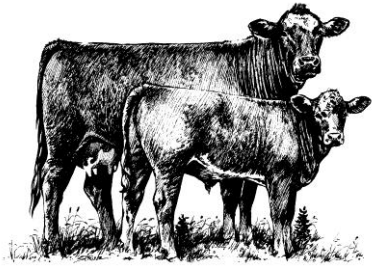

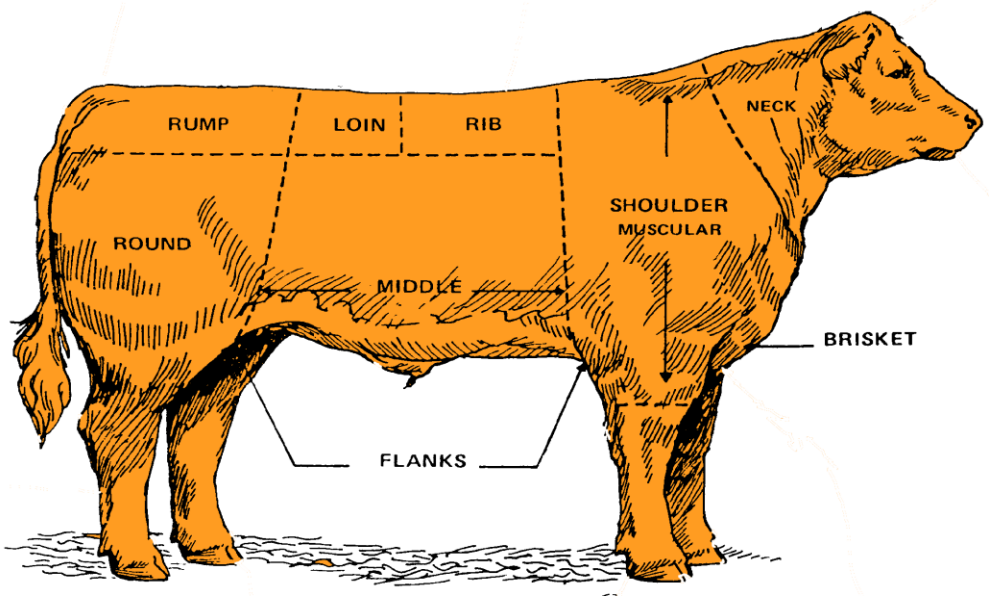

BEEF CAMP

July 21, 2009 ♦ Custer County Fair Grounds ♦ Mackay, Idaho

BEEF

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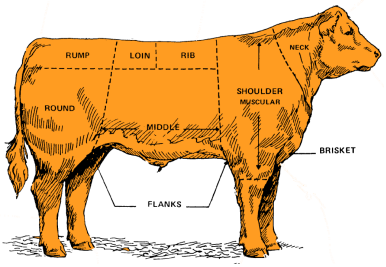

How to Measure Carcass Quality

- Quality Class at Fair
- Importance of Fat
- Quality Grading
- Yield Grading
- Let's Measure Some Steaks!

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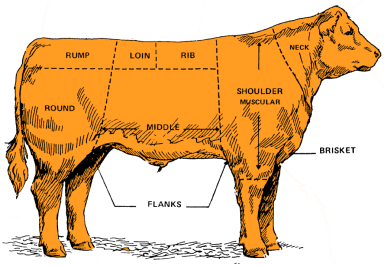

Quality Class at Fair

- Evaluate your live steer as if it were a carcass.
- General Considerations
  - Muscling
  - Fat
  - Growth/Frame
  - Structure/Balance
- Quality Grade
- Yield Grade
- Judging Cards

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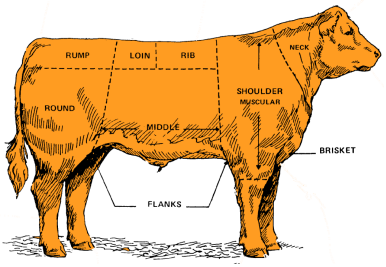
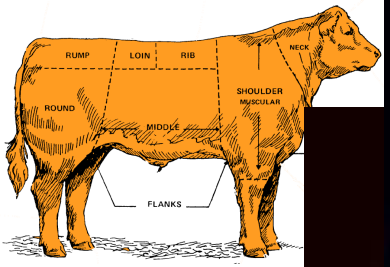


Importance of Fat

- Fat and bone are generally considered waste
  - HOWEVER:
    - Fat is a component of all cells
    - Fat is necessary in animal metabolism
    - Fat acts as a carcass shield
    - Fat influences eating quality



1.

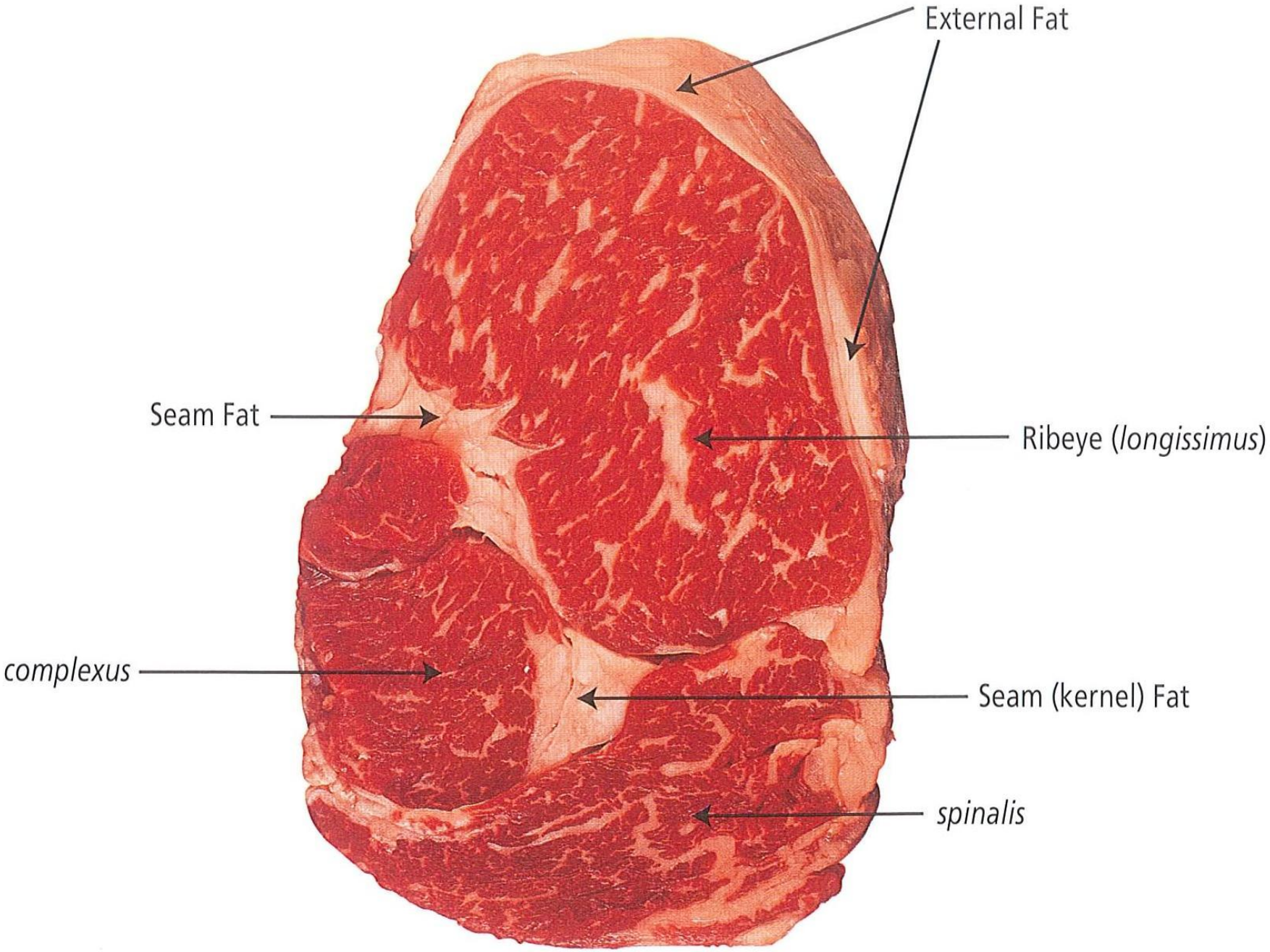
2.

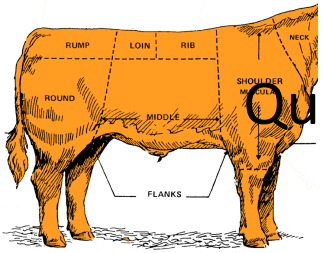
3.

4.

daho


ROUND


External Fat
Seam Fat
Ribeye (*longissimus*)
complexus
Seam (kernel) Fat
spinalis



Quality & Yield Grading Beef

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What is the Difference?

<u>Quality Grade</u>:
Expected eating quality (tenderness, juiciness, and palatability) of the lean

(Prime, Choice, Select, Standard, Commercial, Utility, Cutter, or Canner)

<u>Yield Grade</u>: Numerical value of boneless, closely trimmed retail cuts from the chuck, rib, loin, and round.

(1, 2, 3, 4, or 5)

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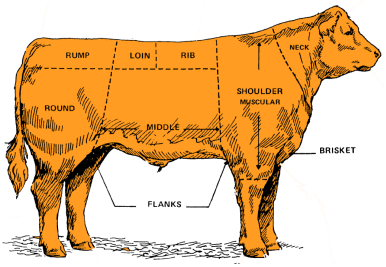
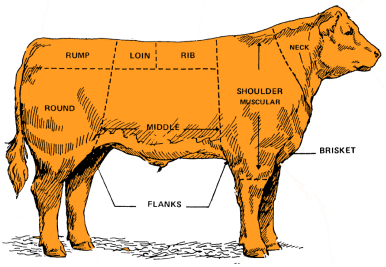


Quality Grade

- Expected eating quality (tenderness, juiciness, and palatability) of the lean.
- Relates to palatability
- Increase in QG can mean a decrease in YG



Quality Grade

- Determined by two factors:
  1. **Marbling**: the fat particles (specks) within the muscle
     - Estimated on the lean cut surface of the ribeye at the 12th and 13th rib interface
  2. **Maturity**: estimate of the chronological age of the animal
     - Determined by assessing the physiological maturity of bone, lean color, and lean texture

In addition, color, texture, and firmness of lean in the ribeye (*longissimus*) muscle are considered in the final quality grade

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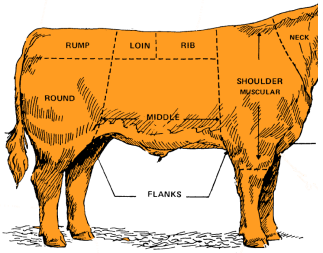
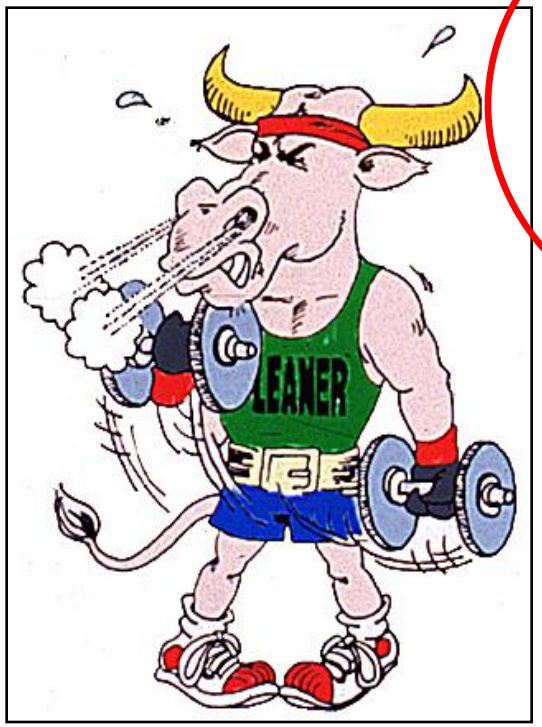


USDA Quality Grades

Prime



Choice

Select

Standard

Commercial

Utility

Cutter

Canner

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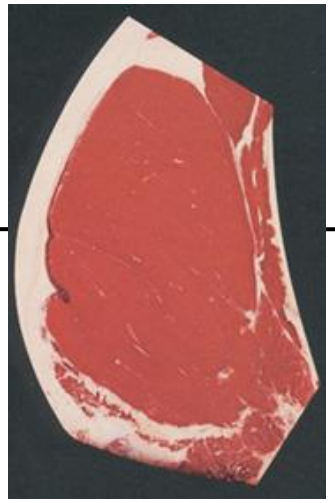
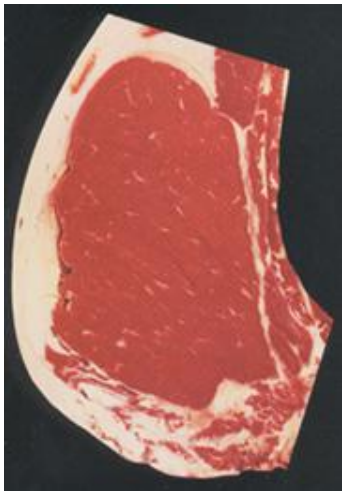
Marbling

Ten degrees of marbling are used (lowest to highest)

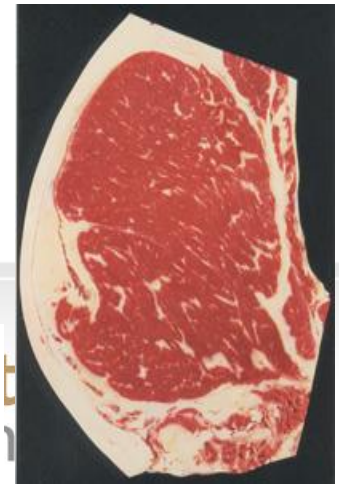
1) Devoid
2) Practically devoid
3) Traces
4) Slight
5) Small
6) Modest
7) Moderate
8) Slightly abundant
9) Moderately abundant
10) Abundant



USDA SELECT



USDA CHOICE



USDA PRIME

Maturity

A: 9-30 months old
B: 30-42 months old
C: 42-72 months old
D: 72-96 months old
E: > 96 months old

- Cartilage ossification at regions of vertebrae (sacral, lumbar, thoracic) and feather bones
- Ossify from top to bottom
- Rib shape and color

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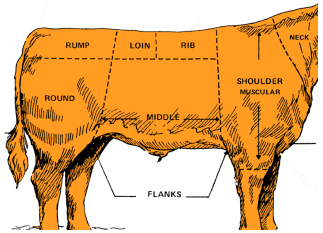
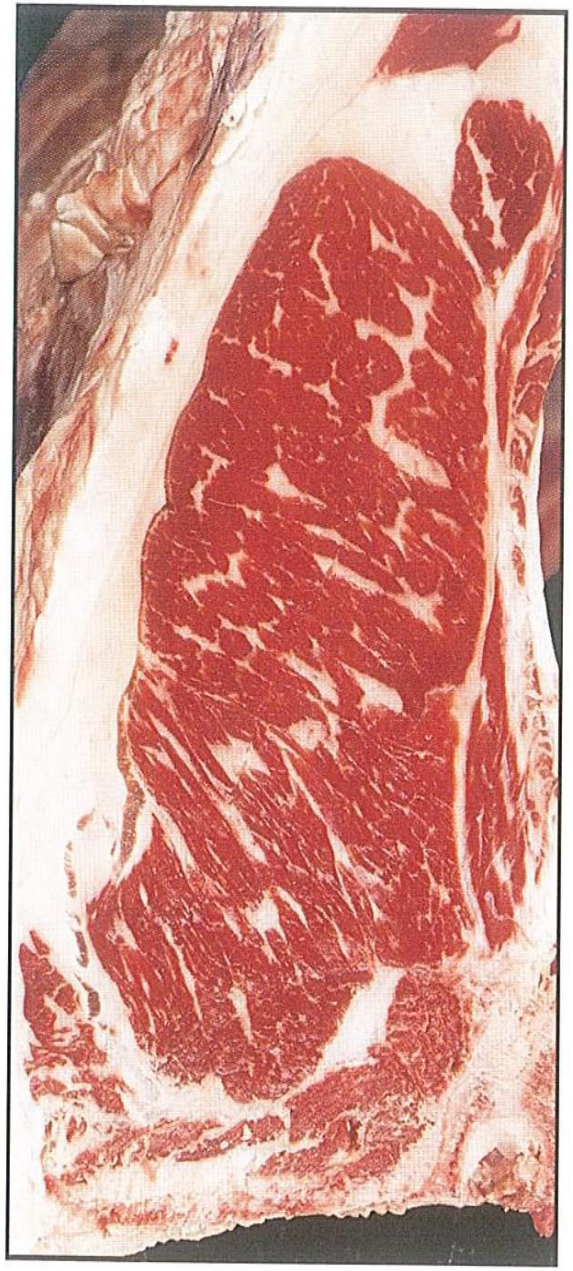


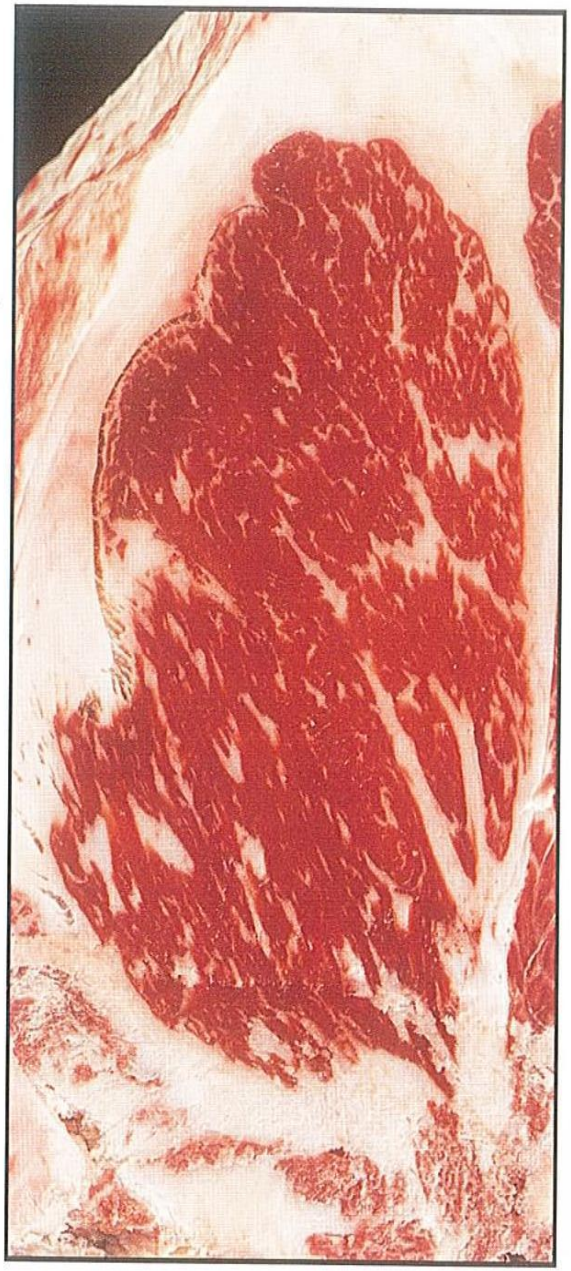
USDA Quality Grading Chart

RELATIONSHIP BETWEEN MARBLING, MATURITY, AND CARCASS QUALITY GRADE[1]

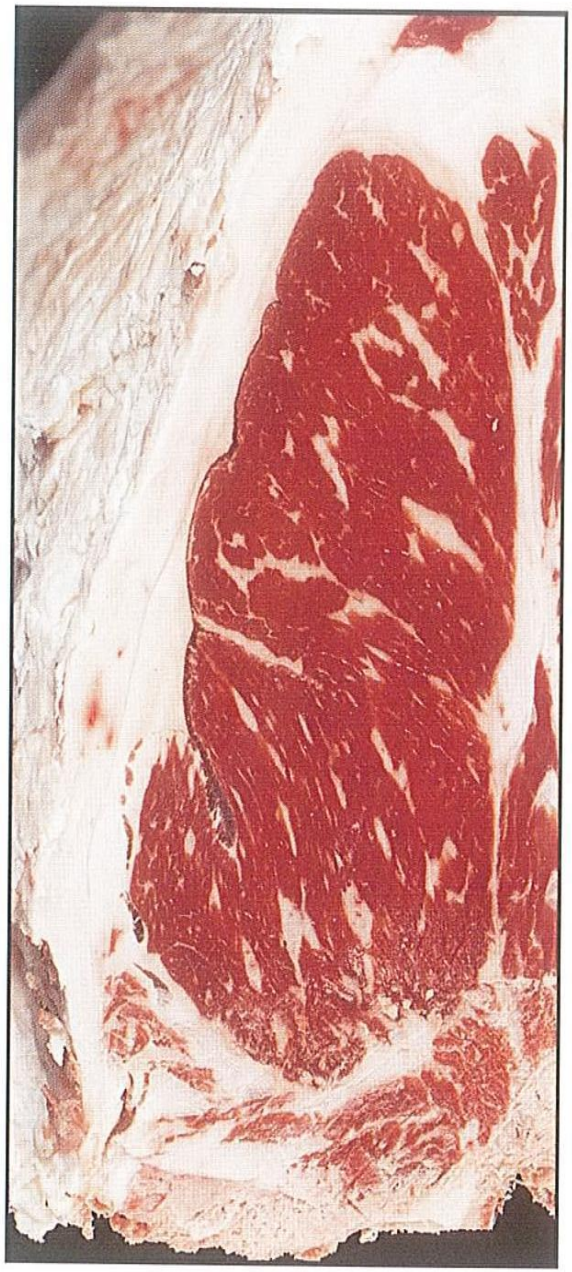
DEGREES OF MARBLING	MATURITY[2]				
	A[3]	B	C	D	E
Abundant	PRIME	PRIME			
Moderately Abundant	PRIME	PRIME			
Slightly Abundant	PRIME	PRIME / CHOICE		COMMERCIAL	
Moderate	CHOICE	CHOICE			
Modest	CHOICE	CHOICE			
Small	CHOICE	SELECT		UTILITY	
Slight	SELECT	SELECT			
Traces	STANDARD	STANDARD			
Practically Devoid	STANDARD	STANDARD		CUTTER	



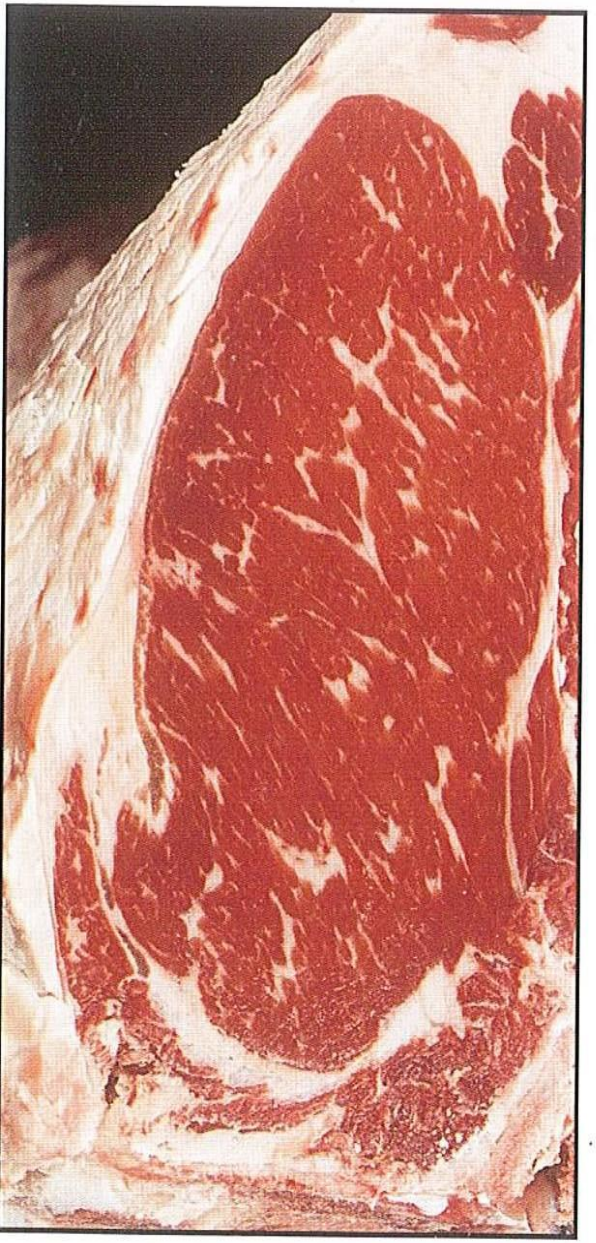
Prime+
Abundant–



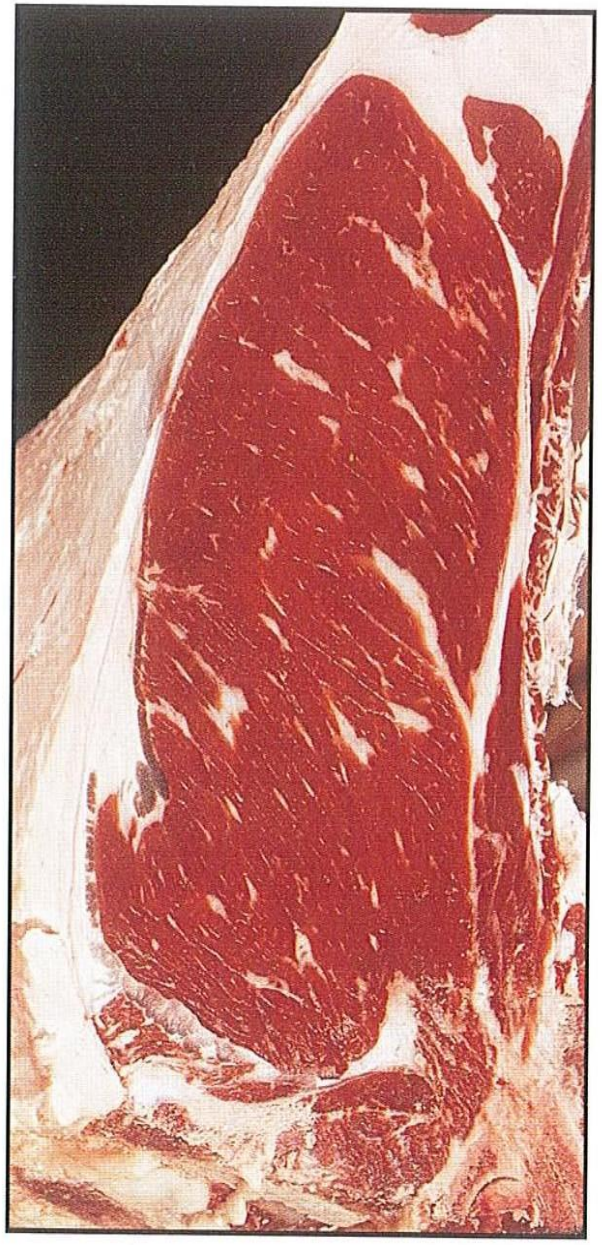
Prime 0
Moderately Abundant 0



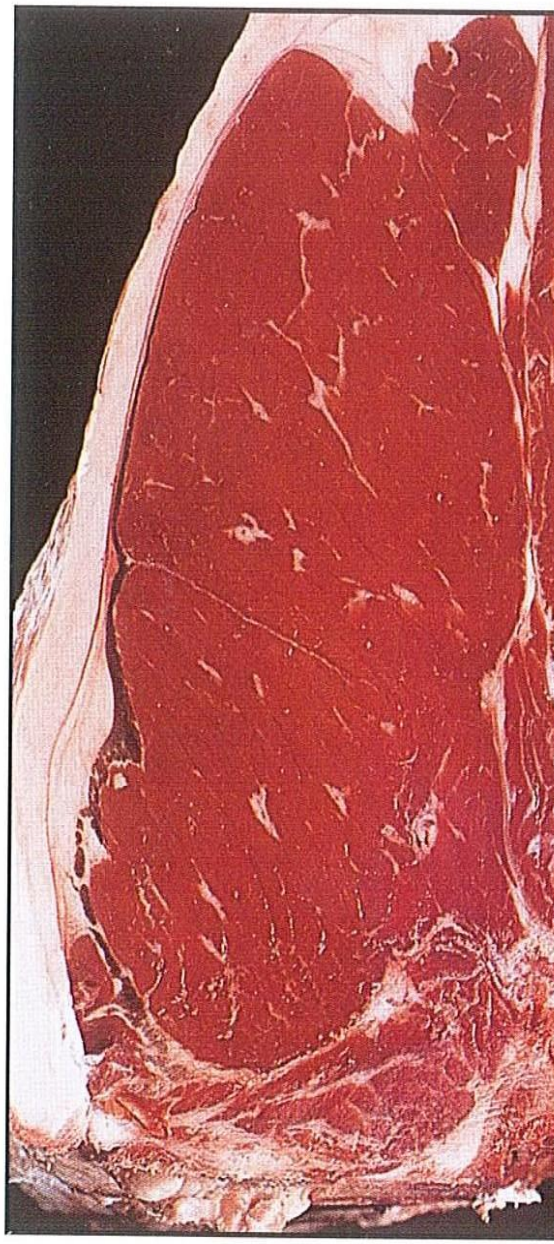
Prime–
Slightly Abundant–



Choice+
Moderate 0

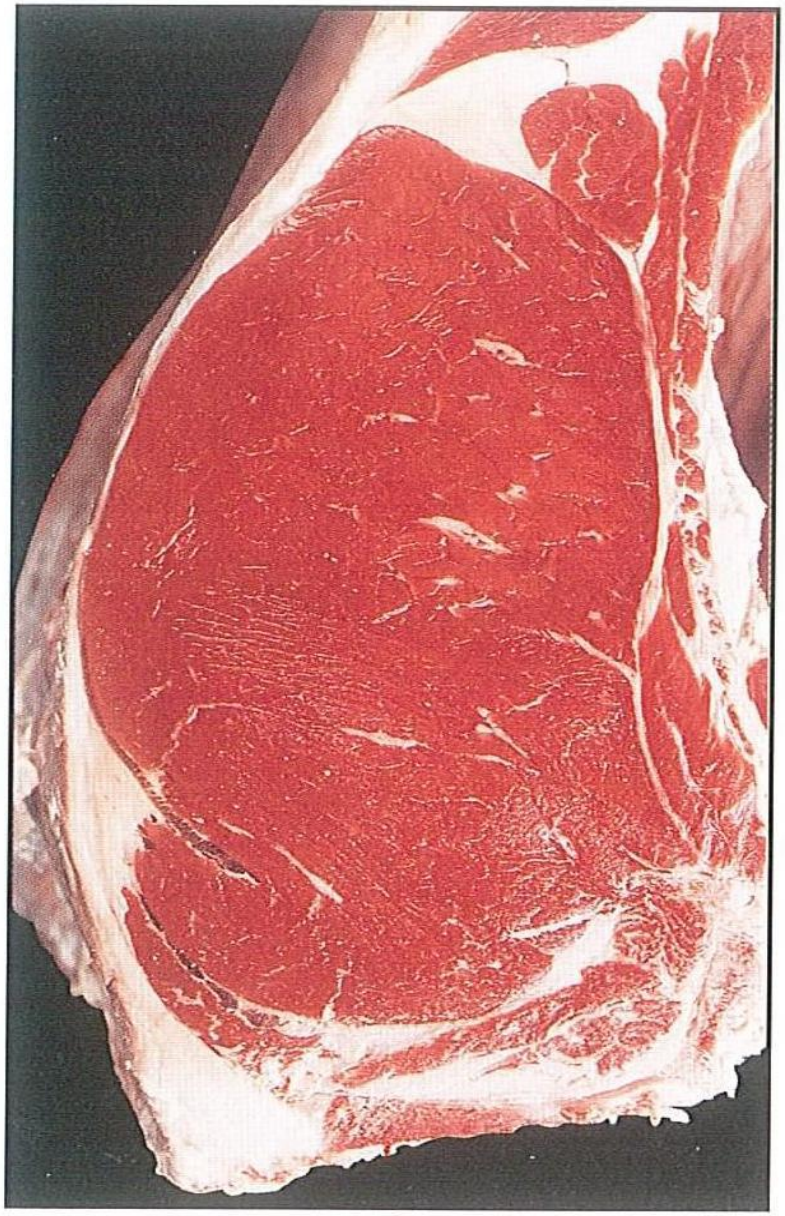


Choice 0
Modest–

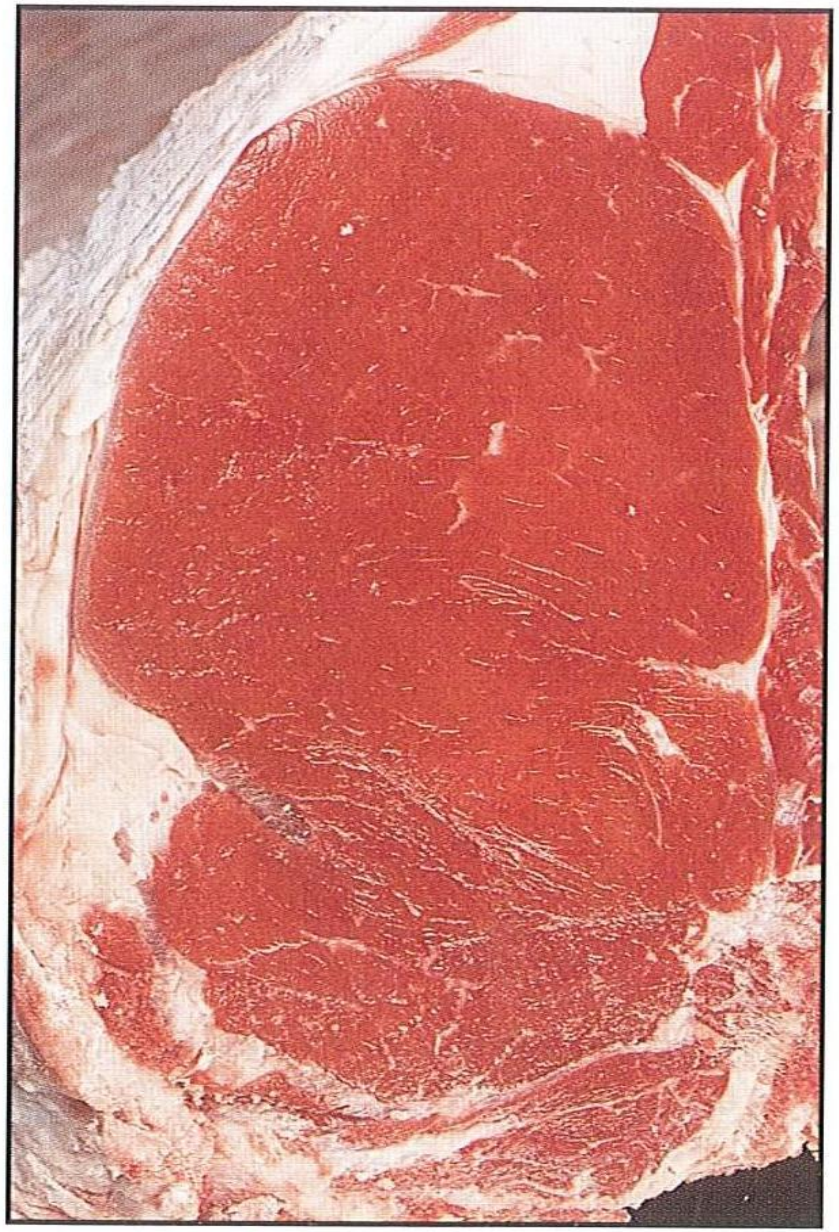


Choice–
Small–

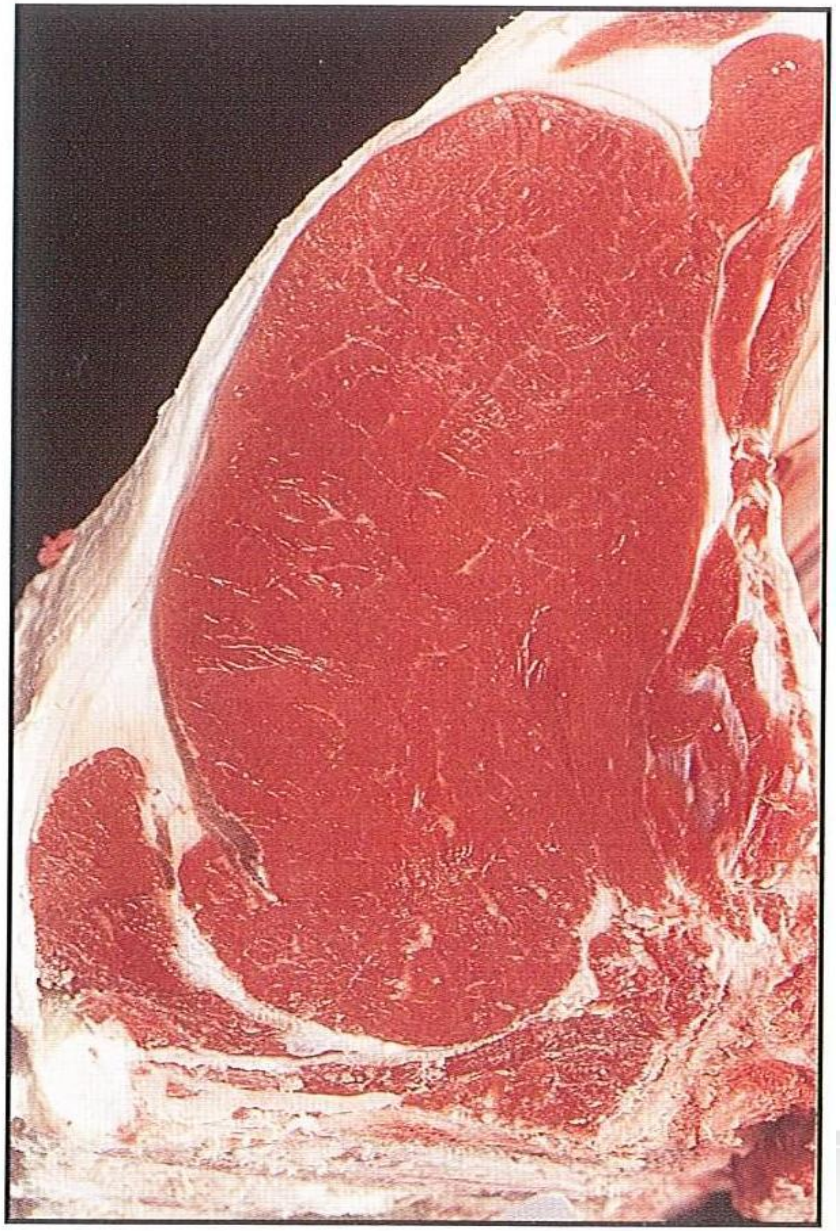
Select+
Slight+



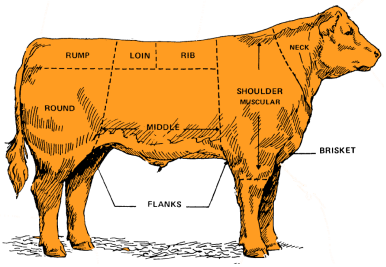
Select–
Slight–



Standard+
Traces o



Standard−
Practically Devoid+



Yield Grade

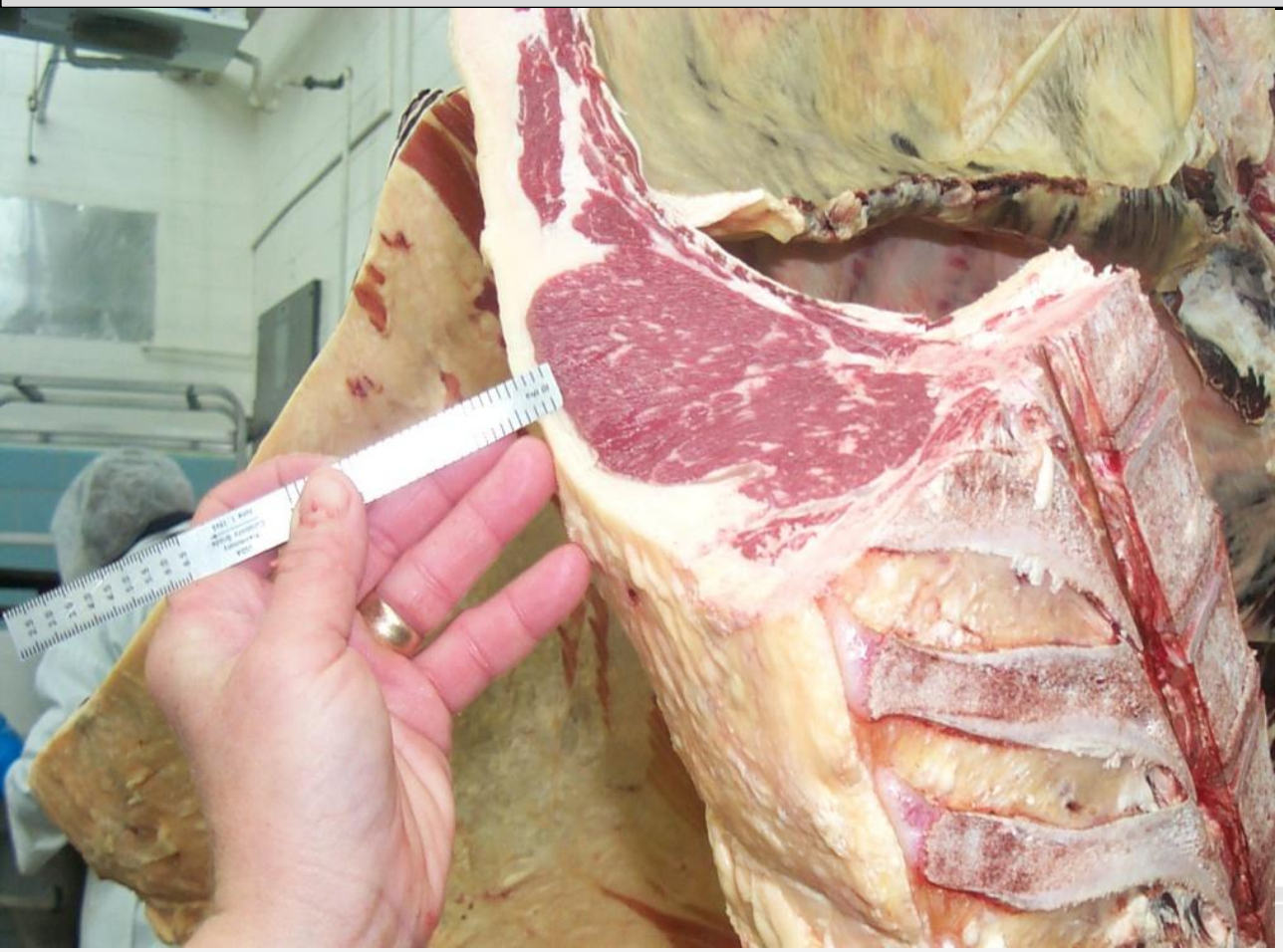
- Numerical representation of the expected percentage of **b**oneless, **c**losely **t**rimmed **r**etail **c**uts **(% bctrc)** from the chuck, rib, loin, and round.
- Number from 1 – 5.
- The percentage of retail cuts is the carcass cutability.

Yield Grade

Determined by 4 factors:

1) **Hot carcass weight**
   - ✓ HCW
   - ✓ Live weight * Dressing percentage
2) **Fat thickness**
   - ✓ FT
   - ✓ External fat measured in tenths of inches at the 12th rib interface
3) **Ribeye area**
   - ✓ REA
   - ✓ Area measurement **(in^2) of** *longissimus dorsi* at the 12th rib interface
4) **Kidney, pelvic, and heart fat**
   - ✓ KPH
   - ✓ Amount of internal fat expressed as a percent of carcass weight

HOT CARCASS WEIGHT: Obtained after slaughter using scales or can be determined by multiplying live weight by dressing percentage.



FAT THICKNESS: Measured at a point ¾ of the distance of the length of the ribeye; indicates overall carcass fatness.

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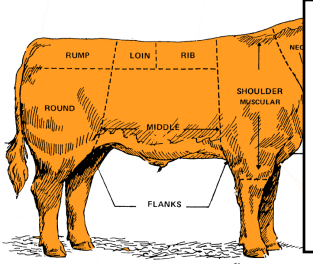
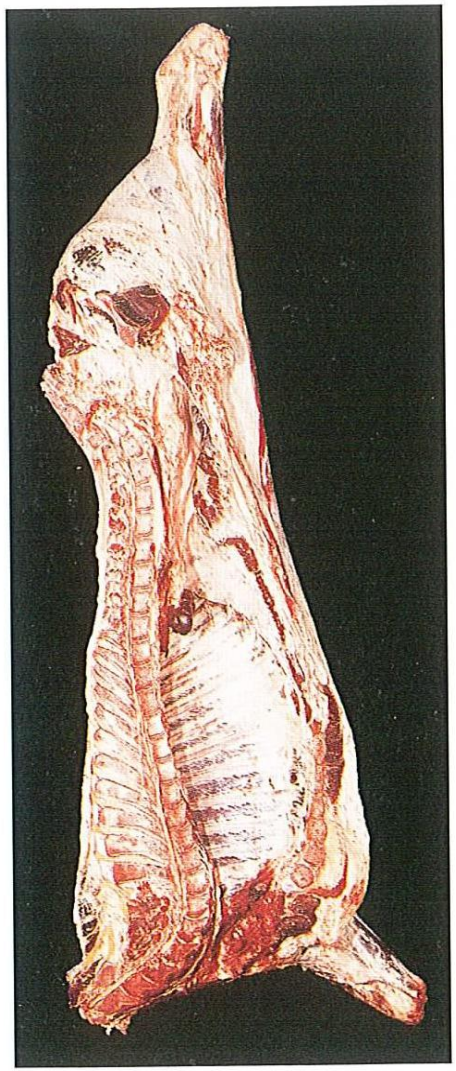
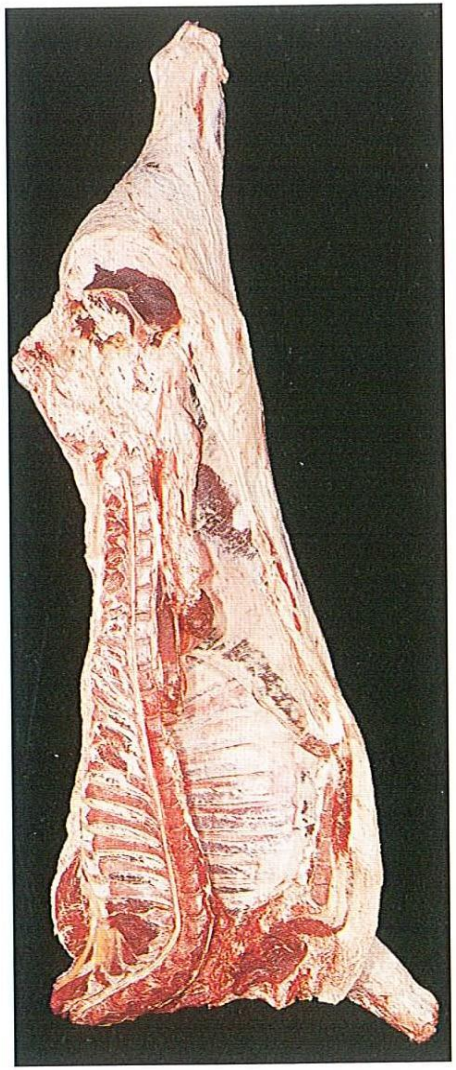
<u>RIBEYE AREA</u>: Measured using a standard USDA plastic grid; indicates overall muscling of carcass.



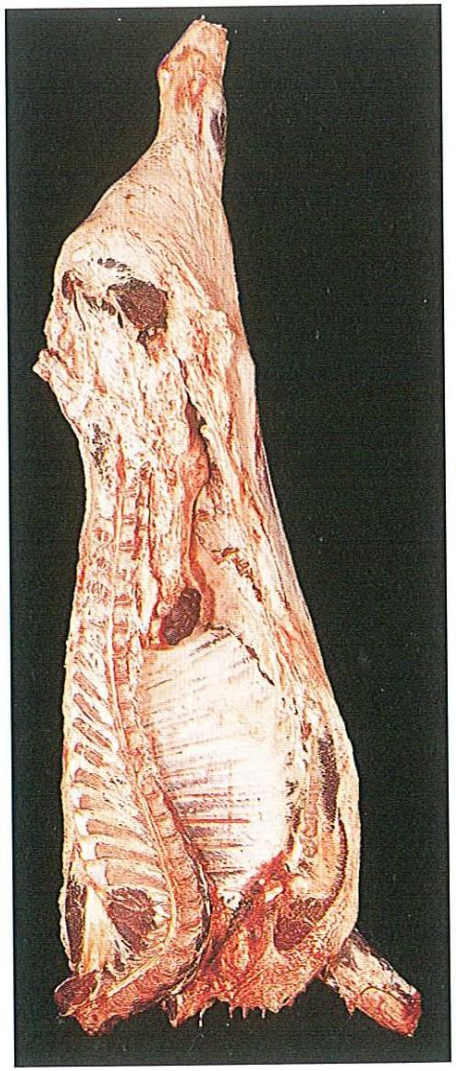
KPH FAT: Fat deposits around the kidney and heart, and in the pelvic cavity.



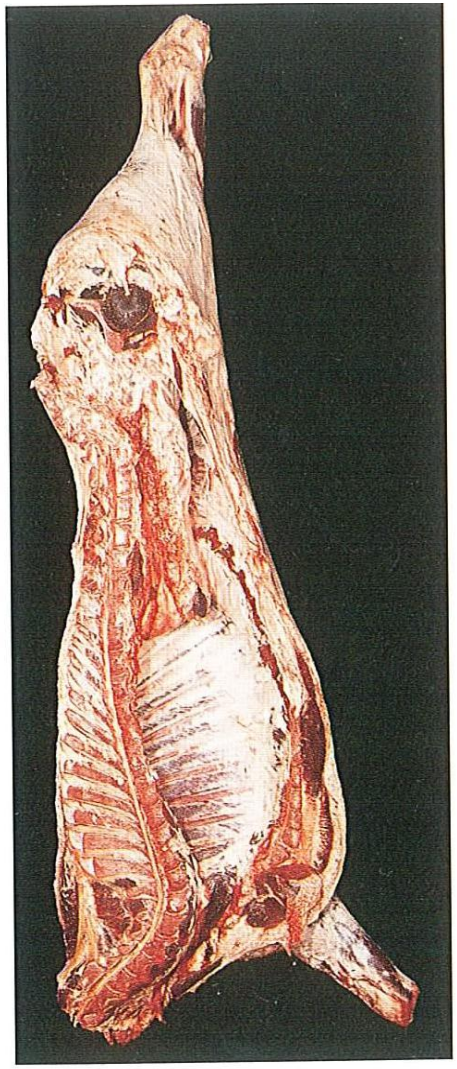
1 1/2%



2 1/2%



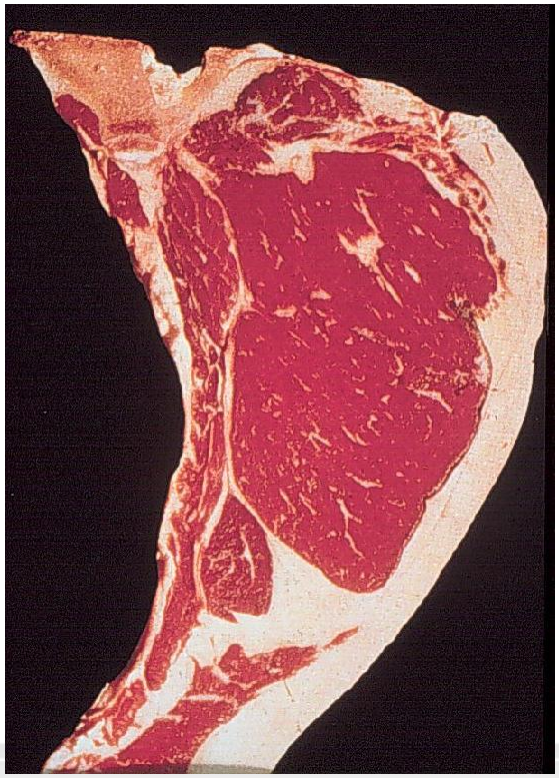
3 1/2%



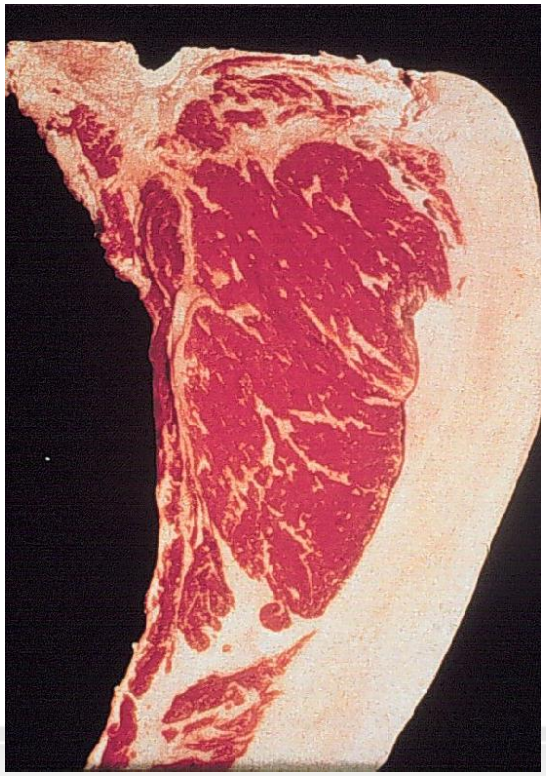
4 1/2%

Examples of Various Yield Grades

YG 2



YG 5



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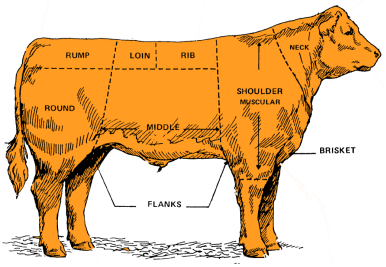
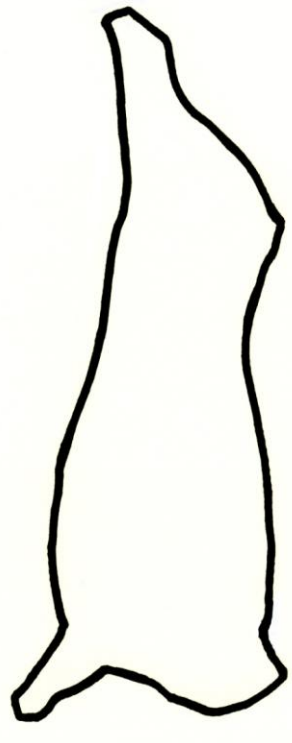
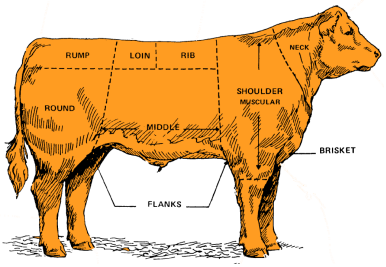


Dressing Percentage

- Divide carcass weight by live weight and multiply by 100
  - 750 / 1200 = .625 * 100 = 62.5 %
- Average: 62 %
- Range: 55 – 67%

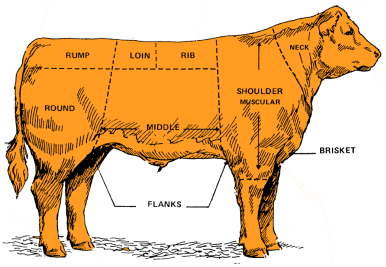




Dressing Percentage

- What affects Dressing Percentage?
  - Amount of fill (negative)
  - Degree of muscling (positive)
  - Degree of fatness (positive, only in extremes)
  - Commercial setting (negative)
    - Mud, tags, etc

Higher number better…why?



Importance of Carcass Data

- Help produce uniform animals
- Ensure consistent product
- Consumers demand lean beef of consistent quality
- Positive eating experience
- Selling on the grid
  - Premiums for Choice/Prime animals
  - Deductions for Yield Grades/Carcass

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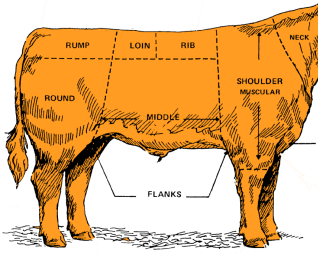
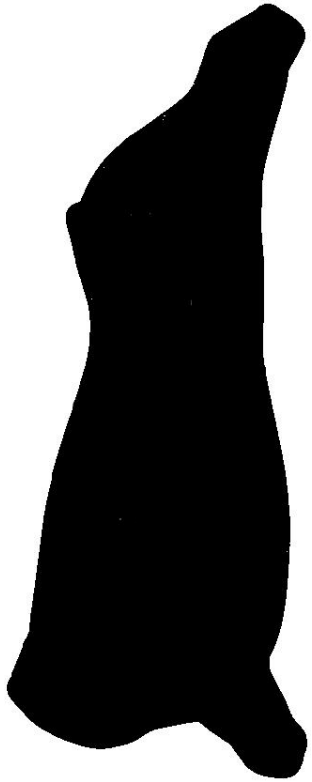


Carcass Data

- Tag #
- HCW
- FT
- Marbling Score
- Quality Grade
- REA
- %KPH
- Yield Grade
- Retail Yield



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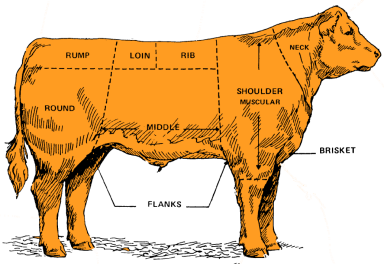

Let's Measure!

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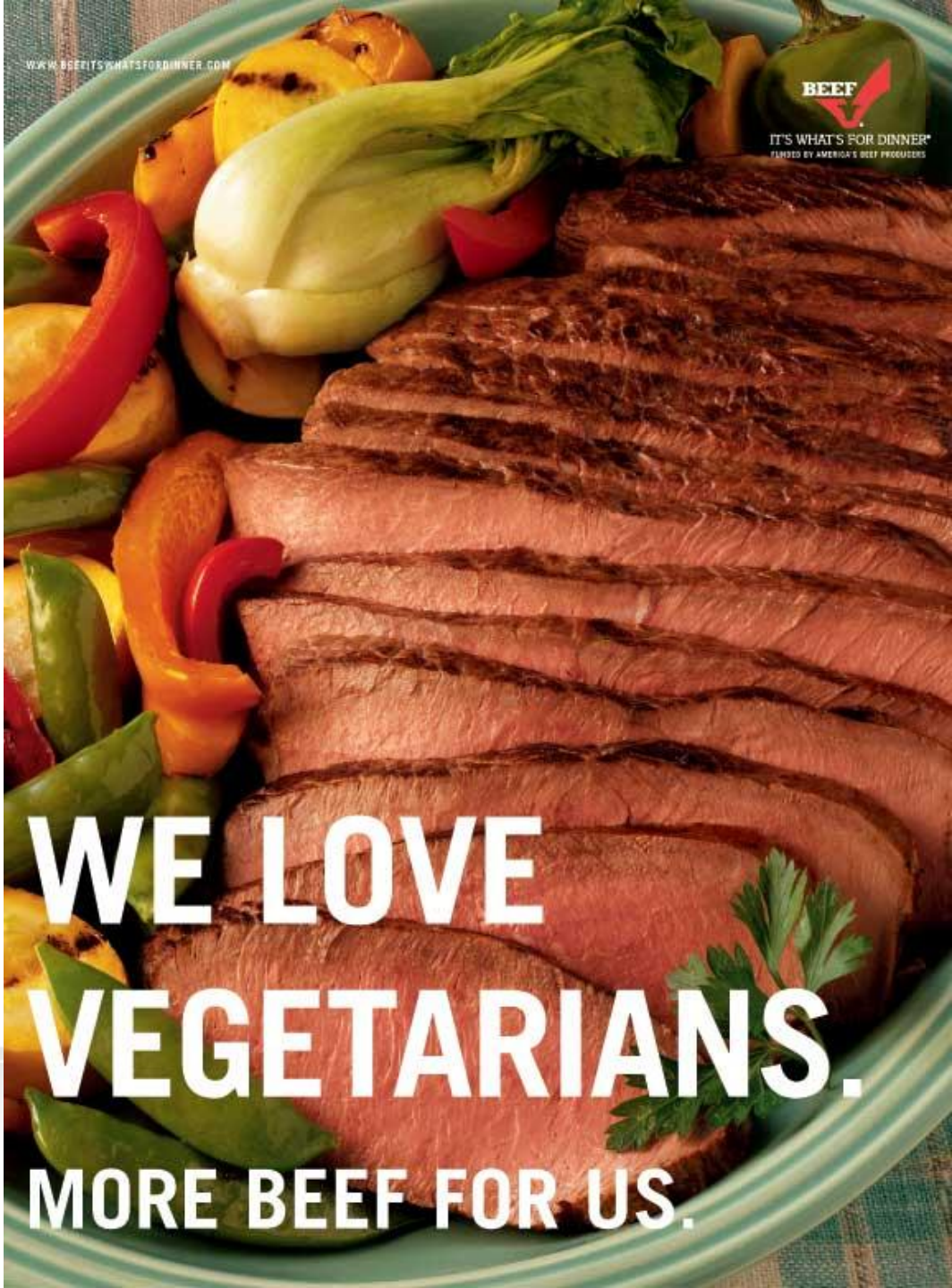
Questions?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