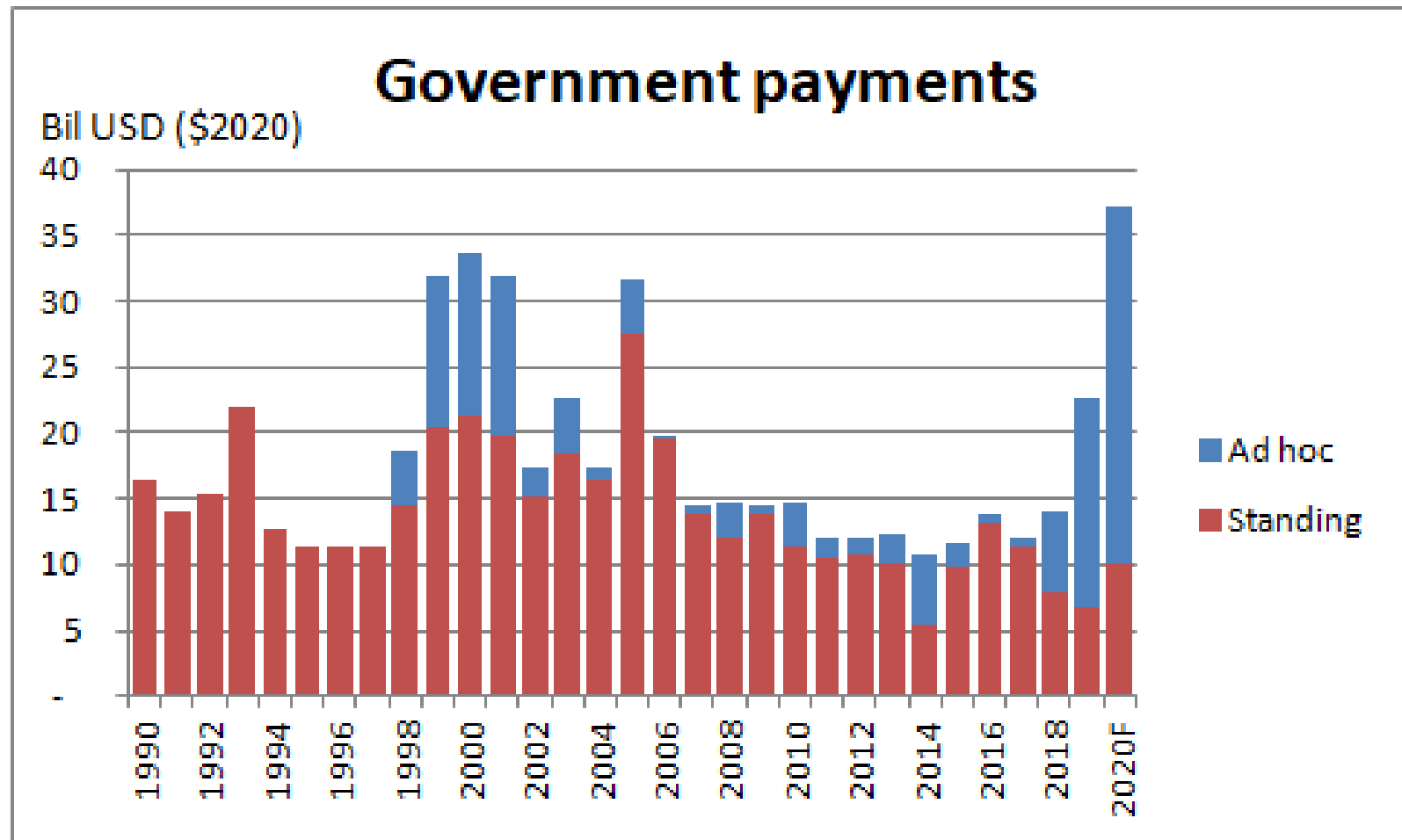
**Chart 6: Tenth District Problem Loan Rates,
Third Quarter**



*For purposes of this article, a "Watch List" loan is interpreted as a qualifying credit but is being closely monitored for potential problems (deterioration in borrower financial conditions, management changes, etc.). A "Classified List" loan is a loan with a defined weakness (inadequate debt service, insolvent collateral position, etc.) that requires specific documentation and potential bank reserve adjustments.

** Mountain States include Colorado, northern New Mexico and Wyoming, which are grouped because of limited survey responses from each state.

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