Profitability of U.S. Dairy Farms

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Outline

- Trends in U.S. milk production
- Compare milk production economics
  - Southeast – other regions in U.S.
- DBAP 2001 results
Operations with Milk Cows

Southeast
1980: 13000
1990: 5100
2000: 1880

Source: USDA 2002
Operations with Milk Cows (%)
Each Year is 100%

Southeast
1980: 3.9%
1990: 2.6%
2000: 1.8%

Source: USDA 2002
Dairy Cows

Southeast
1980: 430k
1990: 368k
2000: 292k

Source: USDA 2002
Milk Production (lbs)

Southeast
1980: 4.55
1990: 4.93
2000: 4.61
billion lbs

Source: USDA 2002
20 Year Trends

Summary

- No growth in Southeast
  - Fewer operations with milk cows
  - Fewer cows
  - Milk volume about equal

- Expansion in the West
  - More cows, more volume
Year 2000 Economic Comparison

Sources:

- Florida / Georgia Dairy Business Analysis Project
- North Carolina State University
- New York Farm Business Summary
- Wisconsin Center for Dairy Profitability
- Moore Stephens Frazer and Torbet, LLP
Year 2000

Economic Comparison: Challenges

- Are methods the same?
- Is data representative for region?
- Averages don’t show variation in region.

Dairies:

San Joaquin: 18
South. CA: 21
AZ: 9
NM: 9
WI: 605
NY: 66
NC: 9
FL/GA: 22
2000

Milk Sales / cwt ($)

- Florida / Georgia: 16.68
- North Carolina: 14.98
- New York: 13.32
- Arizona: 12.07
- New Mexico: 12.06
- South. California: 12.04
- San Joaquin Val.: 11.88
- Wisconsin: 11.76
- Idaho: 11.40

Range
2000

Feed Cost / cwt ($)

New York 4.58
Idaho 4.76
San Joaquin Val. 5.17
New Mexico 5.22
South. California 5.26
North Carolina 5.76
Arizona 5.82
Florida / Georgia 7.35
Wisconsin ?

Range
2000

Labor Cost / cwt ($)

<table>
<thead>
<tr>
<th>Location</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Mexico</td>
<td>1.15</td>
</tr>
<tr>
<td>San Joaquin Val.</td>
<td>1.15</td>
</tr>
<tr>
<td>Idaho</td>
<td>1.25</td>
</tr>
<tr>
<td>Arizona</td>
<td>1.28</td>
</tr>
<tr>
<td>South. California</td>
<td>1.29</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1.58</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2.44</td>
</tr>
<tr>
<td>New York</td>
<td>2.62</td>
</tr>
<tr>
<td>Florida / Georgia</td>
<td>2.74</td>
</tr>
</tbody>
</table>

Range
2000
Total Cost / cwt ($)

Idaho 10.65
Wisconsin 11.13
South. California 11.24
San Joaquin Val. 11.33
New Mexico 11.46
Arizona 12.21
New York 14.92
North Carolina 15.08
Florida / Georgia 17.03

Range
2000

Revenue – Cost =
Net Farm Income from Operations / cwt ($)

<table>
<thead>
<tr>
<th>State</th>
<th>Net Farm Income from Operations (cwt $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina</td>
<td>2.29</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1.20</td>
</tr>
<tr>
<td>Idaho</td>
<td>1.11</td>
</tr>
<tr>
<td>South. California</td>
<td>1.10</td>
</tr>
<tr>
<td>Florida / Georgia</td>
<td>1.00</td>
</tr>
<tr>
<td>San Joaquin Val.</td>
<td>0.95</td>
</tr>
<tr>
<td>New Mexico</td>
<td>0.93</td>
</tr>
<tr>
<td>New York</td>
<td>0.66</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Range

-6  -4  -2  0  2  4  6
2000

Assets / Cow ($)

- Wisconsin: $7,911
- North Carolina: $6,995
- New York: $6,179
- Florida / Georgia: $4,460
- Arizona: $2,961
- San Joaquin Val.: $2,463
- South. California: $2,367
- Idaho: $2,071
- New Mexico: $1,616

Range
2000 Rate of Return on Assets (%)

- Florida / Georgia: 7.0
- Idaho: 6.0
- North Carolina: 5.7
- New Mexico: 4.7
- New York: 3.8
- South. California: 3.7
- Wisconsin: 3.5
- San Joaquin Val.: 3.3
- Arizona: 0.6

Range
DBAP 2001 Preliminary Results

37 dairies (10/7/2002)

- 26 Florida
- 10 Georgia
- 1 Alabama
### DBAP 2001 Preliminary Results

*Top 6 based on Net Farm Income from Operations / cwt*

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Top 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cows</td>
<td>819</td>
<td>835</td>
</tr>
<tr>
<td>Milk / cow (lbs)</td>
<td>16,863</td>
<td>18,281</td>
</tr>
<tr>
<td>Assets / cow ($)</td>
<td>5,108</td>
<td>5,584</td>
</tr>
<tr>
<td>Milk Sales / cwt ($)</td>
<td>18.27</td>
<td>17.71</td>
</tr>
<tr>
<td>Total Revenues / cwt ($)</td>
<td>20.25</td>
<td>20.63</td>
</tr>
<tr>
<td>Purchased Feed Cost / cwt ($)</td>
<td>7.26</td>
<td>5.31</td>
</tr>
<tr>
<td>Labor Cost / cwt ($)</td>
<td>2.71</td>
<td>1.88</td>
</tr>
<tr>
<td>Total Cost / cwt ($)</td>
<td>18.07</td>
<td>15.56</td>
</tr>
<tr>
<td>Net FIFO / cwt ($)</td>
<td>2.14</td>
<td>5.07</td>
</tr>
<tr>
<td>Rate of Return on Assets (%)</td>
<td>7.7</td>
<td>15.3</td>
</tr>
</tbody>
</table>
Net Farm Income From Operations / cwt ($)
Net Farm Income From Operations / cwt ($)
Southeast compared to other regions:
- Higher revenue / cwt
- Higher cost / cwt
- Competitive profitability

Large variation between farms in DBAP

DBAP Top 6: cost control