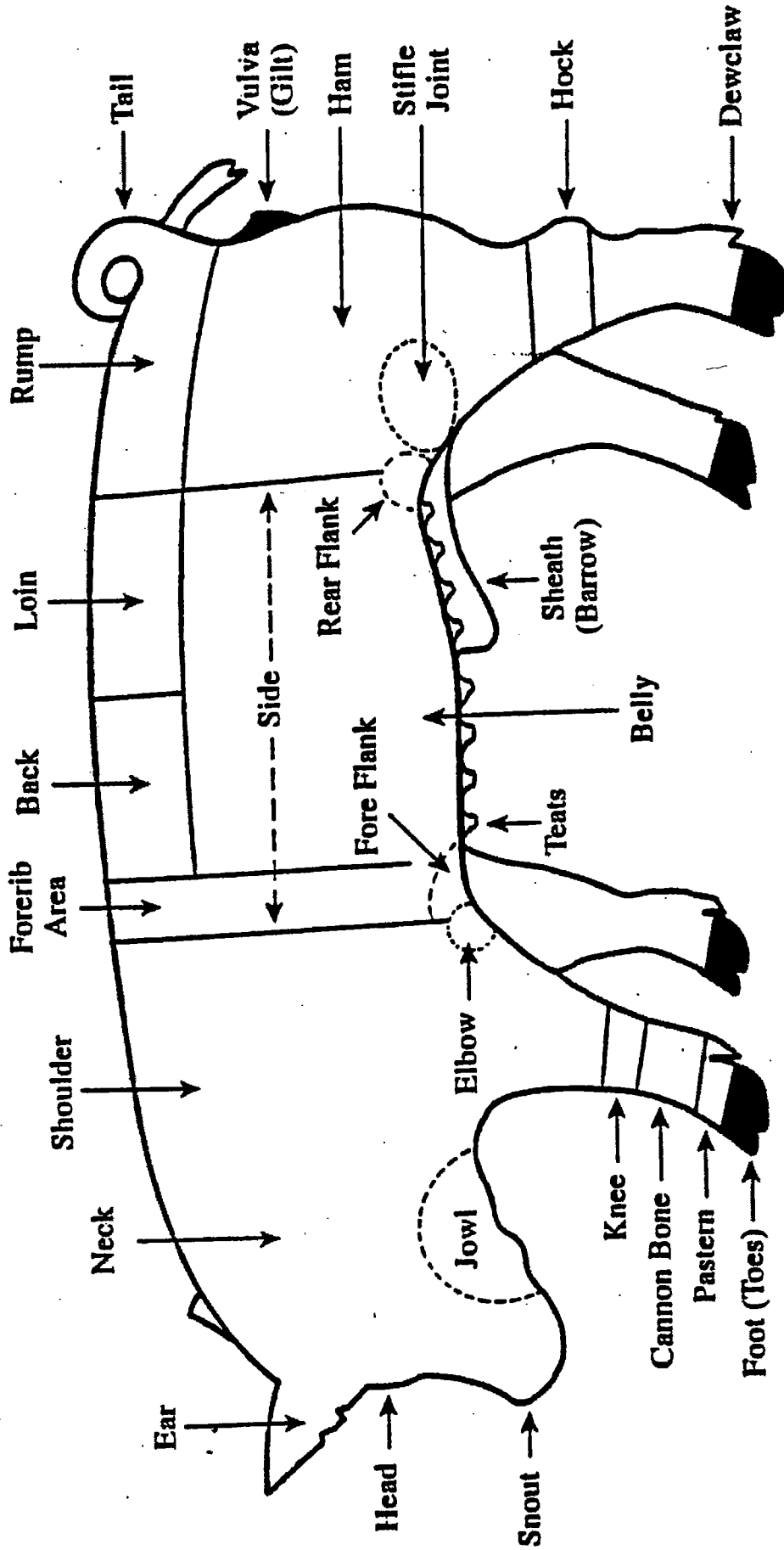
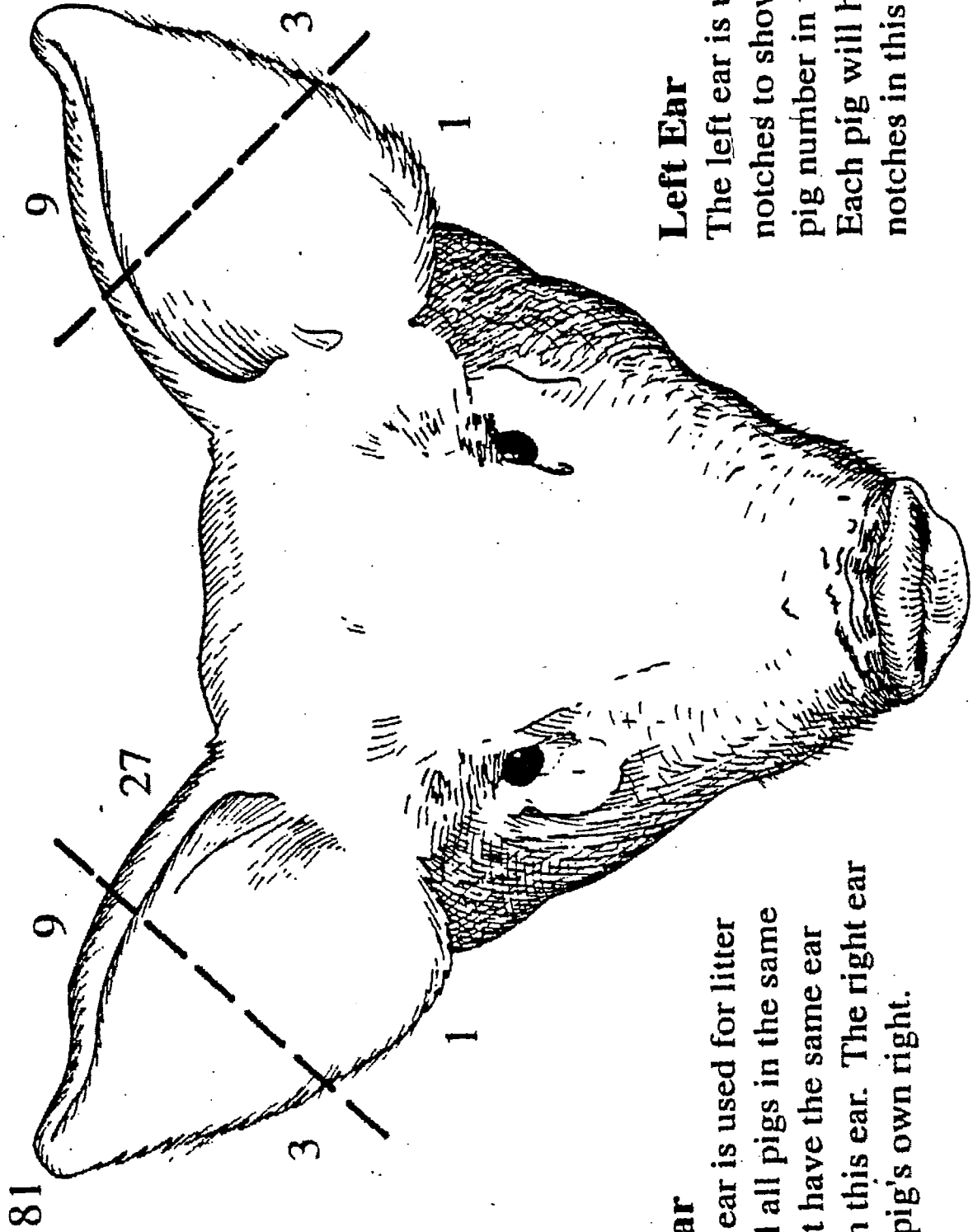


# External Parts of Swine



## Universal Swine Ear Notching System



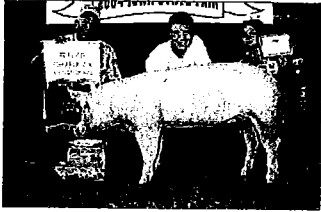
### Right Ear

The right ear is used for litter mark, and all pigs in the same litter must have the same ear notches in this ear. The right ear is on the pig's own right.

### Left Ear

The left ear is used for notches to show individual pig number in the litter. Each pig will have different notches in this ear.

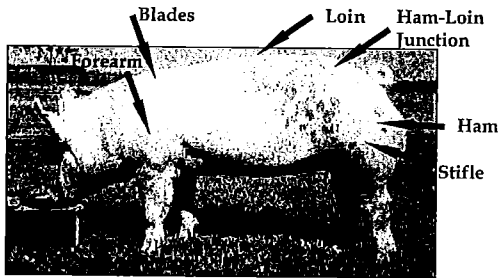
## Judging Market Hogs



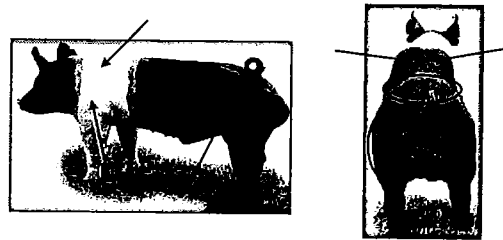
## Market Hog Selection Traits

- Muscle Content
- Lean Growth
- Skeletal Width and Dimension
- Structural Correctness
- Balance and Eye Appeal

## Muscle Indicators



## Muscle Indicators



## Evaluating Muscle Differences

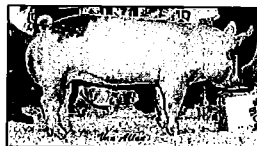


Squarer turn to his loin edge, more explosive in ham-loin junction, and more width and dimension through ham



Less shapely, plain topped, flatter and more non-descript when viewed from behind

## Evaluating Muscle Differences



More powerful forearm, more width at blades, more expression thru stifle and ham

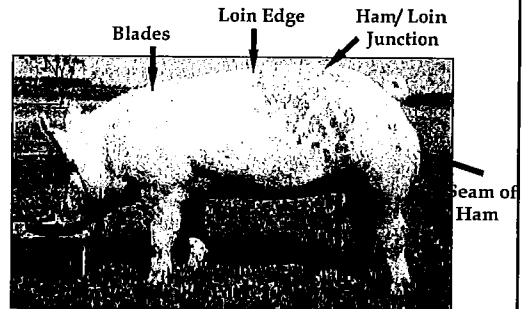


More common in muscle design, flatter bladed, with less definition thru ham and stifle

### Indicators of Lean Growth

- Ability to accumulate weight while remaining acceptable from a fat free lean standpoint
- Leanness-10<sup>th</sup> rib fat of 0.7 inches
- Frame size and growth potential – 270 lbs

### Fat Indicators

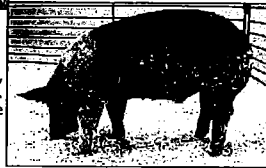


### Evaluating Leanness Differences



Leaner hog, trimmer thru jowl, elbow pocket, and lower 1/3. Cleaner over blades and loin.

Fatter barrow. More fat cover thru jowl, elbow pocket, flank, and lower 1/3. Rounder and smoother in his shape



### Evaluating Leanness Differences



More width through the ham-loin junction and center portion of ham in comparison to the 10<sup>th</sup> rib. Trim through ham seam.

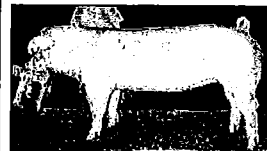


Wider at the 10<sup>th</sup> rib with less width at the ham-loin junction and from stifle to stifle. Walster in ham seam

### Indicators of Growth and Size

- Skeletal Size and Maturity
  - Length of Bone
    - Length of face and neck
    - Length of spine
    - Length of cannon bone
    - Height at top of blades
    - More extended growth curve and tendency to gain weight without becoming over-finished

### Evaluating Growth Differences



Skeletally extended. More length from blade to hip and taller fronted, with more extension from blades forward.

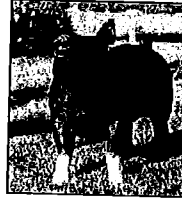


Early maturing, short bodied, low fronted, and compact in design.

## Skeletal Width and Dimension

- Production Oriented
  - Width of chest
  - Square rib design
  - Depth of flank
  - Natural base width from the ground up
  - Ability to convert feed to gain

## Evaluating Skeletal Dimension



Natural skeletal width.  
Wide and square chest

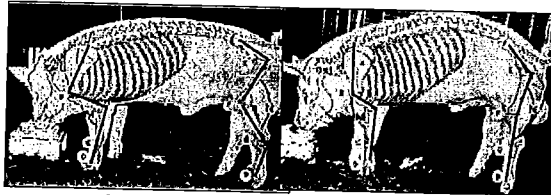


Deep ribbed, shape to rib, productive  
appearance

## Structural Correctness

- Looseness/flexibility of skeleton
- Ability of animal to be mobile with ease
  - Proper angle to scapula/shoulder
  - Relaxed knee design
  - Correct angle to pastern
  - Looseness of hip and hock
  - Heaviness of structure
  - Even and wide foot design

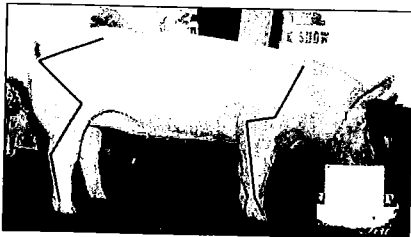
## Structural Correctness



Desirable

Undesirable

## Evaluating Structural Correctness



Desirable Skeletal Design

## Evaluating Structural Correctness

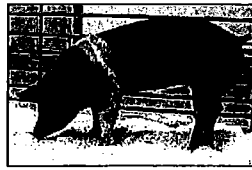


Undesirable Skeletal Design

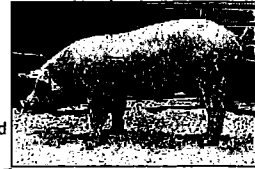
## Balance and Eye Appeal

- Proportional skeleton
- Attractive and high quality look
  - Levelness of topline and hip
  - Strength behind blades and to loin
  - Quality to hair and skin coat

## Evaluating Balance and Eye Appeal



Low fronted, steep hipped



Breaks behind shoulder, low fronted

## Evaluating Balance and Eye Appeal



High quality, level designed, clean fronted, nicely balanced, proportional, ideal skin and hair coat

## Market Hog Evaluation

## Weight

- Live weight
  - Range: 210 lb – 300 lb
  - Average: 250 lb
- Carcass weight
  - Hot Carcass Weight(dressed carcass)
  - HCW = live weight X dressing percent
  - Range: 150 lb – 215lb
  - Average: 180 lb

## Dressing Percent

- Proportion of body weight that ends up as carcass
- Range : 65 – 77%
- Average : 72%
- Variation in DP across plants due to slaughter procedures and time of carcass weight measure (hot or chilled)
- $(\text{Hot Carcass Weight} / \text{Live Weight}) \times 100$ 
  - Example: 260 lb live weight with a 190 lb carcass
  - DP = 73.08 %

## Factors Affecting Dressing %

- Fill (contents of stomach and intestines)
  - Greatest effect
  - $\uparrow \text{Fill} = \uparrow \text{Body Weight} = \downarrow \text{DP}$
- Muscle (heavy vs. light)
  - $\uparrow \text{Muscle} = \uparrow \text{DP}$
- Fatness
  - Little effect on DP
  - Less than 1% difference
  - $\uparrow \text{Fat} = \uparrow \text{DP}$
- DP receiving less emphasis by most packer buyers

## 10<sup>th</sup> Rib Backfat

- Depth of fat at 10<sup>th</sup> rib
  - Includes skin
- More accurate than last rib measurement
- Range: 0.4 – 1.5 in.
- Average: .90 in.
  - ~0.78 in. for a 270 lb market hog

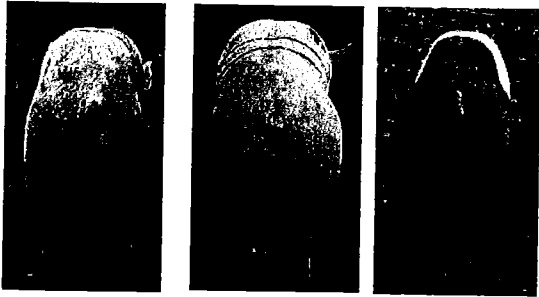


## Loin Eye Area

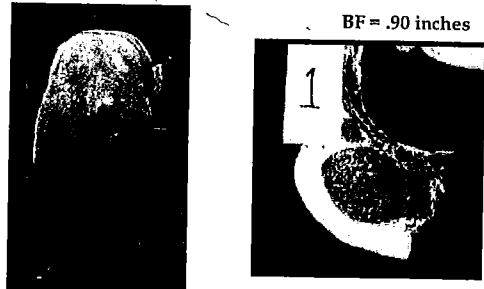
- Measure/estimate of longissimus dorsi at 10<sup>th</sup> rib
- Range: 4.0 – 9.5 in<sup>2</sup>
- Average: 5.2 in<sup>2</sup>
  - ~7.3 in<sup>2</sup> for 270 lb market hog



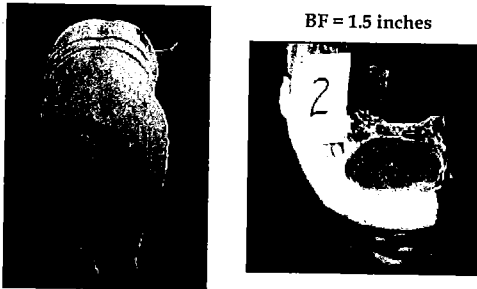
Reading Top Shape



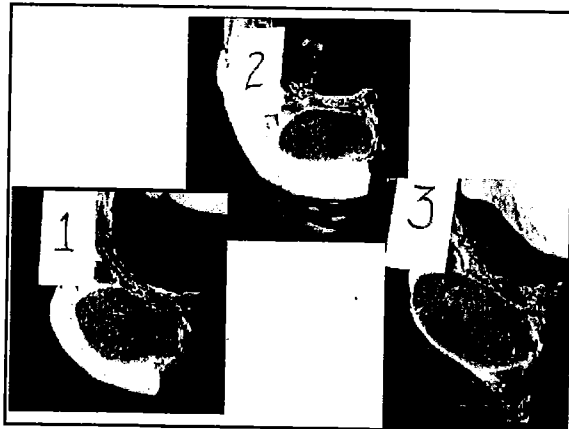
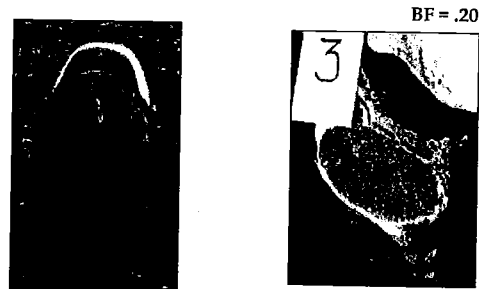
Reading Top Shape



Reading Top Shape



Reading Top Shape





**Last Rib Fat Thickness**      **10th Rib Fat Depth**



**Locations of Subcutaneous Fat Thickness Measurements**