Heifer Development for the Cow/Calf Producer & Stocker Operator

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Justification

• Developmental period
  – Period from weaning to first calving
  – Influences lifetime productivity and longevity

• Properly developed heifers:
  – Calve early in the first calving season
  – Calve early in subsequent calving seasons
  – Wean heavier calves
  – Remain in the cow herd longer
Objectives

- Breed early in the first breeding season
- Minimize calving difficulties
- Wean acceptable calves
- Breed early in the second breeding season
- Minimize overall cost
- Optimize profit
- Improve genetics
Decide on Business Model
Decide

- Stocker Operator
  - Steers, Heifers or Cows
  - Owned or Contract

- Cow/Calf Producer
  - Retained or Purchased
  - Custom or Home Development
## How much does a replacement cost?

<table>
<thead>
<tr>
<th></th>
<th>Retained</th>
<th>Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Revenue*</td>
<td>$1,050</td>
<td>-----</td>
</tr>
<tr>
<td>Development†</td>
<td>$450</td>
<td>-----</td>
</tr>
<tr>
<td>Opportunity Cost‡</td>
<td>$270</td>
<td>-----</td>
</tr>
<tr>
<td>Purchase PriceΔ</td>
<td>-----</td>
<td>$1,800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,770</strong></td>
<td><strong>$1,800</strong></td>
</tr>
</tbody>
</table>

* 700 pound heifer at $150/cwt.

† Includes nutrition, breeding, labor and death loss.

‡ Revenue lost from running three fewer cows with the recourses that used to develop five heifers.

Δ Estimated average purchase price for heavy-bread, superior genetic replacements in 2012.
Do It
Steps in Heifer Development

• At weaning or purchase
  – Select oldest and heaviest heifers
    • Consider frame score and mature cow size
  – Select more than you need as replacements
  – Set target weight = 67% of mature cow weight
  – Set breeding date
Steps in Heifer Development

- Decide on growth pattern
- Develop ration(s) to gain appropriate weight
- Weigh heifers to ensure weight gain is on target
- Use body condition scoring (BCS)
Growth Pattern

Days Post-Weaning

Weight (Kg)

- Steady
- Early
- Late
New Concepts in Nutritional Development

• Genetic improvement has advanced the age at puberty
  – The 60% target weight might now be out of date
  – Can reduce input cost of purchased feed

• Intensive management systems might maximize pregnancy rates but do not optimize profitability
Steps in Heifer Development

- One month before breeding season
  - Perform pelvic area measurements
    - Cull heifers with unacceptable pelvic area
    - What is an unacceptable pelvic area?
Steps in Heifer Development

- One month before breeding season
  - Reproductive tract scores (RTS)
  - Cull heifers that are sexually immature
Steps in Heifer Development

• 1 month before breeding season
  – Vaccinate against Vibrio, Lepto, and respiratory/reproductive disease complex (IBR, BVD, etc.).
  – Develop synchronization system (use some type of progestagen)
Steps in Heifer Development

- Post-breeding
  - Pregnancy check
  - Cull open and late-bred heifers until replacement number is reached
Steps in Heifer Development

- Post – breeding
  - Heifers should weigh approximately 85 to 90% of mature weight at calving
    - Usually results in 1 lbs./day until calving
    - Maintain BCS of 6
  - More critical analysis of selection traits
  - Give special attention during calving
  - Maintain BCS 5 until re-breeding
Scenarios
Calf Crop

Market All

Purchase Replacements

Develop On-Farm

Send to Custom Developer

Develop Heifers

Market All as Feeders

Retain Heifers

Stocker
Custom Developer

- Yearlings
- Contract

- Value-added
- Market open

- Return
- Formal Sale
Stocker Operation

Purchase Replacement Quality
- Develop
- Breed

Market
- Bred Replacements
- Open Feeders
Diversified Stocker

Purchase Replacement Quality
• Develop
• Breed

Market
• Bred Replacements
• Open Feeders

Retain
Open for finished market
New Producer Entry

1. **Buy Stocker Heifers**
   - Develop
   - Breed

2. **Market**
   - Open feeders
   - Extra Bred

3. **Retain**
   - AI Bred

4. **Build Cow Herd**
   - Stocker Fewer Following Year
Take-Home Message

• Developing heifers is the “make or break” period for their value as cows.
• There is a tremendous expense associated with developing heifers.
• In all cases, **pregnancy check early!!**
• Consider diversification and non-traditional methods (both management and business models).