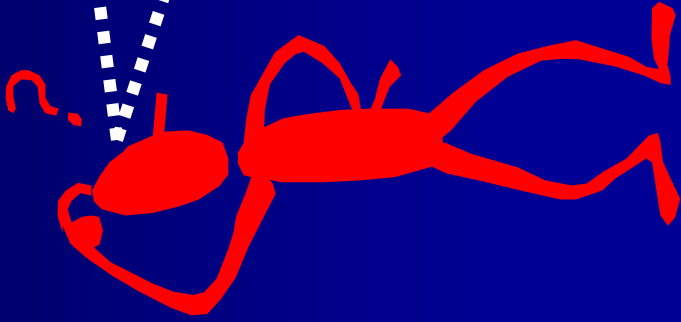
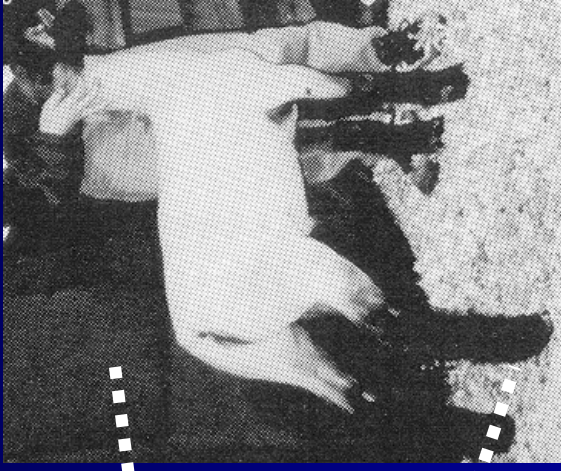


Evaluating Fat and Muscle in Livestock



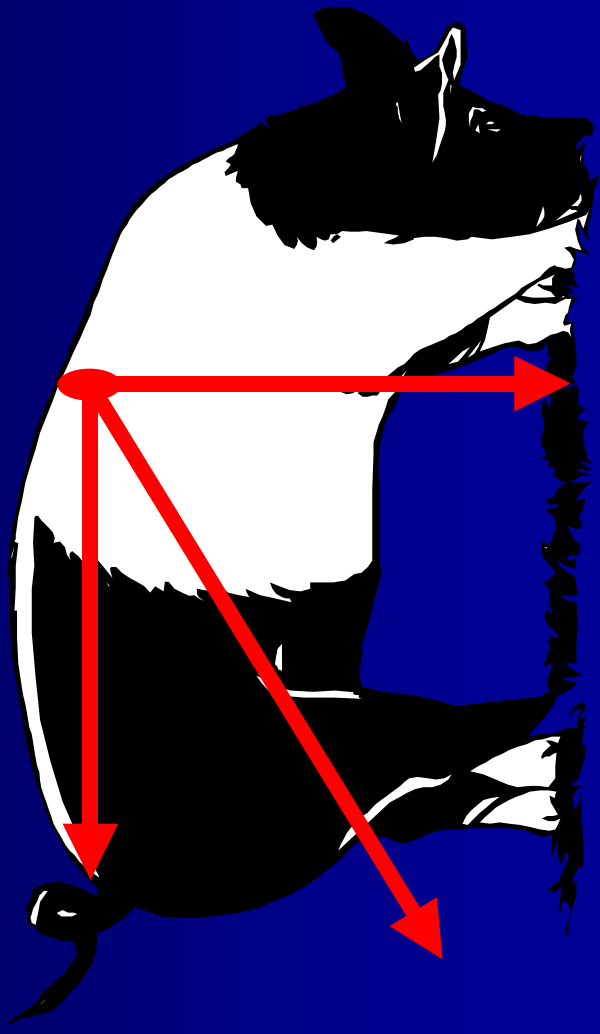
Developed by:
Celina Johnson
University of Florida

Why is it Important to Evaluate Fat and Muscle?

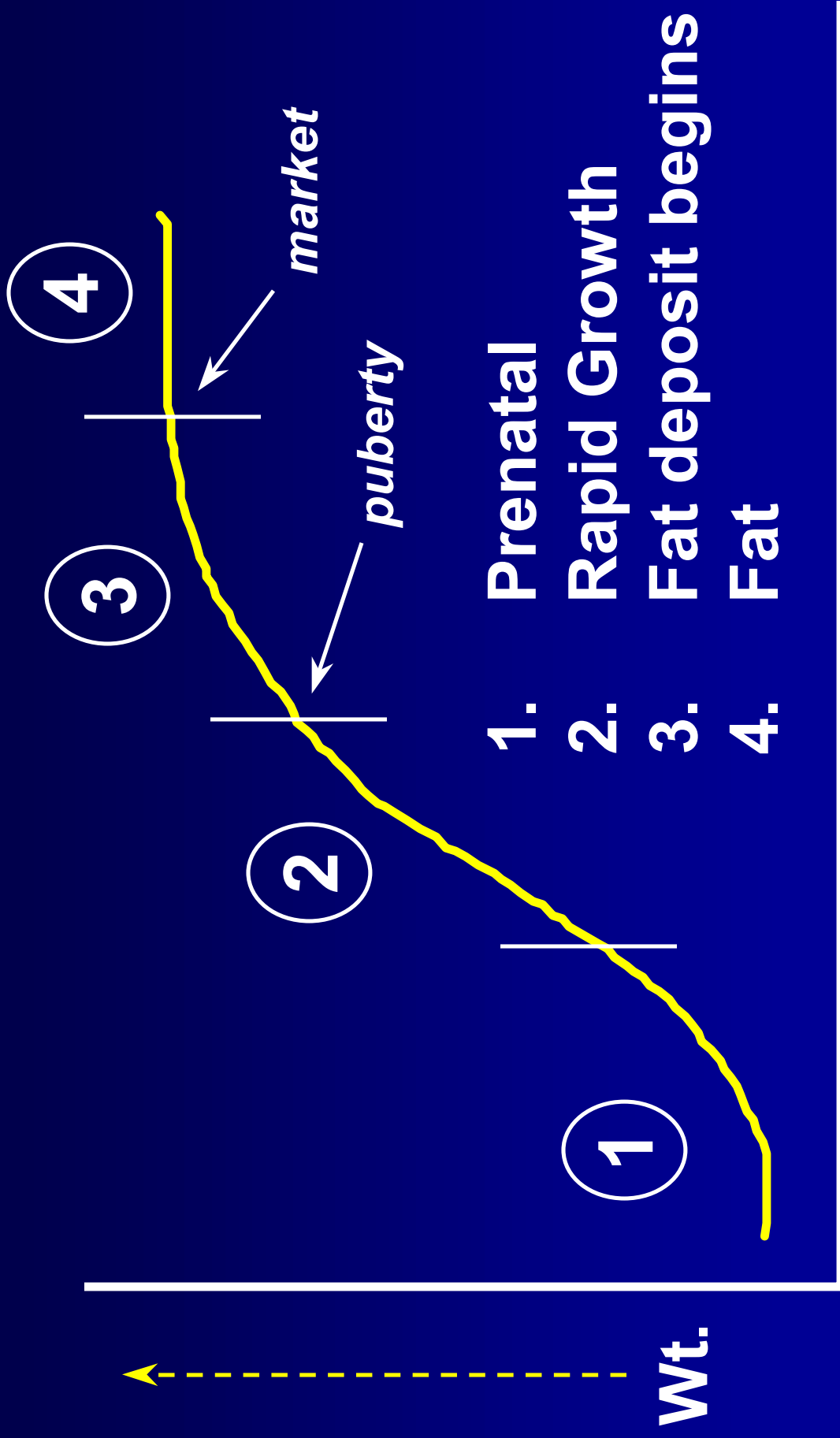
- **Meat Animals - we sell muscle**
- **All gender classes - important**
 - **Intact males, market animals and replacement females.**

How Do Animals Get Fat?

- Top to Bottom
- Front to Rear



Growth Curve



Time



Johnson, 1997

Effects of Sex

Female usually deposits fat earlier than castrates or intact males.

Cattle: Heifers market at lighter wts.

Exception: Swine

boar → gilt → barrow

lean → fat

Johnson, 1997

Effects of Frame Size

Small Framed animals:

Greater deposit of fat at lighter
weights

At the same body composition,
small animals will be lighter.

At Equal Body *Composition*:

Weights: Lg > Med > Small

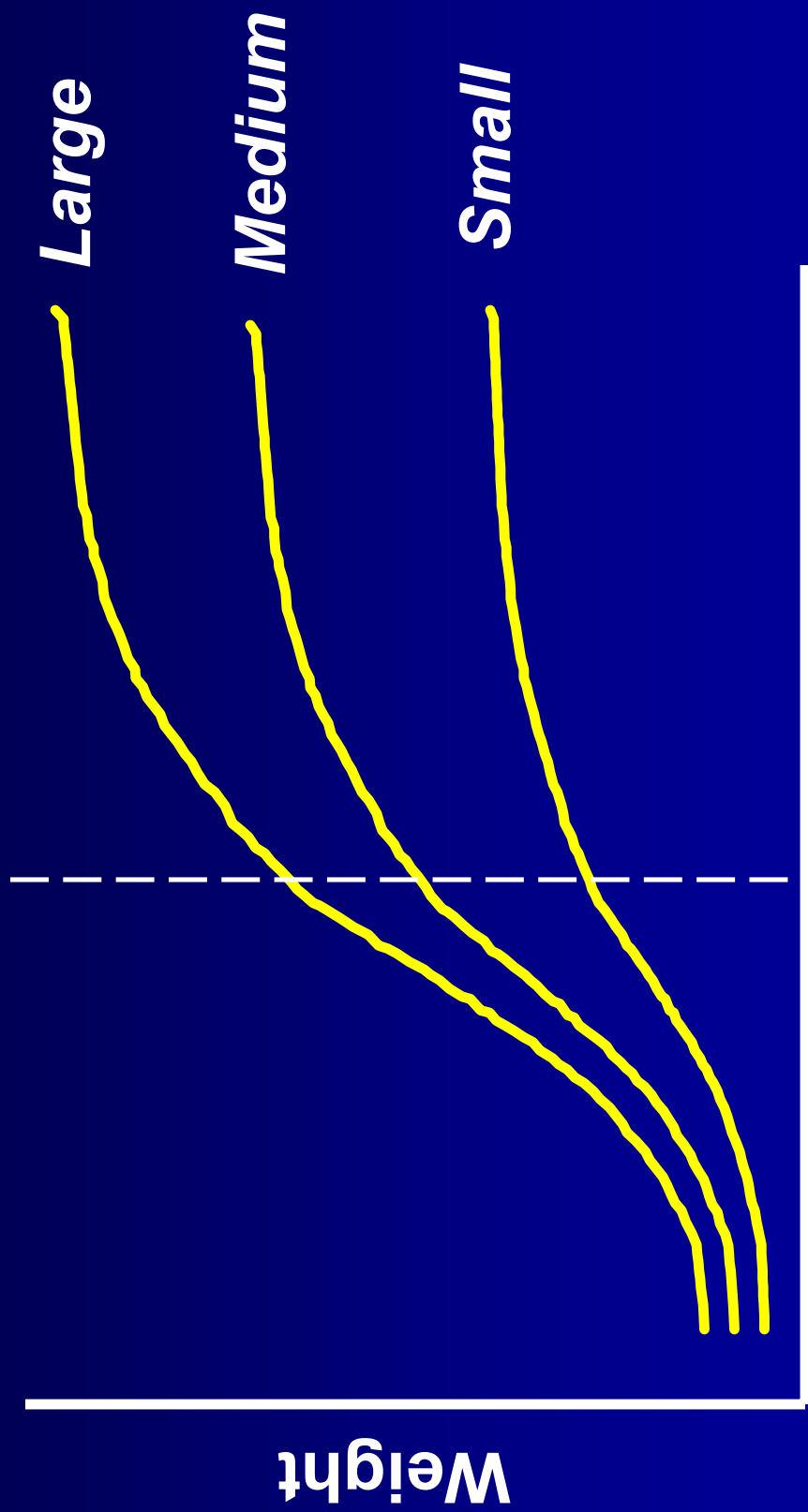
Efficiency: Equal, same point on growth curve

At Equal *Weight*:

Efficiency: Lg > Med > Small
why? Composition

Effects of Frame Size

Age Influences



Age

Weight

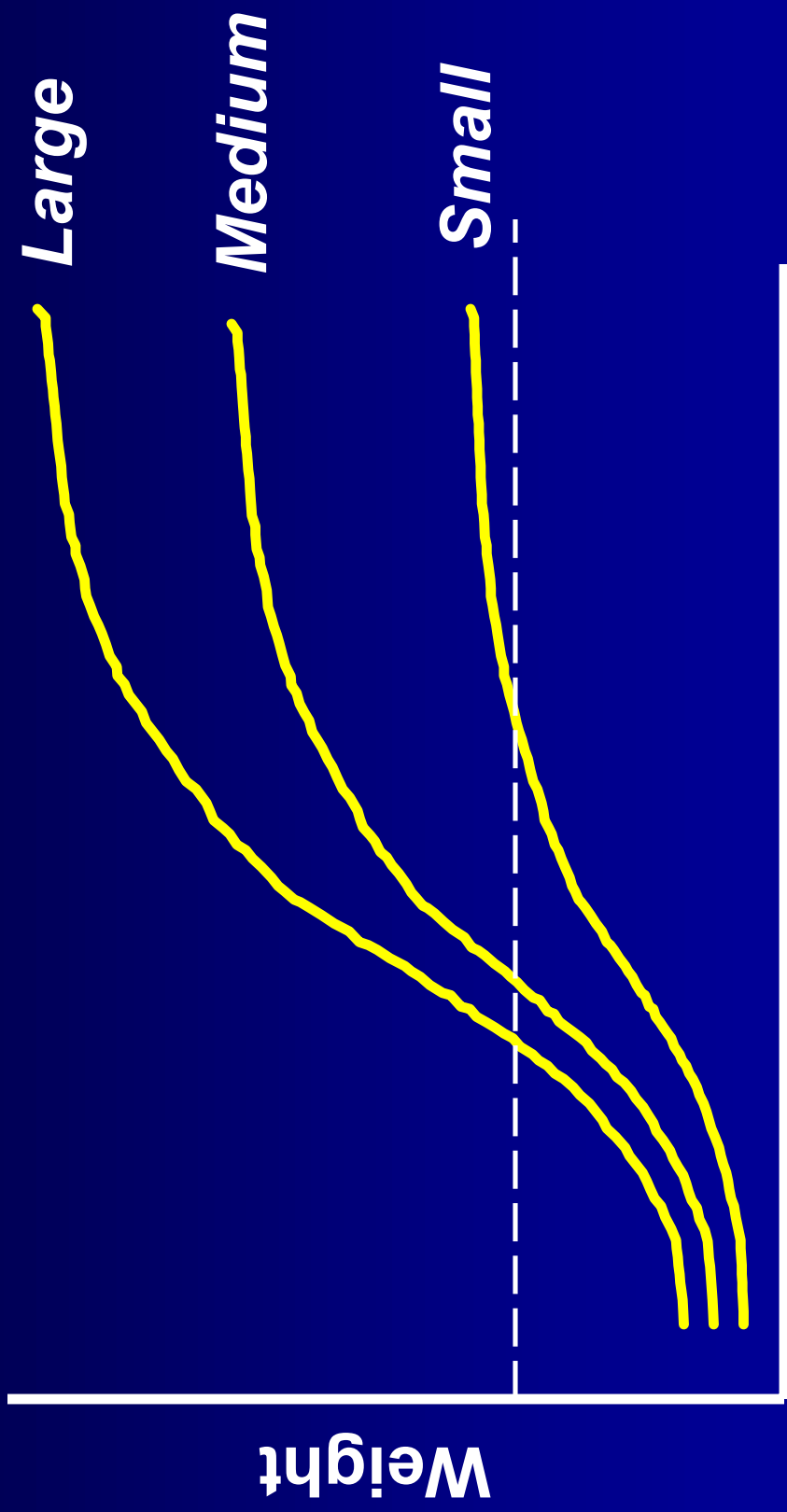
Large

Medium

Small

Effects of Frame Size

Weight Influences

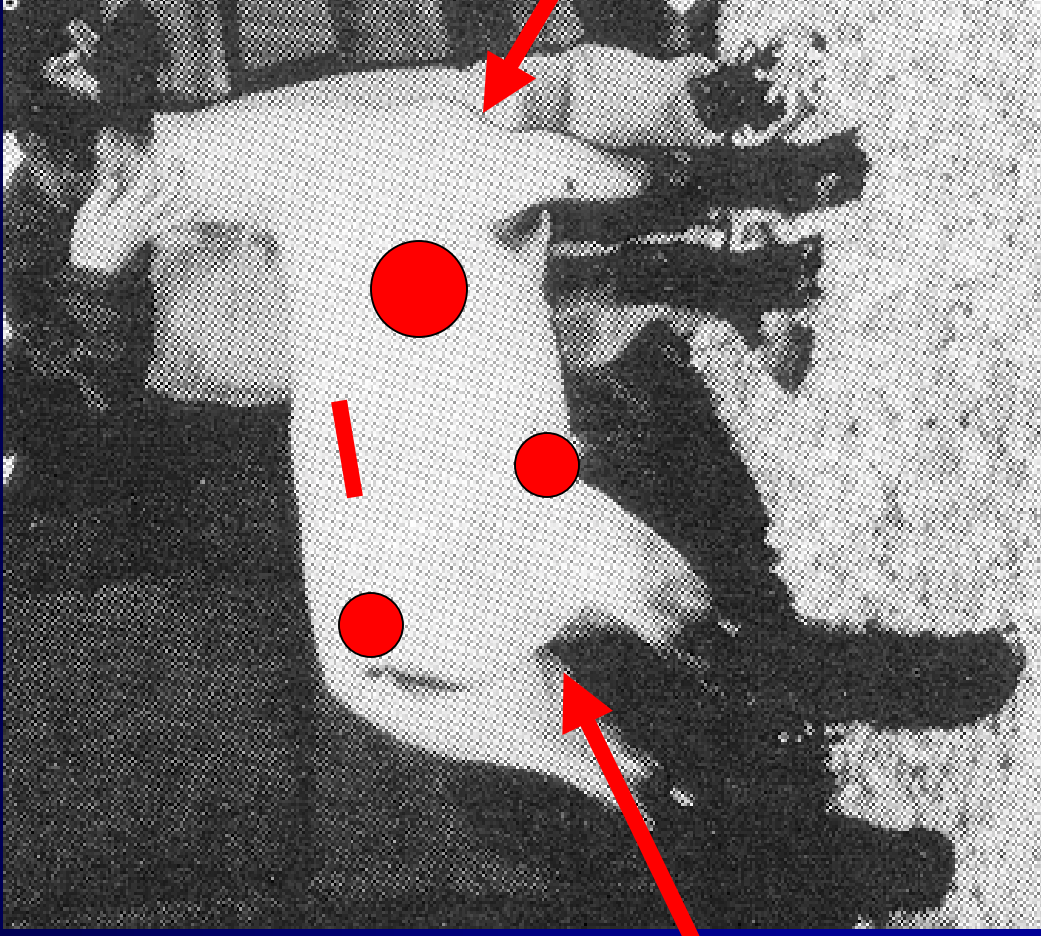


Age

Fat Deposition Sites

- **Brisket (cattle), Jowl (hogs), Breast (lambs)**
- **Ribs**
- **Loin Edge**
- **Twist Area**
- **Flank**
- **Tailhead area**

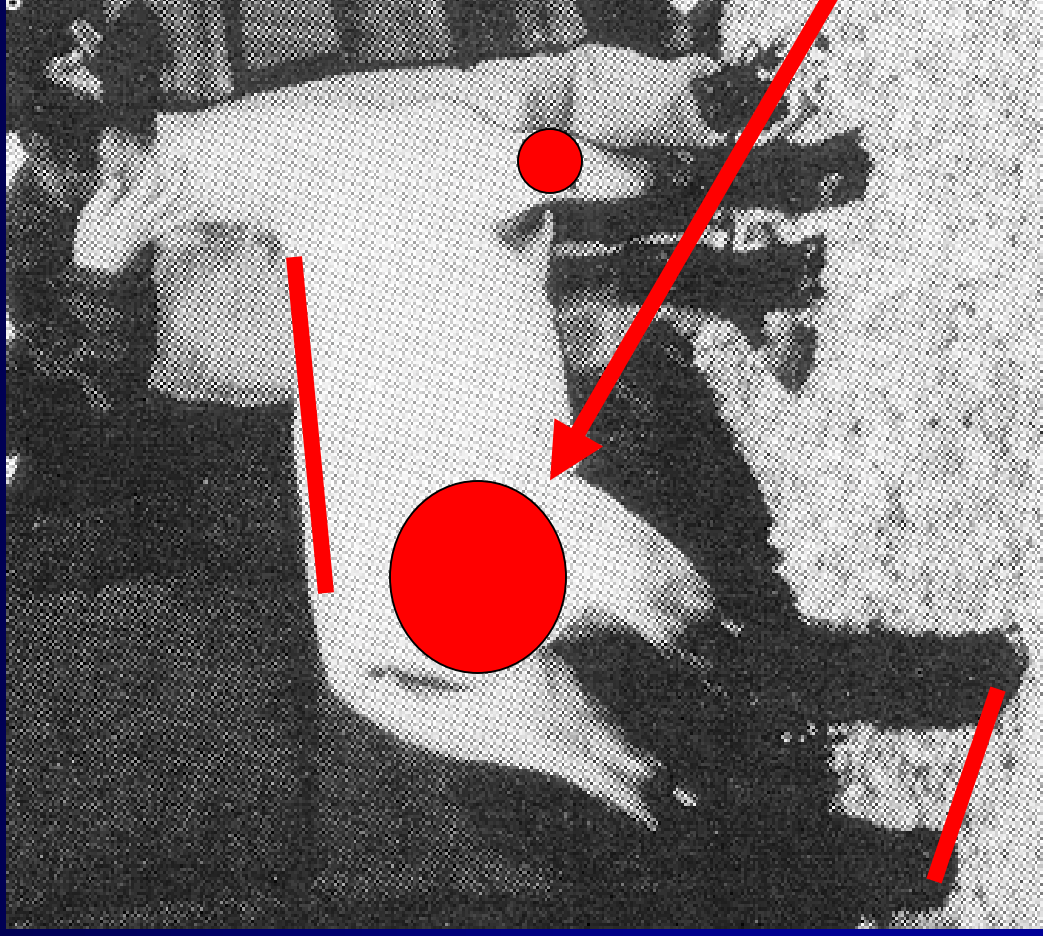
Fat Deposition Sites



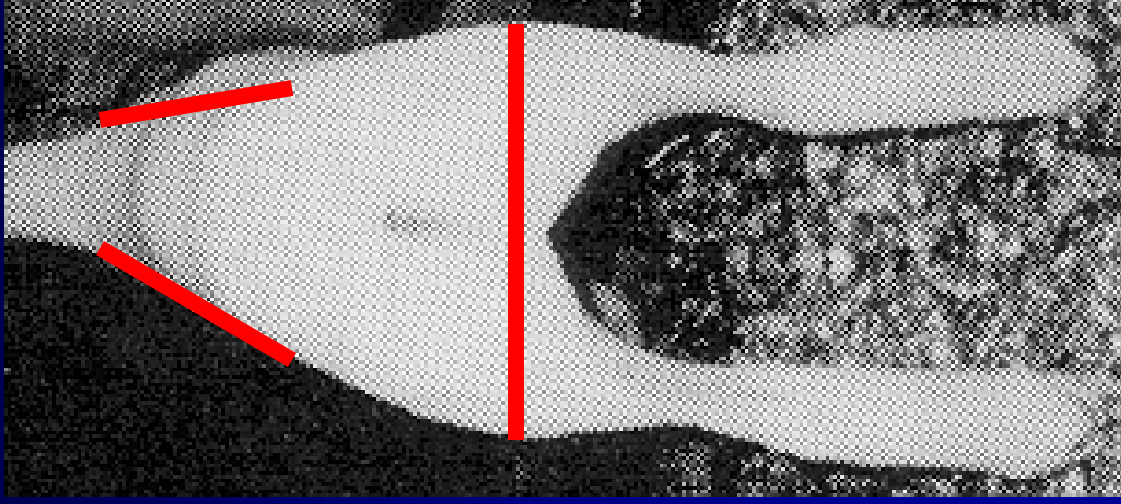
Muscle Evaluation Sites

- **Hindquarter**
(round - cattle; leg - lamb; ham - hog)
- **Stifle**
- **Forearm**
- **Over Top - loin and rump**
- **Width of Base**

Muscle Evaluation Sites

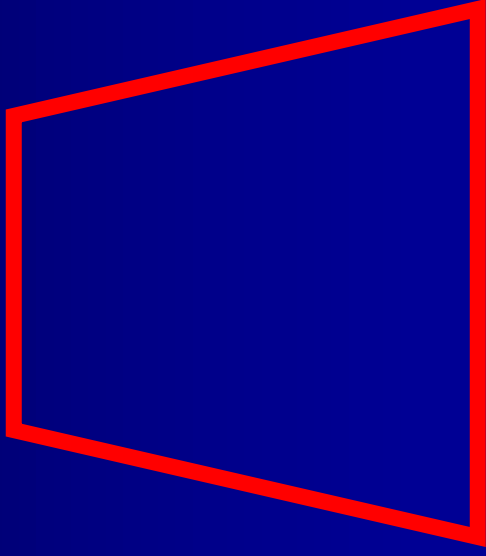


Muscle Evaluation Sites

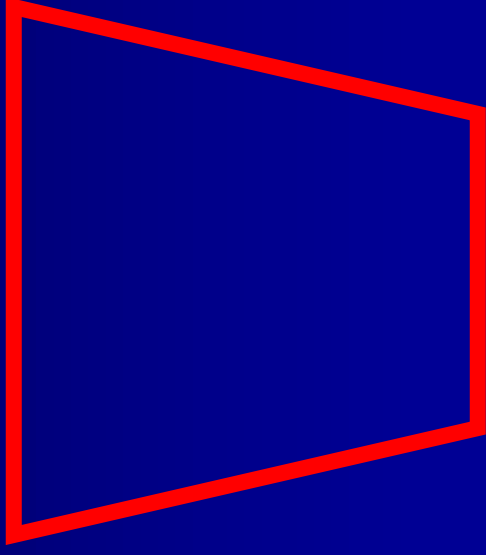


Body Shapes

The widest part of the animal should be at the stifle, indicating lean, not fat

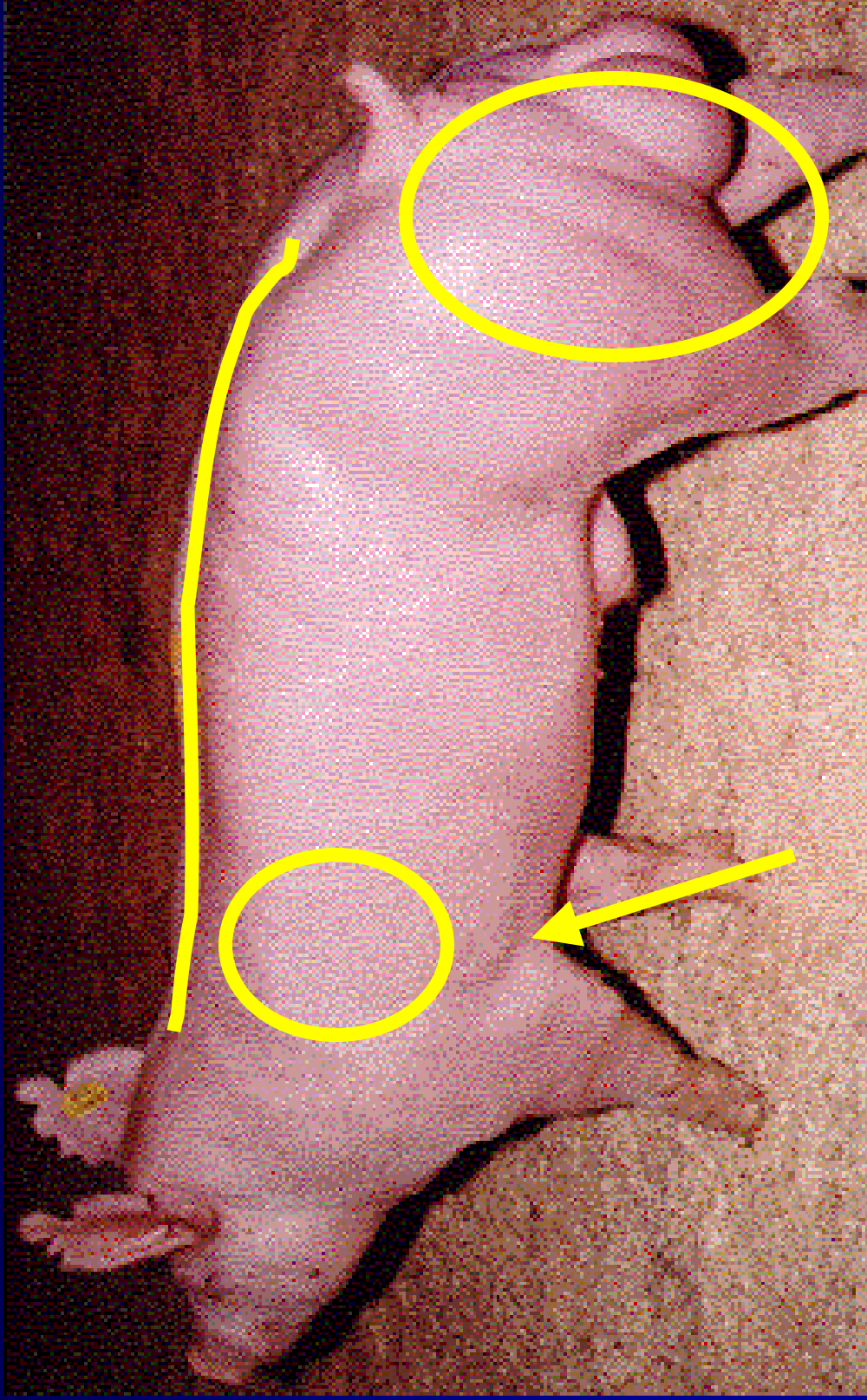


Desirable

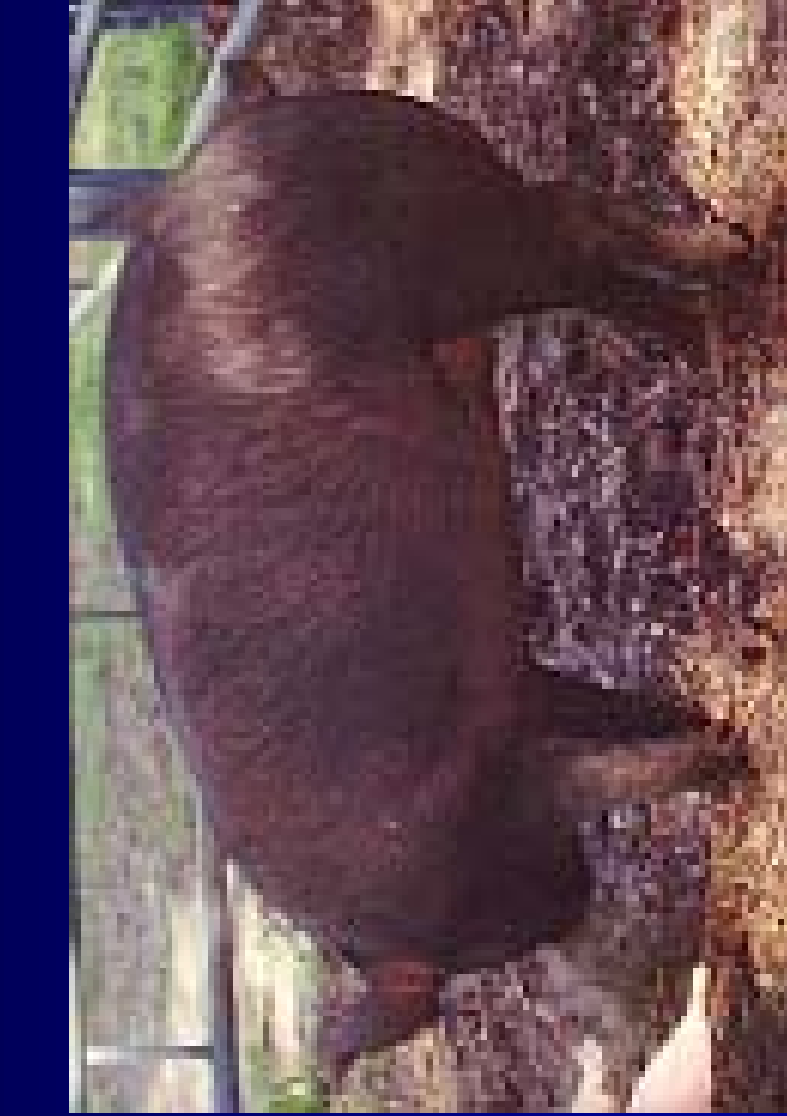


Undesirable

Lean Hog

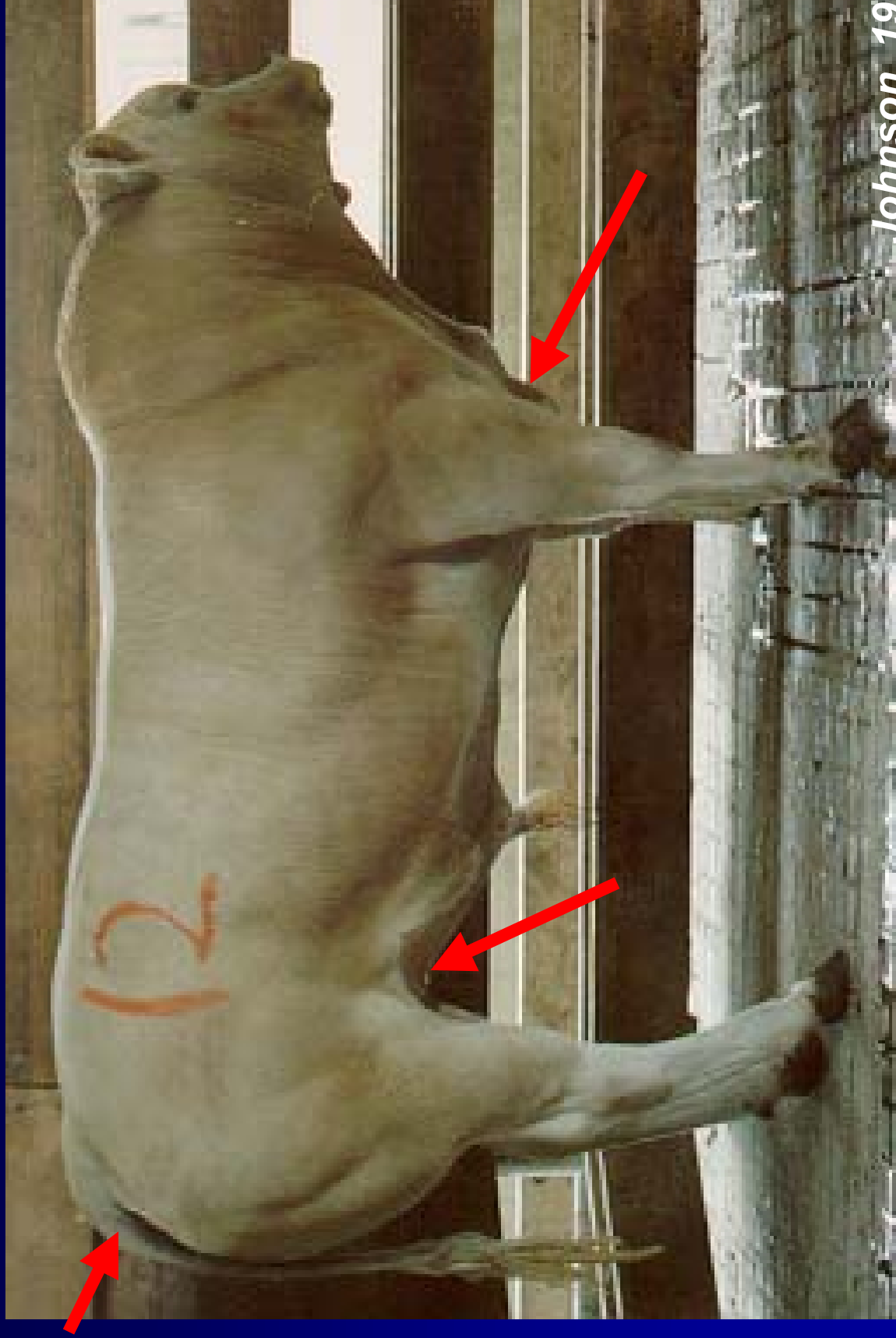


Over Finished Hog



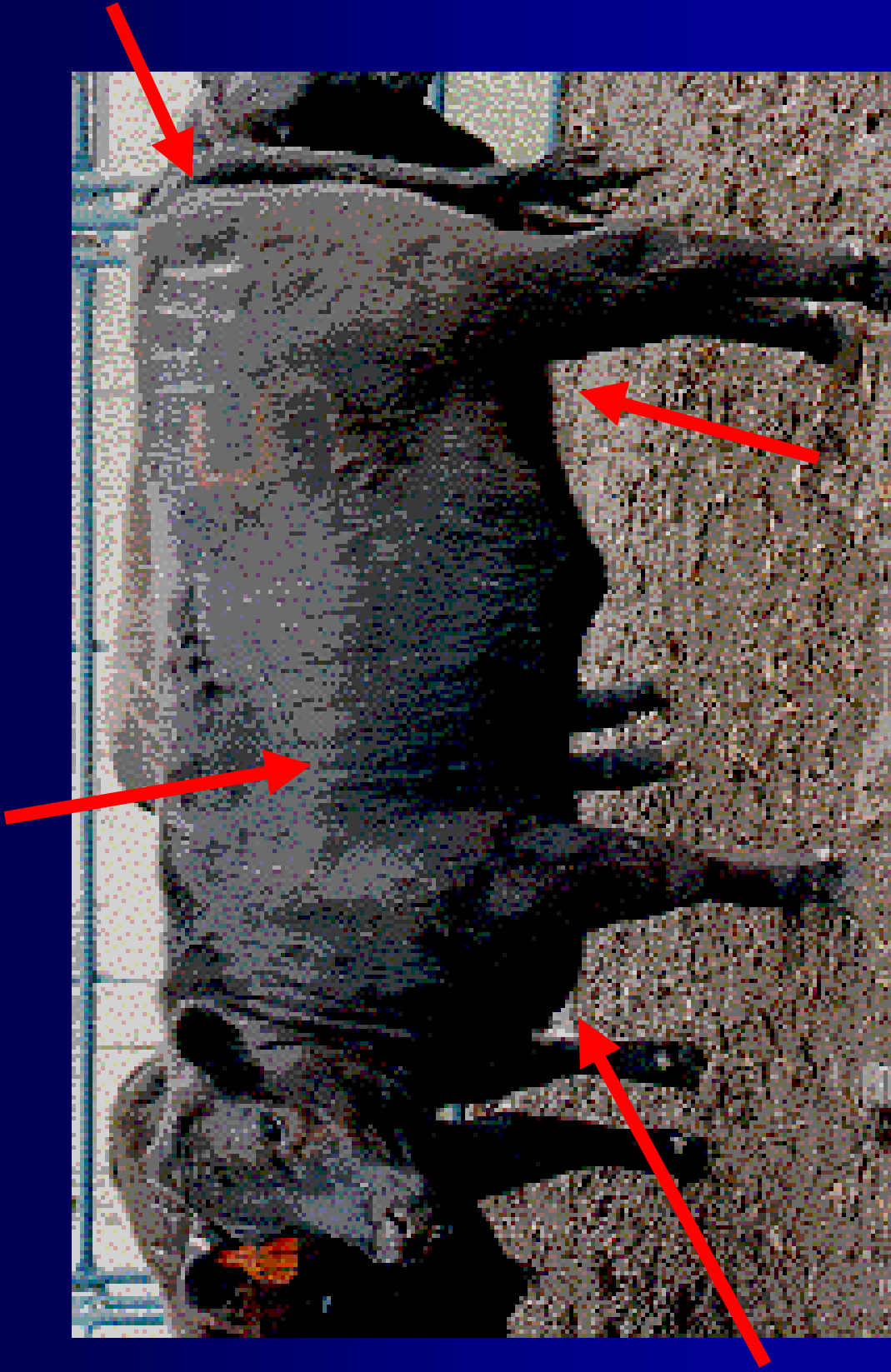
Johnson, 1997

Under Finished Beef



Johnson, 1997

Over Finished Beef



Johnson, 1997