Cost, Profit and Production Benchmarking

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2018 WRM Series

JANUARY 1 COW INVENTORY
U.S., Annual

<table>
<thead>
<tr>
<th>Year</th>
<th>Mil. Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>5</td>
</tr>
<tr>
<td>1990</td>
<td>6</td>
</tr>
<tr>
<td>1993</td>
<td>7</td>
</tr>
<tr>
<td>1996</td>
<td>8</td>
</tr>
<tr>
<td>1999</td>
<td>9</td>
</tr>
<tr>
<td>2002</td>
<td>10</td>
</tr>
<tr>
<td>2005</td>
<td>11</td>
</tr>
<tr>
<td>2008</td>
<td>12</td>
</tr>
<tr>
<td>2011</td>
<td>13</td>
</tr>
<tr>
<td>2014</td>
<td>14</td>
</tr>
<tr>
<td>2017</td>
<td>15</td>
</tr>
</tbody>
</table>

2017 = 31.2 Million Head
+3.0 Percent

2017 = 9.3 Million Head
+0.4 Percent

Data Source: USDA-NASS
Livestock Marketing Information Center
**ESTIMATED AVERAGE COW CALF RETURNS**

Returns Over Cash Cost (Includes Pasture Rent), Annual

- **Year**: 1990 - 2018
- **Break-Even ($550# $/cwt)**:
  - 1990: $66.66
  - 2000: $69.89
  - 2005: $81.46
  - 2010: $100.64
  - 2015: $158.45
  - 2017: $146.59
  - 2018: $145.74

Data Source: USDA & LMIC, Compiled by LMIC
Livestock Marketing Information Center

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**ESTIMATED AVERAGE COW CALF COSTS**

Total Cash Cost Plus Pasture Rent, Annual

- **Year**: 1989 - 2018
- **Break-Even ($550# $/cwt)**:
  - 1989: $553
  - 1991: $553
  - 1993: $553
  - 1995: $553
  - 1997: $553
  - 1999: $553
  - 2001: $553
  - 2003: $553
  - 2005: $553
  - 2007: $553
  - 2009: $553
  - 2011: $553
  - 2013: $553
  - 2015: $553
  - 2017: $553

Data Source: USDA & LMIC, Compiled by LMIC
Livestock Marketing Information Center
Differences between high-, medium-, and low-profit cow-calf producers
Dustin Pendell and Kevin Herbel

- Agmanager.info
## 2012-2016 KFMA Beef Cow-Calf Enterprise returns over variable costs

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>High 1/3</th>
<th>Low 1/3</th>
<th>Absolute difference</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>61</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor to Livestock, %</td>
<td>32</td>
<td>34</td>
<td>28</td>
<td>6</td>
<td>22%</td>
</tr>
<tr>
<td>No. of Cows</td>
<td>155</td>
<td>150</td>
<td>119</td>
<td>31</td>
<td>27%</td>
</tr>
<tr>
<td>Gross Income</td>
<td>$972</td>
<td>$1064</td>
<td>$893</td>
<td>$171</td>
<td>19%</td>
</tr>
<tr>
<td>Total Variable Cost</td>
<td>$767</td>
<td>$697</td>
<td>$849</td>
<td>-$152</td>
<td>-18%</td>
</tr>
<tr>
<td>Return over variable costs</td>
<td>$205</td>
<td>$366</td>
<td>$44</td>
<td>$322</td>
<td></td>
</tr>
</tbody>
</table>

## 2012-2016 KFMA Beef Cow-Calf Enterprise variable costs

<table>
<thead>
<tr>
<th></th>
<th>High 1/3</th>
<th>Mid 1/3</th>
<th>Low 1/3</th>
<th>Absolute Difference Hi &amp; Low</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>$308</td>
<td>$350</td>
<td>$434</td>
<td>-$126</td>
<td>-29%</td>
</tr>
<tr>
<td>Pasture</td>
<td>$181</td>
<td>$181</td>
<td>$159</td>
<td>$22</td>
<td>14%</td>
</tr>
<tr>
<td>Interest</td>
<td>$15</td>
<td>$15</td>
<td>$33</td>
<td>-$18</td>
<td>-54%</td>
</tr>
<tr>
<td>Vet Med/Drugs</td>
<td>$30</td>
<td>$30</td>
<td>$35</td>
<td>-$5</td>
<td>-15%</td>
</tr>
<tr>
<td>Livestock Marketing</td>
<td>$14</td>
<td>$18</td>
<td>$32</td>
<td>-$18</td>
<td>-56%</td>
</tr>
<tr>
<td>Machinery</td>
<td>$89</td>
<td>$96</td>
<td>$77</td>
<td>$12</td>
<td>16%</td>
</tr>
<tr>
<td>Labor</td>
<td>$17</td>
<td>$20</td>
<td>$25</td>
<td>$9</td>
<td>-34%</td>
</tr>
<tr>
<td>Other</td>
<td>$44</td>
<td>$45</td>
<td>$54</td>
<td>-$10</td>
<td>-19%</td>
</tr>
</tbody>
</table>
### 2012-2016 KFMA Beef Cow-Calf Enterprise returns over total costs

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>High 1/3</th>
<th>Mid 1/3</th>
<th>Low 1/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>$364</td>
<td>$309</td>
<td>$357</td>
<td>$425</td>
</tr>
<tr>
<td>% Feed of total</td>
<td>33%</td>
<td>30%</td>
<td>33%</td>
<td>35%</td>
</tr>
<tr>
<td>Pasture</td>
<td>$174</td>
<td>$186</td>
<td>$164</td>
<td>$172</td>
</tr>
<tr>
<td>% Pasture of total</td>
<td>16%</td>
<td>18%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Non-feed costs</td>
<td>$567</td>
<td>$529</td>
<td>$548</td>
<td>$626</td>
</tr>
<tr>
<td>% Non-feed costs of total</td>
<td>51.4%</td>
<td>51.7%</td>
<td>51.3%</td>
<td>51.2%</td>
</tr>
<tr>
<td>Total</td>
<td>1105</td>
<td>1024</td>
<td>1070</td>
<td>1222</td>
</tr>
</tbody>
</table>

### Cost of production

- Management Tool
- Actual costs best, but not always available
- Realistic estimates are important
- First step in a marking plan is knowing cost of production
Calculating your own cost of production

• Cow/Calf Budgets - http://www.agmanager.info/farm-mgmt-guides/livestock-budgets

• Consider joining KFMA

Simplifying cost of production calculations

• Use opportunity cost (what would it cost on the open market) to value things like pasture and hay

• Assumes the land enterprise leases to the cow/calf enterprise

• Haying enterprise sells to the cow/calf enterprise
Shared equipment costs

• If 70% of income is from cow/calf enterprise then allocate 70% of costs for shared equipment and utilities to that enterprise.

BeefBasis.com
Guidance for Production Benchmarks

- Production records for cow/calf producers
- Spreadsheet to help calculate standardized production information (SPA)

CHAPS Benchmarks
(88,000 cows, updated 9/15/17)

- 91% Weaning rate (% Calf Crop)
- 498 lbs weaned/cow exposed
- 192 days of age at weaning

- 62.8% calved at 21 d
- 87.4% calved at 42 d
- 96.1% calved at 63 d
Measuring reproductive losses

- Cows Exposed
- Cows pregnant (fall)
- Cows that calve
- Cows that wean a calf
- Fail to conceive
- Fail to calve
- Failed to raise calf to weaning

CHAPS Benchmarks
(88,000 cows, updated 9/15/17)

- 93.8% Pregnancy rate
- 0.50 % pregnancy loss
- 93.3 % calving rate
- 3.2% calf death loss
- 91.0 % weaning rate
- 3.4% calf death loss
Summary

- Beef cow numbers projected steady to up
- Cow/calf returns nearer breakeven
- Lower feed costs associated with higher profit
- Determine cost of production
- Use BeefBasis.com for marketing
- Track production benchmarks (% calf crop, calving distribution)