FEED COSTS ON FOND DU LAC FARMS (& OTHERS)

Paul Dyk
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Ag Lenders Meeting, Kimberly WI
Paul Dyk

- Education, Masters Dairy Nutrition, Michigan State University
- 6 years consulting in feed industry
  - 2 companies
- 4 years dairy producer
- 5 years in Extension (MI, WI)
- Currently Dairy Agent in Fond du Lac County (UWEX)

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What does it cost to feed a cow?

• Sources
  – Nutritionist
  – USDA
    • Averages
    • Base Diets
    • Good for Trends

• Where am I at?
Starting Points – Places to Go
Understanding Dairy Markets
Your Source for Market Information and Price Risk Management Principles

Input Costs

Costs of Major Inputs

- Replacement Holstein Heifer Calves Price (90-120 lbs, weekly)
- Milk Cow Price
- FRS Total Feed Costs
- Milk Revenue Net of Feed Costs
- 16% Dairy Ration
- National Average Dairy Feed Costs
- Milk-Feed Price Ratio

Index of Prices Paid

© Brian Gould, Agricultural and Applied Economics, UW Madison
Understanding Dairy

Your Source for Market Information

Input Costs

Costs of Major Inputs
What is the average Feed Cost Cost on WI Dairy Farm?

- WI Center for Dairy Profitability
  - Purchased Feed Costs

<table>
<thead>
<tr>
<th></th>
<th>Purchased Feed ($/cow/yr)</th>
<th>Purchased Feed ($/cow/day)</th>
<th>Percent of Total Basic Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>$1212</td>
<td>$3.32</td>
<td>37.5%</td>
</tr>
<tr>
<td>2007</td>
<td>$957</td>
<td>$2.62</td>
<td>33.2%</td>
</tr>
<tr>
<td>2006</td>
<td>$751</td>
<td>$2.06</td>
<td>30.2%</td>
</tr>
</tbody>
</table>
What is the average Feed Cost on WI Dairy Farm?

• WI Center for Dairy Profitability
  – Purchased Feed Costs
    • What is purchased?
      – Protein & Minerals
      – Corn
      – Heifer Feed
      – Forages?
      – Combination of the above
Survey / Tool Development
Feed Cost on Farms

• Victor Cabrera and Randy Shaver
• Agents across the state
• Development of Collection tool (online and spreadsheet)
Wisconsin Dairy Feed Evaluator

• General, Production, and Income Information
  • Farm and reporter identification
  • Milk and components
  • Price received for milk

<table>
<thead>
<tr>
<th>1.1 Farm Name</th>
<th>1.2 Person Reporting</th>
<th>1.3 Month of Analysis</th>
<th>1.4 Number of Cows</th>
<th>1.5 Milk Bulk Tank Production (lb/cow/day)</th>
<th>1.6 Milk Butterfat (%)</th>
<th>1.7 Milk Protein (%)</th>
<th>1.8 Milk Price ($/cwt)</th>
<th>MILK REVENUE ($/cow/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1051 MILKING</td>
<td>86.8</td>
<td>3.51%</td>
<td>3.50%</td>
<td>10.77</td>
<td>9.35</td>
</tr>
<tr>
<td>242 DRY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Victor E. Cabrera, Dairy Ration Economics, 4 December 2009
http://dairymgt.info

FARMS
(View existing farms, add new farms, and delete farms)

IOFC DATABASE

Welcome to IOFC Database. These are the suggested steps for using the system.

1. In this page, you can add or delete farms. To add a farm enter a farm name and select the county where the farm is located and click "Add Farms". To delete a farm, delete the farm name and click save.

2. Once the farms are defined, you can start defining the "Ingredients" on the ingredients page, their DM composition, and prices used on each particular farm.
Farm Survey Fall 2009

• Collect info on farm
  – UWEX Agents
  – Nutritionists
  – Producers

• August/September 2009
  – 11 farms across the state
April 2010 Survey

• Nine Fond du Lac County Farms
  – Milk Price from March 17 (Feb ‘10) milk price
  – Average herd Size 1356 cows (12,000 cows)
  – Seven nutritionists, six feed balancing systems (companies)
Can do we compare farms?

- Issues with home grown feed
- Issues with corn prices
- Issues with quality of information
Purchased Prices

• Current prices on farms
  – May include contracted feed
    • May be higher or lower than cash prices
  – Feed prices includes nutritionist/consultant fee
  – Purchased corn (actual price used)
What Prices to Use for Forages?

- **Producer Prices**
  - Guesses at best
  - Not moisture adjusted
  - Not based on markets or actual costs

- **Standardize**
  - All US Alfalfa Hay Price
  - Corn Price Received WI
  - Corn Silage (corn price multiplied by 10)
Standardized Forage Prices

- All US Alfalfa Hay Price
  - Tracked and Published by USDA
  - March 2010, $111/ton ($135.36/dry ton)

Source: http://future.aae.wisc.edu/
Standardized Corn Price (Homegrown)

- Corn Price Received WI (USDA)
  - October 2009, $3.61/bu
  - $128.93/ton + $15 processing = $144/ton

Source: http://future.aae.wisc.edu/
Standardized Corn Silage Price

• Corn Silage Price
  – $36.10/ton
  – 10 times price of corn
  – Coming out of silo (includes harvesting, packing, fermentation)
    • Maybe a little low?
Feed Survey - Milk Production

Milk production Fall 2009

Milk Production Spring 2010

87.2 lb Average

Lbs of Milk

1 2 3 4 5 6 7 8 9

10 20 30 40 50 60 70 80 90 100

Lbs of Milk
Dry Cow Feed Costs

PURCHASED FEED COST ($/cow/day)  HOME GROWN FEED COST ($/cow/day)

$2.50  $3.00  $2.00  $2.50  $1.50  $1.00  $0.50  $0.00
Feed Costs for Milking Herd

TOTAL FEED COSTS ($/cow/d), milk

1. $4.60
2. $5.24
3. $4.46
4. $3.99
5. $5.30
6. $4.35
7. $4.56
8. $4.08
9. $4.77
Relationship of Feed Costs and Milk Production

\[ y = -0.0224x + 7.2937 \]

\[ R^2 = 0.0714 \]
Income over Feed Cost

INCOME OVER FEED COSTS (IOFC) ($/cow/day)

<table>
<thead>
<tr>
<th></th>
<th>Income over Feed Cost</th>
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<tbody>
<tr>
<td>1</td>
<td>$8.80</td>
</tr>
<tr>
<td>2</td>
<td>$8.84</td>
</tr>
<tr>
<td>3</td>
<td>$10.76</td>
</tr>
<tr>
<td>4</td>
<td>$10.30</td>
</tr>
<tr>
<td>5</td>
<td>$10.38</td>
</tr>
<tr>
<td>6</td>
<td>$8.60</td>
</tr>
<tr>
<td>7</td>
<td>$7.46</td>
</tr>
<tr>
<td>8</td>
<td>$9.17</td>
</tr>
<tr>
<td>9</td>
<td>$8.96</td>
</tr>
<tr>
<td>Milk Price ($/cwt)</td>
<td>Income over Feed Cost (IOFC) ($/cow/day)</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>$8.00</td>
<td>$16.23</td>
</tr>
<tr>
<td>$8.80</td>
<td>$15.47</td>
</tr>
<tr>
<td>$9.17</td>
<td>$16.02</td>
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<td>$10.00</td>
<td>$16.43</td>
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<td>$15.24</td>
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<tr>
<td>$10.30</td>
<td>$16.11</td>
</tr>
<tr>
<td>$10.38</td>
<td>$15.51</td>
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<tr>
<td>$10.76</td>
<td>$15.43</td>
</tr>
</tbody>
</table>
Important Factors for IOFC

1. Price of Milk
   - premiums
   - Volume
   - Quality
   - Risk Management

2. Cost of Feed

3. Milk Production (lbs)
2009: $5.61/cow
2010: $9.25/cow
Why the big differences?

a) Contracted feeds?

b) Intake Differences
Why the big differences?

a) Contracted feeds?
b) Intake Differences
c) Forage Quality, Forage Costs
   1. Poor Forage, More Supplements
Impact of Forage Costs – One Group, One Farm

Corn Silage $103/ton; Haylage $135/ton

- $2.60 (Forage)
- $1.68 (Supplements)

Corn Silage $113/ton; Haylage $145/ton

- $2.60 (Forage)
- $1.83 (Supplements)
# Feed Quality - Important

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm 1</th>
<th>Farm 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Owns Chopper ☺</td>
<td>Custom Chopper ☺</td>
</tr>
<tr>
<td></td>
<td>$4.50/cow</td>
<td>$4.50/cow</td>
</tr>
<tr>
<td>2009</td>
<td>Owns Chopper ☻</td>
<td>Custom Chopper ☻</td>
</tr>
<tr>
<td></td>
<td>23% CP Haylage</td>
<td>18% CP Haylage</td>
</tr>
<tr>
<td></td>
<td>+ 1 lb of SBM ($350/ton)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$4.50/cow</td>
<td>$4.68/cow</td>
</tr>
<tr>
<td></td>
<td>Same price</td>
<td>+$0.18/cow/day</td>
</tr>
</tbody>
</table>

1000 cows = + $65,700
Why the big differences?

a) Contracted feeds?
b) Intake Differences
c) Forage Quality, Forage Costs
   1. Poor Forage, More Supplements
d) Nutritionists / Feed Companies
   1. All high producing herds
   2. All high quality nutritionists
   3. Different philosophies
   4. Margins
e) Additives?
Future Plans

- Available to Public
- Why?
  - Track on farm trends
  - Compare clients from one nutritionist
  - Compare across nutritionists
Value to Nutritionists and Lenders

- Comparing all clients
- Benchmarks for clients
- Addressing competition claims
- Historical Perspective
Acknowledgements

- Cabrera, Victor (UWEX)
- Shaver, Randy (UWEX)
- Ken Bolton, Ryan Sterry, Lee Milligan (UWEX)
- Dairy producers involved
Questions?

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