Keeping Heifer Raising Profit Margins Profitable

Presented At The Raising Quality Dairy Heifers Heifer Management Seminar February 25, 2009

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Extension Farm Management Specialist

Background

Please Note

Slides marked “Bernhardt” were developed by Kevin Bernhard
■ Professor of Agribusiness at UW-Platteville
■ Extension Farm Management Specialist with the UW-Extension and Center for Dairy Profitability

Topics

■ I. Dairy Industry Financial Performance Prior to 2008
■ II. A Year For The Record Books ...2008
■ III. Beyond 2008
■ IV. Hints To Help Keep Heifer Raising Profit Margins Profitable

I. Dairy Industry Financial Performance Prior to 2008

USDA-NASS January All Milk Price 2000 - 2009

WI All Milk January Price
Dairy Farms Prior to 2008

Net Farm Income from Operations per Cow

Higher Profit AGFA Farms
All AGFA Farms
Lower Profit AGFA Farms

Rate of Return on Assets %

Higher Profit AGFA Farms
All AGFA Farms
Lower Profit AGFA Farms

USDA-NASS January Dairy Heifer Replacement Price 2000 - 2009

2000 to 2007

- Despite a few years of low prices
  - The average WI AGFA Dairy Farm earned a positive Net Farm Income from Operations and Rate of Return on Assets
- Overall dairy farm profitability helped to keep upward price pressure on dairy replacement heifers
  - Farmers were willing to invest in their dairy replacement program
    - Whether raising their own heifers, having them custom raised, or purchasing them

II. A Year For The Record Books ...2008

“...What a long strange trip it’s been.”
- From the Song Truckin’
  - Jerry Garcia, Bob Weir, Phil Lesh, and Robert Hunter
  - 1970

Prior To 2008

RISKY
**July 2008**

Mar Corn @ $8+

Mar SBM @ $430+

Mar Milk @ $20+

Feb Beef @ 1.16+

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**How Did Prices Get to the July Highs? – A Perfect Storm**

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**It’s Not July Anymore**

Mar Corn @ $8+

Mar SBM @ $430+

Mar Milk @ $20+

Feb Beef @ 1.16+

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**Input Price Changes**

<table>
<thead>
<tr>
<th></th>
<th>Pre Meltdown</th>
<th>Post Meltdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhydrous</td>
<td>$1,000/ton</td>
<td>$600/ton</td>
</tr>
<tr>
<td>DAP</td>
<td>1,000/ton</td>
<td>$800</td>
</tr>
<tr>
<td>Potash</td>
<td>$900/ton</td>
<td>$600</td>
</tr>
<tr>
<td>Triple Stack</td>
<td>$275/bag</td>
<td>$210</td>
</tr>
<tr>
<td>Crude Oil</td>
<td>$144/bbl</td>
<td>$44/bbl</td>
</tr>
</tbody>
</table>

Source: University of Illinois Extension

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**RISKY VOLATILITY**
2008 VOLATILITY ISSUES
- SIMULTANEOUS INPUT AND OUTPUT VOLATILITY
- MARGIN CALL CONCERNS
  - HEDGING AND CONTRACTING A PRICE MORE COSTLY
- TRADITIONAL RISK MANAGEMENT VEHICLES SEEMED LESS EFFICIENT

RISKY VOLATILITY UNCERTAINTY

2008 VOLATILITY AND UNCERTAINTY
HARBINGER OF THINGS TO COME?

A New Era?
(Nominal Corn Prices, 1866-2008)

2008 VOLATILITY AND UNCERTAINTY
HARBINGER OF THINGS TO COME?
WE SHOULD PROBABLY ACT LIKE IT IS!
III. Beyond 2008

What Do The Markets Have To Say?

<table>
<thead>
<tr>
<th>Market</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy (Dec)</td>
<td>$14.61</td>
<td>$15.40</td>
</tr>
<tr>
<td>Corn (Dec)</td>
<td>$4.05</td>
<td>$4.23</td>
</tr>
<tr>
<td>Soybeans (Nov)</td>
<td>$8.92</td>
<td>$9.13</td>
</tr>
<tr>
<td>Soybean Meal (Dec)</td>
<td>$262</td>
<td>$267</td>
</tr>
<tr>
<td>Crude Oil (Dec)</td>
<td>$53</td>
<td>$63</td>
</tr>
</tbody>
</table>

What If…
Dairy Heifer Raising Scenarios

- Dairy Heifer Raising Simulations
  - Dairy Heifer Dollars
    - A enterprise profitability and cost of production analysis spreadsheet
  - Coming soon at…
    - [http://www.uwrf.edu/extension/Gregglt.htm](http://www.uwrf.edu/extension/Gregglt.htm)

IV. Hints To Help Keep Heifer Raising Profit Margins Profitable

Hint 1
Engage In Active Financial Management

- Active financial management will become increasingly important in this new uncertain environment
- Pushing the pencil
  - Frequent budgeting sessions
    - Quarterly if not monthly
    - Look out farther into the horizon
      - 1 to 2 years
  - Lock prices in accordingly

Hint 2
Cull Less Profitable Enterprises

- You can’t afford to waste money on losing enterprises!
  - For dairy farmers raising their replacements
    - Grain enterprises
    - Harvesting enterprises
    - Heifer enterprises?
    - Forage enterprises?
  - For custom heifer raisers
    - Cash grain enterprises
    - Harvesting enterprises
    - Forage enterprises?
Culling Grain Enterprises

- There is considerable evidence that suggests that there are a lot of unprofitable grain operations on Upper Midwest dairy farms.
- Why grow it if you can buy it cheaper?

Culling Harvesting Operations

- It is difficult to justify buying new harvesting equipment on most dairy farms, custom heifer raising operations, and other livestock farms.

Buying a Chopper for Corn Silage Harvesting

- A small feedlot with 125 acres of corn silage buys:
  - A chopper for $35,000
  - A corn head for $9,000
  - Trade in allowance: $2,000
  - Salvage value: $2,000
  - Amount borrowed at 6.2% for 5 years
  - Useful life: 8 years
  - 20% marginal tax rate

Interest and Net Depreciation Expense for the Chopper

<table>
<thead>
<tr>
<th>Line Item</th>
<th>Expense/Acre/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Expense</td>
<td>$7.50</td>
</tr>
<tr>
<td>Depreciation Expense</td>
<td>$40.00</td>
</tr>
<tr>
<td>Less Depreciation Shield</td>
<td>$8.00</td>
</tr>
<tr>
<td>Interest and Net Depreciation Expense</td>
<td>$39.50</td>
</tr>
</tbody>
</table>

Buying A Chopper Results

- Can you harvest silage cheaper?
  - Total custom hire rate per acre for corn silage harvesting = $43.20 (NASS Custom Rate Guide)
  - Just the interest and net depreciation expense for owning the chopper = $39.50
- Do you really believe you can chop corn silage for $3.70 per acre?
- Results for buying a combine for 1,200 acres of corn are similar

Hint 3

- You Don't Have To Grow Out Every Heifer

- If it is important to stop wasting resources on losing enterprises in this new uncertain era...
- Why waste resources on replacements that probably won’t make it in your herd?
How Many Replacements Do You Need?

- A 100 cow herd with a 10% heifer cull rate needs the following number of replacements...
  - 58 if their cow cull rate is 26%
  - 66 if their cow cull rate is 30%
  - 76 if their cow cull rate is 34%
  - 84 if their cow cull rate is 38%
  - 93 if their cow cull rate is 42%
- Source: Penn State University
  www.extension.org/pages/Heifer_Economics

How Do I Choose Heifers To Sell?

- Genetic potential
- Veterinary records
- Heifer growth records

Hint 4
Reduce Operating Efficiency Slack

- We need to reduce operating efficiency slack in Wisconsin agriculture!
  - Slack refers to a reduction in cost efficiency in good years

OPERATING EFFICIENCY SLACK EXAMPLE
(August 2007 Study of AGFA Farms)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>HERD SIZE</td>
<td>106</td>
<td>103</td>
</tr>
<tr>
<td>MILK PER COW</td>
<td>21,561 LBS</td>
<td>21,538 LBS</td>
</tr>
<tr>
<td>MILK PRICE/CWT</td>
<td>$13.31</td>
<td>$15.67</td>
</tr>
<tr>
<td>NET FARM INCOME FROM OPERATIONS /COW</td>
<td>$391</td>
<td>$894</td>
</tr>
<tr>
<td>TOTAL EXPENSE PER COW (IN 2005 DOLLARS)</td>
<td>$3,284</td>
<td>$3,431</td>
</tr>
</tbody>
</table>

Hint 5
Use Cash Wisely

- Cash is usually managed with tax management goals in mind
  - Bought a lot of nice equipment
- In uncertain environments, this may not be the most important goal
- Cash is an excellent safety net!
  - Prepay expenses
  - Self insure the bad years

Summary

- The uncertainty the came about in 2008 will cause new challenges for dairy farmers and heifer raisers in the future
- Nevertheless, they are not insurmountable
- Farmers and growers that
  - Push the pencil a lot
  - Cull poor enterprises
  - Don’t raise every heifer
  - Minimize slack
  - Manage cash well
- Will Succeed!
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