Real Feed Costs on WI Dairy Farms

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### Comparing Feed Costs on WI Dairy Farms (2011)

Paul Dyk, UW Extension & Greg Booher LTC

| Farm # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | Average |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|------|
| Milking Cows | | | | | | | | | | | | | | | | | | | 350.2 |
| Dry Cows | | | | | | | | | | | | | | | | | | | 78.66 |
| Milk Bulk Tank Production (lb/cow/day) | 88.00 | 80.00 | 67.90 | 76.00 | 82.00 | 72.00 | 88.50 | 74.50 | 86.50 | 63.00 | 91.00 | 77.00 | 81.00 | 79.10 | 85.70 | 65.73 | 77.00 | 85.70 | 74.00 | 78.66 |
| Milk Fat Content (%) | 3.63 | 3.84 | 4.00 | 4.00 | 3.62 | 3.50 | 4.00 | 4.00 | 3.54 | 4.20 | 3.75 | 3.81 | 3.76 | 3.67 | 3.91 | 3.30 | 4.02 | 3.71 | 3.70 | 3.79 |
| Milk Protein (%) | 3.00 | 3.16 | 3.10 | 3.02 | 3.15 | 3.10 | 3.08 | 3.08 | 3.14 | 3.10 | 3.15 | 3.07 | 2.93 | 2.90 | 3.04 | 2.80 | 3.16 | 3.07 | 3.20 | 3.07 |
| Energy corrected milk (lbs) | 88.23 | 83.27 | 71.79 | 79.92 | 82.99 | 71.49 | 93.44 | 78.66 | 86.58 | 88.23 | 93.40 | 79.36 | 82.11 | 79.16 | 89.25 | 62.19 | 81.93 | 87.23 | 75.90 | 80.81 |
| Milk Price ($/cwt) | 18.04 | 16.67 | 17.47 | 18.03 | 17.20 | 16.57 | 18.73 | 17.13 | 18.17 | 18.23 | 15.37 | 16.07 | 16.17 | 17.04 | 16.67 | 17.45 | 17.45 | 17.45 | 17.45 |
| Dry Cows | | | | | | | | | | | | | | | | | | | |
| DryDMI (lb/cow/day) | | | | | | | | | | | | | | | | | | | |
| PURCHASED FEED COST ($/cow/day) | | | | | | | | | | | | | | | | | | | |
| HOME GROWN FEED COST ($/cow/day) | | | | | | | | | | | | | | | | | | | |
| TOTAL FEED COSTS ($/cow/d), dry | | | | | | | | | | | | | | | | | | | |
| Milking Cows | | | | | | | | | | | | | | | | | | | |
| MilkDMI (lb/cow/day) | 49.9 | 53.8 | 52.2 | 50.3 | 54.4 | 46.0 | 56.2 | 48.8 | 54.3 | 51.4 | 55.0 | 50.0 | 54.8 | 48.4 | 50.2 | 48.4 | 51.8 | 55.3 | 45.1 | 51.38 |
| MilkDMI | 1.76 | 1.49 | 1.3 | 1.51 | 1.51 | 1.56 | 1.58 | 1.53 | 1.59 | 1.23 | 1.65 | 1.54 | 1.48 | 1.63 | 1.71 | 1.36 | 1.49 | 1.55 | 1.64 | 1.53 |
| FCMDMI | 1.66 | 1.45 | 1.3 | 1.51 | 1.42 | 1.45 | 1.58 | 1.53 | 1.48 | 1.26 | 1.59 | 1.5 | 1.42 | 1.55 | 1.68 | 1.22 | 1.49 | 1.48 | 1.57 | 1.48 |
| ECDMI | 1.77 | 1.55 | 1.38 | 1.59 | 1.53 | 1.55 | 1.66 | 1.61 | 1.59 | 1.33 | 1.7 | 1.59 | 1.5 | 1.63 | 1.78 | 1.29 | 1.58 | 1.58 | 1.68 | 1.57 |
| PURCHASED FEED COST ($/cow/day) | 5.49 | 4.76 | 2.53 | 1.84 | 4.58 | 2.72 | 3.87 | 2.81 | 2.83 | 2.71 | 2.92 | 2.77 | 2.48 | 2.02 | 2.02 | 2.17 | 2.02 | 2.17 | 2.76 | 2.63 | 2.54 | 2.09 | 2.96 |
| HOME GROWN FEED COST ($/cow/day) | 2.02 | 6.34 | 3.74 | 2.22 | 2.14 | 2.83 | 2.78 | 2.37 | 2.15 | 2.4 | 2.75 | 2.7 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |
| TOTAL FEED COSTS ($/cow/d), milk | 5.50 | 7.40 | 6.17 | 5.58 | 6.80 | 4.66 | 6.70 | 5.59 | 6.10 | 5.86 | 6.25 | 5.51 | 5.55 | 4.77 | 5.69 | 5.50 | 5.70 | 5.28 | 4.78 | 5.76 |
| INCOME OVER PURCHASED FEED COSTS ($/1000ECM) ($/cow/day) | 10.37 | 5.94 | 5.69 | 8.12 | 7.30 | 7.27 | 9.88 | 7.17 | 9.62 | 5.62 | 7.74 | 6.87 | 7.55 | 8.71 | 8.60 | 5.97 | 7.74 | 9.68 | 8.13 | 7.79 |
| Cost/cow of ECM | 48.24 | 50.89 | 38.50 | 40.60 | 38.19 | 36.93 | 37.17 | 37.11 | 37.05 | 37.08 | 36.84 | 36.76 | 36.03 | 36.48 | 38.84 | 38.98 | 40.92 | 42.54 | 42.84 | 47.17 |
| Rank (cost/cow of ECM) | 3 | 19 | 16 | 11 | 15 | 6 | 14 | 13 | 12 | 16 | 7 | 9 | 8 | 1 | 5 | 18 | 10 | 2 | 4 |

**NOTE:**
- Used All Alfalfa Hay price at $121/ton, 82% DM, then adjusted Haylage for DM
- Used $4.30/bu for corn, 153.57/ton, added $15 for processing, ended with $198.35/ton DM, and adjusted for DM
- Used $43/bu for CS at 65% moisture (10 times corn price)
- Actual WI 2010 price was used at $4.30 (October 2010)
- Used December 2010 Alf Hay price.

For Beans, used Oct 2010 price of $10.20/bu, for roasting, 10% shrink and $50/ton roasting, and $488/ton DM
What does it cost to feed a cow?

How much feed does it take to produce a pound of milk?

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

http://future.aae.wisc.edu/tab/costs.html#16

Understanding Dairy Markets
Your Source for Market Information and Price Risk Management Principles
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? (Hay / Straw)
      - Combination of the above

Survey / Tool Development
Feed Cost on Farms

- Victor Cabrera and Randy Shaver
- Agents across the state
- Development of Collection tool
  - Spreadsheet and then online

Wisconsin Dairy Feed Evaluator

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

http://dairymgt.info
Utilizing the Tool

- August/September 2009
  - 11 farms across the state
  - UWEX Agents
- April 2010
  - 9 Fond du Lac County Farms
  - Average herd size 1356 cows (12,000 cows)
  - 7 nutritionists, 6 feed balancing systems (companies)

Survey – January 2011

- Dyk and Booher 2011
- 19 farms
- 9 counties
- At least 15 nutritionists

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

Standardized Forage Prices

- All US Alfalfa Hay Price
  - Tracked and Published by USDA
  - December 2010, $121/ton ($142.35/ton DM)
Standardized Corn Price (Homegrown)

- Corn Price Received WI (USDA)
  - October 2010, $4.30/bu
  - $153.57/ton + $15 processing = $168.57/ton

Roasted Beans (Homegrown)

- $10.20/bu (October 2010); $50/ton roasting; 10% shrink

Standardized Corn Silage Price

- Corn Silage Price
  - $43/ton
  - 10 times price of corn
  - Coming out of silo (includes harvesting, packing, fermentation)
  - Maybe a little low?
**PURCHASED FEED COST ($/cow/day)**

Average = $2.96/cow

**Feed Costs for Milking Herd**

Cost $/cwt of ECM

- 7.17 average

**Income over Feed Cost**

**Important Factors for IOFC**

1. Price of Milk
   - premiums
   - Volume
   - Quality
   - Risk Management
2. Cost of Feed
3. Milk Production (lbs)
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?
Value to Producers, Nutritionists, and Consultants

• Compare on farm trends
• Comparing all clients
• Benchmarks for clients
• Addressing competition claims
• Historical Perspective

How can IOFC make your operation more profitable?

• This is not a tool to find feed reps who are ripping off clients!!!
• Producers should have a trusting relationship with their nutritionist and resource team.
• The tool is extremely valuable in beginning a dialog for making improvement.

Factors Affecting Income Over Feed Costs

• Level of milk production
• Reproductive status
• Milk price
• Price of forages
• Forage quality
• Forage percent in diet
• Dry matter intake
• Bunk space
• NDF digestibility
• Average age of herd
• Herd size – economy of scale
• Feed additives/binders
• What is included in purchased feed cost
• How weigh backs are evaluated in the feed cost.
• Milk yield verses pounds milk ration is balanced to deliver.

: and the list goes on

• Feed efficiency per pound of dry matter intake
• Value of milk components
• Somatic Cell level
• Percent first lactation verse mature cows in the herd
• Cull rate
• Both on-farm and purchased feed shrink
• Level of over feeding
• Make sure red apple and red apple – accounting, are heifers on-farm or off farm when comparing to others?
• How are corn and other purchased reported?
• Is processing included – corn, TMR?
• When were feeds contracted compared to other producers?
• 100 more items I haven’t thought of

Suggestions for Uses of IOFC in Team Meetings

- Start each team meeting with the most recent IOFC results.
- Use DHI herd summary, udder health herd summary, Transition Cow Index and Dairy Comp Tools to diagnosis problems.
- Team should determine the course of action.
- Change protocols if necessary.
- Project the return on investment in new equipment and or needed building improvements.
- Set achievable goals
- Next meeting, evaluate improvement and implement new strategies.

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