Evaluating Beef Cattle

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Four Steps in Judging Livestock

- **Information**
  - What is the use for the class

- **Observation or evaluation**
  - How does each animal meet the market standard

- **Comparison**
  - Each animal must be compared to the other three

- **Conclusion or placing**
  - Arrive at a logical placing
Basic Judging Criteria

- Four animals in a class
  - Numbered 1-4 from left to right when viewed from the rear when tied, in stanchions or racks.
  - Or clearly marked by
    - 1, 2, 3, 4
Basic Judging Criteria

- **Strategy**
  - Evaluate from a distance of 20 to 30 feet
  - Handle animals if appropriate to confirm placing
  - Go with first impression
Basic Judging Criteria

- A Class is about 12 minutes in length
- First 2 minutes should be at a distance
- The next three minutes should be to confirm and write down placings.
- The rest of the time should be used to write down notes for reasons.
Basic Judging Criteria

- The Hormel system and the judging card.
- Each class is worth 50 points for the placing.
- Each set of reasons is worth 50 points.
- Classes are divided into three “pairs”
  - Top Middle and Bottom
## Basic Judging Criteria

- **The Hormel System**
  - There are 24 different possibilities to place four animals.
Cuts

- What are CUTS?
  - The penalty for switching top, middle and bottom pairs.
  - These form the basis for grading or scoring the placing.
  - Will never exceed 15 points when added together
Scoring

- Class is placed 2 1 4 3
- The correct placing is 2 1 3 4
- With cuts of 2 3 5
- Score is 45
Scoring

- Class is placed 2 1 4 3
- The correct placing is 1 2 3 4
- With cuts of 3 4 6
- Score is 41
Traits To Select For:

1. Structural Soundness both front and rear
2. Muscle Volume
3. Volume and rib shape
4. Growth potential and mature size
5. Femininity in heifers
What traits are important?

- Muscle
  - Sell meat!
- Fat
  - Want a lean product!
- Volume/capacity
  - Feed Efficiency
  - Production Capabilities
- Structural Design
  - Economic
  - Aesthetic “Looks Good”
The First Step!

Neck
Brisket
Stifle
Back
Loin
Rump
Round (Quarter)
Side (Ribs)
Neck
Shoulder
Poll
Brisket
Knee
Cannon Bone

Hip Bone (Hooks)
Tailhead
Pin Bone
Rump
Loin
Back
Flank
Forearm
Pastern

Hock
Evaluating Muscle!

- LOIN (TOP)
- ROUND
- STIFLE
- FOREARM
- WIDTH OF BASE
Evaluating Fat!

TAILHEAD LOIN (TOP)

RIBS

BRISKET

FLANK

WIDTH OF BASE

COD (steers)

UDDER (heifers)
Evaluating Volume!

LENGTH OF BODY

DEPTH OF BODY

RIB SHAPE

WIDTH OF BASE
Evaluating Structure!

LEVEL DESIGN
High Yielding (High cutability)

Low Yielding (Low cutability)
Straight and turns out
Correct Shoulder Structure
Round, Coarse Muscle Shape
Square Hipped, Flatter Muscle
Volume and Rib
Just the opposite
Front Ends
Avoid the extremes
Happy Medium
<table>
<thead>
<tr>
<th>Trait</th>
<th>Range</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live weight (pounds)</td>
<td>1000-1400</td>
<td>1250-1300</td>
</tr>
<tr>
<td>Dressing percent</td>
<td>60-64</td>
<td>62-63</td>
</tr>
<tr>
<td>Fat Thickness (inches)</td>
<td>0.15-0.80</td>
<td>0.25-0.40</td>
</tr>
<tr>
<td>Ribeye area (inches$^2$)</td>
<td>12.0-17.0</td>
<td>14.0-16.0</td>
</tr>
<tr>
<td>Yield Grade</td>
<td>&lt; 3.5</td>
<td>2</td>
</tr>
<tr>
<td>Quality Grade</td>
<td>Select or &gt;</td>
<td>Choice</td>
</tr>
<tr>
<td>Feed conversion (lbs feed per lb of gain)</td>
<td>5-8</td>
<td>&lt; 6</td>
</tr>
</tbody>
</table>
Ideal Feeder Calf

- Medium/large framed
- US number 1 muscling
- Finished weight of 1100 lbs. to 1350 lbs.
USDA Feeder Cattle Grades

✓ Frame
✓ Muscling
# USDA Feeder Cattle Grades

## Frame Size

Relates to finished weight –

given degree of fatness to grade Choice

Skeletal size (height & length) in relation to age

<table>
<thead>
<tr>
<th></th>
<th>Steer (lbs.)</th>
<th>Heifer (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>&gt; 1250</td>
<td>&gt; 1150</td>
</tr>
<tr>
<td>Medium</td>
<td>1100 – 1250</td>
<td>1000 - 1150</td>
</tr>
<tr>
<td>Small</td>
<td>&lt; 1100</td>
<td>&lt; 1000</td>
</tr>
</tbody>
</table>
USDA Feeder Cattle Grades

Muscle Thickness Score  October 2000

US No. 1
(moderately thick)

US No. 2
(TTB slightly thick)

US No. 3
(Thin)

US No. 4

Relates to muscle to bone ratio at a given degree of fatness and hence yield grade
Initial Weight – 619 lbs
M 80 1 00
Final Wt – 1131 lbs
Choice YG 3.3
Choice    YG  3.3
Initial Weight – 642 lbs
M 70 100
Final WT – 1204 lbs
Select YG 2.3
Select YG 2.3
Initial Weight – 622 lbs
L 10   1 10
Final WT - 1235 lbs
Choice YG 1.8
Choice    YG  1.8
Initial Weight – 725 lbs
L 40  2 50
Final WT – 1298 lbs
Select YG 3.4
Select YG 3.4
Initial Weight – 553 lbs
M 50  1 00
Final WT – 1145 lbs
Select   YG  2.9
Select YG 2.9
Initial Weight – 585 lbs
M 70    2 50
Final WT – 1216 lbs
Choice    YG  2.8
Choice    YG  2.8
Initial Weight – 714 lbs
L 60    2 70
Final WT – 1269 lbs
Choice    YG  1.2
Choice YG 1.2
Initial Weight – 618 lbs
L 50    2 50
Final WT – 1335 lbs
Select YG 3.7
Select YG 3.7
Initial Weight – 707 lbs
L 40   2 60
Final WT – 1212 lbs
Select YG 2.7
Select  YG  2.7
Problems to Avoid

- Weak/steep pasterns
- Sickled hocks
- Buck-kneed or knock/kneed
- Pigeon toed
- Cow hocked
- Post legged
- Steep shoulders
- Coarse, open shoulders
- Splay-footed
Muscle

- Muscle is the marketable product
- Avoid extremes
  - Narrow framed; narrow loined; flat quartered
  - Coarse; overly defined in quarter and shoulder; double muscle
Frame Size

- Frame size is highly heritable (50%)
- Moderate frame size is 5 – 7
- Frame size dictates carcass size
- Avoid extremes
Mammary System of Heifers

Difficult to Assess but Foolish to Ignore

- Teats barely visible and/or embedded in fatty tissue
- Teats that are too long and/or thick
- Daughters of cows with balloon teats, pendulous udders, blind quarters or mastitis history
Phenotypic selection & the use of Performance Information

- Livestock Evaluation
- Know EPD’s (Expected Progeny Difference)
- Ability to Identify superior genetics
- Plan matings
That’s all folks!

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