Dairy Business Analysis Project 1997: Regional Characteristics and Financial Performance

Marvin J. Hoekema
Manager, Dairy Business Analysis Project
Department of Dairy and Poultry Sciences
University of Florida
<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russ Giesy</td>
<td>Marvin Hoekema</td>
</tr>
<tr>
<td>Mary Sowerby</td>
<td>Pat Miller</td>
</tr>
<tr>
<td>David Solger</td>
<td>Bob Tervola</td>
</tr>
<tr>
<td>Travis Seawright</td>
<td>Patrick Joyce</td>
</tr>
<tr>
<td>Chris Vann</td>
<td>Michael DeLorenzo</td>
</tr>
</tbody>
</table>

*Florida Dairy Check-Off*
Overview

- Financial performance: revenues, expenses, and net farm income.
- Expense composition: where the money was spent.
- Asset composition: where the money was invested.
- Regional constraints and recommendations.
<table>
<thead>
<tr>
<th>Category ($ per cwt.)</th>
<th>West</th>
<th>All Dairies</th>
<th>Upper 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>19.14</td>
<td>18.31</td>
<td>19.77</td>
</tr>
<tr>
<td>Personnel</td>
<td>2.85</td>
<td>2.45</td>
<td>2.34</td>
</tr>
<tr>
<td>Purchased feed</td>
<td>6.96</td>
<td>8.37</td>
<td>8.40</td>
</tr>
<tr>
<td>Crops</td>
<td>0.82</td>
<td>0.33</td>
<td>0.55</td>
</tr>
<tr>
<td>Machinery</td>
<td>1.46</td>
<td>0.86</td>
<td>0.83</td>
</tr>
<tr>
<td>Livestock</td>
<td>1.54</td>
<td>2.44</td>
<td>2.13</td>
</tr>
<tr>
<td>Marketing</td>
<td>1.34</td>
<td>1.06</td>
<td>0.96</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0.66</td>
<td>0.50</td>
<td>0.56</td>
</tr>
<tr>
<td>Other</td>
<td>1.96</td>
<td>1.39</td>
<td>1.24</td>
</tr>
<tr>
<td>Depreciation</td>
<td>0.83</td>
<td>0.63</td>
<td>0.63</td>
</tr>
<tr>
<td>Total expenses</td>
<td>18.42</td>
<td>18.02</td>
<td>17.63</td>
</tr>
<tr>
<td>Net farm income</td>
<td>0.72</td>
<td>0.29</td>
<td>2.15</td>
</tr>
</tbody>
</table>
### 1997 Descriptive Statistics by Group

<table>
<thead>
<tr>
<th>Category</th>
<th>West</th>
<th>All Dairies</th>
<th>Upper 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cows</td>
<td>406</td>
<td>1,502</td>
<td>1,428</td>
</tr>
<tr>
<td>Number of heifers</td>
<td>310</td>
<td>883</td>
<td>928</td>
</tr>
<tr>
<td>Milk sold per cow (pounds)</td>
<td>16,646</td>
<td>17,014</td>
<td>17,053</td>
</tr>
<tr>
<td>Cull rate</td>
<td>36%</td>
<td>41%</td>
<td>41%</td>
</tr>
<tr>
<td>Assets per cow</td>
<td>$5,275</td>
<td>$4,178</td>
<td>$3,872</td>
</tr>
<tr>
<td>Rate of return on assets</td>
<td>6%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>6%</td>
<td>2%</td>
<td>11%</td>
</tr>
<tr>
<td>Asset turnover ratio</td>
<td>0.73</td>
<td>0.84</td>
<td>0.94</td>
</tr>
</tbody>
</table>
Revenues, Expenses, and Net Farm Income by Group

- **West All Dairies Upper 25%**
  - $ per cwt. milk sold:
    - $0.00
    - $0.50
    - $1.00
    - $1.50
    - $2.00
    - $2.50
  - Net farm income per cwt.

**Graph Legend**
- **Blue**: Total Revenues
- **Red**: Total Expenses
- **Green**: Net farm income

**Axes**
- **Y-axis**: $ per cwt. milk sold
- **X-axis**: Net farm income per cwt.
Expense Categories by Groups

- Feed
- Pers
- Lvstk
- Other
- Mktg
- Mach
- Dep
- RE
- Crops

$ per cwt. milk sold

West
All Dairies
Upper 25%
Expense Composition-West Region

- Purchased Feed: 4%
- Livestock: 5%
- Milk Marketing: 4%
- Depreciation: 4%
- Real Estate: 15%
- Crops: 11%
- Other: 8%
- Personnel: 38%
- Machinery: 7%
Expense Composition - All DBAP Dairies

- Purchased feed: 8%
- Personnel: 14%
- Livestock: 6%
- Marketing: 5%
- Depreciation: 3%
- Machinery: 3%
- Other: 2%
- Real Estate: 3%
- Crops: 45%

Total: 100%
Observations-West Region

• This region made $0.72 per cwt. milk sold due to $19.14 in total revenues. This was caused by crop activities driving revenues higher.

• Total expenses of $18.42 per cwt. milk sold, although not the highest, were still $0.79 above Top 25% group.

• Cropping activities made this region’s expense composition drastically different.

• Translation: Lower feed, higher machinery, real estate, and depreciation expenses: Do these expenses produce profits?
Critical Success Question

Do high crop expenses produce profits?
Asset Composition-West Region

- Livestock: 37%
- Real Estate/Buildings: 31%
- Machinery/Equipment: 22%
- Other: 10%
Asset Composition-DBAP Dairies

- Livestock: 39%
- Real Estate/Buildings: 34%
- Machinery/Equipment: 15%
- Other: 12%
Observations-West Region Assets

- Total assets of $5,275 per cow was highest among regions and $1,403 or 36% higher than the Top 25% group.
- Real estate and machinery dominated asset mix, not livestock.
- This drove an asset turnover ratio of 0.73 which was 0.21 points below the 0.94 of the Top 25% group.
- This brings to question the efficiency of cropping activities.
Challenges-West Region

- Lowest herd size among regions means the cropping activities need to be highly efficient or profitability will be constrained.
- Total expenses were high suggesting crop activities may not be efficient.
- High crop revenues may not always be realized from year to year.
Recommendations-West Region

- Analyze crop enterprises for efficiency.
- Improve efficiency of milk production. Look for ways to further decrease purchased feed expense.