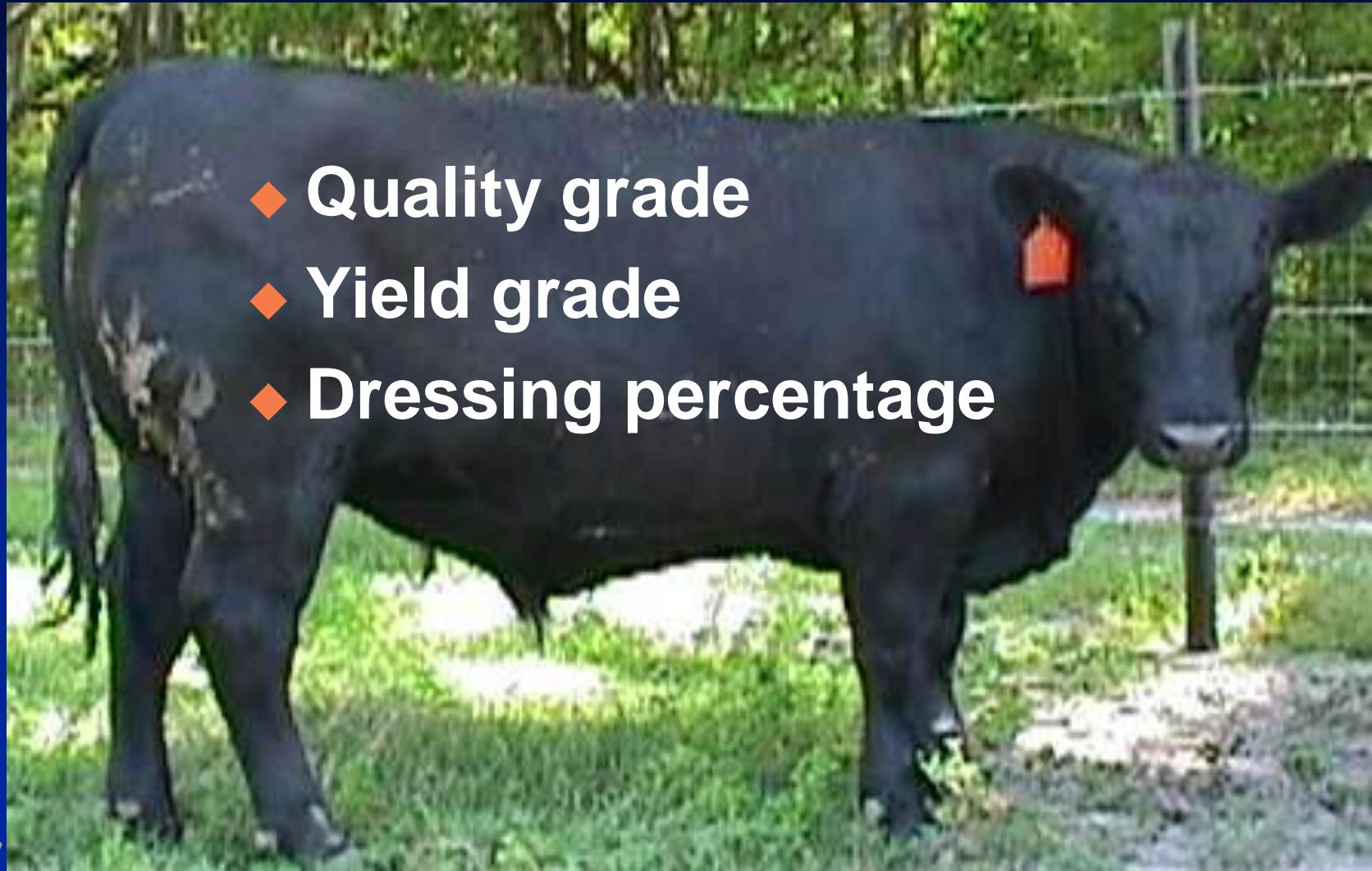


# Live Cattle Evaluation



# What are we trying to determine?

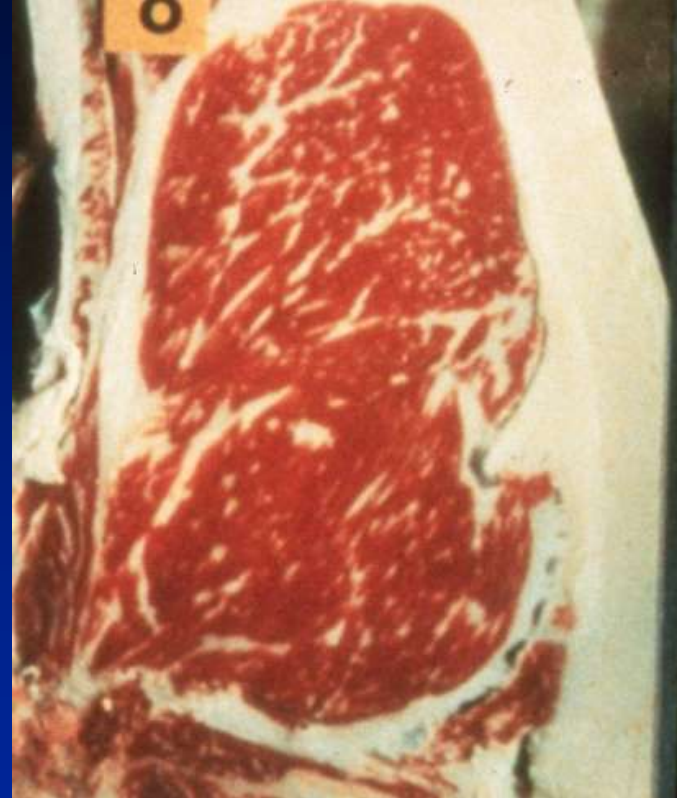


- ◆ Quality grade
- ◆ Yield grade
- ◆ Dressing percentage

# Quality Grade Factors



**Maturity**



**Marbling**

# Beef Quality Grading Factors

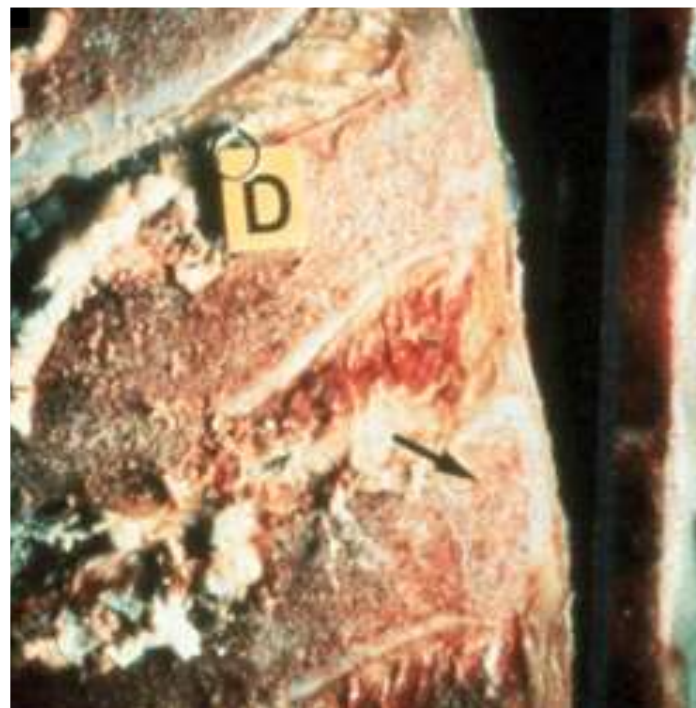
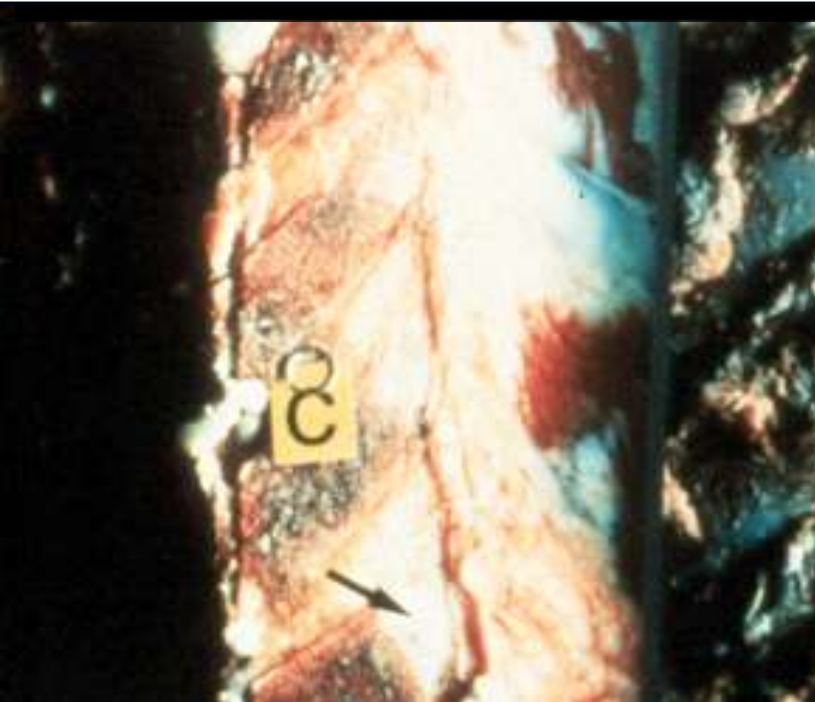
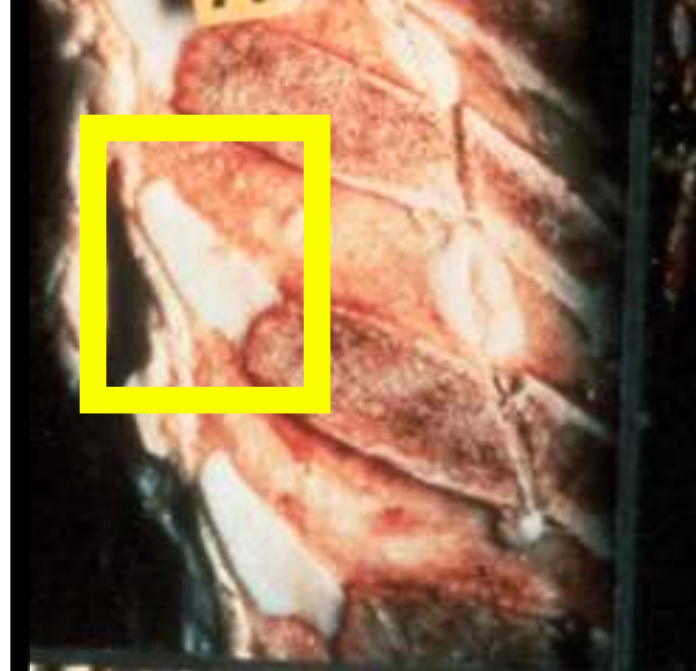
## -- Maturity --

- ◆ Estimation of **physiological age**
- ◆ Classifications: **A B C D E (young to old)**
- ◆ determined by degree of **bone ossification**
- ◆ most fed cattle = A maturity (< 30 mo of age)
- ◆ As age ↑ , QG ↓



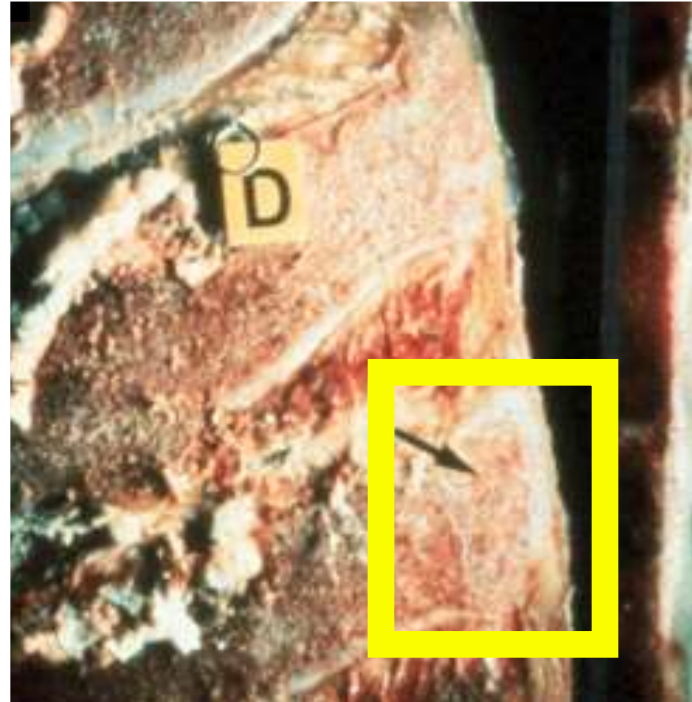
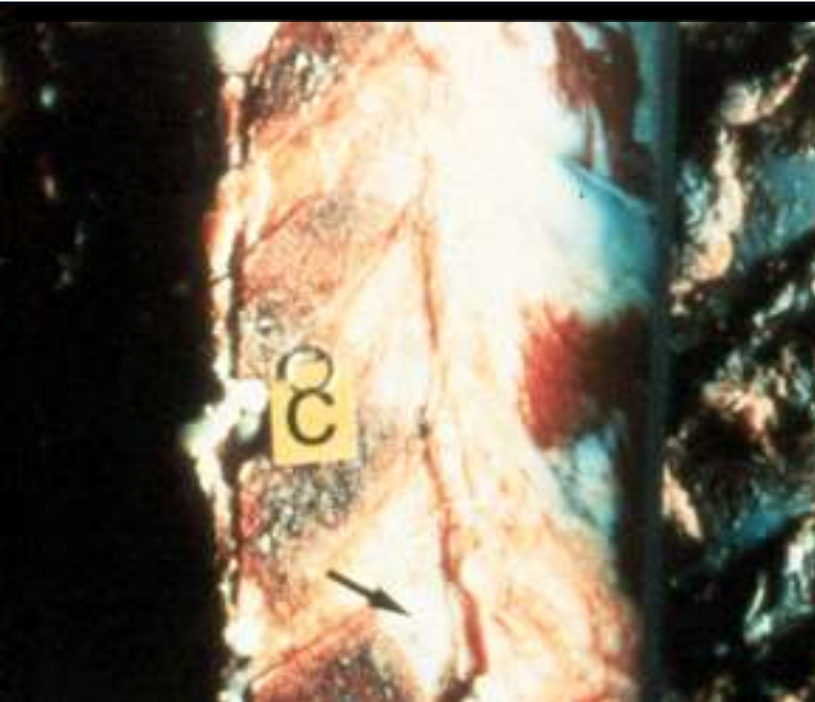
# Bone Maturity

## Thoracic Cartilagenous Vertebrae

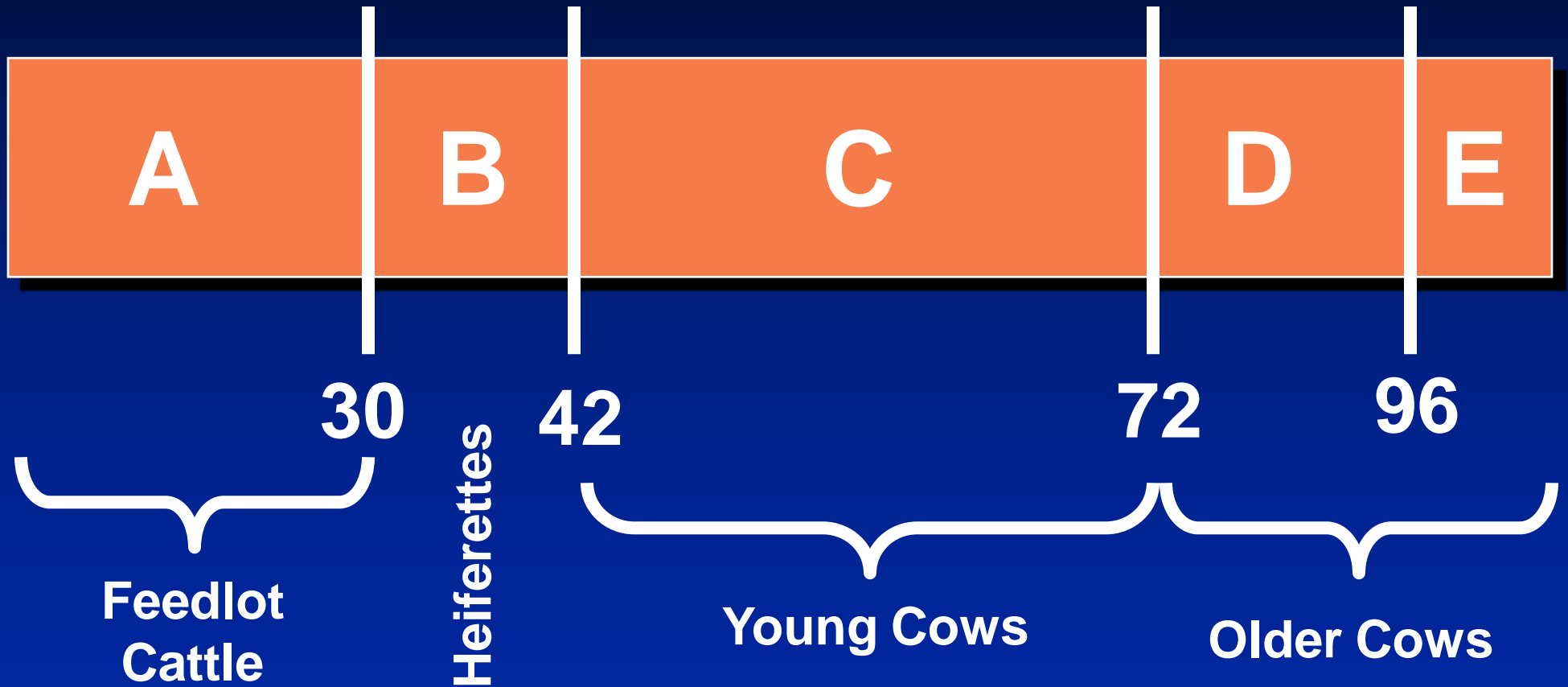


# Bone Maturity

## Thoracic Cartilagenous Vertebrae

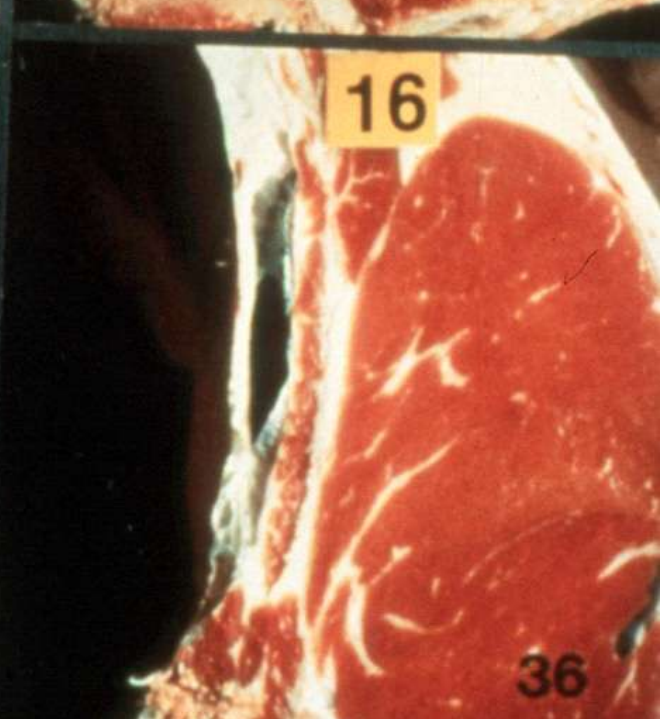
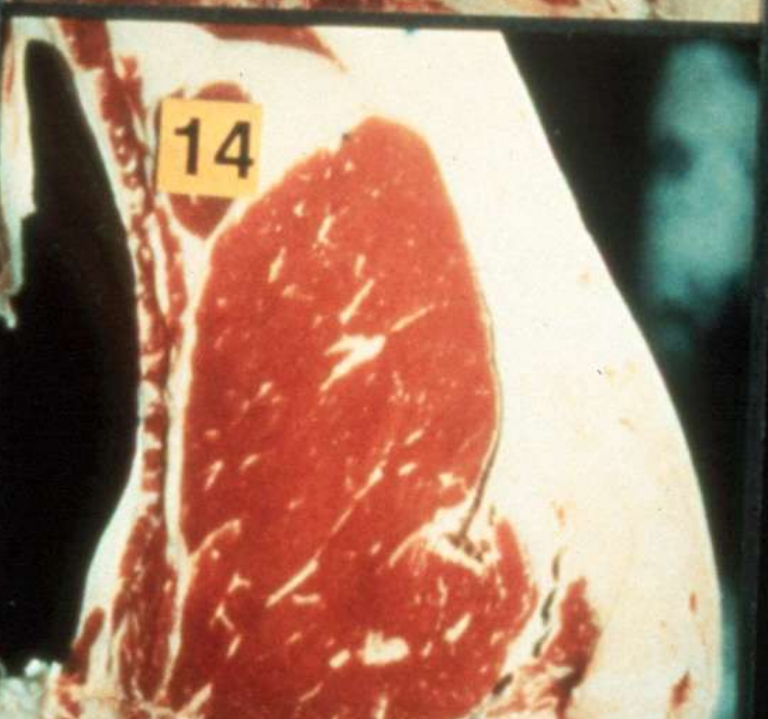
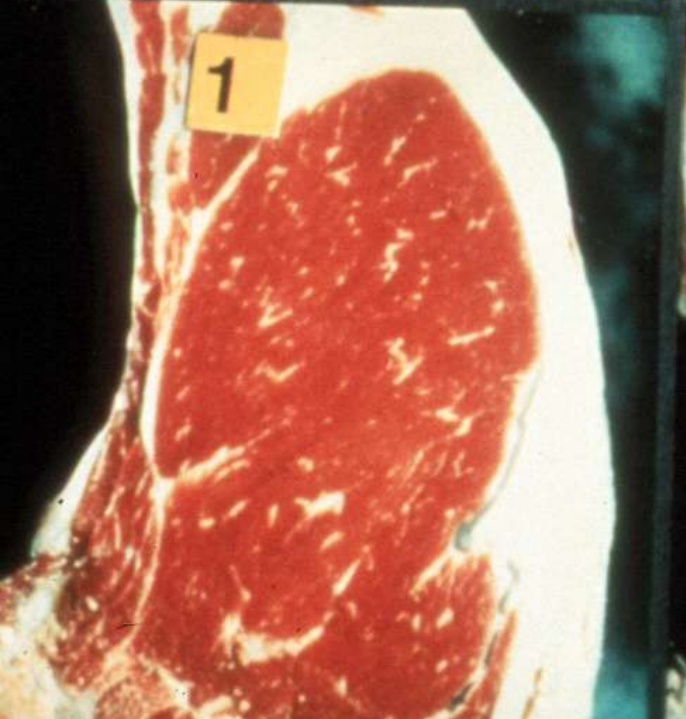
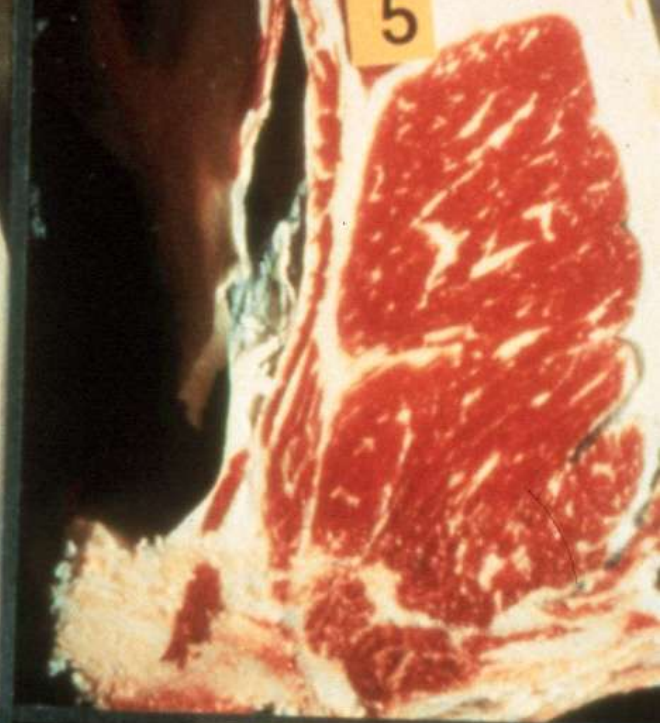
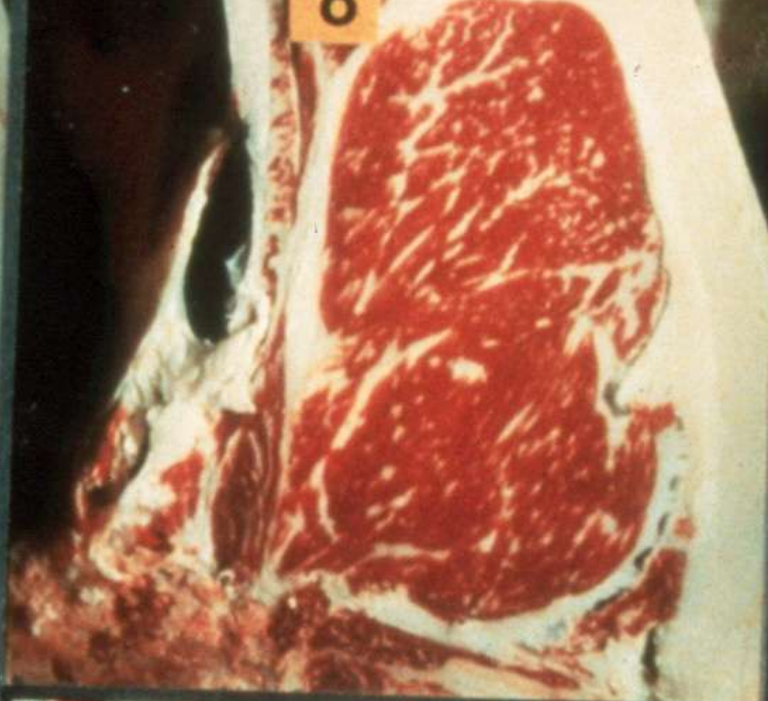


# Chronological Age of Cattle









	A	B	C	D	E
Sl. Abundant	PRIME				
Moderate			COMMERCIAL		
Modest	CHOICE				
Small					
Slight	SELECT		UTILITY (Boners/Breakers)		
Traces					
Practically Devoid	STANDARD			CUTTER	

# Beef Yield Grades

- ◆ Measure of **cutability** or the **percent yield** of **boneless, closely trimmed** retail cuts from the:

- **chuck**
- **rib**
- **loin**
- **round**

**Wholesale  
Cuts from  
the Beef  
Carcass**



# Interconversion of YG and the % of Boneless, Closely Trimmed Retail Cuts

	Yield Grade	% Retail Cuts
1	↑ % lean (muscle), ↓ % fat	54.6
2		52.3
3		50.0
4		47.7
5	↓ % lean (muscle), ↑ % fat	45.4

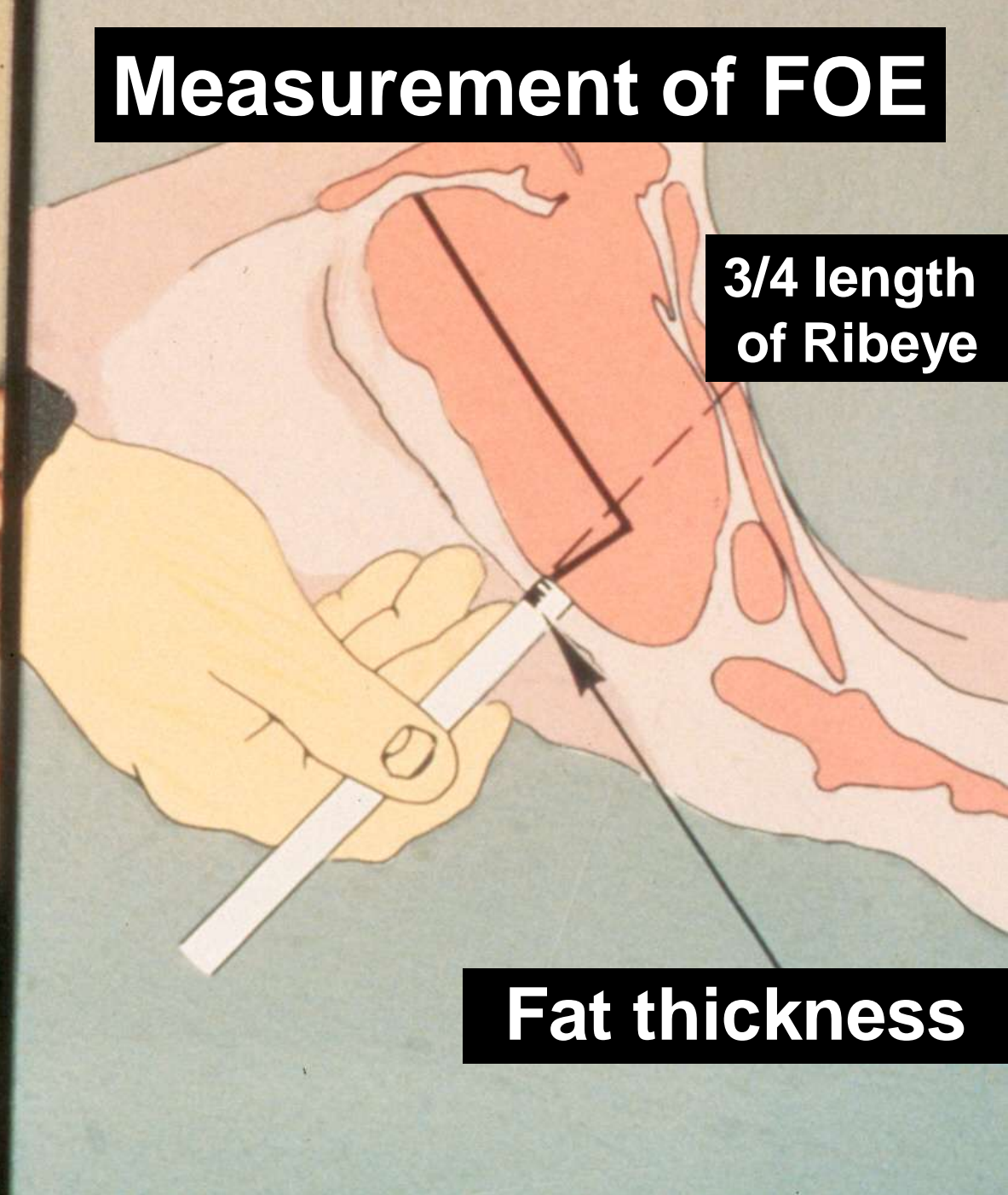
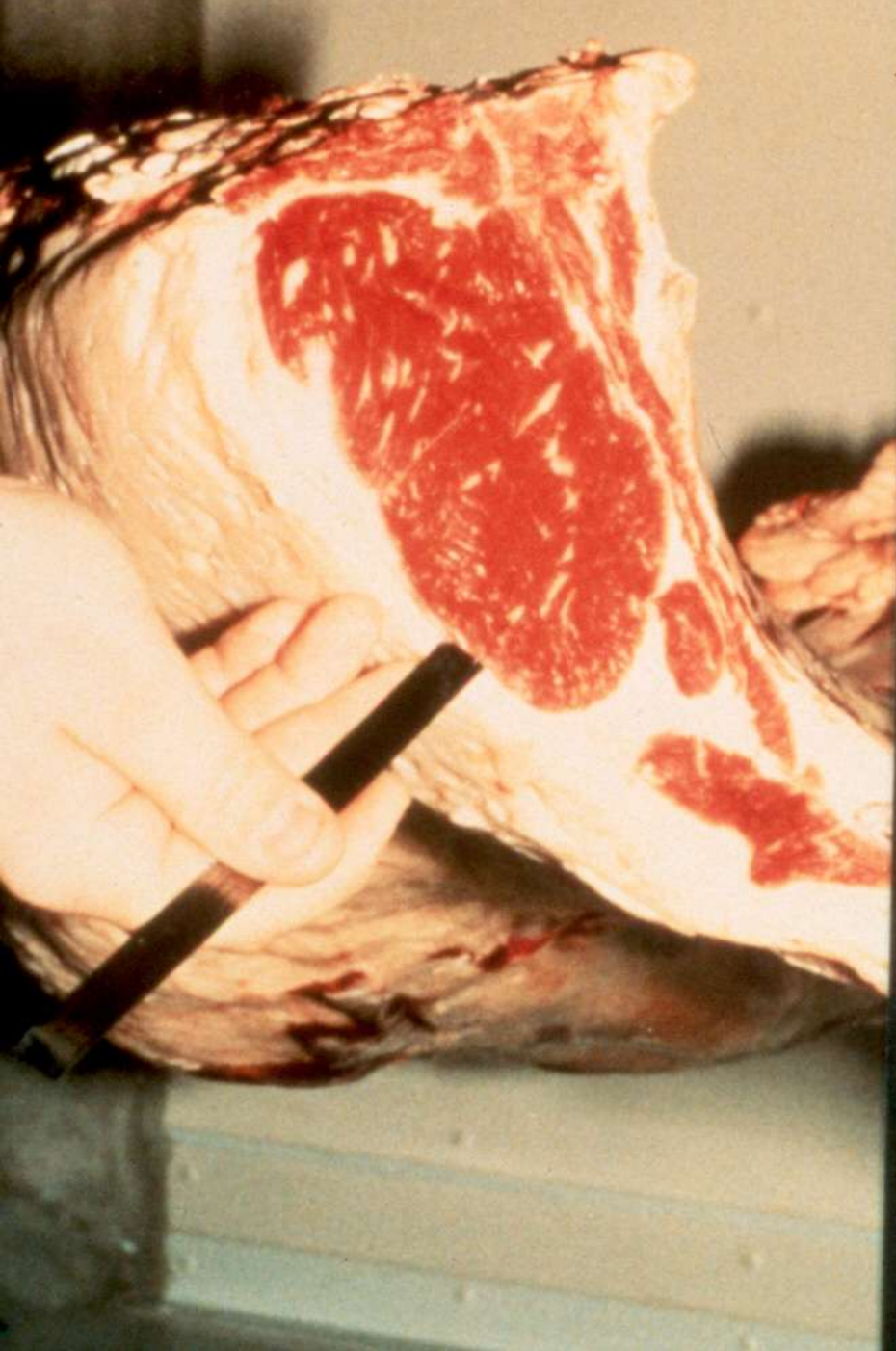
# Factors Used to Calculate Beef Yield Grades

- ◆ Fat over ribeye (in) **FOE**
- ◆ % kidney, pelvic, heart fat **KPH**
  - of the carcass weight
- ◆ Ribeye Area (in<sup>2</sup>) **REA**
- ◆ Hot carcass weight **HCW**



**As HCW ↑, REA must ↑**

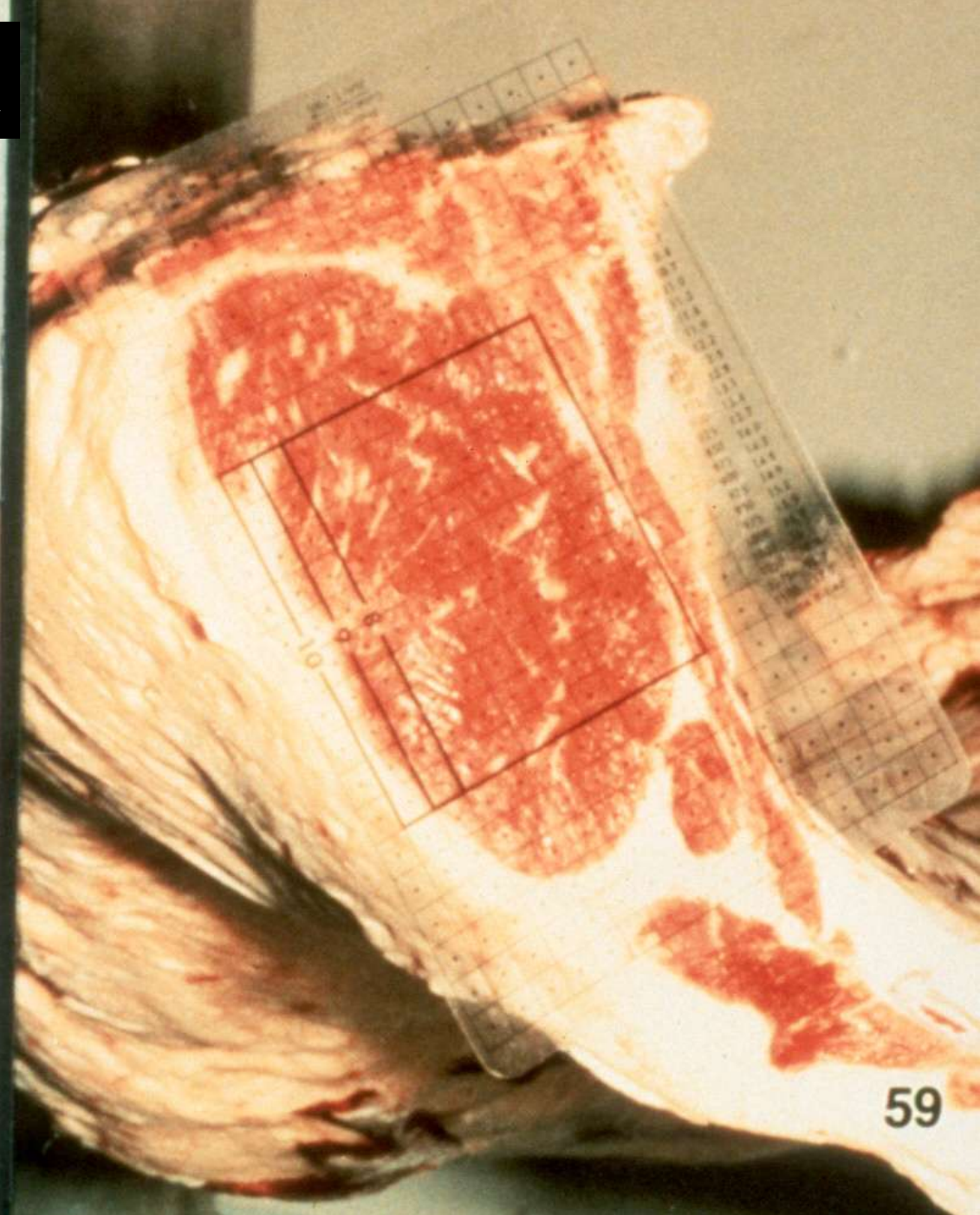
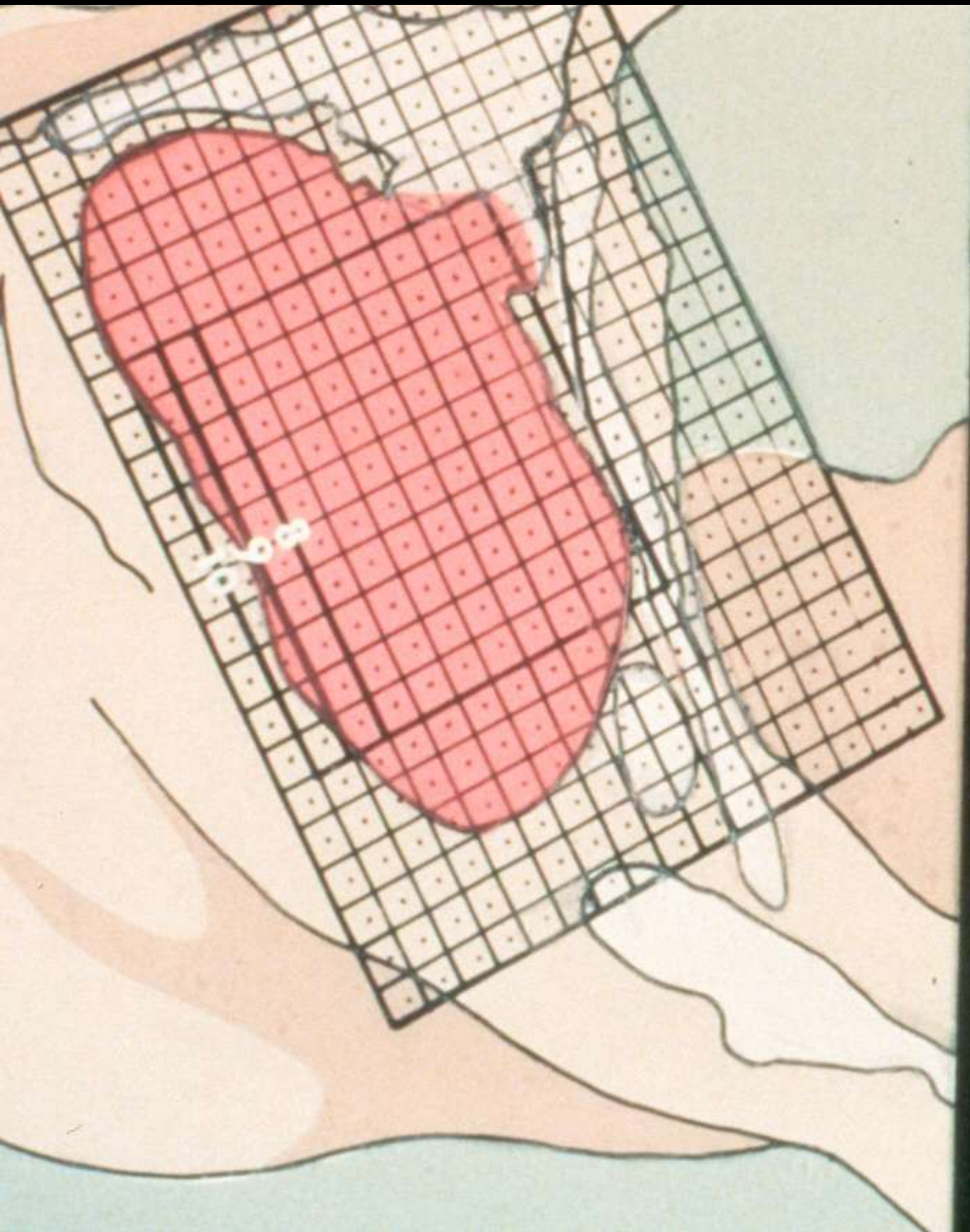
# Measurement of FOE



3/4 length  
of Ribeye

Fat thickness

# Measurement of REA



# Dressing Percentage

- ◆ Used as a basis for marketing livestock
  - beef
- ◆ Usage and importance ↓ as the industry moves toward “value-based” marketing.
  - As fat ↑, dressing percentage ↑
  - but YG less desirable (poor cutability)





# Dressing Percentage

$$= \left[ \frac{\text{hot carcass weight}}{\text{live pay weight}} \right] * 100$$

Example: If live weight = 1200 lbs  
HCW = 750 lbs

$$\rightarrow \left[ \frac{750}{1200} \right] * 100 = 62.5\% \text{ cattle}$$

# Dressing Percentage

Example: If live weight = 1200 lbs  
DP = 65%



$$1200 \times .65 = 780 \text{ lb HCW}$$



# Beef Dressing Percent

- ◆ Fed Cattle = 63%
- ◆ Cows = 50%
- ◆ Factors that affect dressing percentage
  - “Fill” -- large rumen capacity
  - fat cover -- fat animals have higher dress
  - mud on the hide -- add live weight, reduce dress

# Key Points: The Beef Industry

## Carcass Evaluation of Beef

- ◆ Beef quality grading factors (2)
  - associated quality grades
- ◆ Beef yield grading factors (4)
  - associated yield grades
- ◆ Dressing Percent
  - factors
  - importance for valuation of beef

