Financial Profitability and Benchmarking

Urbana Lender Seminar
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Dairy Production Economics
Farm Business Analysis

- Was the farm profitable?

- Which enterprises were profitable?
  - Crops, Livestock
  - Owned ground, Rented Ground

Farm Business Analysis

- How did the farm perform compared to previous years?
Farm Business Analysis

- How did the farm perform compared to the best farms?
  - Ohio
  - National database

A "Farmer's Eye View"...

...of a year in the life of a farm
An “Economist’s Eye View”...

...of a year in the life of a farm

It all boils down to...
Whole Farm Analysis
Includes:
Income Statement
Statement of Owner’s Equity
Statement of Cash Flows
Profitability Measures
Liquidity Measures
Solvency Measures
Repayment Capacity
Comparative Balance Sheets
- cost
- market
Comparative Trends
Crop Enterprise Analysis

Crop by
- owned acres
- rented acres
- cash
- share(s)

Costs and Returns
- per acre
- per bushel/ton
Are our farms profitable over time?

A look back

- Liquidity
- Solvency
- Repayment Capacity
- Profitability
Liquidity

Working Capital
Current Assets – Current Liabilities
-Desirable: Positive, a lot!

Working Capital to Gross Revenues
Working Capital ÷ Gross Farm Income
-Desirable: >30%

818 Ohio farms participating in the Ohio Farm Business Analysis Program
Working Capital to Gross Income
Avg of all farms

Year

Working Capital to Gross Income

24.93
818 Ohio farms participating in the Ohio Farm Business Analysis Program

Working Capital to Gross Income
Average of low 40% of farms

18.13
818 Ohio farms participating in the Ohio Farm Business Analysis Program
Solvency

Measures the amount of debt, lease commitments and other expense obligations of the business as well as the owner’s equity

1. Debt/Asset Ratio
2. Equity/Asset Ratio
3. Debt/Equity Ratio
Debt to Asset Ratio (Market)
Average of low 40%

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Repayment Capacity

Term-debt coverage ratio

Capital debt repayment capacity ÷ Scheduled principal, interest and capital lease payments

-Desirable: >1.75
Term Debt Coverage Ratio – Avg of all Farms

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Term Debt Coverage Ratio

Avg of low 40% of Farms

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Profitability

Net Farm Income

Gross cash farm income
- Total cash farm expense
+/- Inventory change
- Depreciation

- Desirable: Positive, a lot!

OHIO STATE UNIVERSITY EXTENSION

Net Farm Income

818 Ohio farms participating in the Ohio Farm Business Analysis Program
Gross Farm Income vs. Net Farm Income

818 Ohio farms participating in the Ohio Farm Business Analysis Program

Net Farm Income
Avg of low 40% farms

818 Ohio farms participating in the Ohio Farm Business Analysis Program
Profitability

Rate of Return on Assets

Return on farm assets ÷ Avg farm assets

-Desirable: >8%

OHIO STATE UNIVERSITY EXTENSION

Rate of Return on Assets

Avg of all farms


818 Ohio farms participating in the Ohio Farm Business Analysis Program
Rate of Return on Assets
Avg of low 40% of farms

818 Ohio farms participating in the Ohio Farm Business Analysis Program

What has happened in 2015, 2016?

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn*</th>
<th>Beans*</th>
<th>Milk (Class III)</th>
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<tbody>
<tr>
<td>2015</td>
<td>3.80</td>
<td>8.85</td>
<td>15.80</td>
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<tr>
<td>2014</td>
<td>3.78</td>
<td>10.30</td>
<td>22.34</td>
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<tr>
<td>2013</td>
<td>4.41</td>
<td>13.00</td>
<td>17.99</td>
</tr>
<tr>
<td>2012</td>
<td>7.09</td>
<td>14.60</td>
<td>17.44</td>
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<tr>
<td>2011</td>
<td>6.44</td>
<td>13.00</td>
<td>18.37</td>
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<tr>
<td>2010</td>
<td>5.45</td>
<td>11.50</td>
<td>14.41</td>
</tr>
<tr>
<td>2009</td>
<td>3.55</td>
<td>9.78</td>
<td>11.36</td>
</tr>
<tr>
<td>2008</td>
<td>3.95</td>
<td>9.60</td>
<td>17.44</td>
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<td>2007</td>
<td>4.29</td>
<td>9.93</td>
<td>18.04</td>
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<td>2006</td>
<td>3.30</td>
<td>6.25</td>
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<tr>
<td>2005</td>
<td>1.98</td>
<td>5.74</td>
<td>14.05</td>
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* Market year averages, Ohio Ag Stats
818 Ohio farms participating in the Ohio Farm Business Analysis Program
Yield – 150.00 bushels/acre
30th percentile
70% of the farms achieved a higher yield

2014 Ohio Farm Business Analysis
©The Ohio State University
Yield – 150 bushels/acre
30th percentile
70% of the farms achieved a higher yield

Value per unit - $5.00/bu
70th percentile

Gross return - $753.16/acre
60th percentile
### Corn 2014; Owned Land

#### Benchmark Report, 22 Farms

<table>
<thead>
<tr>
<th></th>
<th>My Farm</th>
<th>Group Median</th>
<th>Count</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td>Yield per acre (bu.)</td>
<td>150.00</td>
<td>161.34</td>
<td>22</td>
<td>125.50</td>
<td>136.75</td>
<td>150.60</td>
<td>160.00</td>
<td>167.00</td>
<td>175.15</td>
<td>185.16</td>
<td>195.16</td>
<td>214.38</td>
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<tr>
<td>Value per unit</td>
<td>5.00</td>
<td>4.25</td>
<td>22</td>
<td>5.00</td>
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<td>5.00</td>
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<tr>
<td>Total product value</td>
<td>750.00</td>
<td>736.73</td>
<td>22</td>
<td>601.85</td>
<td>619.58</td>
<td>641.15</td>
<td>659.14</td>
<td>753.16</td>
<td>829.37</td>
<td>854.40</td>
<td>911.13</td>
<td>949.33</td>
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<tr>
<td>Gross return</td>
<td>750.00</td>
<td>736.73</td>
<td>22</td>
<td>601.85</td>
<td>619.58</td>
<td>641.15</td>
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#### Total Direct & Overhead expenses - $558.65 per acre

90th percentile

#### Net Return - $196.35 per acre; 80th percentile

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**Costs of production per bushel**

- Direct cost of production – 80th percentile
- Direct and overhead costs – 70th percentile
- COP less govt & other income – 70th percentile
If this was a normal yield (not drought or flood induced):

Use the benchmark chart to identify where the farm is spending more than most farms
- is there a significant opportunity to control costs?
- impact on potential yield

Other considerations – what is holding back yield?

**2014 Ohio Farm Business Analysis**

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What were the costs of production?

Which crops made money?

Where are there opportunities to improve?

Who is going to work on these questions?

For More Information About Farm Business Analysis:

Visit: [http://farmprofitability.osu.edu/](http://farmprofitability.osu.edu/)

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Ohio Farm Business Analysis and Benchmarking Program

Should you participate in 2017?
-or-
Why wouldn’t you participate in 2017?