Top Issues

- Land Values
- Cash Rental Rates
- Custom Rates
- Leasing Practices
- Crop-Share Leases
- Calculating a Cash Rent Lease
- Flexible Cash Leases
- Bio-economy
Background

- Land values have been increasing for the past several years. Record levels for each of the past 4 years
- Increases fueled primarily by poor overall economy, low interest rates and attractiveness of land investment. Investors were more important in the market the past several years.
Background

• Bioeconomy has created a boom in the land market since last fall.
• Land value increases are continuing at a rapid rate.
• Existing farmers are becoming more active participants
• Land has increased 73% since 2000
Tools

• ISU Extension Staff Resources
• Ag Decision Maker
  – Decision Aids
    • Annual Surveys
    • Publications
  – Decision Tools
• Agricultural Management e-School
  – Farm Leasing Arrangements course
• Non ISUE resources
December 2007 Corn Futures
November 2007 Soybean Futures

07Nov settle: 11/14 Click to see Soybeans Product Calendar Dates

Quotes Settlement Daily Vol Time & Sales Volatility Historical Data Spreads

Open Auction Electronic Combinations Real-Time Quotes


CBOT ADVANTAGE
December 2008 Corn Futures
When did you run the numbers?
With these prices?

- December Corn
- November Beans

2007 Futures

2008 Futures
Iowa Farmland Value Surveys

- **Iowa State University Extension**
  - conducted annually around November 1st
  - mailed survey sent to 1,100 licensed real estate brokers
  - usually 500-600 responses
  - released in mid-December

- **Federal Reserve Bank of Chicago**
  - quarterly survey of ag lenders by state
  - [http://www.chicagofed.org/economic_research_and_data/ag_letter.cfm](http://www.chicagofed.org/economic_research_and_data/ag_letter.cfm)

- **Realtors Land Institute**
  - semi-annual survey (March and September)
  - compares land classification by corn production
  - includes pasture and timber land
Recent Land Value Estimates

• Chicago Fed
  – 7% increase in the 1st quarter
  – 16% increase April to April

• Iowa Chapter of Realtors Land Institute
  – 13.6% increase from September 06 to March 07

• ISU Soil Management Conference
  – forecast a 20% increase from November 07 to November 08
Factors to Watch

- Overall performance of the economy
  - interest rates
  - housing market
- Recreational demand
- Aging farmland owners and their heirs
- Bioeconomy
  - corn based ethanol
- Farm Program
  - more of the same/cuts/regional differences
## Leasing Practices

### Crop Reporting District 7

<table>
<thead>
<tr>
<th>Percent of Crop Acres</th>
<th>Cass</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner operated</td>
<td>47%</td>
<td>100%</td>
</tr>
<tr>
<td>Custom farmed</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Cash Rent</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Crop Share</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Other Lease</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

### Percent of Leased Acres

<table>
<thead>
<tr>
<th>Leased Acres</th>
<th>Leases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written lease</td>
<td>35%</td>
</tr>
<tr>
<td>Leased to relative</td>
<td>40%</td>
</tr>
<tr>
<td>Farm resident owner</td>
<td>35%</td>
</tr>
<tr>
<td>Professional Manager</td>
<td>5%</td>
</tr>
<tr>
<td>Length of tenure (yrs.)</td>
<td>12</td>
</tr>
</tbody>
</table>

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Iowa State University
University Extension
Net Returns to Owner--Corn/Soybeans Rotation

$ per acre

Crop-share
Cash
Net Returns to Tenant--Corn/Soybeans Rotation

Crop-share
Cash

$ per acre

110
90
70
50
30
10
(10)
(30)

Leasing Opportunity

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>Acres</th>
<th>Percent</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>T370B</td>
<td>61.47</td>
<td>23.2%</td>
<td>85</td>
</tr>
<tr>
<td>248</td>
<td>17.72</td>
<td>6.7%</td>
<td>60</td>
</tr>
<tr>
<td>T368</td>
<td>16.70</td>
<td>6.3%</td>
<td>90</td>
</tr>
<tr>
<td>212</td>
<td>11.71</td>
<td>4.4%</td>
<td>91</td>
</tr>
<tr>
<td>T369</td>
<td>87.78</td>
<td>33.1%</td>
<td>85</td>
</tr>
<tr>
<td>133</td>
<td>9.69</td>
<td>3.7%</td>
<td>80</td>
</tr>
<tr>
<td>220</td>
<td>60.11</td>
<td>22.7%</td>
<td>85</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>265.19</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>83.73</strong></td>
</tr>
</tbody>
</table>

Iowa Corn Suitability Rating
Based yield estimation:
179 bushels per acre
Supporting Information

Location: Page County
Tillable Acres: 265 Acres
Corn Yield: 179 bu/Acre
Soybean Yield: 49 bu/A
Corn Suitability Rating: 84 CSR
Calculating Cash Rent Values

Cash Rent Market Approach
ISU Extension Publication FM 1851 – *Cash Rental Rates for Iowa 2007 Survey* (released in May)

Three Methods for Determining Cash Rent Values

Typical Cash Rent
Average Rent for Production
Average Rent for Corn Suitability Rating (CSR)
Calculating Cash Rent

1. Typical Cash Rent

Select the Area of the State/County

Area 10 County Page

Determine Overall average $132

High Quality Third = $161
Middle Quality Third = $130
Low Quality Third = $104
Calculating Cash Rent

2 a. Average Rents Per Unit – Corn Yield

Select the Area of the State/County

Determine Average Rent for Corn

Farm’s Average Corn Yield (bu/A) 179
Times rent per bushel of Corn yield $ .96
Equals the Average Rent for Corn Acre $ 172
Calculating Cash Rent

2 b. Average Rents Per Unit – Soybean Yield

Select the Area of the State/County

Determine Average Rent for Soybeans

Farm’s Average Soybean Yield (bu/A)  49
Times rent per bushel of Soybean yield $ 3.08
Equals the Average Rent for Soybean Acres $151
2. Average Rents Per Unit – Corn & Soybeans

Add the Average Rent for Both

- Corn Average Rent $ 172
- Soybean Average Rent $ 151

Average Rent Corn & Soybeans $ 161
Using Corn Suitability Rating (CSR)

3. Average Rents Per CSR Index Point

Select the Area of the State/County

Determine the Average Cash Rent using CSR

Farm’s Average Corn Suitability Rating  84
Times rent per CSR index point        $  1.76
Equals the Average Rent for all Row Crop Acres

$ 148

Source: ISU Extension Publication FM- 1851
Overall Average

Average all 3 Methods

Method 1: Typical Cash Rent $ 161
Method 2: Average Rents per Unit $ 161
Method 3: Average Rents per CSR Index Point $ 148

Total all Methods and divide by 3 $157 /A

$157 /A X 265 Tillable Acres = $41,517

Split Payments of $20,758 and $20,758

Source: ISU Extension Publication FM-1851
Cash Lease Calculations

- Gross Income Method
- Tenant Residual Method
- Crop Share Method
- Return on Investment Method
Assumptions

- 265 crop acres
- 179 bushel corn yield
- 49 bushel Soybean yield
- Corn Market Price $3.50 / bu
  - December 2008 minus 50 cents
- Soybean Market Price $8.70 / bu
  - November 2008 minus 50 cents
- Direct Government Payments average $22.00 / acre
Share of Gross Income

CORN: \((179 \text{ bu} \times \$3.50) + \$22 = \$648.50\)
SOYBEANS: \((49 \text{ bu} \times \$8.70) + \$22 = \$448.30\)

Iowa cash rents typically are equal to about 30 to 40 percent of the gross income from producing corn, and 35 to 45 percent of the gross income from producing soybeans.

Cash Rental Rate
CORN: \(\$648.50/\text{ac} \times 35\% = \$227\)
SOYBEANS: \(\$448.30/\text{ac} \times 40\% = \$179\)

Average \(\$203\)
Tenant Residual Method

CORN:  $648.50 – $368.47 = $280.03

SOYBEAN:  $448.30 - $194.70 = $253.60

Average:  $266.79

30% lower prices or lower yield                $109
20% lower prices or lower yield                $162
10% higher prices or lower yield               $319
Crop Share Method 50-50 Share

Income:
Corn: 50 \% \times 648.50 = $324.25
Soybeans: 50 \% \times $448.30 = $224.15

Expense:
Corn: 50 \% \times $237.28 = $118.64
Soybeans: 50 \% \times $161.49 = $62.66

Equivalent Rent:
Corn: $324.25 - $118.64 = $205.61
Soybeans: $224.15 - $62.66 = $161.49
Average: $183.51

(1) The owner is assumed to pay 50 percent of the costs for seed, fertilizer, lime, pesticides, crop insurance, interest and miscellaneous, and drying and storage.
Return on Investment Method

Iowa farm estimated to have a market value of $3,700 per acre. Expected Rent: (5%) X $3,700 / acre = $185 / acre

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Rent, $/acre</th>
<th>Change, Percent</th>
<th>Land Value, $/acre</th>
<th>Rent as % of value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>110.00</td>
<td>4.8%</td>
<td>1,700</td>
<td>6.5%</td>
</tr>
<tr>
<td>1998</td>
<td>113.00</td>
<td>2.7%</td>
<td>1,860</td>
<td>6.1%</td>
</tr>
<tr>
<td>1999</td>
<td>112.00</td>
<td>-0.9%</td>
<td>1,930</td>
<td>5.8%</td>
</tr>
<tr>
<td>2000</td>
<td>115.00</td>
<td>2.7%</td>
<td>1,890</td>
<td>6.1%</td>
</tr>
<tr>
<td>2001</td>
<td>117.00</td>
<td>1.7%</td>
<td>1,980</td>
<td>5.8%</td>
</tr>
<tr>
<td>2002</td>
<td>120.00</td>
<td>2.6%</td>
<td>2,040</td>
<td>5.9%</td>
</tr>
<tr>
<td>2003</td>
<td>122.00</td>
<td>1.7%</td>
<td>2,120</td>
<td>5.8%</td>
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<tr>
<td>2004</td>
<td>126.00</td>
<td>3.3%</td>
<td>2,320</td>
<td>5.4%</td>
</tr>
<tr>
<td>2005</td>
<td>131.00</td>
<td>4.0%</td>
<td>2,650</td>
<td>4.9%</td>
</tr>
<tr>
<td>2006</td>
<td>133.00</td>
<td>1.5%</td>
<td>3,060</td>
<td>4.3%</td>
</tr>
<tr>
<td></td>
<td>Corn</td>
<td>Soybeans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Rent Survey</td>
<td>$161</td>
<td>$161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Bushel Yield</td>
<td>$172</td>
<td>$151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per CSR Point</td>
<td>$148</td>
<td>$148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Income</td>
<td>$229</td>
<td>$169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenant Residual</td>
<td>$280</td>
<td>$254</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop Share</td>
<td>$206</td>
<td>$161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Investment</td>
<td>$185</td>
<td>$185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>$197</td>
<td>$176</td>
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<tr>
<td>All Average</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$186</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43% increase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Direct Corn Expenses

- Seed
- Insecticide
- Herbicide
- Fertilizer & Lime
- Drying & Storage

Iowa State University
University Extension
Flexible Cash Leases

Desire:
Terminated tenants want cash rent leases to be renewed by September 1 for the following year

Current Reality:
Prices and yields are very unpredictable

Solution:
Flexible lease contract
Flexible Cash Lease is a Share Lease

- Farm Service Agency says that if the actual rent depends on the farm yield, direct and counter cyclical payments must be shared with the landowner.
- Considered to be a “share” lease
- Does not apply to LDPs or marketing loan gains.
Flexible Cash Lease is a Cash Lease

- If the final rent does not depend on the farm yield, a flexible rent is still considered to be a cash rent.
- Example: base rent on county average yield and actual price at harvest.
- County yields are not published until March each year.
Base plus Bonus

• Paying a “flex bonus” when revenue is above expectations does not affect the split of payments if it is not based on the actual farm yield.

• Provide a copy of your agreement to the FSA county office.
71 Potential Iowa Plants

11 Just across IA Borders

Capacity: 142% of 2006 Crop
Total 11,693 mil. Bu.

<table>
<thead>
<tr>
<th>Status</th>
<th>MGY</th>
<th>Mil Bu</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Operation</td>
<td>5,432</td>
<td>1,940.1</td>
</tr>
<tr>
<td>Under Expansion</td>
<td>263</td>
<td>93.9</td>
</tr>
<tr>
<td>Under Construction</td>
<td>4,872</td>
<td>1,740.0</td>
</tr>
<tr>
<td>Ground Broken</td>
<td>2,463</td>
<td>879.6</td>
</tr>
<tr>
<td>Planned</td>
<td>19,710</td>
<td>7,039.3</td>
</tr>
</tbody>
</table>

Plants "Under Construction" have broken ground and have poured concrete. Plants that have "broken ground" have begun site work but no actual construction. Plants that are "planned" have been talked about or announced in the news.
Hazards for 2008

- Lower crop insurance prices
- Higher input costs
  - rent, fuel, fertilizer, seed, machinery, and drying
- Yields
  - low or at insurance coverage levels
- Price
  - average or below break even
- Increased world supplies or low ethanol prices
Other Resources

• Materials from this meeting
  – http://www.extension.iastate.edu/feci/Leasing/vflm.html

• Online Courses – Ag Management e-School
  – http://www.extension.iastate.edu/ames

• Workshops, meetings, conferences
  – http://dbs.extension.iastate.edu/calendar/

• Publications – rental survey, land value survey, etc.
  – http://www.extension.iastate.edu/pubs/

• Articles and spreadsheets
  – http://www.extension.iastate.edu/agdm/

• Private Consultation
  – http://www.extension.iastate.edu/ag/fsfm/fsfarmmg.html