Youth Market Swine Selection

CYE Production Market Swine Program
Purpose of physical evaluation during selection

Primary Purpose:
• Selection of animals with physical capabilities to maximize genetic potential within their environment for:
  1) health
  2) growth performance
  3) carcass merit
• Avoidance of extreme outliers that might pose problems

Secondary Purpose:
• Tailor selection criteria to the intended outcome/desires for animal:
  1) For enhanced carcass merit select for indicators of more muscle mass and leanness
  2) For enhanced showring appeal select for indicators of added balance and soundness
  3) For environments that will be totally exposed to sunlight select for darker color
Skeletal Design at Market Weight

The Good, THE BAD, and The Ugly

We need to have an understanding of what an acceptable skeleton looks like at market weight so that we can select for indicators of a good skeleton when we are picking out a weaned pig.

Commercial market hogs require a level of soundness that allow them to grow effectively and produce a quality carcass. If you are selecting for animals with a certain visual look you will need to focus more on levelness and balance than the typical market hog.
Figure 1. Desirable front and rear leg structure.

- Appropriate Curvature
- Stiff & Straight

Figure 2. Undesirable front and rear leg structure.

- Flexible, level Spine
- Stiff, Rigid Spine

This gilt displays excellent front and rear feet and leg structure, levelness of top and good depth in the rib and flank areas.

This gilt's front and rear legs are very straight and undesirable; she is high topped, steep rumped and shallow in the rib and flank.
Good Joint Angle and Structure
Too Straight Jointed
Causes pain and often poor performance as a result.

These joint angles are usually evident as weaned pigs.

Too Weak Pasterned
Risk of dew claw injury resulting in poor weight gains.

Soft pasterns are usually not this bad at weaning, but there is usually some evidence of extra joint angle.
The Ugly

This gilt is “broken topped”. Often shows itself as a dip behind the shoulder blade in weaned pigs.
So what are you to choose? Selecting your pig’s structure!

- Pigs with appropriate joint angle
- Pigs that have their feet squarely underneath them.
- Pigs should move with flexibility.
- No joint swelling.
- Pliable spine movement.

- Avoid – too stiff, too weak
- Avoid – too wide, too narrow
- Avoid – rigid or stiff movement
- Avoid – knee or hock swelling
- Avoid – high topped or stiff spine
Evaluating Muscle at Market Weight

We need to have an understanding of what heavy muscled, acceptable muscled, and light muscled pigs look like at market weight so that we can select for indicators of an appropriate muscle pattern when we are picking out a weaned pig.

Commercial market hogs do not necessarily need “showring” muscle to still generate a profitable and acceptable carcass. However, more muscle is typically considered a positive as long as it doesn’t impair movement and doesn’t impair growth performance.
Muscle is evaluated in 3 primary areas in market hogs:

**Base Width** – As in structure section, legs should be under the “corners” of the pig. Not overly wide or narrow.

**Hip/Ham Shape & Fullness** – Should be full and round, but not so extreme as cause trouble with movement.

**Lion Edge/Top Shape** - Heavier muscled hogs should have a full loin, top width, but still requires obvious leanness.
These are examples of pigs that are too light muscled.
Narrow based
Flat hip and ham shape
Narrow chested and shallow bodied
So what are you to choose?
Selecting your pig’s muscle!

- Pigs with moderate chest width
- Pigs with practical base width
- Pigs with indication of muscle shape
  - Forearm, loin, width of hip
- Avoid – too wide chested/shouldered
- Avoid – too wide, too narrow
- Avoid – flat or concave muscle
Evaluating Fat/Leanness at Market Weight

Normally, the biggest factor on the value of a pork carcass is fat cover. Leaner pigs generate a higher percent of lean pork and thus are worth more money. Overly fat or heavy conditioned hogs are heavily penalized when sent to the packing plant.

Potentially for fat cover is quite difficult to gauge when you are purchasing a weaned pig. However, in general pigs with greater muscle mass have the opportunity to maintain leanness longer during the feeding phase. However, your management of your hog will have the greatest impact on his fat cover and cutability.
This barrow is certainly lean and would get a premium for his percent lean. However, he also reflects poor meat quality that can be associated with highly lean genetics. This would have a dramatic negative impact on his carcass value.
This barrow has grown well which is definitely a positive. However, he is very excessive in the fat cover. His carcass received a significant discount for being excessively fat.
So what are you to choose?
Selecting your pig’s fat cover!

• Again, fat cover/leanness are primarily impacted by your feeding program and the pig’s individual growth curve.

• However, selecting pigs that appear to have enough size to get to heavier weights will help you maintain leanness. Choose longer bodied, longer cannoned pigs to help with this.

• Pigs with appropriate muscle or more will help delay the onset of excessive fat cover.
Other considerations when picking your new pig

• Gender – Gilts and Barrows feed differently
  • Barrows tend to gain faster and thus get fatter sooner.
  • Gilts tend to gain a bit slower, but stay leaner longer.

• Color
  • In the PSP program color differences are likely to be minimal if at all.
  • However, if you raise pigs outdoors darker pigs reduce the risk of severe sunburn.

• Attitude
  • Aggressive pigs are often aggressive eaters. This is a positive.
  • However, at times aggressive pigs can be harder to teach to drive in the showring.

• Excessively Large Down Ears
  • Ear shape or size has no impact on growth or carcass traits.
  • However, since you have to teach your pig to drive in a showring you need to be aware that excessively large down ears make it hard for a pig to see and thus harder to drive.
Practical Market Hog Structure
Moderately Muscled
Moderate Fat Cover
Balanced Structure
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Moderate Fat Cover
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