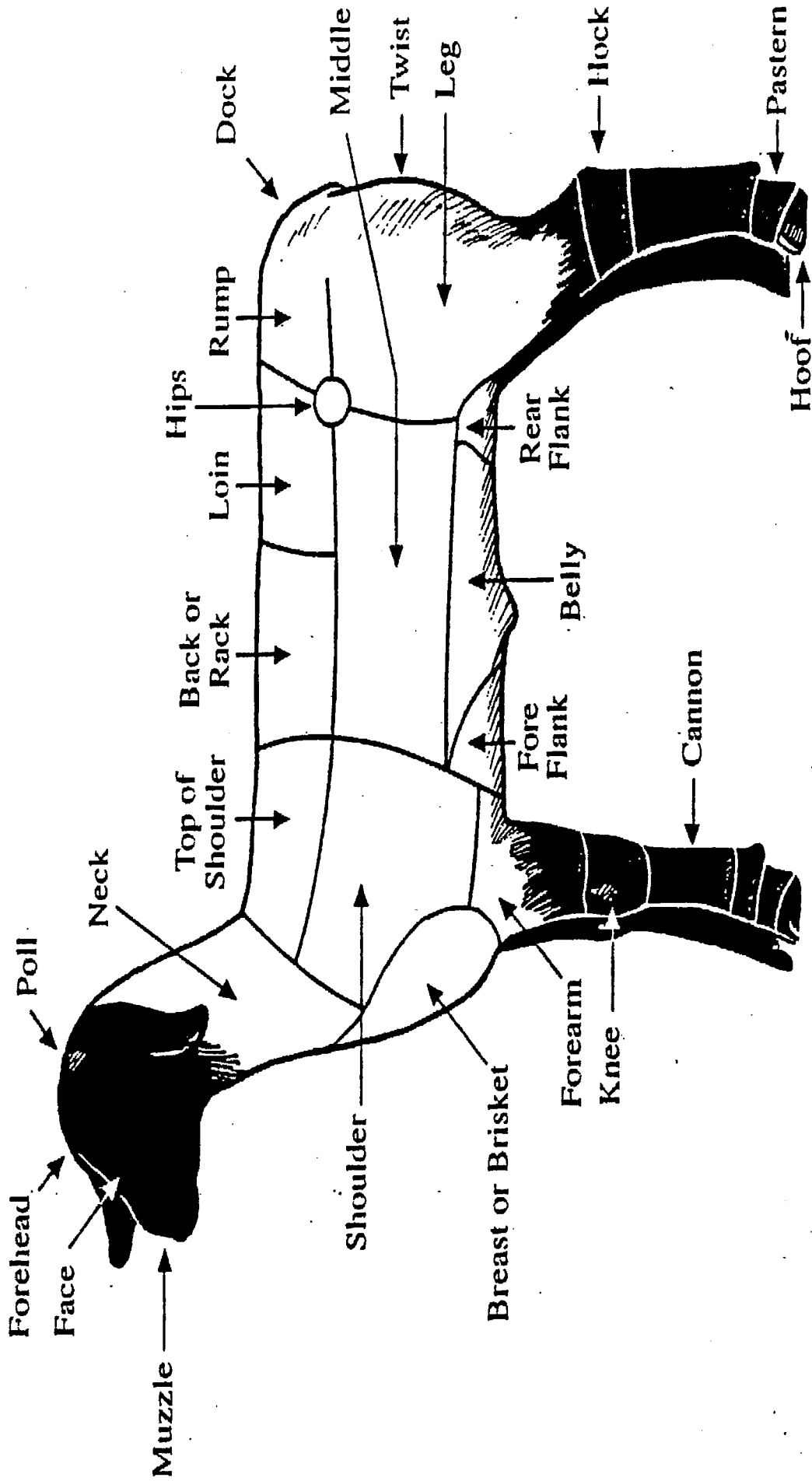


# External Parts of Sheep



## Judging Market Lambs



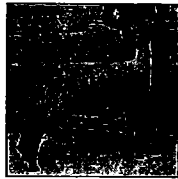
## Fundamental Priorities for Evaluating Market Lambs



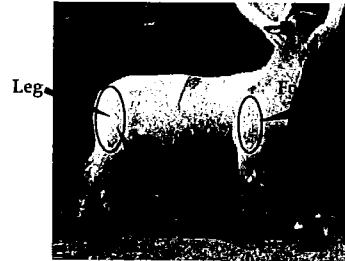
- Muscle
- Trimness
- Performance
- Handle Quality
- Balance and Eye Appeal
- Structural Correctness

## What does the ideal market lamb look like?

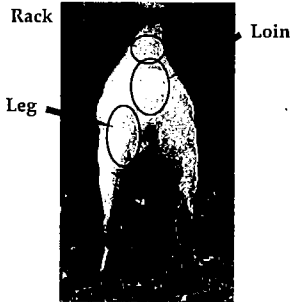
- The ideal market lamb should be trim and free of excess condition. The ribs should be firm to the touch. Sheep should have a muscular top with a deep loin. The rump should be square and level with muscle. Length of body and front are important factors when analyzing style and balance.



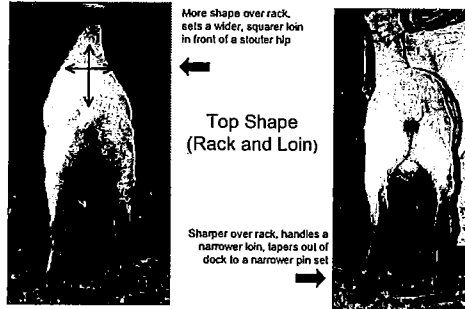
## Lamb Evaluation: Muscle Indicators



## Lamb Evaluation: Muscle Indicators



## Evaluating Muscle



### Evaluating Muscle

Wider pinned, slouter hipped, more powerful thru his leg with more turn to his inner and outer thigh

←

Hip  
(Leg and Stifle)

→

Narrow pinned, tapers to his dock, shallower twisted, flatter legged lamb that has less dimension to his lower leg

### Evaluating Muscle

Lighter muscled, less muscle definition to her forearm, more non-descript out of her hip and tapers to her lower leg

←

More powerful in forearm, more expressive hipped and more turn and shape to her leg

→

### Trimness

Acceptable = 0.12 to 0.25 inches  
Too Lean = Less than 0.1 inch  
Too Fat = More than 0.25 inches

Breast

### Trimness

Loin Edge

Spine

Dock

### Evaluating Finish Differences

Appears to be cleaner through her chest, trimmer middled

"Softer" appearing, exhibits more evidence of fat deposition thru his lower body, heavier middled

### Cutability Carcass Terms

- Cutability in sheep relates only to fat thickness.....not muscle
  - YG = 0.4 (10 \* 12<sup>th</sup> rib fat)
- Higher cutability carcass=leaner lamb
- Lower numerical yield grade

## Handling Lambs

- Allows for more precise estimate of fat thickness and muscling
- Handle over skeletal references not covered by thick layers of muscle tissue
  - Spine
  - Ribs
  - Loin edge
  - Dock

## Handling Lambs

- Apply light pressure with finger tips
- Excessive pressure will displace fat
- Handling will also allow you to evaluate muscle tone and freshness



Fresh



Stale

## Handling Tips

- Use eyes more than hands
- Think about what you expect to handle
- Make sure sheep is square in rack
- Have a systematic approach
  - Handle every lamb in the same fashion

## Handling Tips

- Start directly over the shoulder
  - Palm open, fingers together
  - Rack between thumb and index finger
- Touch back over middle of back and loin
- Use tips of fingers over the ribs
  - Same location and degree of pressure for each lamb
- Length of hindsaddle and hip
- Circumference of leg

## Performance

- Refers to weight and growth potential of the lamb
  - Larger framed
  - Taller fronted
  - Heavier weight
  - More extended from last rib back
  - Length of hindsaddle
- Performance carcass terms
  - More total pounds of product

## Balance and Eye Appeal

- Proportionalism
- Straightness of lines (Profile)
- How well pieces fit together
  - Length
    - Neck and body
    - Neck ties in high and neat to shoulder
  - Attractiveness
    - Smooth, flat shoulder
  - Levelness
    - Level hip
  - Uniformity of body depth

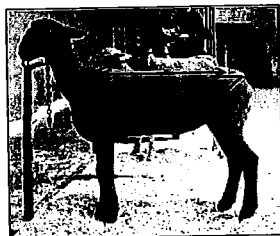
### Balance and Eye Appeal



### Structural Correctness

- Allows for the animal to function efficiently
- Aids in balance and eye-appeal
- Proper angles to skeleton
  - 45 degree angle to shoulder and pasterns
  - Levelness of topline and hip
  - Heaviness of foot and bone

### Structural Correctness



### Judging Tips

- Use your eyes more than your hands
- Have class placed or broken into pairs
- Do not waste time waiting in line to handle
  - Think about what you expect to handle
  - Work on notes
  - Be at front of line
- Stick to big picture/priorities, don't over-think

## Market Lamb Evaluation

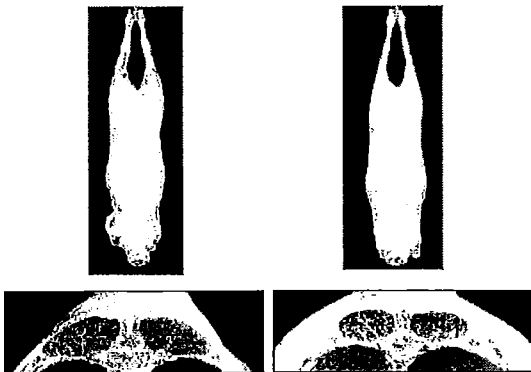
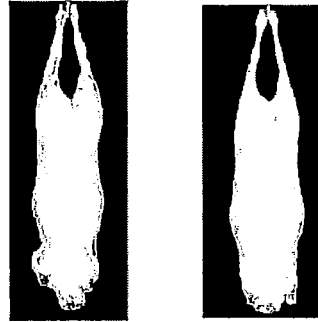
### Factors Affecting Dressing Percent of Lamb

- Pelt weight
  - As fleece length increases, DP decreases
  - Unshorn lambs will dress 1 – 5% lower than shorn
- Fill
  - More fill decreases DP
- Muscling
  - Heavier muscled dress higher
- Fat cover

### Reading Top Shape



### Reading Top Shape



### Fat Thickness

- Taken at 12<sup>th</sup> rib
- Normally adjusted up to a .1 inch due to body wall fat
- *Only estimate used in YG equation*
- Range: .05 - .50 in
- Avg: .25 in
- As fat increases, YG increases (numerically)
- As fat increases, BCTRC (boneless closely trimmed retail cuts) decreases

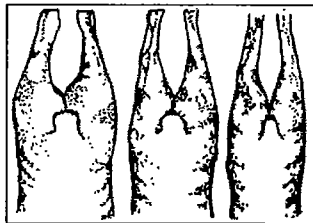
## Ribeye Area

- Measured at 12<sup>th</sup> rib
- Indicator of total muscle in carcass, but not used in YG equation
- Range: 1.5 – 3.6 sq in
  - Generally, black-faced lambs heavier muscled than white-faced. Brockle-faced lambs intermediate
- Avg: 2.6 sq in
  - 2.8 sq in: 120 lb Black-faced lamb

## Yield Grade

- Factors used to determine Yield Grade
  - Fat, fat, fat
  - Only includes 12<sup>th</sup> rib fat thickness
- Predicts the yield of boneless, closely trimmed retail cuts from the leg, loin, rack, and shoulder
- 5 yield grades
  - 1 - 5
- $YG = 0.4 + (10 * \text{fat thickness})$

## Muscle Conformation



Prime Choice Good

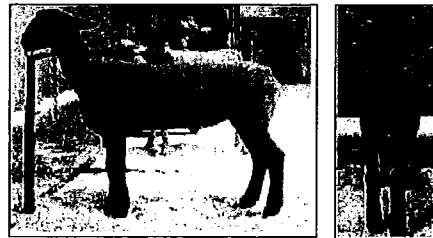
## Lamb Quality Grades

- Range: Good – Prime
  - Prime<sup>+</sup> - Good<sup>-</sup>
- Avg: Choice<sup>+</sup>
- Majority of market lambs will grade Choice
- The only acceptable estimates are *Ch<sup>o</sup>*, *Ch<sup>+</sup>*, and *Pr<sup>-</sup>*

## Lamb Quality Grades

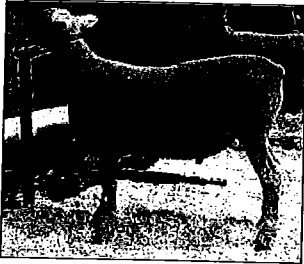
- Choice <sup>o</sup> : average or below average muscling and little fat
- Choice <sup>+</sup> : Average muscled lambs with some fat
- Prime <sup>-</sup> : Heavy muscled lambs with some fat
- To qualify for Ch or Pr, lamb carcass must have at least .10 in. fat covering

## Market Lamb Evaluation



Live weight = 135 lb DP = 56.3%  
 12<sup>th</sup> rib fat = 0.12 REA = 3.4 sq in  
 QG = Ch<sup>o</sup>

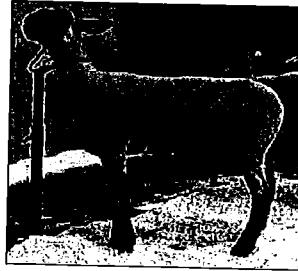
### Market Lamb Evaluation



Live weight = 156 lb    DP = 52.2%  
REA = 2.9 sq in    12<sup>th</sup> rib fat = .35 in  
QG = Pr-



### Market Lamb Evaluation

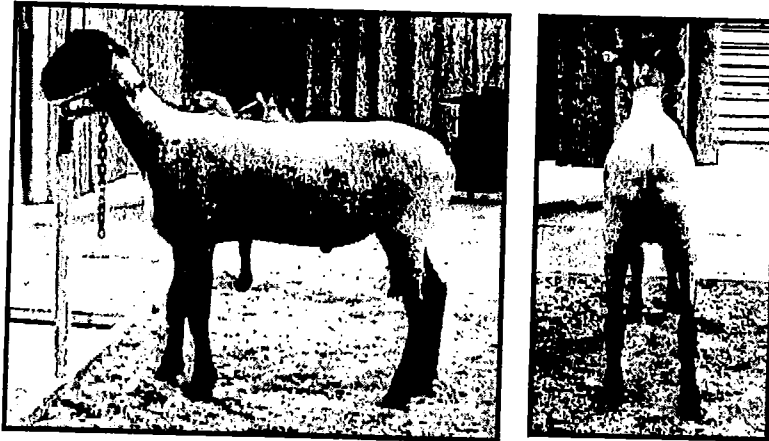


Live weight = 163 lb    DP = 56.4%  
12<sup>th</sup> rib fat = .17 in    REA = 3.6 sq in  
QG = Ch+

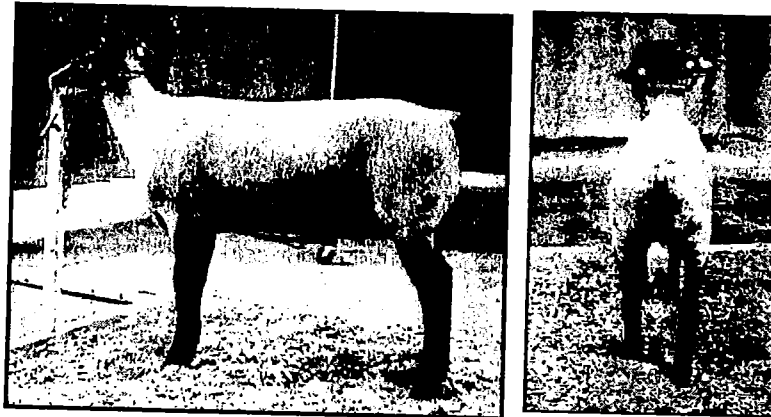




**Lambs Showing Visual Differences in Degree of Finish**



**Lean: < .20 inch fat thickness**



**Intermediate: .20 to .29 inch fat thickness**



**Fat: ≥ .30 inch fat thickness**

## Handling Market Lambs

“Stay off the class!” This is a common theme during a livestock judging contest. Inexperienced judges have a tendency to get too close to the animals and lose the “big picture” of the class. It is important to have a view that enables the judge to see all of the lambs at one time. This enables the evaluator to determine not only the strengths and weaknesses of each individual, but also to make a quick comparison of each animal to one another. Each lamb should be viewed from a three-quarter view, directly from behind, and directly in front. From a distant view, the judge will be able to make evaluations of growth, balance, and structural correctness. From the outside, an evaluator should have a complete set of notes regarding these traits before ever handling the lambs. As well, assumptions should be made regarding the carcass composition of lamb in terms of muscle and finish, and the length of each lamb’s hindsaddle. For muscle, visual indicators include the width of stance of the lamb, the dimension and definition the animal possesses down its top, and the shape and volume the lamb exhibits through its leg. Correctness of finish should also be evaluated from a distance. A trim lamb should be trim through its chest and middle, as well as show indentation behind its shoulder and be free of excess finish through its twist. Many contests will instruct the students to form a line and handle each lamb one by one, the other format allows students to handle the lambs in a random order. In either case, the evaluator needs to have notions of how each lamb *should* handle. For example, 1 *should or appears* to be the trimmest handling, longest loined lamb that is fresh over his loin; 2 *should* be the most powerful over his rack and loin, the longest hipped, and possess the biggest leg; etc. Therefore upon handle the judge should just keep the differences in mind. For example, 1 is the trimmest, measures the longest loin, but he fades to the edge of his loin, his lack of freshness is the only thing that the judge should have to remember in his/her mind for note-taking as the person moves to the next lamb.

1. The first step during the close inspection period of the class is to once again use your eyes. Before handling, it is important to analyze the lamb visual while making assumptions for finish, muscle, and length. You will be a more confident judge if your assumptions made visually correspond to assumptions made by touch.
  - a. Before handle, inspect for width and dimension, as well as shape of muscle over the rack of the lamb and the loin, the hip should be studied for width and squareness. Also make note of the shape of the lamb’s leg, the base width at the ground, and the squareness to which the lamb stands from hock to ground.
  - b. You should also inspect the lamb for finish differences. Trim lambs should exhibit indentation behind shoulder, and have shape and definition to their top. Fatter lambs tend to be wider and flatter in their top shape. Fatter lambs will be “boat” shaped from an aerial view.
2. Now you are ready to handle. Start directly behind the shoulder of the lamb, handle this area for the dimension and expression of the animal’s rack. Use one hand and allow the rack of the lamb to set in the area between your thumb and index finger. The rack shape should be square, and should feel firm and shapely to the touch. You should be able to get a read on muscle and freshness, as stale handling lambs will be more pronounced in their spine. Continue, using one hand and touch back over the middle of the lamb’s back and over its loin. This

- should provide you the ability to make a call on the animal's dimension of top, its expressiveness, and the freshness or staleness of the lamb.
3. You should now return to the area behind the shoulder and begin to handle the lamb for finish. Keep your thumbs together and position them directly above the spine. Now, use the tips of your fingers to measure differences in fat thickness over the ribs of the lamb. It is important to keep your fingers together and to gently rub the lamb. Make sure to handle each lamb for finish in the same location and the same degree of pressure.
  4. Next, you will measure the length of the lamb's hindsaddle. This will be a two step process. The first measurement will be the length of loin. Using your middle fingers, find the last rib on each side of the lamb. Then stretch your hand back to the hook bone and place your thumbs at that position. The length of the loin should be the measurement from your middle finger to your thumb. Now, to measure the length of hip, replace your thumbs with your middle fingers at the hook bone. Place your thumbs over the pin bone. This measurement should allow you to evaluate length of hip, levelness of hip, and squareness of hip.
  5. The final step is the measurement of the circumference and shape of leg. You will stand near the rear skeleton of the lamb. Whatever side of the lamb you are on; the leg on the opposite side is the one to be measured. Lean over the lamb, position your hands on either side of the leg. You should have your middle fingers touching each other on the inner portion of the lamb's leg and wrap your thumbs around the leg to measure circumference. Also, move your hands toward the hock to evaluate if the leg shape tapers.

During the handling procedure it is imperative that judges handle each lamb in a methodical, accurate, and precise manner each time to ensure a proper evaluation of each lamb's strengths and weaknesses.