Production Costs and Parameters for Cow–calf Production in North Texas and New Mexico

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“It’s all a big wheel, and one broken spoke breaks down the wagon.”

Minnie Lou Bradley
Bradley 3 Ranch
Memphis, Texas
The best tool we have to establish baselines and then analyze cow-calf operations is the IRM Beef Cow-calf Standardized Performance Analysis (SPA)

IRM SPA Program

- National Program endorsed by the NCBA in 1991
- Objectives
  - Identify areas of an operation needing change in order to fulfill owner’s objectives.
  - Determine annual COP and ROA for an operation.
  - Develop Regional Databases to establish production and financial benchmarks.
Facilitates the comparison of an operation’s performance between years, groups of producers, production regions and production systems.

Texas and the Texas Rolling Plains has led this endeavor.

Completed on an individual basis.

Annual workshops are held to assist ranchers with the analysis.

### Beef Cow–calf SPA Program

**What is the Ranch Owners Goal for Owning Beef Cows?**

1. **Pay property taxes (I just like cows)**

2. **Breakeven (I just like cows, but I don’t necessarily need the money)**

3. **Be Profitable (If I don't make money, I have to find something else to do)**

4. **Genetic progression (I plan to have the “best performing” cattle)**
Where do Ranchers Compete?

- Goals of Ownership
- Location of Operation
  - Natural Resources
  - Physical Resources
- Costs of Production
  - Fixed Costs
  - Variable Costs
- Production

Focusing on the Southwest Cow-calf Operations
Southwest SPA Database

- 2005 to 2009
- 55 herds
- 31 to 2,900 plus breeding females
- 21,721 total breeding females
  - 1 to 100 = 11
  - 101 to 250 = 19
  - 251 to 500 = 14
  - 501 to 999 = 7
  - 1,000 plus = 4
- Four Quartiles Ranked by Net Income

Net Income per Female by Size

![Graph showing net income per female by herd size.](image)
Net Income by Quartile

Number of Females (1/1/XX)
Acres per Female

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>47.1</td>
<td>27.1</td>
<td>50.1</td>
<td>27.4</td>
<td>38.1</td>
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</table>

Reproduction Performances

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
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<th>Q3</th>
<th>Q4</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>91.3</td>
<td>90.1</td>
<td>92.6</td>
<td>90.2</td>
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<tr>
<td>Calving</td>
<td>87.7</td>
<td>87.0</td>
<td>88.4</td>
<td>88.1</td>
<td>87.8</td>
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<tr>
<td>Weaning</td>
<td>85.0</td>
<td>85.7</td>
<td>86.3</td>
<td>83.6</td>
<td>85.2</td>
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</table>
Production Performances

<table>
<thead>
<tr>
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<th>Q3</th>
<th>Q4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>WW</td>
<td>573</td>
<td>531</td>
<td>538</td>
<td>512</td>
<td>539</td>
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<tr>
<td>Lb/EBF</td>
<td>488</td>
<td>455</td>
<td>465</td>
<td>432</td>
<td>460</td>
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</table>

Average Price Received (or Assigned)

Dollars per Cwt.

Average Weaning Weights

$75 $100 $125 $150

300 400 500 600 700 800
**Price Rec’d versus Breakeven**

<table>
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<tr>
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<th>Q4</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>Rec’d</td>
<td>115.54</td>
<td>109.92</td>
<td>111.00</td>
<td>109.72</td>
<td>111.58</td>
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<tr>
<td>Breakeven</td>
<td>73.66</td>
<td>94.10</td>
<td>125.92</td>
<td>160.57</td>
<td>112.71</td>
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**Financial Performances**

**Net Income**

<table>
<thead>
<tr>
<th></th>
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<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Receipts</td>
<td>662</td>
<td>526</td>
<td>573</td>
<td>474</td>
<td>561</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>466</td>
<td>473</td>
<td>637</td>
<td>720</td>
<td>571</td>
</tr>
<tr>
<td>Net Income</td>
<td>197</td>
<td>53</td>
<td>-64</td>
<td>-245</td>
<td>-11</td>
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</table>
Financial Performances
Rate of Return on Assets

<table>
<thead>
<tr>
<th></th>
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<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>12.84</td>
<td>4.50</td>
<td>-0.27</td>
<td>-6.52</td>
<td>2.80</td>
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<tr>
<td>Market</td>
<td>10.58</td>
<td>3.74</td>
<td>-0.27</td>
<td>-3.52</td>
<td>2.74</td>
</tr>
</tbody>
</table>

Average Expense Breakdown per Female

Total Cost per Female = $571.13
Quartile 1 Expense Breakdown per Female

Total Cost per Female = $465.53

- Feed Purchased: 99, 21.3%
- L/M: 70, 15.0%
- Depreciation: 57, 12.1%
- Rents: 53, 11.4%
- Rep/Maint: 32, 6.9%
- Vet: 29, 6.3%
- Fuel: 21, 4.5%
- Insurance: 13, 2.8%
- Other: 36.88, 7.9%

Total Cost per Female = $465.53

Quartile 2 Expense Breakdown per Female

Total Cost per Female = $472.74

- Feed Purchased: 59, 12.6%
- L/M: 67, 14.1%
- Depreciation: 64, 13.5%
- Rents: 43, 9.1%
- Interest: 57, 12.1%
- Rep/Maint: 37, 7.8%
- Vet: 19, 3.9%
- Fertilizer: 18, 3.7%
- Custom Hire: 12, 2.5%
- Other: 59.62, 12.6%

Total Cost per Female = $472.74
Quartile 3 Expense Breakdown per Female

Total Cost per Female = $637.06

Quartile 4 Expense Breakdown per Female

Total Cost per Female = $719.82
### Comparing Top 5 Expenses

<table>
<thead>
<tr>
<th></th>
<th>Quartile 1</th>
<th>Quartile 2</th>
<th>Quartile 3</th>
<th>Quartile 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feed Purchased $99.30</td>
<td>Labor &amp; Management $66.80</td>
<td>Depreciation $118.21</td>
<td>Depreciation $135.91</td>
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<tr>
<td>2</td>
<td>Labor &amp; Management $69.81</td>
<td>Depreciation $63.82</td>
<td>Labor &amp; Management $103.55</td>
<td>Feed Purchased $114.84</td>
</tr>
<tr>
<td>3</td>
<td>Depreciation $56.55</td>
<td>Feed Purchased $59.38</td>
<td>Feed Purchased $85.11</td>
<td>Labor &amp; Management $87.45</td>
</tr>
<tr>
<td>4</td>
<td>Rents $53.20</td>
<td>Interest $57.39</td>
<td>Rents $52.52</td>
<td>Repairs/Maint $58.05</td>
</tr>
<tr>
<td>5</td>
<td>Repairs/Maint $32.10</td>
<td>Rents $43.04</td>
<td>Interest $35.90</td>
<td>Interest $54.39</td>
</tr>
<tr>
<td>Top 5 Percentage</td>
<td>59.8%</td>
<td>61.4%</td>
<td>62.1%</td>
<td>62.7%</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$465.53</td>
<td>$472.74</td>
<td>$637.06</td>
<td>$719.82</td>
</tr>
</tbody>
</table>

### Reproduction Parameters for the Southwest

- **Pregnancy Rate:** Greater than 90.5%
  - This includes all females
    - Including
      - 1st calf heifers
      - 2nd calf heifers
- **Calving Rate:** Greater than 88.0%
- **Weaning Percentage:** Greater than 85.0%

Your management determines these.

Any less than these, you need to figure out why. Where is the loss occurring?

Any more than these may cost too much.
Production Parameters for the Southwest

- Average Weaning Weights of all calves: 540 pounds.
- While your management determines this to a degree (ie. Genetics, etc.), mother nature can always trump you (ie. Rainfall after calving).
- Combine this will an 85% weaning percentage, then pounds per female will be 460 pounds.

Production Efficiencies

- Are you stocked right for your land resources?
  - Affects reproduction, weaning weights, feed costs, etc.
    - Remember, if she doesn't get bred, everything else that follows is an expense with no income to offset it.
- Are your females weaning an appropriate weighted calf annually for your resources?
Financial Parameters for the Southwest

- Total Costs should be $450 to $550.
- Top three expenses (Depreciation, Labor & Management, and Feed Purchased) should account for at least 45% of your total expense ($200 to $250 per female).
- That gives you $250 to $300 for everything else.
- Ask yourself: Is this _______ that I am considering purchasing going to improve my reproduction and/or production efficiency?
  - Feed
  - Labor (save one more calf)
  - New pickup

Other Comments

- The next several years can be very good for some cow-calf operations.
- If necessary, use these years to pay off debt.
  - It is very difficult to pay off even 5% interest, when my ROA is less than 2.5%
- Expansion will come, but it will be very slow.
- Some analysts just don’t get it.
Questions and/or Comments

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