Establishment of Ideal Type

- An ideal market animal for each specie
- Ideals change with changing industry constraints
- Traits of ideal breeding animals differ between breeds
Premise of Livestock Judging

- A science based art
- Those animals with more positive traits (or less negative traits) should be placed above those with more negative traits
Why Does This Matter?

• Placing Classes/Grading Market Animals
  – Industry insight
  – Decision-making skills

• Oral Reasons
  – Establishes communication skills
  – Develops confidence
Note Taking for Questions &/or Oral Reasons
### General Comments about individual animals

<table>
<thead>
<tr>
<th></th>
<th>1/2 Comparison</th>
<th>2/1 Grant</th>
<th>2 Criticism</th>
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<tr>
<td>2/3 Comparison</td>
<td>3/2 Grant</td>
<td>3 Criticism</td>
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</table>
1-Red Baldy- Well Muscled, Extended, True Moving, A Little Underfinished

2-Char Cross- Heavy Muscled, Correctly Finished, Straight Shouldered, Coarse Fronted

3-Black Baldy- Extended, Straight Lined, Correctly Finished, Light Muscled

4-Black- Heavy Muscled, Correctly Finished, Well Balanced, Little Round Hipped

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Oral Reasons

• Brief (1-2 minutes, no more) justification of why you placed the
• When scored, the judges priorities are:
  – Accuracy
  – Organization - logical flow
  – Presentation/Delivery
Fundamentals of Oral Reasons

Terminology
- Specific to species
- Simple terms used correctly - Especially early on

Note Taking
- Do not memorize notes!!!
- Notes help to remember the animals and class
Fundamentals of Oral Reasons

Presentation
- Keep it natural & comfortable!!!
- Clear and distinct speaking
- Confident- but not loud or arrogant

General
- Deep breath & long pause
- Review placing
### Market Steers

1. **Red Baldy** - Well Muscled, Extended, True Moving, A Little Underfinished
2. **Char Cross** - Heavy Muscled, Correctly Finished, Straight Shouldered, Coarse Fronted
3. **Black Baldy** - Extended, Straight Lined, Correctly Finished, Light Muscled
4. **Black** - Heavy Muscled, Correctly Finished, Well Balanced, Little Round Hipped

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## Market Steers

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<th>4/2</th>
<th>2/4</th>
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<tbody>
<tr>
<td>1</td>
<td>Stouter</td>
<td>H. Muscled</td>
<td>Coarse, Straight Shouldered</td>
</tr>
<tr>
<td></td>
<td>B. Balance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>H. Muscled</td>
<td>1/2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>M. Correctly Finished</td>
<td>Better Structured</td>
<td>Thin finished Flattens in quarter</td>
</tr>
<tr>
<td>3</td>
<td>1/3</td>
<td>3/1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Stouter</td>
<td>M. Correctly Finished</td>
<td>Lightest Muscled</td>
</tr>
<tr>
<td></td>
<td>H. Muscled</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1-Red Baldy- Well Muscled, Extended, True Moving, A Little Underfinished

2-Char Cross- Heaviest Muscled, Correctly Finished, Straight Shouldered, Coarse Fronted, Light Boned

3-Black Baldy- Extended, Straight Lined, Correctly Finished, Light Muscled

4-Black- Stout, Heavy Muscled, Correctly Finished, Well Balanced, Little Round Hipped
Reasons Format

Set of Reasons

Introduction  Top Pair  Middle Pair  Bottom Pair

A Pair

Comparison  Grant  Criticism

Johnson, 1997
Superlative Statement:
I placed the market steers 1234 starting with the Stoutest, Heaviest, Muscled, Highest Volumed steer.

Comparison of class winner to ideal:
Ideally, my class winner could have ...
Even so, I started 1 over 2 as
Pair Format

Comparison:
1/2
Heavier Muscled
Higher Volume

Grant:
2/1
Longer Bodied
Cleaner Fronted

Criticism of 2:
Narrow Chested OR
Somewhat Narrow Chested OR
Narrower Chested
Bottom Pair Format

Comparison:
3/4
Heavier Muscled
Higher Volume

Grant:
4/3
Longer Bodied
Cleaner Fronted

Criticism of 4:
Narrowest Chested
Breeding Cattle

• Growth
• Structural Correctness
• Muscle
• Balance
• Volume
• Sexual Characteristics
• Maturity/ Body Condition
Breeding Hogs

• Growth
• Structural Soundness
• Muscle
• Volume
• Sexual Characteristics
• Maturity/ Leanness
Breeding Sheep

- Growth
- Structural Correctness
- Muscle
- Balance
- Volume
- Sexual Characteristics
- Maturity/ Body Condition
Market Cattle

- Muscle
- Correctness of Finish/ Maturity
- Balance
- Production Traits
Market Hogs

- Muscle
- Growth
- Leanness/ Maturity
- Production Traits
Market Lambs

- Muscle
- Correctness of Finish/ Maturity
- Balance
- Production Traits
MUSCLE SHAPE
FINISH

TAILHEAD  TOP SHAPE  LOWER RIB  BRISKET

COD (steers)
UDDER (heifers)
GROWTH/ MATURITY

LENGTH

FRAME SCORE

WEIGHT PER DAY OF AGE
STRUCTURAL CORRECTNESS & BALANCE

LEVEL DESIGN
STRUCTURAL CORRECTNESS & BALANCE
Muscle Shape

LOIN OR TOP SHAPE

HAM

WIDTH OF BASE
MUSCLE SHAPE
MUSCLE SHAPE
LEANNESS

LOIN EDGE

FLANK & ELBOW POCKET

SEAM OF HAM

JOWL
LEANNESS
LEANNESS
GROWTH/ MATURITY

LENGTH

LENGTH OF BONE

WEIGHT PER DAY OF AGE
Volume

RIB SHAPE

DEPTH OF BODY

WIDTH OF CHEST
VOLUME
MUSCLE SHAPE

RACK, LOIN (TOP)

LEG

WIDTH OF BASE
MUSCLE SHAPE
GROWTH/ MATURITY

LENGTH

FRAME

WEIGHT PER DAY OF AGE
Volume

RIB SHAPE

DEPTH OF BODY

WIDTH OF BASE
Structural Correctness & Balance

LEVEL DESIGN
STRUCTURAL CORRECTNESS & BALANCE
Assessing USDA Grades of Market Cattle

- National Average
  - Quality grade: Low Choice
  - Yield Grade: 3.0
USDA Quality Grades

Grades of Youthful Carcasses (< 42 mos.)
Prime
Choice
Select
Standard

Minimum requirement for USDA Choice
Assessing USDA Grades of Market Cattle

USDA Quality Grades

• External fatness/ genetic type most important parameters to consider

• Cattle which have the genetic predisposition to grade USDA Choice should at 0.40 - 0.60” external fatness
Assessing USDA Grades of Market Cattle

USDA Quality Grades

- > 90% of fed cattle that look like him SHOULD grade USDA Choice
Assessing USDA Grades of Market Cattle

USDA Quality Grades

• < 5% of fed cattle that look like him SHOULD grade USDA Choice
USDA Yield Grades
Assessing USDA Grades of Market Cattle

USDA Yield Grade

- As Fatness $\uparrow$ - Yield Grade $\uparrow$
- As Weight $\uparrow$ - Yield Grade $\uparrow$
- As Muscling $\uparrow$ - Yield Grade $\downarrow$
Assessing USDA Grades of Market Cattle

<table>
<thead>
<tr>
<th>Fat Thickness</th>
<th>PYG</th>
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<tbody>
<tr>
<td>0.0</td>
<td>2.0</td>
</tr>
<tr>
<td>0.1</td>
<td>2.25</td>
</tr>
<tr>
<td>0.2</td>
<td>2.5</td>
</tr>
<tr>
<td>0.3</td>
<td>2.75</td>
</tr>
<tr>
<td>0.4</td>
<td>3.0</td>
</tr>
<tr>
<td>0.5</td>
<td>3.25</td>
</tr>
<tr>
<td>0.6</td>
<td>3.5</td>
</tr>
<tr>
<td>0.7</td>
<td>3.75</td>
</tr>
<tr>
<td>0.8</td>
<td>4.0</td>
</tr>
<tr>
<td>0.9</td>
<td>4.25</td>
</tr>
<tr>
<td>1.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

- **USDA Yield Grades**
- **External fatness most important parameter**
Assessing USDA Grades of Market Cattle

USDA Yield Grades

- After determining PYG-
  adjust for muscle by .3
  - Very Light Muscled- +.9 or +1.2
  - Light Muscled- +.6
  - Lighter Muscled- +.3
  - Average Muscle- Par
  - Heavier Muscled- +.3
  - Heavy Muscled- -.6
  - Very Heavy Muscled- -.9 or -1.2
YG 3
USDA Choice

YG 2
(USDA Standard)
USDA Feeder Calf Grading

- Frame
- Muscling

The two most important factors affecting merit (value) in feeder cattle.
Frame Size

- At a given age, frame size is highly correlated with mature size.

- The larger the frame size:
  - Higher rate of gain
  - Longer the period required to fatten
  - The greater the slaughter weight necessary to attain a given slaughter grade
Muscle Thickness

- Muscle thickness at a given fatness is highly correlated with muscle to bone ratio.

- The greater the muscle thickness:
  - The larger the ribeye area
  - The more desirable the yield grade
  - The higher the muscle to bone ratio
USDA Feeder Calf Grades

• Apply to cattle less than 36 months of age.
• Generally: 300-900 lbs
• Determined by:
  – Frame Size
  – Muscle thickness
  – Fleshiness Scores
USDA Feeder Calf Grades

• Frame size refers to an animal’s skeletal size; its height and body length in relation to its age.

• Muscle thickness refers to the development of the muscle system in relation to skeletal size (varies with bone structure, muscling and degree of fatness)
FRAME SIZE

Large

Medium

Small

Large and Medium frame pictures depict minimum grade requirements. The small frame picture represents an animal typical of the grade.
Frame Size

• Relates to finished weight - given degree of fatness to grade USDA Choice

• Ideal frame score: From Medium$^{50}$ to Large$^{50}$

Large Steer - > 1250
Small Steer - < 1100
Large Heifer - > 1150
Small Heifer - < 1000
Frame Size

• Large- Generally: Extended Long & Flat Boned (Breeds)
• Medium Intermediate (Breeds)
• Small- Generally: Conventional & Compact Short, Round, & Frail Boned (Breeds)
Frame Size relative to Maturity

• Generally- Long bone growth slows substantially past 14 months
• Thus, for growing calves/ Older = Smaller Mature Size
• Indicators
  – Length of tail &/or horns
  – Coarseness of hair in switch
  – Width of muzzle
  – Coarseness of hair on poll
  – Size of feet, ears, base of horns, etc
No. 1, No. 2, and No. 3 thickness pictures depict minimum grade requirements. The No. 4 picture represents an animal typical of the grade.
Muscle Thickness Score

• Relates to M:B ratio at a given degree of fatness (0.5 inch) – hence, Yield Grade
  – No. 1 (moderately thick)
  – No. 2 (TTB slightly thick)
  – No. 3 (Thin)
  – No. 4
Muscle Thickness

• No. 1- Moderately thick throughout- Predominate beef breeding
• No. 2- Slightly thick throughout- High proportion beef breeding
• No. 3- Thin throughout Legs are close together- Some dairy breeding
• No. 4- Less thickness than No. 3
USDA Feeder Grades

• Condition/Flesh
  – Why Important?

• Thriftiness - Apparent health of an animal and its ability to grow and fatten normally

• Thin conditioned healthy animal - Compensatory Gain

• Heavier conditioned light wt animals - Negative energy balance
Expected Progeny Differences and Indexes

• A genetic tool used in combination with phenotypic evaluation to improve livestock selection
• Prediction of how offspring of each animal are expected to perform relative to the progeny of other animals listed in the database
• Genetic merit EXCLUDING environment
Expected Progeny Differences and Indexes

• EPDs are expressed in units of measure for the trait, plus or minus
  – Therefore- Larger values not always better

• Indexes- are based on EPD’s and are formatted for $$

• Can only be used to compare animals within a breed
Beef Cattle EPDS

- Common traits
  - BW=Birth Weight
  - WW=Weaning Weight
  - YW=Yearling Weight
  - MM = Maternal Milk
  - TM=Total Maternal
  - SC=Scrotal Circumference

- Others
  - CE=Calving ease
  - STAY=Stayability
  - DOC=Docility
  - REA=Ribeye area
  - %IMF=Intramuscular fat
  - BF=Backfat
  - HCW=Hot carcass weight

- A. Angus Assn.
  - $F= $Feedlot
  - $G= $Grid
  - $B= $Beef
Swine EPDS

• Common traits
  – NBA=Number Born Alive
  – LWT=21 Day Litter Weight
  – DAYS=Days to 250
  – BF=Backfat
  – SPI=Sow Productivity Index
  – MLI=Maternal Line Index
  – TSI=Terminal Line Index