Cropland Rental Rates and Leases in 2020

Jim Jansen
Agricultural Economist
jjansen4@unl.edu
402-261-7572

DISCLAIMER

• Land values and rental rates shown and discussed in this presentation are excerpts from the UNL Nebraska Farm Real Estate Market Survey.
• Information provided in this presentation are averages from these surveys. Actual land values and rental rates may vary depending upon the quality of the parcel and local market forces for an area.
Nebraska Farm Real Estate Survey

- Annual survey conducted since 1978 of Nebraska agricultural appraisers, professional farm managers, and bankers engaged in the land industry.
- Preliminary results for land values and rental rates published the second week of March.
- Full report published in June.
- Nebraska Farm Real Estate website full access to these resources: http://agecon.unl.edu/realestate

Nebraska Agricultural Statistics Districts
Nebraska Cropland Values
Land Averages and Annual Percent Changes

Nebraska Agricultural Average
All Land Value – Feb. 1, 2019

Dryland Cropland (No Irrigation Potential)
Average Value – Feb. 1, 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Value</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>$1,495/ac</td>
<td>-1%</td>
</tr>
<tr>
<td>Northwest</td>
<td>$645/ac</td>
<td>-4%</td>
</tr>
<tr>
<td>South</td>
<td>$1,445/ac</td>
<td>-9%</td>
</tr>
<tr>
<td>Southwest</td>
<td>$1,445/ac</td>
<td>-9%</td>
</tr>
<tr>
<td>Central</td>
<td>$2,755/ac</td>
<td>1%</td>
</tr>
<tr>
<td>Northeast</td>
<td>$5,300/ac</td>
<td>-4%</td>
</tr>
<tr>
<td>State</td>
<td>$3,040/ac</td>
<td>-2%</td>
</tr>
</tbody>
</table>


Dryland Cropland (Irrigation Potential)
Average Value – Feb. 1, 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Value</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>$1,915/ac</td>
<td>-4%</td>
</tr>
<tr>
<td>Northwest</td>
<td>$680/ac</td>
<td>-7%</td>
</tr>
<tr>
<td>South</td>
<td>$2,880/ac</td>
<td>-3%</td>
</tr>
<tr>
<td>Southwest</td>
<td>$1,585/ac</td>
<td>-3%</td>
</tr>
<tr>
<td>Central</td>
<td>$3,055/ac</td>
<td>-1%</td>
</tr>
<tr>
<td>Northeast</td>
<td>$5,640/ac</td>
<td>-3%</td>
</tr>
<tr>
<td>State</td>
<td>$4,010/ac</td>
<td>-3%</td>
</tr>
</tbody>
</table>

Gravity Irrigated Cropland
Average Value – Feb. 1, 2019

Northwest $2,245/ac
-4%
North $3,570/ac
-2%
Northeast $6,510/ac
-3%
Southwest $3,700/ac
-5%
Central $5,860/ac
1%
East $7,585/ac
2%
South $5,365/ac
-7%
Southeast $5,900/ac
-6%

State $5,690/ac
-2%


Center Pivot Irrigated Cropland
Average Value – Feb. 1, 2019

Northwest $2,965/ac
-5%
North $3,905/ac
-3%
Northeast $7,210/ac
-1%
Southwest $4,110/ac
-4%
Central $6,390/ac
-2%
East $8,485/ac
-2%
South $6,150/ac
-6%
Southeast $7,470/ac
-3%

State $5,970/ac
-3%

### Nebraska Cash Rental Rates

#### Dryland Cropland Rental Rates

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Rental Rate (ac/yr)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>$50/ac</td>
<td>-6%</td>
</tr>
<tr>
<td>Northwest</td>
<td>$27/ac</td>
<td>-4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>$38/ac</td>
<td>-7%</td>
</tr>
<tr>
<td>Central</td>
<td>$84/ac</td>
<td>-5%</td>
</tr>
<tr>
<td>North</td>
<td>$73/ac</td>
<td>-4%</td>
</tr>
<tr>
<td>Northeast</td>
<td>$205/ac</td>
<td>-2%</td>
</tr>
<tr>
<td>East</td>
<td>$200/ac</td>
<td>5%</td>
</tr>
<tr>
<td>Southeast</td>
<td>$155/ac</td>
<td>-3%</td>
</tr>
<tr>
<td>South</td>
<td>$73/ac</td>
<td>-4%</td>
</tr>
</tbody>
</table>

Dryland Cropland Rental Rate Ranges – 2019 Season

By Region

- North
  - High Grade (H): $74/ac
  - Average (A): $50/ac
  - Low Grade (L): $36/ac
- Northeast
  - High Grade (H): $245/ac
  - Average (A): $205/ac
  - Low Grade (L): $170/ac
- Northwest
  - High Grade (H): $40/ac
  - Average (A): $27/ac
  - Low Grade (L): $21/ac
- South
  - High Grade (H): $105/ac
  - Average (A): $73/ac
  - Low Grade (L): $47/ac
- Southeast
  - High Grade (H): $185/ac
  - Average (A): $155/ac
  - Low Grade (L): $125/ac
- Southwest
  - High Grade (H): $55/ac
  - Average (A): $38/ac
  - Low Grade (L): $31/ac
- Central
  - High Grade (H): $110/ac
  - Average (A): $84/ac
  - Low Grade (L): $67/ac
- East
  - High Grade (H): $230/ac
  - Average (A): $200/ac
  - Low Grade (L): $160/ac


USDA-National Agricultural Statistics Service Cash Rent Survey

- Biennial survey conducted by the USDA-National Agricultural Statistics Service (NASS) of farmers and ranchers
- Survey starts in late-winter and conducted through mid-summer of odd-numbered years
- Analysis published around the second week of September
- Nebraska county estimates in addition to other resources may be found at: www.nass.usda.gov/Statistics_by_State/Nebraska/Publications/County_Estimates/
Dryland Cropland Rental Rates – 2019 Season

Source: Farmland Rental Rate Survey, USDA-NASS, Sept 10, 2019

Counties with Declines in USDA-NASS Cash Rents on Dryland Cropland – 2017 to 2019

Source: Nebraska Farm Bureau, November 4, 2019
Counties with Increases in USDA-NASS Cash Rents on Dryland Cropland – 2017 to 2019

Source: Nebraska Farm Bureau, November 4, 2019

Nebraska Cash Rental Rates
Irrigated Cropland Rental Rates
Gravity Irrigated Cropland Average Rental Rates – 2019 Season


Gravity Irrigated Cropland Rental Rate Ranges – 2019 Season

Center Pivot Irrigated Cropland
Average Rental Rates – 2019 Season

North
$185/ac
-8%

Northwest
$145/ac
-3%

Southwest
$175/ac
-8%

Central
$215/ac
-2%

South
$205/ac
-5%

Northeast
$280/ac
-3%

East
$285/ac
2%

Southeast
$250/ac
-4%


Center Pivot Irrigated Cropland
Rental Rate Ranges – 2019 Season

North
H: $225/ac
A: $185/ac
L: $140/ac

Northwest
H: $180/ac
A: $145/ac
L: $110/ac

Southwest
H: $220/ac
A: $175/ac
L: $150/ac

Central
H: $260/ac
A: $215/ac
L: $175/ac

East
H: $325/ac
A: $285/ac
L: $240/ac

Southeast
H: $300/ac
A: $250/ac
L: $205/ac

Irrigated Cropland Rental Rates – 2019 Season

Source: Farmland Rental Rate Survey, USDA-NASS, Sept 10, 2019

Counties with Declines in USDA-NASS Cash Rents on Irrigated Cropland – 2017 to 2019

Source: Nebraska Farm Bureau, November 4, 2019
Counties with Increases in USDA-NASS Cash Rents on Irrigated Cropland – 2017 to 2019

Source: Nebraska Farm Bureau, November 4, 2019

Agricultural Land Leases
Trends in Lease Arrangements for 2020
Methods for Setting Cash Rental Rates

• Methods for estimating a cash rental rate in 2019 or 2020:
  • Adjusting survey data
  • Cash equivalent from crop share
  • Return on investment

Estimating Cash Rental Rates by Adjusting Survey Data

• Land rental rate survey data:
  • Evaluate available cash rental survey data to establish a baseline in the landlord and tenant negotiation process.
  • Average yields:

<table>
<thead>
<tr>
<th>County</th>
<th>Value</th>
<th>Farm</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Rental Rate</td>
<td>$135/ac.</td>
<td>County Rent/Bushel</td>
<td>$1.13/bu.</td>
</tr>
<tr>
<td>Corn Yield</td>
<td>120 bu./ac.</td>
<td>APH Yield</td>
<td>x 105 bu./ac.</td>
</tr>
<tr>
<td>County Rent/Bushel</td>
<td>$1.13/bu.</td>
<td>Farm Level Rent</td>
<td>$118.13/ac.</td>
</tr>
</tbody>
</table>
Cash Equivalent From Crop Share

• Rent paid to landlord by tenant based off owner’s share of net returns per acre.
• Example 50/50 split:

<table>
<thead>
<tr>
<th>Value</th>
<th>Corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield (50% share)</td>
<td>80 bu./ac.</td>
<td>25 bu./ac.</td>
</tr>
<tr>
<td>Price/bushel</td>
<td>x $3.50/bu.</td>
<td>x $8.40/bu.</td>
</tr>
<tr>
<td>Income</td>
<td>$280/ac.</td>
<td>$235/ac.</td>
</tr>
<tr>
<td>Owner Expenses</td>
<td>-$155/ac.</td>
<td>-$95/ac.</td>
</tr>
<tr>
<td>Net Return to Owner</td>
<td>$125/ac.</td>
<td>$115/ac.</td>
</tr>
<tr>
<td>(Effective Rent)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Return on Investment

• Multiply the estimated current market value by the expected rate of return to determine the rental rate per acre.

<table>
<thead>
<tr>
<th>Farm</th>
<th>Dryland Cropland</th>
<th>Irrigated Cropland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Value</td>
<td>$5,000/ac.</td>
<td>$8,500/ac.</td>
</tr>
<tr>
<td>Rate of Return</td>
<td>x 2.4-2.8%</td>
<td>x 2.5-2.9%</td>
</tr>
<tr>
<td>Rental Rate per Acre</td>
<td>$120-$140/ac.</td>
<td>$213-$247/ac.</td>
</tr>
</tbody>
</table>

*Estimated net rates of return by land type are available in Table 5 of the Nebraska Farm Real Estate Market Highlights Report 2018-2019.
Entity Responsible for Maintaining Irrigation System as Part of Cash Lease in Nebraska


Discount on Cash Rent per Acre When Tenant Owns Pivot for Irrigation System in Nebraska

Discount on Cash Rent per Acre When Tenant Owns Power Unit for Irrigation System in Nebraska

<table>
<thead>
<tr>
<th>Power Unit</th>
<th>Discount per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Percent of Respondents</td>
<td></td>
</tr>
<tr>
<td>System Type</td>
<td></td>
</tr>
<tr>
<td>Diesel Engine</td>
<td>23</td>
</tr>
<tr>
<td>Propane or Natural Gas Engine</td>
<td>23</td>
</tr>
<tr>
<td>Electric Motor</td>
<td>20</td>
</tr>
</tbody>
</table>


Reasons for Planting Cover Crops on Cropland in Nebraska

Cover Crop Practices in Nebraska by Agricultural Statistics District

<table>
<thead>
<tr>
<th>Agricultural Statistics District</th>
<th>Planted Acres</th>
<th>Cropland Acres Planted to Cover Crops</th>
<th>Number of Operators Planted Cover Crops</th>
<th>Cropland Operators Planted Cover Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>52,884</td>
<td>2,904,637</td>
<td>1.8</td>
<td>274</td>
</tr>
<tr>
<td>North</td>
<td>57,989</td>
<td>1,820,397</td>
<td>3.2</td>
<td>306</td>
</tr>
<tr>
<td>Northeast</td>
<td>133,885</td>
<td>3,630,051</td>
<td>3.7</td>
<td>960</td>
</tr>
<tr>
<td>Central</td>
<td>98,465</td>
<td>2,048,103</td>
<td>4.8</td>
<td>585</td>
</tr>
<tr>
<td>East</td>
<td>186,216</td>
<td>4,214,043</td>
<td>4.4</td>
<td>1,102</td>
</tr>
<tr>
<td>Southwest</td>
<td>60,853</td>
<td>2,489,757</td>
<td>2.4</td>
<td>265</td>
</tr>
<tr>
<td>South</td>
<td>83,247</td>
<td>1,878,089</td>
<td>4.4</td>
<td>343</td>
</tr>
<tr>
<td>Southeast</td>
<td>73,203</td>
<td>3,257,522</td>
<td>2.2</td>
<td>584</td>
</tr>
<tr>
<td>State</td>
<td>747,903</td>
<td>22,342,999</td>
<td>3.4</td>
<td>4,419</td>
</tr>
</tbody>
</table>

Source: 2017 Census of Agriculture, National Agricultural Statistical Service, USDA.

Rental Discount in Dollars per Acre on Land Lease When Tenant Plants Cover Crops in Nebraska

Questions?

Jim Jansen
Agricultural Economist
jjansen4@unl.edu
402-261-7572
2019 Non-Irrigated Cropland Cash Rent Paid Per Acre
Nebraska

Cash Rent Paid
Dollars Per Acre

- 179.01 - 244.00
- 136.01 - 179.00
- 76.01 - 136.00
- 46.01 - 76.00
- 23.50 - 46.00
- Not Published

Source: USDA National Agricultural Statistics Service
September 10, 2019
2019 Irrigated Cropland Cash Rent Paid Per Acre
Nebraska

Cash Rent Paid
Dollars Per Acre

267.01 - 294.00
240.01 - 267.00
199.01 - 240.00
165.01 - 199.00
135.00 - 165.00
Not Published

Source: USDA National Agricultural Statistics Service
September 10, 2019