Stocker Cattle Management and Nutrition

**Stocker Cattle Management and Nutrition**

Lawton Stewart
Extension Animal Scientist
The University of Georgia - Athens

**Basic Management Plan**

- Procure cattle – maximize uniformity
- Receiving cattle – insure health
- Sound nutrition plan  
  – No growth = No $$$
- Minimize stress  
  – Happy cattle = growing cattle
- Incorporating Preconditioning Program

**Source of Stockers**

- Home grown  
- Purchased  
- Contracted  
- Co-op??

**Procurement of Stockers**

- Uniformity  
  – Weight/Frame Size/Muscling  
  – Steers vs. Heifers  
  – Breed Type

**Average Selling Price for Feeder Cattle Based on Muscle Score**

<table>
<thead>
<tr>
<th>Muscle Score</th>
<th>Average Selling Price ($/cwt)</th>
<th>Discount Compared to No.1 ($/cwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number 1</td>
<td>$120.45</td>
<td></td>
</tr>
<tr>
<td>Number 2</td>
<td>$111.31</td>
<td>-$9.14</td>
</tr>
<tr>
<td>Number 3</td>
<td>$96.28</td>
<td>-$24.17</td>
</tr>
<tr>
<td>Number 4</td>
<td>$82.21</td>
<td>-$38.24</td>
</tr>
</tbody>
</table>

* Averages across muscle score are different from each other (P<0.0001)
Arkansas, 2005

**Average Selling Price for Feeder Cattle Based on Frame Score**

<table>
<thead>
<tr>
<th>Frame Score</th>
<th>Average Selling Price ($/cwt)</th>
<th>Discount Compared to Large Frame ($/cwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>$118.27a</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>$118.15ab</td>
<td>-$0.12</td>
</tr>
<tr>
<td>Small</td>
<td>$95.43ab</td>
<td>-$22.84</td>
</tr>
</tbody>
</table>

a,b Averages without a common superscript differ (P<0.01)
Arkansas, 2005
### Average Selling Price for Feeder Cattle Based on Calf Color

<table>
<thead>
<tr>
<th>Calf Color</th>
<th>Average Selling Price (Value/cwt.)</th>
<th>Deviation From Overall Average (Value/cwt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>yellow-white face</td>
<td>$120.44</td>
<td>$2.34</td>
</tr>
<tr>
<td>yellow</td>
<td>$120.29</td>
<td>$2.19</td>
</tr>
<tr>
<td>black-white face</td>
<td>$120.03</td>
<td>$1.93</td>
</tr>
<tr>
<td>black</td>
<td>$119.24</td>
<td>$1.14</td>
</tr>
<tr>
<td>gray</td>
<td>$117.66</td>
<td>-$0.44</td>
</tr>
<tr>
<td>gray-white face</td>
<td>$116.79</td>
<td>-$1.31</td>
</tr>
<tr>
<td>white</td>
<td>$116.01</td>
<td>-$2.09</td>
</tr>
<tr>
<td>red-white face</td>
<td>$114.58</td>
<td>-$3.52</td>
</tr>
<tr>
<td>red</td>
<td>$113.92</td>
<td>-$4.18</td>
</tr>
<tr>
<td>spotted or striped</td>
<td>$107.37</td>
<td>-$10.73</td>
</tr>
</tbody>
</table>

Arkansas (2005)

### Receiving Management

#### Most crucial point in operation
- Calves have the potential to go North or South
- Dependent on management

#### Low Risk
- Known source
- Castrated
- Dehorned
- Vaccinated
- Thrifty cattle

#### High Risk
- Commingled calves
- Exposure to disease
- Traveled long distances
- Poor appearing

### Working High-risk cattle

In addition to previous practices:
- Mass treat with an antibiotic (metaphylaxis)
- Remove clinically sick calves and place in a separate pen for observation and treatment

### Receiving Management

- Clean, dry pen
- Access to good hay
- No water or grain
- Let cattle rest overnight
- Work animals next day early and in small groups

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**Stocker Cattle Management and Nutrition**

Dr. Lawton Stewart
Extension Beef Specialist
Identifying Sick Calves

- Early recognition is key
- Check cattle daily
- Easy to do at the trough
- Look for loners, unthrifty cattle, nasal discharge
- CONSULT YOUR VET!!!

Developing a Nutritional Program

Goals:
- Keep cattle gaining at ~2.0 lb/d
- Utilize forages as the major source of nutrients
- Develop economical supplement when needed

Average Selling Price for Feeder Cattle Based on Body Condition

<table>
<thead>
<tr>
<th>Body condition</th>
<th>Average Selling Price $/cwt</th>
<th>Difference Compared to Average $/cwt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very thin</td>
<td>$119.55</td>
<td>$1.41</td>
</tr>
<tr>
<td>Thin</td>
<td>$116.80</td>
<td>$-1.34</td>
</tr>
<tr>
<td>Average</td>
<td>$118.14</td>
<td>Base</td>
</tr>
<tr>
<td>Fleshy</td>
<td>$112.28</td>
<td>$-5.86</td>
</tr>
<tr>
<td>Fat</td>
<td>$101.98</td>
<td>$-16.16</td>
</tr>
</tbody>
</table>

Arkansas, 2005

Why Supplement?

- Increase stocking rates and forage utilization
- Implanted cattle perform better
- More uniform gains
- Provides a carrier for ionophores
- Supplemented cattle perform better in the feedlot
- Hand-feeding tends to quiet cattle – more manageable
- Forces a closer observation of the cattle

Nutritional Requirements

Medium-frame steer calves

<table>
<thead>
<tr>
<th>Wt (lb)</th>
<th>Daily Gain (lb)</th>
<th>DM Intake (lb)</th>
<th>Crude Protein (%)</th>
<th>TDN (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>1.5</td>
<td>10.8</td>
<td>11.5</td>
<td>63.0</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>11.0</td>
<td>12.7</td>
<td>67.5</td>
</tr>
<tr>
<td>600</td>
<td>1.5</td>
<td>14.7</td>
<td>9.8</td>
<td>63.0</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>15.0</td>
<td>10.5</td>
<td>67.5</td>
</tr>
<tr>
<td>800</td>
<td>1.5</td>
<td>18.2</td>
<td>8.8</td>
<td>63.0</td>
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Byproduct Pricing

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>$/ton</th>
<th>% DM</th>
<th>% CP</th>
<th>% TDN</th>
<th>$/lb of nutrient</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBM 48</td>
<td>$460</td>
<td>38.0</td>
<td>27.7</td>
<td>87.6</td>
<td>$0.32 / $0.29</td>
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$/ton of nutrient / % DM / % nutrient / 2000 lb = $/lb of nutrient
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**Byproduct Pricing**

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<th>Ingredient</th>
<th>Price</th>
<th>% DRI</th>
<th>% CP</th>
<th>% TDN</th>
<th>$/Lb</th>
<th>$/Ton</th>
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<tr>
<td>SBM 48</td>
<td>$ 440</td>
<td>88.0</td>
<td>47.7</td>
<td>87.0</td>
<td>$ 0.52</td>
<td>$ 0.29</td>
</tr>
<tr>
<td>Corn Gluten Feed</td>
<td>$ 115</td>
<td>93.0</td>
<td>25.0</td>
<td>83.0</td>
<td>$ 0.25</td>
<td>$ 0.08</td>
</tr>
<tr>
<td>Distillers Grain</td>
<td>$ 185</td>
<td>90.0</td>
<td>26.0</td>
<td>88.0</td>
<td>$ 0.34</td>
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**Byproduct Minerals**

- **Supplement Ca to for proper Ca:P ratio**
  - Avoid urinary calculi
  - Maintain ≤ 1.2:1
- **Monitor sulfur levels**
  - Avoid polioencephalomalacia
  - Max level 0.4%
- **N and P excretion**
  - Environmental impact

**Example**

“I bought a truck load of four weight steers. I have rye-ryegrass pastures and need them to gain 2.0 lb/d to market them at 400 lb. How much supplement do I need?”

- **Forages:** 12% CP, 61% TDN
- **Requirements:** 12.7%, 67.5%

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How do I balance my ration?

Balancer Programs:
- Taurus (UC Davis) $400
  - animalscience.ucdavis.edu/extension/Software/taurus/
- BRANDS (Iowa State Univ.) $200-475
  - www.iowabeefcenter.org/content/software_software_brands.html

Evaluator Programs:
- Cattle Grower Ration Balancer (Univ. of Arkansas)
  - www.aragriculture.org/livestock/beef/nutrition/spreadsheets/
- OSUNRC2002 (Oklahoma State Univ.)
  - www.ansi.okstate.edu/software/

Consult with your county extension agent before feeding!!!!!!

How do I balance my ration?

“Those are too difficult!”
“I want something for free that will balance basic rations”

COMING SOON:
- UGA Basic Balancer

Example

“I bought a truck load of four weight steers. I have rye-ryegrass pastures and need them to gain 2.0 lb/d to market them at 400 lb. How much supplement do I need?”

Forages:
- 12% CP, 61% TDN

Requirements:
- 12.7% CP, 67.5% TDN

Supplement:
- 50 Soy Hull, 50 Corn Gluten Feed
  - 34% of DMI or 3.8 lb AF at 400 lb

Should I Feed an Ionophore?

<table>
<thead>
<tr>
<th>Number of trials</th>
<th>Method</th>
<th>Intake, mg/h day</th>
<th>Weight Gain, lb/h day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rumenen</td>
<td>hand-fed</td>
<td>148</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td>self-fed</td>
<td>88</td>
<td>1.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.52</td>
</tr>
<tr>
<td>December</td>
<td>hand-fed</td>
<td>153</td>
<td>1.64</td>
</tr>
<tr>
<td></td>
<td>self-fed</td>
<td>162</td>
<td>.78</td>
</tr>
</tbody>
</table>

Mineral Supplementation

- May or may not improve performance
- CHEAP INSURANCE
- Minerals to consider
  - Na and Cl (salt)
  - Ca and P
    - Maintain ratio of 1.5-2.0 Ca:P
    - Important when feeding corn milling byproducts
  - Mg - Include when grazing lush winter annuals to prevent grass tetany
  - Trace minerals

Pre-conditioning

- Preparing calves for the feedlot after weaning
- Spread out the stress of weaning
- Get health records straight
- Feed for 45 days before it is shipped
- Help uniform group
- Goal ADG ~ 2 lb/d
Vaccination Protocol (+ BVD – PI)
- Prevent BRD (bovine respiratory disease) with proper vaccinations therefore reducing sickness and death in feedlot
  - IBR, BVD, PI3, BRSV (a 4- or 5-way viral vaccine)
  - 7-way clostridial vaccine (blackleg)
  - Pasteurella haemolytica
  - Pasteurella multocida
  - Haemophilus somnus
- Test for BVD – PI (bovine viral diarrhea – persistently infected) animals

Identification (EID)
- Many feedlots utilize EID tags in their record keeping system
- Contributes to traceability (age and source verification)
- Helps producer get data back on their animals

Known health program
- 2003 Evaluation of Oklahoma Quality Beef Network
- Third year of the program
- Evaluated if a price advantage existed

Known health program
- OQBN – Preconditioned, known vaccination protocol
- Three years of data, over 56,000 calves
- Utilize regular auction market to host sale
- Non-program cattle are sold at the sale site on the same day

Price Advantage ($/cwt) for Specifically Defined OQBN Lots. Three Year Average.

<table>
<thead>
<tr>
<th>OQBN Certified, 10 or more head</th>
<th>$5.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-certified Cattle</td>
<td>Base</td>
</tr>
</tbody>
</table>

BQA Certification - guarantees sound management and good production practices
- Online test at [http://www.iqbeef.org/](http://www.iqbeef.org/) GCA records cert, re-cert after 2 yrs

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Good Record Keeping
- Proper ID for animals and record of date of birth (individual or group age)
- Required for Japan Export, COOL, PVP
- Help producer make more informed decisions

Stocker Cattle In Georgia
- Source of cattle
- Three distinct forage zones
- Encouraging market to support stockering
- Resources to market cattle post stocker

Thank You!
DON'T FORGET TO FILL OUT THE SURVEY!!

Questions?

Deep South Stocker Conference
- Stocker Cattle: Adding value to Georgia’s Beef Industry
- Tuesday, July 28 – Crawford, GA

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