UNDERSTANDING INCOME OVER FEED COSTS AND ITS IMPACT ON PROFITABILITY

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EVALUATING YOUR FEEDING PROGRAM:
WHAT CORRELATES THE MOST TO OVERALL FARM PROFITABILITY?
FEED COST PER HEAD PER DAY

Purchased Grain Costs per Cow per Day
VS ROA w/o Apprec.
91 New York State DFBS, Raising No Grain, Not Grazing, 2013

R² = 0.1867

PURCHASED GRAIN COST PER CWT

Purchased Grain Costs per Cwt.
VS ROA w/o Apprec.
91 New York State DFBS, Raising No Grain, Not Grazing, 2013

R² = 0.0155
GRAIN AS A PERCENT OF MILK SALES

Purchased Grain Costs as Percent of Milk Sales
VS ROA w/o Apprec.
91 New York State DFBS, Raising No Grain, Not Grazing, 2013

Net Milk Income over Purchased Grain per Cwt.
VS ROA w/o Apprec.
91 New York State DFBS, Raising No Grain, Not Grazing, 2013
NET MILK INCOME OVER PURCHASED FEED COSTS PER COW

CORRELATION VALUES
2002-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>ROA vs. Purch. Grain Cost per Cow per Day</th>
<th>ROA vs. Purch. Grain Cost as % of Sales</th>
<th>ROA vs. NMOIOPC per CWT</th>
<th>ROA vs. Purch. Grain Cost per CWT</th>
<th>ROA vs. NMOIOPC per Cow</th>
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<td>0.0186</td>
<td>0.0155</td>
<td>0.0548</td>
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Summary of Relationships Between Select Feed Cost Factors and Return to Assets

- ROA vs. Cost/Cow/Day
- ROA vs. Cost as % of Sales
- ROA vs. NMIOFC/Cow
- ROA vs. Cost/CWT
- ROA vs. NMIOFC/CWT

NET MILK INCOME OVER FEED COST

Highest correlation with return on assets
- Using Dairy Farm Business Summary data

Factors impacting IOFC
- Milk price
- Pounds of milk
- Pounds of components
- Feed conversion
- Feed costs
NET MILK INCOME OVER FEED COST

- Can calculated using actual milk price and fixed milk price
- Actual milk price
  - If milk price goes up, can money be made feeding cows for more components and production?
- Fixed milk price
  - Eliminates variation in measure from milk price changes
  - Changes from factors under control of management

NET MILK INCOME OVER FEED COSTS PER COW

- Key index for tracking operating performance on farms
  - Actual Milk Price
  - Fixed Milk Price
- Over purchased feed costs
  - Most accurate
- Over total feed costs
  - Brings in a COST value of growing your own forages
    - NOT Market Value
WHAT HAS THE GREATEST CORRELATION TO NET MILK INCOME OVER FEED COSTS?

NET MILK PRICE VS. NMIOTFC (2014)

Net Milk Price vs. NMIOTFC, Actual
76 Farms, July 2014, Northeast

$\text{R}^2 = 0.1017$
NET MILK PRICE VS. NMIOTFC (2013)

Net Milk Price vs NMIOTFC Actual
65 Farms, DPM, July 2013

R² = 0.0426

LACTATING FEED COST PER LB. OF DRY MATTER (2014)

Lactating Feed Cost per Lb. of Dry Matter vs. NMIOTFC, Actual
76 Farms, July 2014 Northeast

R² = 0.0016
LACTATING FEED COST PER LB. OF DRY MATTER (2013)

Cost per Lb DM vs NMIOOTFC Actual
65 Farms, DPM, July 2013

R² = 0.1863

Cost per Lb Dm

FEED CONVERSION RATE (2014)

Feed Conversion Rate vs. NMIOOTFC, Actual
76 Farms, July 2014, Northeast

R² = 0.5593
LBS. OF COMPONENTS PER COW PER DAY (2013)

Key Question:
How does this change over time?

NET MILK INCOME OVER FEED COSTS PER COW

Key Question:
How does this change over time?
POUNDS OF COMPONENTS PER COW PER DAY - TREND

NMI OVER PURCHASED FEED COSTS: ACTUAL MILK PRICE
NMI OVER PURCHASED FEED COSTS: FIXED MILK PRICE FACTORS

NMI OVER TOTAL FEED COSTS: ACTUAL MILK PRICE
NMI OVER TOTAL FEED COSTS: FIXED MILK PRICE FACTORS

CALCULATING NET MILK INCOME OVER FEED COSTS

What you need:
- Milk Check
  - Income and Deductions
- Feed Costs
  - Tons of Feed Fed
  - Cost per Ton
  - Estimated Cost of Raise Forages
TOOLS TO MEASURE NET MILK INCOME OVER FEED COSTS

- On farm spreadsheets
- On farm feed tracking software
  - i.e. FeedWatch or TMR Tracker
- Dairy Profit Monitor
  - dairyprofit.cornell.edu
  - Free 3 Month Trial
  - $300 Annual Fee

DAIRY PROFIT MONITOR

DPM provides a snapshot of key operating measures a producer has control over from month to month

- Shows how different areas of the business are impacting and influencing one another on 1 report
- Provides a great resource for tracking up to date performance
QUESTIONS?

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