Farmland Leasing Trends

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ASFMRA Iowa Chapter
Spring Seminar
Ames, IA
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Main topics

• Trends in Cash Rents
• Factors affecting Cash Rents:
  – Tenant perspective
  – Landowner perspective
Avg. Cash Rents in Iowa, Cropland
Source: ISU Survey

$40 drop from peak (2013)
15% decline
Avg. Cash Rents in Iowa, Cropland

Source: USDA-NASS

$25 drop from peak (2014)
10% decline

2007: $170
2008: $175
2009: $176
2010: $196
2011: $235
2012: $255
2013: $260
2014: $250
2015: $235

$25 drop from peak (2014)
10% decline
ISU vs. NASS: State Avg. Cash Rents

**ISU**
- **Typical Cash Rents** by County and Land Type (low, med, high yields)
- Mail and online
- Collection: March-April
- Report: May
- State level is average across counties
- Target: landowners, tenants, lenders, other ag professionals.
- Anyone can participate

**NASS**
- National survey of **Actual Cash Rent Paid** in ~11,000 segments of ~1 square mile in size.
- Telephone
- Collection: June
- Report: August
- Target: All farm operators operating within the selected segments (~85,000 agricultural and non-agricultural land use tracts).
- Response rate:~35,000 personal interviews with farmers operating farms inside the segment boundaries
Avg. Cash Rent in 2006 by County. ISU Survey

Highest: Scott $174
Lowest: Wayne $99

http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/
Avg. Cash Rent in 2016 by County. ISU Survey

Highest: Dubuque $294
Lowest: Wayne $150

http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/
Location of Ethanol Plants
Source: Google Maps

Green: Dry Mills
Blue=Wet Mills
Avg. Cash Rents, Cropland by Crop Reporting District. ISU Survey
Avg. Cash Rents, Cropland by Crop Reporting District. USDA-NASS
ISU vs. NASS: County Avg. Cash Rents

**ISU**
- Typical Cash Rents by County and Land Type
- Mail and online
- Collection: March-April
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- Target: landowners, tenants, lenders, other ag professionals.
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**NASS**
- Actual Cash Rent paid for irrigated and non-irrigated cropland, pastureland
- Mail and telephone
- Collection: Feb-July
- Report: August
- County-level stratified design
- Reconciled with state average
- Target: 240,000 farms and ranches that have historically rented land on a cash basis.
- Counties with 20,000 acres of cropland+pasture.
2016 Cash Rents by Land Quality Type: Low, Med, High Avg. Yields (5 years)

Black Hawk Co (crd3):
- High Q: $290
- Med Q: $251
- Low Q: $182
- Hi-Low= $108 (59%)

http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/
2016 Cash Rents by Land Quality Type: Low, Med, Hi Avg. Yields (5 years)

Clarke Co (crd8):
- High Q: $202
- Med Q: $161
- Low Q: $131
- Hi-Low = $71 (54%)

http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/
What variables affect overall trends in cash rents?

• From the producer perspective:
  – Ethanol plants
  – Net Farm Income
  – Profit margins on rented land
  – Land values and Credit access (purchase instead of rent)
  – Other
What variables affect overall trends in cash rents?

• From the landowner perspective:
  – Land values
  – Return on investment in bonds, CDs, etc.
  – Household income (farm and non-farm)
  – Property taxes
  – Mortgage payments
  – Other
2017 US Net Farm Income ↓8.7%

Source: USDA/ERS. Feb 2017

Note: F = forecast.
U.S. cash receipts for selected crops, 2013-2017F

$ billion

Note: F = forecast.
US Cash Receipts

U.S. cash receipts for selected animals/products, 2013-2017F

Note: F = forecast.
Data as of February 7, 2017.
Nominal and inflation-adjusted farm production expenses, 1970-2017F

Note: F = forecast; data for 2016 and 2017 are forecasts. Values are adjusted for inflation using the chain-type GDP deflator, 2009=100.
Data as of February 7, 2017.
Government farm program payments to farm producers, 2007-2017F

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$ billion, nominal

- All other farm program payments 3/
- Conservation payments
- Payments that are a function of crop prices 2/
- Fixed payments 1/

Note: F = forecast.
1/ Includes direct fixed payments portion of Direct and Counter-Cyclical Program (DCP) and Cotton Transition Assistance Program (CTAP) payments. CTAP was designed to make payments only in 2014 and 2015.
2/ Includes counter-cyclical payments (CCP), average crop revenue election (ACRE) payments, loan deficiency payments, marketing loan gains, and certificate exchange gains. The certificate exchange program (CEG) ended after making payments for the 2009 crop year but was restored beginning with the 2015 crop year. CCP and ACRE were not continued in the 2014 Farm Bill. Price loss coverage (PLC) and agricultural risk coverage (ARC) payments began in 2015.
3/ All other payments include supplemental and ad hoc disaster assistance, tobacco transition, and dairy programs.

ARC/PLC Projected Payments

• Last updated: 03-21-2017
• Prices updated: 03-09-2017

https://www.extension.iastate.edu/agdm/info/farmbill.html
http://card.iastate.edu/tools/farm-bill/arc-plc/
ARC-CO CORN Proj. Payments
Oct 2017 (for 2016/17)
ARC-CO CORN Proj. Pmts.

- State Average: $8.43
- >$20: 21 counties
- >$30: 7 counties:
  - Grundy $48
  - Johnson $68
  - Mills $39
  - Palo Alto $30.1
  - Webster $33
  - Wright $36

- Dubuque $19.86
- Washington $2.72
PLC CORN Proj. Pmts
Oct 2017  (for 2016/17)
PLC Projected Payments
Oct 2017 (for 2016/17)

CORN:
• ALL counties >$23 per corn base acre
• State average: $35
• 1st time: PLC payments>ARC-CO payments

SOYBEANS:
• No payments for 3rd year
What variables affect overall trends in cash rents?

• From the producer perspective:
  – Ethanol plants X Operating at capacity
  – Net Farm Income X Declining in 2017
  – Profit margins on rented land
  – Land values and Credit access (purchase instead of rent)
  – Other
Costs of Crop Production in Iowa 2017 ($ per acre)

Corn on Corn:
- Crop Protection $53
- Seed $103
- Fertilizer & Lime $101
- Machinery $120
- Land $230
- Other $31

Corn on Soybeans:
- Crop Protection $32
- Seed $103
- Fertilizer & Lime $87
- Machinery $117
- Land $230
- Other $30

Soybean on Corn:
- Crop Protection $40
- Seed $53
- Fertilizer & Lime $42
- Machinery $67
- Land $230
- Other $23

AgDM File A1-20
Costs of Crop Production in Iowa

$ per bushel

- Corn following Corn
- Corn following Soybeans
- Soybeans following Corn

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IA Corn: Annual Price, Cost, and Gross Margin

$ per bushel


Gross Margin C-S
Gross Margin C-C
IA Corn Price
Cost of Corn following Soybean (180 bu/acre)
Cost of Corn following Corn (165 bu/acre)

*USDA/WASDE Forecast (Mid-point). March 2017
^USDA/OCE Forecast. February 2017
AgDM File A1-20
Breakeven Cash Rents
(accounts for ~$30/acre labor, but $0 returns to management)

<table>
<thead>
<tr>
<th>Cost per acre 2017</th>
<th>Corn on beans</th>
<th>Corn on corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Yields</td>
<td>160-200 bu</td>
<td>145-185 bu</td>
<td>45-55 bu</td>
</tr>
<tr>
<td>Cash Non-land Cost</td>
<td>$315-$370</td>
<td>$355-$410</td>
<td>$209-$220</td>
</tr>
<tr>
<td>Non-cash Non-land Cost</td>
<td>$56-$61</td>
<td>$58-$63</td>
<td>$38-$39</td>
</tr>
<tr>
<td>Total Non-land Cost</td>
<td>$371-$431</td>
<td>$413-$473</td>
<td>$247-$259</td>
</tr>
<tr>
<td>Projected Revenue*</td>
<td>$528-$660</td>
<td>$479-$611</td>
<td>$421-$514</td>
</tr>
<tr>
<td>Break-even cash rent</td>
<td>$157-$229</td>
<td>$66-$138</td>
<td>$174-$255</td>
</tr>
</tbody>
</table>

*Corn $3.30; Soy $9.35
USDA Long Term Projections. Feb 2017
What variables affect overall trends in cash rents?

• From the producer perspective:
  – Ethanol plants X Operating at capacity
  – Net Farm Income X Declining in 2017
  – Profit margins on rented land X Negative
  – Land values and Credit access (purchase instead of rent)
  – Other
AVERAGE VALUES
all farmland 1941–2016

Land Value ($ per acre)

Iowa Nominal and Inflation-adjusted Farmland Values 1941-2016

Nominal value
Inflation-adjusted value (2015 dollars)

$7,183
As of Nov 16
-5.9%

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Percent Changes in Land Values from Nov 2015

- Lyon: -6.31%
- Osceola: -6.31%
- Dickinson: -6.31%
- Emmet: -5.97%
- Kossuth: -5.56%
- Winnebago: -5.89%
- Worth: -5.69%
- Mitchell: -6.21%
- Howard: -6.38%
- Winneshiek: -6.55%
- Allamakee: -6.71%
- Sioux: -6.91%
- O'Brien: -6.31%
- Clay: -5.99%
- Palo Alto: -5.63%
- Hancock: -5.56%
- Cerro Gordo: -5.89%
- Floyd: -6.21%
- Chickasaw: -6.38%
- Fayette: -5.65%
- Clayton: -6.71%
- Plymouth: -7.62%
- Cherokee: -6.96%
- Buena Vista: -5.99%
- Pocahontas: -5.80%
- Humboldt: -5.89%
- Wright: -5.91%
- Franklin: -5.69%
- Butler: -6.24%
- Bremer: -6.37%
- Delaware: -6.54%
- Black Hawk: -6.71%
- Buchanan: -6.71%
- Muscatine: -5.34%
- Cedar: -5.30%
- Clinton: -5.73%
- Scott: -5.34%
- Polk: -6.15%
- Jasper: -5.42%
- Poweshieke: -5.89%
- Iowa: -5.94%
- Johnson: -5.25%
- Linn: -5.66%
- Jones: -5.80%
- Jackson: -6.19%
- Van Buren: -5.20%
- Louisa: -5.25%
- Des Moines: -4.33%
- Mills: -4.72%
- Montgomery: -4.72%
- Adams: -3.85%
- Union: -3.00%
- Clarke: -2.20%
- Lucas: -2.00%
- Monroe: -3.47%
- Wapello: -4.43%
- Jefferson: -4.34%
- Henry: -4.33%
- Lee: -3.25%

Percentage Change:
- Decreased 7% or more
- Decreased 6 to 7%
- Decreased 5 to 6%
- Decreased 2 to 5%
- Decreased less than 2%

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Land Values: 7th District
FED-Chicago

Percent change in dollar value of “good” farmland

Top: October 1, 2016 to January 1, 2017
Bottom: January 1, 2016 to January 1, 2017

<table>
<thead>
<tr>
<th>State</th>
<th>October 1, 2016 to January 1, 2017</th>
<th>January 1, 2016 to January 1, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Indiana</td>
<td>-2</td>
<td>+2</td>
</tr>
<tr>
<td>Iowa</td>
<td>0</td>
<td>-2</td>
</tr>
<tr>
<td>Michigan</td>
<td>-1</td>
<td>-8</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>-2</td>
<td>+3</td>
</tr>
<tr>
<td>Seventh District</td>
<td>-1</td>
<td>-1</td>
</tr>
</tbody>
</table>

*Insufficient response.*

Source: Federal Reserve Bank of Chicago
Feb 2017
What variables affect overall trends in cash rents?

• From the producer perspective:
  – Ethanol plants X Operating at capacity
  – Net Farm Income X Declining in 2017
  – Profit margins on rented land X Negative
  – Land values and Credit access (purchase instead of rent) X Values Declining; X Loan Demand > Available Funds
  – Other
What variables affect overall trends in cash rents?

• From the landowner perspective:
  – Land values ↓
  – Return on investment in bonds, CDs, etc.
  – Household income (farm and non-farm)
  – Property taxes
  – Mortgage payments
  – Other
Note: F = forecast. The GDP chain-type price index is used to convert the nominal (current-dollar) statistics to real (inflation adjusted) amounts (2009=100).
Data as of February 7, 2017.
Farm sector solvency ratios, 1970-2017F

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Note: F = forecast; data for 2016 and 2017 are forecasts.
Data as of February 7, 2017.
US Farm Operator Households: Negative Farm Income for 4th year in a row

Median farm income, median off-farm income, and median total income of farm operator households, 2014-2017F

Dollars (nominal)

<table>
<thead>
<tr>
<th>2014</th>
<th>2015</th>
<th>2016F</th>
<th>2017F</th>
</tr>
</thead>
<tbody>
<tr>
<td>-118</td>
<td>-765</td>
<td>-1,328</td>
<td>-1,437</td>
</tr>
<tr>
<td>Median farm income</td>
<td>Median off-farm income</td>
<td>Median total household income</td>
<td></td>
</tr>
</tbody>
</table>

Note: F = forecast.
Cash Rent / Land Value in Iowa
ROI in High Quality Bonds (Maturity 30 years)

The Treasury High Quality Market (HQM) Corporate Bond Yield Curve

Source: US Department of the Treasury
What variables affect overall trends in cash rents?

• From the landowner perspective:
  – Land values Values ↓; Cash Rent/Land V ↓
  – Return on investment in bonds, CDs, etc. ↓
  – Household income (farm ↓ and non-farm ???)
  – Property taxes ???
  – Mortgage payments ???
  – Other
Summary

• Other than need of landowners to supplement household income, make mortgage payments, pay taxes:

• NO factors pushing cash rents up in 2017

• Mid-term farm income projections stable at current levels
ISU Cash Rent Survey 2017

• Currently underway
• To participate: plastina@iastate.edu

• I don’t expect much change from 2016 (state average $230)
• Results published in May 2017
Thank you for your attention!

Questions?

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