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Economic Analysis of Beef Cow-calf Operations: SPA for Decision Makers

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Good Cow-calf Decision Makers

- Recognize the structure of the cow-calf industry compared to other phases of the beef industry.
The Cow-calf Industry as a Business

The Cow-calf Industry is an “Asset Management” business that must focus on the next seven years.

- It is not a margin business
  - Buy and sell margins
- Our Primary Assets are continually eroding
  - Our Breeding Herd
    - Average Replacement Rate is 16%
  - Machinery and Equipment
  - Fencing and Improvements
- Approximately 45-50% of our total costs are Fixed Costs, not variable.
- In order to be sustainable, we must focus on “net worth” and not “cash flow”
Good Cow-calf Decision Makers

- Recognize the structure of the cow-calf industry compared to other phases of the beef industry.
  - Unlike other phases
  - Rate of return on assets
    - Depreciating assets
  - Wealth changes even if cash flow income is zero.
Good Cow-calf Decision Makers

- Value good information, both internal and external.
Good Internal Information

- Good Analysis starts with good data; good data is a result of a good information systems (financial records, production inventories, asset schedules)
- Analysis includes the whole as well as it’s parts
- If the first two are there, the rest is simply calculations, however, then comes interpretation and implication
Good Internal Information

- You can’t manage what you don’t measure
- The whole point of being in business is to make a profit
- The whole point of making a profit is so you can make choices
- Analysis of the complete operation
  - Requirements for analysis
  - Implementing change based on the analysis
  - Communicating the need for and results from change
Every Operation is Made up of Various Pieces...All Can be Managed

My Agricultural Operation

- Profit Centers
- Cost Centers
- Support Centers
Good Cow-calf Decision Makers

- Value good information, both internal and external.
Good External Information

- Recognizes that most “cattle” information comes from the other phases of the cattle/beef industry.
  - Questions the motivation of that information
  - Questions the accuracy of that information
- Comes from a team of experts with like thinking as himself.
  - Veterinarians?
Good Cow-calf Decision Makers

- Recognizes the value of a calf to the operation.
  - Difference between reproduction and production
  - Does not chase weights at the expense of reproduction
Good Cow-calf Decision Makers

- Recognizes the relation of the female to her environment.
  - Size matters
  - Value of a calf
    - Would rather say, “I sold the most calves” than “I sold the heaviest calves.”

- Understands it is cheaper to change the female than to change the landscape.
# 3,000 Beef Cow Ranch

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROA</strong></td>
<td>1.87%</td>
<td>0.87%</td>
<td>7.26%</td>
<td>12.63%</td>
</tr>
<tr>
<td><strong>Net Income from Operations</strong></td>
<td>$172,644</td>
<td>$83,613</td>
<td>$724,470</td>
<td>$1,367,148</td>
</tr>
<tr>
<td><strong>Asset Turnover Ratio</strong></td>
<td>0.21%</td>
<td>0.19%</td>
<td>0.26%</td>
<td>0.30%</td>
</tr>
<tr>
<td><strong>Operating Expense Ratio</strong></td>
<td>62.0%</td>
<td>61.3%</td>
<td>44.9%</td>
<td>35.3%</td>
</tr>
<tr>
<td><strong>Interest Expense Ratio</strong></td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Depreciation Expense Ratio</strong></td>
<td>28.9%</td>
<td>34.2%</td>
<td>26.7%</td>
<td>22.3%</td>
</tr>
<tr>
<td><strong>Net Income Ratio</strong></td>
<td>9.1%</td>
<td>4.5%</td>
<td>28.4%</td>
<td>42.5%</td>
</tr>
</tbody>
</table>
## 3,000 Beef Cow Ranch

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow-calf (/ Female)</td>
<td>$578.76</td>
<td>$683.72</td>
<td>$678.82</td>
<td>$723.31</td>
</tr>
<tr>
<td>Cow-calf (/ Cwt. Weaned)</td>
<td>$92.63</td>
<td>$110.13</td>
<td>$98.35</td>
<td>$106.77</td>
</tr>
<tr>
<td>Hay Production (/ Ton)</td>
<td>$49.46</td>
<td>$59.79</td>
<td>$62.98</td>
<td>$70.59</td>
</tr>
<tr>
<td>Replacement Heifer (/Head)</td>
<td>$1,555</td>
<td>$997</td>
<td>$1,028</td>
<td>$1,281</td>
</tr>
</tbody>
</table>
REAL LIFE EXAMPLE

Slides taken from a specific ranch and its manager’s presentation at the Board of Directors meeting. Salary committee meeting to determine ranch manager’s compensation followed this presentation.
Key Performance Indicators

- Based on management and Board of Director input, Key Performance Indicators (KPI’s) have been established.
- They include both production and financial measures.
- These indicators are used to evaluate performance and establish goals.
KPI
Production

- Pregnancy percentage
- Calving percentage
- Weaning percentage
- Weaning weight per head
- Lbs. weaned per cow exposed
- Total cost per cow
- Unit cost of weaned calf (break even)
KPI

Financial

- Working capital
- ROA
- Net Income from Operations (pre interest & income tax)

Ratios

- Operating Expense
- Depreciation Expense
- Interest Expense
- Net Income from Operations
KPI
Operating Ratios

2008 2009 2010 2011 2012

Depreciation Expense
Operating Expense
Net Income - Operations
Interest Expense
In Summary

- There are an endless numbers of analytical ratios and figures, you or whoever you are accountable to should select your KPI’s.
- Trends of KPIs point out your fulfilling the operational goals.
- Benchmarking can be fun, but you have to be careful of “their” data calculations.
In Summary

- If nothing changes, then...nothing changes.
- Strive for Excellence, not perfection.
- Minimizing losses are one of the most important management requirements and abilities.
- If you find your advisors difficult, then you probably have good advisors.