



Judging Breeding and Market Swine

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Judging livestock can be one of the most fun, challenging, and rewarding activities in which you can participate. Judging involves gathering information, by viewing live animals and studying their performance data. You will then use that information to make a decision, comparing the four animals in your class against a standard, ideal animal for that class.

Judging is also seen as a study of the relationship of an animal's form and function. Function means the purpose of the animal, and we want to find animals who best fulfill their purpose. A market hog's function usually is to grow quickly and efficiently and to produce a lean muscular carcass. A breeding gilt's function is to stay structurally sound, grow and produce large litters of pigs that will be lean and heavy muscled.

Judging is really straight forward. Use these steps to make decisions:

1. Information-Form a mental image of "ideal."
2. Observation-View the class with a sharp eye to form complete and accurate observations.
3. Comparison-Weigh the strong and weak points of every animal against the others in the class. The top of your class may not be ideal, but should be the "most of the best."
4. Decision-Make your placing based on accurate information, keen observation, and logical comparison, then be prepared to defend that choice.

Judging Breeding Stock

Breeding gilts and boars are the basis for a profitable hog operation. Their specific function varies depending on breed and the scenario (situation) they will be used in. However, all breeding hogs must combine the traits of reproductive and structural soundness, growth and performance, muscle and leanness, volume, and sex character.

Soundness

Many hogs in the U.S. today are raised in confinement systems, on concrete, steel or synthetic surfaces. Unsound gilts and boars can become lame and if so will need to be culled out of the herd. Too many hogs are buck kneed, post legged (straight on rear hocks), cow hocked (close at the hocks), or sickle hocked (weak in the rear hocks and pasterns).

Sound hogs are relatively level-topped with pliability and flexibility in their shoulder, hip, and other joints. With good flex to their shoulder, pasterns, and hock, they should move in a free and easy motion.

Muscle and Leanness

Consumers determine the true value of market hogs with their buying decisions and consumers want lean, not fat. So, you should choose lean, heavily muscled hogs. But how do you tell the difference between fat and muscle?

Muscle is thick and bulky, but at the same time, muscle has expression and definition. When you see a body builder, his/her muscles are large but are also well defined with ripples and shape. In hogs, look at the shoulder, loin, rump, and ham for thick, bulging muscle development. A shape resembling an hourglass is formed by the shoulder and bulging hams in a muscular hog's top.

Fat hogs tend to lack shape and definition, and actually tend to be narrow at the loin and ham. When light muscled hogs get fat, they may appear wide on top, but they are shapeless. A fat hog's top appears more like a loaf of bread than an hourglass.

Volume and Stoutness

Big volumed, stout hogs tend to be fast growing, require less feed to produce a pound of pork, and have more durability in confinement. Volume is shown by a wide chest floor, deep fore-rib, deep flank, and spring of rib. Real volume is different from the "fake" width of an over-fat hog who sometimes appear wide because of their fatness. In addition, look for rugged, big-boned, big-footed, and stout breeding hogs.

Sex Character and Reproductive Soundness

Without reproductive soundness, a boar or gilt can not reproduce or raise pigs. If a boar or gilt fails in one of the major sex traits, they are severely limited in function and should be placed accordingly. Sex character includes those traits related to successful reproduction.

Gilts and boars should have at least six, preferably seven, nipples on each side of her/his underline. Boars should have two well-shaped, large testicles and a normal sized and shaped sheath for breeding purposes. Gilts should also have a normal sized and shaped vulva. Learn to identify "normal" sex character in boars and gilts by looking at a group of hogs and discussing the differences with an experienced breeder.

Judging Market Swine

Good news! Judging market hogs (barrows and gilts) is not very different from judging breeding hogs. However, the function of market hogs is to grow and produce a lean, heavily muscled carcass. Therefore, those two traits become very important. This is how you should rank the importance of these traits in judging market hogs: carcass (muscle and leanness), growth and performance, volume, and structural soundness.

Soundness and volume are still important considerations, but since they are less directly related to a market hog's function, their priority level is lower than in breeding hogs. Also, when giving reasons in market animals as in breeding classes, it is important to discuss more than just live traits. You must let the official know what live traits tell you about the carcass acceptability and, ultimately, the consumer usefulness of this hog.

Measures of Leanness

Market hogs are often sold for slaughter at a weight between 220 and 260 pounds. A 230 pound average hog will produce a carcass that is about 70% of its live weight, or about 160 pounds, of which about 130 pounds is sold as retail cuts. The rest is lost as bone, fat, and shrinkage.

We want to choose hogs with carcasses having a high proportion of retail cuts. That means we should select hogs with more muscle and less fat. Some terms which describe leanness are:

Loin Eye Area-The loin muscle runs down the back on each side of the spine. The cross section of this muscle is called the loin eye. The area of this muscle, cut between the 10th and 11th rib is a good indicator of muscling. (Good = over 6 inches; Poor = under 4.5 inches)

Last Rib Fat Thickness-This fat measure, taken at the last rib, is a great indicator of overall leanness. The lower the measurement, the leaner the carcass. (Good = under 1 inch; Poor = over 1.25 inches)

Cutability (field)-The expected percentage of closely trimmed retail cuts from the ham, loin blade shoulder (Boston), and arm shoulder (picnic). (Good = over 59%; Poor = under 55%)

Pounds and percentage of lean pork-"Pounds" measures the weight of muscle in a pork carcass, adjusted to 5% fat. "Percentage" is the % muscle in a pork carcass.

Swine Terminology

The following are terms commonly used by producers and judges to describe the various traits. While good terminology is not everything, it is important. Using the right words helps you communicate better and to sound more at home among experienced hog producers. Terms on the left of the/are positive terms, while terms on the right (*italics*) are negative. While these terms provide a base to work from, do not be afraid to be creative and experiment with new terminology.

Muscle and Leanness

Heavy muscled/Light muscled
More shape and dimension of muscle
More width of top and rump/Narrow topped
More natural width and muscle/Light muscled
Thicker topped/Narrow topped Wider topped/Narrow topped
Trimmer, leaner/ Fatter, waste
Leaner topped/Over finished (conditioned)
More blade action/Wastey over shoulder
Leaner conditioned/Over finished
Shows more expression of muscle
Shows expression at the ham/loin junction
Leaner in the lower 1/3 of the body
Trimmer designed/Heavy middled, wastey

Structure and Durability

Level topped, rumped, designed/High, steep top
More mobile/Restricted in movement
More correct shoulder/Straight fronted
Freer moving/Stiff moving
Longer stride/short stride
More cushion and flex/Straight jointed
More give and flex in the rear hock and pastern! Posty legged, straight hocked
Even toed/Uneven toed (short or long toed)
Looser made (constructed)/Tight made
More flexible skeleton
Sound footed/Unsound
Correct leg placement/Cow hocked, sickle hocked, buck-knee, toes out/in, weak pasterns
More confinement adaptable/Unsound
More longevity under hard surface conditions
More durably constructed/frail

Size, Growth, and Performance

Large outlined/Small framed
Large scaled/Small scale
More skeletal extension/Short sided
Long sided/Short bodied
Faster growing/Slower growing
Simply more hog there/Less total product
Better performing/Poorer performing

The data **indicates** or shows:

According to the numbers, he should be:

The best combination of visual appraisal and data, **Or** combines the best package of phenotype and genotype

Volume & Ruggedness

Heavy structured (skeleton)/Frail boned
Big footed/Small footed
Big bladed/Small bladed
Heavy boned/Light boned
Deep ribbed/Shallow ribbed
Deep flanked/High flanked
Wide chested/Narrow chested
More spring of rib/Flat ribbed
More width between the blades/Narrow topped
Wider based/Narrow based
More total internal dimension
More volume and capacity/Small volumed
Bolder sprung/Flat ribbed
More broodiness (Females)

Carcass

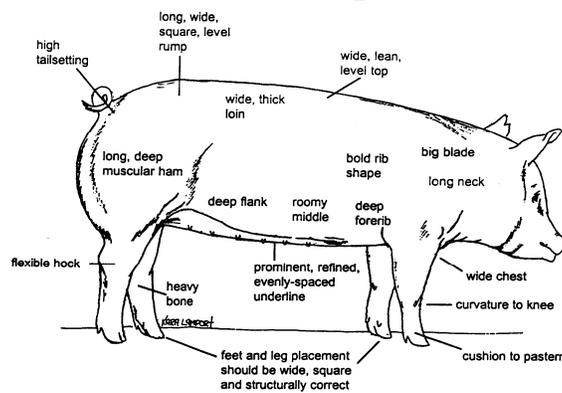
Carcass with more loin eye and muscle/Less
Carcass with less back fat/More
Meatier, thicker carcass/Flat angular
Higher percent cutability/Lower

Meatier, more shapely carcass/Angular
 Higher percent lean/Lower
 Higher percent of 4 lean cuts/Lower
 Higher lean to fat ratio/Lower
 Carcass with less fat/Fat, wastey carcass
 Heavier muscled, leaner carcass/Lighter muscled
 More pounds of edible product
 More versatile in market weight
 More lean per day of age
 Combination of production and carcass traits
 Leaner, more consumer acceptable

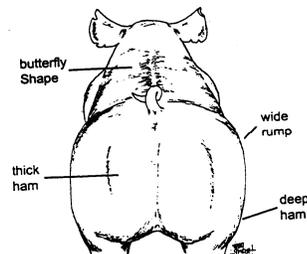
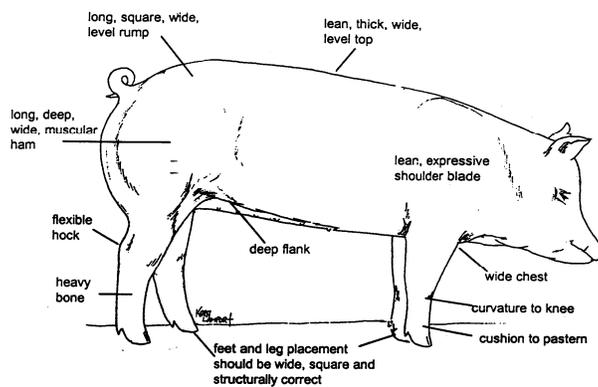
Sex Character

Functionally, productively designed
 More prominent underline/Inverted (blunt) teat
 Refined, quality, underline/Pin (blind) teat
 Evenly spaced underline/Uneven spacing
 Even testicled/Uneven testicled
 Larger testicled/Smaller testicled

Ideal Breeding Gilt



Ideal Market Hog



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Pictures: Ohio State University Resource Manual and Learning Laboratory.

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