Selection of Blue Ribbon Swine Projects

Steven M. Jones
Associate Professor – Animal Science
STRUCTURAL CORRECTNESS

- Critical due to confinement production systems
- Level top, level rump, higher tail setting vs. high top step rump, low tail setting

Forelimb:
- Angulation to provide maximum cushion to stride, prefer sloping forearm, cannon bone, and pastern (sickle shape). Uniform and large toe size

Discriminate against:
- Top arched too high
- Shoulder blade pushed forward
- Shoulder angle greater than 90°
- Bones of front leg in straight line
- Steep pasterns: This abnormal angulation puts stress on both scapula and humerus joint and knee-joint, less resistance at knee so animal’s front legs buck over (buck kneed). This structure puts animal up on toes and results in abnormal wear on both pad and toes.
Hind Limb: Prefer angulation to joins of stifle and hock, cushion to pastern.

Discriminate against:
- Hip, stifle and hock joins form a straight line—restricts stride off rear legs, especially a problem with boards with mating...they’ll fall backwards.
- Toe Size: Prefer even toe size, large toe size, even weight distribution. Discriminate against:
- Uneven toe size, generally smaller inside toe, because this results in abnormal wear on outside toe, exposing pad and causing lameness.
- Ruggedness-Stoutness: Substance of bone and foot size
Reference: Ryan Harrell, Harrell Educational Services
Reference: Ryan Harrell, Harrell Educational Services
Movement
Width of Chest

Reference: Ryan Harrell, Harrell Educational Services
Big Bone

Reference: Ryan Harrell, Harrell Educational Services
Width of Base

Reference: Ryan Harrell, Harrell Educational Services
SIZE AND SCALE

• Moderately large framed (later maturing) vs. Small framed (earlier maturing)
• Reach 240+ pounds without excessive fat deposition
• Long necked
• Long bodied
• Long rumped
MUSCLE

- Selection for muscle has been sporadic over the years. In the late 1960s and early 1970s, swine breeders wanted animals to be as thick as possible, with a butterfly shaped top, tremendous cutting individuals....however reproductive and stress problems surfaced;

  - PSS-Porcine Stress Syndrome-sudden death due to stress, tail tremors, skin blotching, heavy respiration. This is an autosomal recessive trait.
  - PSE Pork is pale, soft, and exudative.

- In the late 70s, “long smooth muscle”, actually was extremely flat and light muscled.
- In the 1980s and 1990s, swine were selected for muscle dimension. Shape is important, and judges discriminated against round, tight and short muscle which hinders movement and could result in reproductive problems.

- Today, swine type has returned to early 70s....muscle locations: shoulder, forearm, top, loin, rump, and ham.
Indicators of Muscle

- Groove
- Dimple
- Stifle / Ham
- Wide Based
FAT COVER

- Prefer 1.0" or less for 240 pound market animals at the last rib measurement

- Fat is deposited front to rear. Locations to look for fat are the jowl, underline, flank, base of ham, shoulder blade, elbow pocket, base of tail, and top. A turn over the top (prefer a rounded shape, not square.

- Square shape is associated with fatter animals.

- “Flat is Fat”
CAPACITY

Locations to look:
- Depth to forerib and rear rib
- Depth to flank
- Spring and shape to rib
- Width through chest floor (sternum)
Depth
CAPACITY

Descriminate against:

- •Shallow bodied or “round ribbed”

- •Flat ribbed. This was a problem in the late 70s, farrowing crate disasters as laid down as coul dnot get up, so we need curvature to rib shape to prevent problems.

- •Narrow chested
Style and Balance

A hog that has style and balance:

- Holds its head up when walking
- Smooth in its overall appearance
- Be clean made through shoulders, jowl, top line and underline
Style and Balance
Style and Balance
Selecting Correct Starting Weight

- Weight at the time of selection is determined by knowing how much it should weigh at show time
- How many days there are until the show
- Estimating how much it will gain
- An average of 1.6 to 1.8 pounds per day should be expected for a healthy, growthy pig on a growing and finishing ration.
Selecting Correct Starting Weight

A simple way to figure what size your pig should be is to know the date of your show and the desired show weight for your project. Then take an average daily gain of 1.7 to 2.0 pounds and “back figure” what the correct weight should be at purchase time.

Example:
Sale Date .............................................. April 15th
Pig Weight ............................................. 40 pounds
Show Date ............................................. August 20th
Desired Show Weight ............................... 265 pounds
Weight Gained until Show .......................... 226 pounds
Days until Show ...................................... 126 days
Average Daily Gain:
(Needed to reach desired market weight) ............... 1.8 pounds
Summary

- Structural Correctness
- Muscle
- Balance and Eye-appeal
- Correct Age (size)
SUCCESS ~

Where preparation, dedication and hard work come together!