Characteristics of Profitable Farms: Is Your Farm One of Them?

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Questions about the Most Profitable Farms

• Do the most profitable farms have the higher yields? ____________

• Do the most profitable farms use all the latest technology? __________

• Do the most profitable farms get the highest prices for commodities? _______
Questions about the Most Profitable Farms

• Do the most profitable farms purchase inputs better than less profitable farms? __________

• Are the most profitable farms larger? ______

• Is there a cost advantage to being larger? __________
Outline

1. Farms divided into profit groups
2. Survey of FBFM field staff on management factors
3. Cost advantages of larger farms
4. Budgeting for high and low profit farms
5. Identifying whether a farm is one of the more profitable farms
Management Returns

- FBFM farms (Economic Management Analysis Report)
- Data from 1998 through 2002
- Per acre revenue and costs
- Costs includes opportunity costs (unpaid labor, interest on investment)
- Each year divide farms into 3 groups based on management returns (High 1/3, Mid 1/3, Low 1/3)
## Movement Between Groups

<table>
<thead>
<tr>
<th>Group in 2001</th>
<th>Low 1/3</th>
<th>Mid 1/3</th>
<th>High 1/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low 1/3</td>
<td>55%</td>
<td>28%</td>
<td>17%</td>
</tr>
<tr>
<td>Mid 1/3</td>
<td>29%</td>
<td>43%</td>
<td>28%</td>
</tr>
<tr>
<td>High 1/3</td>
<td>16%</td>
<td>30%</td>
<td>54%</td>
</tr>
</tbody>
</table>
Divide farms into groups based on number of years in high 1/3 group between 1998 and 2002:

- Five – all five years
- Three and four
- One and two
- Never
See “Returns and Costs for Illinois FBFM Farms by Profit Group”
Persistence Scores

• Measures how much rank across farms change between years
• 1 means all farms have the same rank from one year to the next, 0 means that no relationship between one year to the next
• Persistence proxies management control
Persistence Across Years

- Total Costs: 0.77
- Soybean Yield: 0.69
- Corn Yield: 0.53
- Crop Revenue: 0.46
- Soybean Price: 0.39
- Corn Price: 0.24
Persistence Across Years

- Building: 0.43
- Crop: 0.43
- Power: 0.59
- Land: 0.72
- Other: 0.83
- Labor: 0.9
Summary of Profit Comparison

• Differences in:
  – Land tenure (*High profit farms have less owned land, more share rent*)
  – Size (*High profit farms have larger farms*)
  – Yields (*High profit farms have slightly higher yields*)
  – Costs (*High profit farms have lower costs*)
Summary of Profit Comparison

• Ranking of cost categories:
  – Land
  – Labor
  – Power
  – Other
  – Crop
  – Building
Summary of Profit Comparison

• No difference in:
  – Prices received
## Equipment of the most profitable farm

<table>
<thead>
<tr>
<th>Item</th>
<th>1,500 acres</th>
<th>2,500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine (size)</td>
<td>_________</td>
<td>_________</td>
</tr>
<tr>
<td>No of tractors</td>
<td>_________</td>
<td>_________</td>
</tr>
<tr>
<td>Planter?</td>
<td>_________</td>
<td>_________</td>
</tr>
<tr>
<td>Drill?</td>
<td>_________</td>
<td>_________</td>
</tr>
<tr>
<td>Trucks?</td>
<td>_________</td>
<td>_________</td>
</tr>
</tbody>
</table>
Survey of FBFM Field Staff

• Asked FBFM field staff to evaluate cooperators abilities and use of technology in certain areas

• Did not tell field staff profit classes of farmers
• See “Summary of FBFM Field Staff Responses to Management Survey”
Summary of Survey

• Not much difference across farms
  – Financial planning and personal mgt are higher for more profitable farms

• No evidence that more profitable farms use different technology than less profitable farms.
• Will larger farms be building on-farm storage? ______________

• Will larger farms store a large percent of grain after harvest? ____________
Size and Costs

• Do larger farms have per acre cost advantages over smaller farms?
• See “Size Economies on Illinois Grain Farms”
Summary of Size Economies

- Once reach 1,200 acres, very little change in costs across larger farm sizes.

- No evidence that larger farms can “purchase” at lower costs than smaller farms.

- Logic: Combine example (One combine can only do so much)
Budgeting for high profit and average profit farms

• Develop corn and soybean budgets for low 1/3 cost farms and average farms
• See “Breakdown of Economic Costs by Cost Category”
• See “2004 Budgets”
Crop Budgeting Tool

• Examine the impacts of differences in costs on returns using FAST Crop Budgeting tool.
Is my farm a highly profitable farm?

Outline:

• Discuss prototype farm
• FBFM resources
• FAST tools
Prototype of Low Cost 2,500 Acre Grain Farm

Explanations

• Size is not that important, only reason to pick this size is to fully utilize combine

• Assumes no custom work or other enterprises (not necessarily a recommendation)
Prototype of Low Cost 2,500 Acre Grain Farm

• One full-time person with part-time planting and harvest labor

• No on-farm grain storage

• Sell all grain at harvest, unless can lock in profits using hedging (If want to speculate, use futures)
Prototype of Low Cost 2,500 Acre Grain Farm

• Equipment (all relatively new)
  – One combine
  – Two tractors
  – Grain cart
  – One planter (no skip row)
  – Field cultivator, Chisel plow, nitrogen applicator
  – Sprayer (self propelled)
  – S10 Pickup
  – Used semis
Prototype of Low Cost 2,500 Acre Grain Farm

- Share-rent farmland (or not aggressive cash rent)

- Cropping program (Nothing from a cost perspective that is out-of-line, likely not over-fertilizing, few chemical passes, Ag. Economists don’t have much advice here)
FBFM Resources

- Economic Management Analysis report

- EMA trend-line worksheet
FAST tools

- Enterprise Allocation worksheet
- Breakeven Analysis
- Farmland Lease Analysis
- Ratio Analysis
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Thank you for coming