Agricultural Markets
Situation and Outlook

April 15, 2021
Use the Q&A tool to ask questions
North Dakota Land Values and Cash Rents for Pasture and Cropland

Bryon Parman
Cell – 701-261-5919
Bryon.Parman@ndsu.edu
Average Cropland Value – United States: 2006-2020

USDA - NASS
August 6, 2020

Dollars per acre

2,300 2,530 2,760 2,640 2,700 2,980 3,350 3,810 4,090 4,100 4,040 4,030 4,050 4,100 4,100

NDSU EXTENSION AGRIBUSINESS
Statewide average
+0.77%
2021: $65.80/acre

Estimated average cash rent per acre of cropland in North Dakota from 2015 to 2021.
Estimated average per-acre values of cropland in North Dakota from 2015 to 2021.
### 2021 North Dakota Land Values

<table>
<thead>
<tr>
<th>Region</th>
<th>Rental Rate</th>
<th>Land Value</th>
<th>Percent Rent Change</th>
<th>Percent Land Value Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>$35.00</td>
<td>$1,260</td>
<td>1.32%</td>
<td>15.50%</td>
</tr>
<tr>
<td>North-central</td>
<td>$51.10</td>
<td>$1,722</td>
<td>-1.00%</td>
<td>-1.06%</td>
</tr>
<tr>
<td>Northeast</td>
<td>$58.40</td>
<td>$1,847</td>
<td>3.56%</td>
<td>2.83%</td>
</tr>
<tr>
<td>North Valley</td>
<td>$92.00</td>
<td>$3,196</td>
<td>2.65%</td>
<td>4.59%</td>
</tr>
<tr>
<td>Southwest</td>
<td>$37.00</td>
<td>$1,351</td>
<td>1.36%</td>
<td>0.06%</td>
</tr>
<tr>
<td>South-central</td>
<td>$56.00</td>
<td>$1,909</td>
<td>1.95%</td>
<td>2.97%</td>
</tr>
<tr>
<td>Southeast</td>
<td>$94.70</td>
<td>$2,805</td>
<td>-1.88%</td>
<td>-8.03%</td>
</tr>
<tr>
<td>South Valley</td>
<td>$128.40</td>
<td>$4,234</td>
<td>1.40%</td>
<td>6.52%</td>
</tr>
<tr>
<td>East-central</td>
<td>$69.50</td>
<td>$2,145</td>
<td>0.81%</td>
<td>3.20%</td>
</tr>
</tbody>
</table>
August 2020 USDA Farm land Values

Average U.S. farm real estate value, nominal and real (inflation adjusted), 1970–2020

Dollars per acre

- Inflation-adjusted value of farm real estate (2020 dollars)
- Nominal value of farm real estate

Note: Farm real estate includes land and buildings. Data reflect values as of June 1 of each year. The annual Gross Domestic Product implicit price deflator is used to convert nominal values to 2020 U.S. dollars (Department of Commerce, Bureau of Economic Analysis). U.S. estimates exclude Alaska and Hawaii.

Source: USDA, Economic Research Service using annual national agricultural land value estimates from USDA, National Agricultural Statistics Service, QuickStats.
Average Pasture Value – United States: 2006-2020

Dollars per acre

USDA - NASS
August 6, 2020
Statewide average $833 per acre

Estimated average per acre values of pasture in North Dakota from 2016 to 2021.
Statewide average $17.40 per acre
Purdue Ag Economy Barometer – 12 Month

Short-Term Farmland Value Expectations Index

Question was only posed periodically prior to January 2019

Source: Purdue University Center for Commercial Agriculture, Producer Survey, March 2021
Purdue Ag Economy Barometer 5-Year

![Bar chart showing Long-Term Farmland Value Expectations Index, with data points from May 2017 to March 2021. The index values range from 90 to 170. The chart indicates a general upward trend with notable values such as 133 in March 2019 and 157 in March 2021. The source is Purdue University Center for Commercial Agriculture, Producer Survey, March 2021.]
Interest Rates

The 30 yr mortgage rate averages +150 to +170 basis points above the 10 yr T-bond.

The 10 yr T-bond moves 37 points for every 100 point movement in the FFR.

Sources: Board of Governors; FHLMC. fred.stlouisfed.org
FOMC Projected Future FFR
General Comments

• Crop and Pasture land in ND has still not quite reached the high water mark set over 6 years ago.
• Inflation has eroded land values further than the nominal prices
• Few farmers in recent surveys say they intend to buy more land with the improvement in net farm incomes
• Corn belt farmers bullish on farmland values
• Rising interest rates put downward pressure on land values and upward pressure on cash rents
Tracking Crop Growing Conditions

Frayne Olson
Crop Economist/ Marketing Specialist
frayne.olson@ndsu.edu
701-231-7377 (o)
701-715-3673 (c)
U.S. Drought Monitor

• Updated weekly and released every Thursday morning.

• Search Term – “US Drought Monitor”.

• URL - https://droughtmonitor.unl.edu/
USDA – US Agriculture Drought Monitor

Corn Areas in Drought

Reflects April 6, 2021
U.S. Drought Monitor data

Approximately 19% of corn production is within an area experiencing drought.

United States Department of Agriculture

This product was prepared by the USDA Office of the Chief Economist (OCE) World Agriculture Outlook Board (WAOB)

Drought Area
Major Crop Area
Minor Crop Area

NDSU

EXTENSION AGRIBUSINESS

USDA – US Agriculture Drought Monitor – Agriculture in Drought
Approximately 17% of soybean production is within an area experiencing drought.
Approximately 80% of spring wheat production is within an area experiencing drought.
U.S. Drought Monitor

• Updated weekly and released every Thursday afternoon.

• Search Term – “USDA Agriculture in Drought”.

• URL -
  https://www.usda.gov/sites/default/files/documents/AgInDrought.pdf
USDA – Crop – CASMA
Soil Moisture Anomaly

USDA – Crop – CASMA: Topsoil (2”) or Subsoil (1 meter = 3.2’) – Updated Daily or Weekly
USDA – Crop – CASMA
Soil Moisture

EXTENSION AGribusiness
USDA – Crop – CASMA: Topsoil (2”) or Subsoil (1 meter = 3.2’) – Updated Daily or Weekly
USDA – Crop – CASMA
Soil Moisture - Categorical

USDA – Crop – CASMA: Topsoil (2”) or Subsoil (1 meter = 3.2’) – Updated Weekly

EXTENSION AGribusiness
NDSU
USDA – Crop – CASMA
Normalized Difference Vegetative Index (NDVI)

[Map of the United States showing NDVI values across different states.]
Mean Vegetative Condition Index (MVCI)
USDA – Crop - CASMA

• Updated daily or weekly (with a delay)

• Search Term – “USDA Crop CASMA”.

• URL - https://www.nass.usda.gov/Research_and_Science/
ND Agricultural Weather Network (NDAWN)

Soil Temperature (°F) Under Bare at 4” Depth (2021-04-14)

Source: North Dakota Agricultural Weather Network (NDAWN)
https://ndawn.ndsu.nodak.edu
Copyright © North Dakota State University

Extension Agribusiness
North Dakota Agricultural Weather Network (NDAWN) – Soil Temp at 4” Bare Soil
ND Agricultural Weather Network (NDAWN)

• Updated hourly

• Search Term – “ND Agricultural Weather Network”.

• URL - https://ndawn.ndsu.nodak.edu/
LIVESTOCK PRICE SITUATION AND OUTLOOK

Tim Petry
Extension Livestock Marketing Economist

Tim.Petry@ndsu.edu
www.ndsu.edu/livestockeconomics
MED. FRAME #1 STEER CALF PRICES
550-600 Pounds, N.D., Weekly

$180 last 3 years
MED. & LRG. #1 FEEDER STEER PRICES
750-800 Pounds, N.D., Weekly
Monthly payments for a county if the following occurs during the normal grazing period in any part of the county:

1 mo.  D2 intensity in any area of the county for eight or more consecutive weeks

3 mo.  D3 intensity in any area of the county for at least one week

4 mo.  Either a D4 intensity for at least one week, or a D3 intensity for at least four weeks. The weeks do not have to be consecutive.

5 mo.  D4 intensity for at least four weeks. The weeks do not have to be consecutive.

2020 Monthly Payments were $18/cow
Burleigh, Morton, Oliver counties 1 payment
FSA Livestock Forage Disaster Program Eligibility Tool

Number of counties affected: 43

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>Adams County</td>
<td>McLean County</td>
</tr>
<tr>
<td>ND</td>
<td>Benson County</td>
<td>Mercer County</td>
</tr>
<tr>
<td>ND</td>
<td>Billings County</td>
<td>Morton County</td>
</tr>
<tr>
<td>ND</td>
<td>Bottineau County</td>
<td>Mountrail County</td>
</tr>
<tr>
<td>ND</td>
<td>Bowman County</td>
<td>Nelson County</td>
</tr>
<tr>
<td>ND</td>
<td>Burke County</td>
<td>Oliver County</td>
</tr>
<tr>
<td>ND</td>
<td>Burleigh County</td>
<td>Pembina County</td>
</tr>
<tr>
<td>ND</td>
<td>Cavalier County</td>
<td>Pierce County</td>
</tr>
<tr>
<td>ND</td>
<td>Divide County</td>
<td>Ramsey County</td>
</tr>
<tr>
<td>ND</td>
<td>Dunn County</td>
<td>Renville County</td>
</tr>
<tr>
<td>ND</td>
<td>Eddy County</td>
<td>Rolette County</td>
</tr>
<tr>
<td>ND</td>
<td>Emmons County</td>
<td>Sheridan County</td>
</tr>
<tr>
<td>ND</td>
<td>Foster County</td>
<td>Sioux County</td>
</tr>
<tr>
<td>ND</td>
<td>Golden Valley County</td>
<td>Slope County</td>
</tr>
<tr>
<td>ND</td>
<td>Grant County</td>
<td>Stark County</td>
</tr>
<tr>
<td>ND</td>
<td>Hettinger County</td>
<td>Stutsman County</td>
</tr>
<tr>
<td>ND</td>
<td>Kidder County</td>
<td>Towner County</td>
</tr>
<tr>
<td>ND</td>
<td>LaMoure County</td>
<td>Walsh County</td>
</tr>
<tr>
<td>ND</td>
<td>Logan County</td>
<td>Ward County</td>
</tr>
<tr>
<td>ND</td>
<td>McHenry County</td>
<td>Wells County</td>
</tr>
<tr>
<td>ND</td>
<td>McIntosh County</td>
<td>Williams County</td>
</tr>
</tbody>
</table>
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid for March 18 - June 30, 2021
Released March 18

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

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).

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

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

Join us the last Thursdays of the month
Apr 29, 2021 01:00 PM
May 27, 2021 01:00 PM
Jun 24, 2021 01:00 PM
Jul 29, 2021 01:00 PM
Aug 26, 2021 01:00 PM
Sep 30, 2021 01:00 PM

www.ag.ndsu.edu/drought
Drought Severity and Coverage Index (Statewide)

Drought Severity and Coverage Index = $A_{D0} + 2A_{D1} + 3A_{D2} + 4A_{D3} + 5A_{D4}$ (Akyüz, 2007)

Where: $A$ is a % of the state covered under the corresponding D-severity

Current DSCI: 365
(The Highest since 2000)

2nd Highest DSCI: 329
(Aug 8, 2006)

295
8/8/2017

Adnan Akyuz, Ph.D.
NDSU, AES
State Climatologist
<table>
<thead>
<tr>
<th>Head</th>
<th>Wt Range</th>
<th>Avg Wt</th>
<th>Price Range</th>
<th>Avg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>360-382</td>
<td>380</td>
<td>175.00-194.00</td>
<td>183.15</td>
</tr>
<tr>
<td>32</td>
<td>401-436</td>
<td>414</td>
<td>164.00-174.00</td>
<td>166.10</td>
</tr>
<tr>
<td>137</td>
<td>463-494</td>
<td>480</td>
<td>155.00-170.00</td>
<td>165.36</td>
</tr>
<tr>
<td>202</td>
<td>516-549</td>
<td>540</td>
<td>150.00-167.75</td>
<td>162.35</td>
</tr>
<tr>
<td>365</td>
<td>551-598</td>
<td>575</td>
<td>143.00-165.10</td>
<td>156.87</td>
</tr>
<tr>
<td>412</td>
<td>603-643</td>
<td>617</td>
<td>138.25-153.50</td>
<td>149.82</td>
</tr>
<tr>
<td>496</td>
<td>652-699</td>
<td>672</td>
<td>133.00-148.00</td>
<td>142.98</td>
</tr>
<tr>
<td>16</td>
<td>687</td>
<td>687</td>
<td>139.00</td>
<td>139.00</td>
</tr>
<tr>
<td>373</td>
<td>700-748</td>
<td>727</td>
<td>129.50-141.00</td>
<td>137.10</td>
</tr>
<tr>
<td>126</td>
<td>705-744</td>
<td>716</td>
<td>136.50-143.00</td>
<td>141.08</td>
</tr>
<tr>
<td>270</td>
<td>754-799</td>
<td>770</td>
<td>123.00-144.75</td>
<td>130.99</td>
</tr>
<tr>
<td>92</td>
<td>760-791</td>
<td>782</td>
<td>134.75-144.50</td>
<td>137.43</td>
</tr>
<tr>
<td>278</td>
<td>800-848</td>
<td>830</td>
<td>119.00-132.25</td>
<td>128.88</td>
</tr>
<tr>
<td>71</td>
<td>804-842</td>
<td>825</td>
<td>128.75-133.00</td>
<td>130.56</td>
</tr>
<tr>
<td>268</td>
<td>853-886</td>
<td>876</td>
<td>119.00-128.75</td>
<td>128.06</td>
</tr>
<tr>
<td>10</td>
<td>934</td>
<td>945</td>
<td>121.50</td>
<td>121.50</td>
</tr>
<tr>
<td>8</td>
<td>945</td>
<td>945</td>
<td>119.50</td>
<td>119.50</td>
</tr>
<tr>
<td>7</td>
<td>957</td>
<td>957</td>
<td>118.00</td>
<td>118.00</td>
</tr>
</tbody>
</table>

**Feeder & Replacement Heifers:**

- Kuhn, Jeff: 200 blk&bwt hfrs, 750 FS
- Dennis, Erin & Brad: 150 blk hfrs, 800 BVFS
- Schmidt, Coin: 150 blk hfrs, 725 BVFS
- Froehlich, Travis: 100 blk hfrs, 750 BVFS
- Open A Angus: 100 blk&bwt hfrs, 6-700 BVFS
- Friday, Mark: 70 blk strs, 750 FS
- Schaper, Jim: 70 blk hfrs, 800 BVFS
- Schneider, Ty: 70 blk hfrs, 650 BVFS
- Steffen, Bob & Duane: 70 blk hfrs, 8-600 FS
- Dupong, Ken: 65 blk hfrs, 700 BVFS
- Steffen & Fitch: 65 blk&bwt hfrs, 650-725 checked open, BVFS
- Nauman, Jarret: 60 red&blk hfrs, 750 PG open&breedable BVFS
- Ulrich Ranch: 57 blk&bwt hfrs, 650 FS
- Pardeems, Jim: 55 blk hfrs, 750 BVFS
- Jurgens, Bob: 52 blk hfrs, 850 BVFS
- Martin, Ron: 50 red&blk, 650 Natural, SS
- Schroeder, Rocco: 50 red angus hfrs, 750 BVFS
- Norby, Don: 45 red&blk, 550 weaned, FS
- Bloom, Jason: 40 red hfrs, 7-900 BVFS
- Dukert, Derek: 40 red&blk hfrs, 650 FS
- Hauser, Mark: 40 blk hfrs, 6-700 FS
- Hewson, Myron: 40 red hfrs, 650 FS
- Knudel, Larry: 40 blk hfrs, 800 BVFS
- Perhus Bros.: 40 blk hfrs, 650 FS
- Rhode, John: 40 35 blk & 5 bwt hfrs, 750 BVFS
- Scholtz, Joe: 40 red hfrs, 675 BVFS
- Findley, Mark: 35 blk hfrs, 725 BVFS
- Noddin, Dave: 35 blk hfrs, 700 BVFS
- Teeters, Bill: 35 blk hfrs, 700 SS,BV
- Jutten, Tom: 30 blk hfrs, 700 BVFS
- Myran, Greg: 30 blk&bwt hfrs, 650 SS
- Richard, Dave: 30 blk&bwt hfrs, 700 FS
- Filkozki, Loren: 25 blk strs, 650 FS
- Hueske, Dustin: 25 blk hfrs, 775 BVFS
- Braun, Jim: 20 blk hfrs, 750 BVFS
- Chin, Brad: 20 blk hfrs, 650 BVFS
- Filkozki, Loren: 20 blk hfrs, 550 FS
- Ottmar, Don: 20 blk hfrs, 700 FS
- Poirnie, Gene: 20 blk hfrs, 550 FS
- Wanner, Adam: 20 blk hfrs, 775 BVFS
- Kautzman, Tanner: 18 blk hfrs, 650 BVFS
- Erickson, Chris: 15 blk hfrs, 900 BVFS
- Sadowsky, Al: 15 blk hfrs, 750 BVFS
Corn-ethanol Outlook

David Ripplinger
Bioproducts/Bioenergy Economics Specialist
701-231-5265
david.ripplinger@ndsu.edu
Stocks continue to decline as production is not keeping up with use.

Ethanol Prices
- 2013: $2.48
- 2014: $2.79
- 2021: $1.73

Corn prices are high.
Ethanol use continues to increase.

Data: Energy Information Administration
US Corn Price, Stocks-Use Ratio (2002-2021)

Data: USDA/ WASDE
Please use the Q&A tool to ask questions

The next webinar is scheduled for 1 pm CT Thursday, May 13th

For the slides and recording of this webinar please visit ag.ndsu.edu/farmmanagement/outlook