Surviving 2018: Drought Aftermath

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Summary

- High roughage costs
- Cheap grain / by-products
- Test Feedstuffs
- Balance rations
- Deliver appropriate rations
- Limit damage to pastures / cow herd
- Destock if necessary
- Consider future after pulled through this knot-hole
Feed Less/Need Less

- Cull
- Wean
- Manage Hay Feeding
- Stockpile/winter grazing
4 O’s of Culling

- Open
- Old
- Ornery
- Other
Poor Nutrition Pre-Calving

- Target BCS 5+ at calving
- Increased calving difficulty
- Poor quality colostrum
- Reduced re-breeding rates
- Fetal programming
  - Reduced carcass quality
  - Reduced heifer pregnancy rates
Feed Efficiently

- Sort: Calving Season, Age Groups, BCS, etc.
- Feed is Scarce, Don’t Waste what you have
  - Proper hay storage, only feed what they need
    - FORAGE TEST
  - Strip Graze
- Ionophore
- Wean Calves
1. Early Weaning
   - Calves more efficient than cows
   - Health adjustments – consult vet for vaccinations
   - Save / maintain BCS on cows
     - Implications for calving, calf health, calf performance, reproduction and feed costs

2. Pastures
   - Sacrifice paddock / pasture
   - Minimize and localize long-term damage
   - Weed control, fertilizer 2019
# Management

## 3. Reduce feeding losses

<table>
<thead>
<tr>
<th>Feeder Type</th>
<th>Hay Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cone Feeder</td>
<td>3.5%</td>
</tr>
<tr>
<td>Bale Rings</td>
<td>6.1%</td>
</tr>
<tr>
<td>Trailers</td>
<td>11.4%</td>
</tr>
<tr>
<td>Cradle Feeder</td>
<td>14.6%</td>
</tr>
<tr>
<td>Unroll, 1 days feed*</td>
<td>12.0%</td>
</tr>
<tr>
<td>Unroll, 3 + days feed*</td>
<td>40% +</td>
</tr>
</tbody>
</table>

Michigan State University, 2003.
* University of Missouri

Open bottom bale feeders = 20+ % waste of original bale weight
**Hay Waste costs money**

<table>
<thead>
<tr>
<th>Percent Hay Waste by Feeder Design</th>
<th>Open</th>
<th>Sheeted</th>
<th>Cone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fescue hay</td>
<td>19.2</td>
<td>13.6</td>
<td>8.9</td>
</tr>
<tr>
<td>Alfalfa haylage</td>
<td>7.0</td>
<td>4.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Corn stover</td>
<td>38.7</td>
<td>32.0</td>
<td>13.6</td>
</tr>
<tr>
<td>Ammoniated corn stover</td>
<td>37.9</td>
<td>20.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Forage waste during winter feeding costs Missouri beef producers over $60 million per year.
24 Hrs
4. Limit hay access, cont.

- Ball park estimated hay savings:
  - 12 hour access = 7.5% decrease in DM disappearance
  - 8 hour access = 20% decrease in DM disappearance
  - 4 hour access = 40% decrease in DM disappearance

- Do Not Use With Replacement Heifer Calves, First Calf Heifers or Thin, Older Cows!

1998 Annual Report to NCR-87, Lemenager, et al, Purdue University
Management

4. Limit hay access, cont.
   ▪ Developing replacement heifers
     ▪ Adequate hay quality/stockpile
     ▪ Appropriate supplementation
     ▪ Reach target weight goals for breeding
   ▪ Time to consume 15 – 20 lbs. hay
     ▪ 58 – 62% TDN = 3 hours feeding time, est.
     ▪ 54 – 57% TDN = 6 hours feeding time, est.
     ▪ < 53% TDN = continuous access
     ▪ Lactating cows = 8 hours high quality hay
       ▪ Estimates from Univ. of IL
Management

5. Limit feed hay + Grain supplement
   - Minimum 10 lbs. hay intake / hd. / day
   - Bulk of nutrients through grain mix
   - 24 – 30 inches of bunk space per cow
   - Consistency
     - Feed same times every day (2X/day; hay fed opposite grain)
     - Feed same amount of feed every day
     - Whole shell corn; slows starch digestion, decrease bloat, acidosis
     - Many options using by-product feeds
   - Cattle act hungry
     - Resist feeding more unless BCS dictates
     - HAVE GOOD FENCES!!!
Supplements $$$$$$

- By-Products
  - Distillers Grain
  - Corn Gluten
  - Soy Hulls
- Whole Grain Products
  - Corn, Milo, Oats, etc
- Lick Tubs/Liquid Feed
  - Convenience Feeds
# Nutritional Requirements

<table>
<thead>
<tr>
<th>Production Stage</th>
<th>Dry Matter #/day</th>
<th># Protein</th>
<th>% Protein</th>
<th># TDN</th>
<th>%TDN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Mature Cow</td>
<td>18</td>
<td>1.5</td>
<td>7</td>
<td>9</td>
<td>49</td>
</tr>
<tr>
<td>Middle 1/3 pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Mature Cow</td>
<td>20</td>
<td>1.8</td>
<td>8</td>
<td>10.5</td>
<td>54</td>
</tr>
<tr>
<td>Last 1/3 pregnancy</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lactating Cows</td>
<td>20</td>
<td>2.0</td>
<td>9.6</td>
<td>11.5</td>
<td>57</td>
</tr>
<tr>
<td>Average Milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lactating Cows</td>
<td>21</td>
<td>2.5</td>
<td>12.3</td>
<td>14</td>
<td>67</td>
</tr>
<tr>
<td>Superior Milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 year old Heifer</td>
<td>21</td>
<td>2.1</td>
<td>10</td>
<td>13</td>
<td>62</td>
</tr>
<tr>
<td>Lactating Average Milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on a 1000# beef cow
2. Hay / Silage Options

- Chopped silage vs. baleage
  - Oxygen exclusion; bale “bunkers”??
  - Accurate feed delivery – limit due to energy, nitrates?
- Winter annuals
  - Late winter, spring growth for grazing, hay, or baleage
- Crop residues
  - Grazing preferred especially if cover crops seeded
  - Corn stalk or wheat straw ammoniation– too dry??
  - Corn stalk hay – moisture in stalk, feed waste??
Feed and Nutritional Management

3. Test feeds and calculate rations
   - Nutrient content of forages is based on maturity at harvest
   - Separate nitrate test if concerned
   - Price feed ingredient options-$/# TDN on DM basis
   - Appropriate energy
     - Calving and breeding issues 2019, 2020, 2021??
   - Accurately weight and deliver feed
     - Limit waste
     - Insure every animal gets balanced ration every day
Feed and Nutritional Management

4. Rumensin @ 200 mg / hd / day
   - At least 1 lb. supplement / day
   - Increase net energy value of low quality hay by ~15% (Okla. State)
   - Consistent intake for all cows

5. Feeding Management
   - Ensure every animal gets access to appropriate diet
     - Bunk and feeder space
     - Consistent feeding pattern
     - ACCURATE FEED MIXING & DELIVERY!!!
Nutrition Indicators

Body Condition/Fat Cover

Manure Consistency
Sharp Pencil! With a good eraser... and maybe a crystal ball