

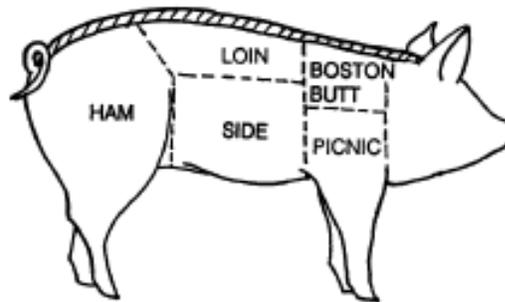
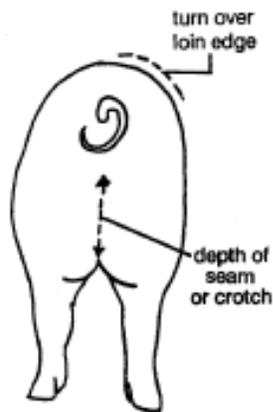
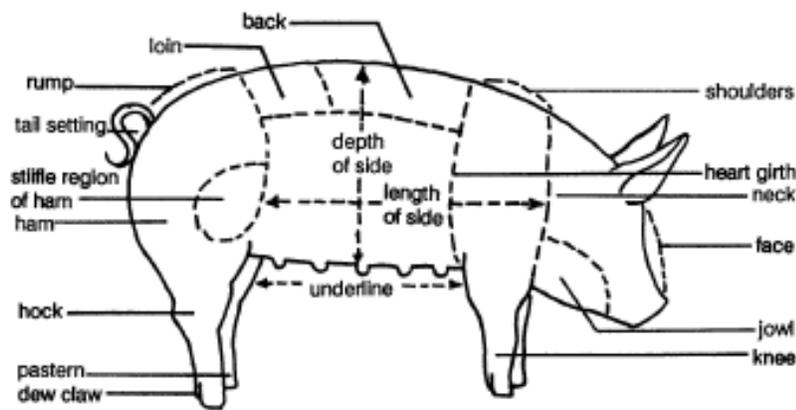


CANADA
4-H Manitoba

Judging Swine

Step one to becoming a successful swine judge is to learn the parts of the body.

Parts of the Swine



Step two is to become familiar with the wholesale cuts of pork. In the hog, the high priced wholesale cuts are the ham and the loin.

Step three is to take all the knowledge you have and put it into practice. The following pages will provide you with all of the information you need to become a successful swine judge. It's up to you from here!

Hints For Judging Swine

A class of swine may be more difficult to judge than other species of livestock because the four animals are often loose in a pen. Each of the animals will be identified by a number on its back. Since the animals are moving around in the pen and you are judging them as they move, you must see each of them accurately and compare them.

This task is easier if someone moves the animals around the pen while you stand back and watch them. Don't get in or look from above until you have thoroughly viewed them from a distance.

Examine each pig individually. Set your sights on one pig. Thoroughly evaluate him in comparison to your ideal pig, noting his strengths and weaknesses. Examine his topline, back, loin, ham and rump as seen from the side. Note the set of the feet and legs. Study his conformation from the rear. Move on to your next pig and repeat.

Complete the same process for each pig individually before you begin to compare them to each other.

From each of the three views, evaluate these things:

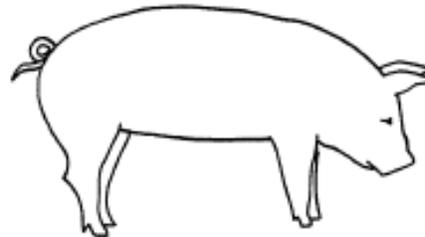
From the front:

- trimness of jowl and neck
- width and depth of chest
- correctness of front feet and legs
- degree of finish or fat cover over the top
- breed character



From the side:

- conformation and general balance
- degree of muscling and fat
- length and depth of side
- levelness of topline
- trimness of jowl
- trimness of underline
- straightness of legs
- strength of pasterns
- quality of head, hide, hair and bone



From the rear:

- set of the tail
- muscle pattern in the ham
- correctness of rear feet and legs
- strength of pasterns
- levelness of topline



The emphasis which you place on each of these characteristics will depend upon whether you are judging market or breeding swine.

Judging Market Swine

Conformation

Conformation is the general body shape and features of the pig as determined by his framework or his skeleton and muscle structure. The ideal market hog is three dimensional - he is medium tall, long and wide. Market hogs are either barrows (castrated males) or gilts (young females who have not farrowed).

Balance

In the market hog, balance is also important. A well balanced hog will be tight middled, with a smooth blending and proportion of body parts. A poorly balanced hog will be long necked, high and narrow shouldered, heavy middled and short rumped. Never criticize a hog for being off balance because of an over abundance of ham.

Muscle

The ideal muscle pattern in today's hog is long and smooth.

When evaluating the hog, make sure that what you are seeing is muscle and not fat. The best way to do this is by feeling the body of the hog. Muscle will be firm and bulging. Fat will be much softer, often feeling squishy or like jello.

A heavily muscled hog will have a plump, firm, deep, thick meaty ham and long rump. When viewed from the rear, the lower part of the ham should be the widest part of the hog. The ham should extend well down onto the hock. The hog should be muscular over the shoulders with a wide chest and the loin wide along the back. The muscles meet the spine at the very top of the animal. If there is a groove along the top of the animal all the way to the tail, it indicates that there is significant muscling of the loin and that the space between the muscle is not covered with an abundance of fat.

Finish

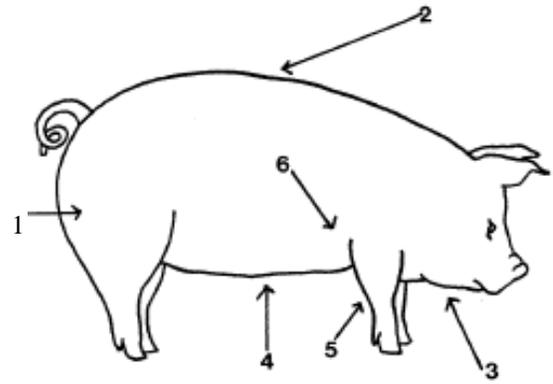
A small amount of fat or finish is desirable in market hogs. A large amount of fat is very undesirable in today's market hog.

Backfat is the best indicator of total fatness in hogs. Although we do not actually measure the backfat thickness when we judge hogs, there are some traits which we can use to estimate it.

The best indication of too much backfat is a soft, square top. Others are a heavy, wasty jowl, a soft, wasty middle, and a looseness in the lower ham and crotch region.

You can best see excess finish or body fat by looking in these areas:

1. the lower ham
2. over the topline
3. jowl
4. middle
5. elbow pocket
6. behind the shoulder.



Hogs which are extremely over finished and wasty will exhibit these characteristics:

- bulge of fat over the rib cage
- thick roll of fat over the loin
- heavy, full jowls, flanks
- tail set deep, between rolls of fat
- deep in the crotch
- rolls of fat in the elbow

Size and Scale

Along with adequate muscling, the market hog must have size and scale. Keep in mind that long, rangy hogs without muscling are not desirable.

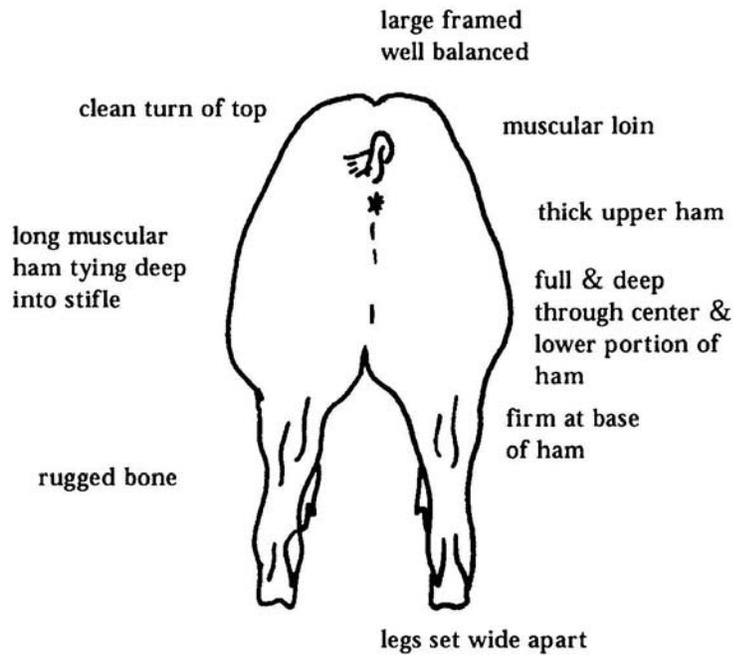
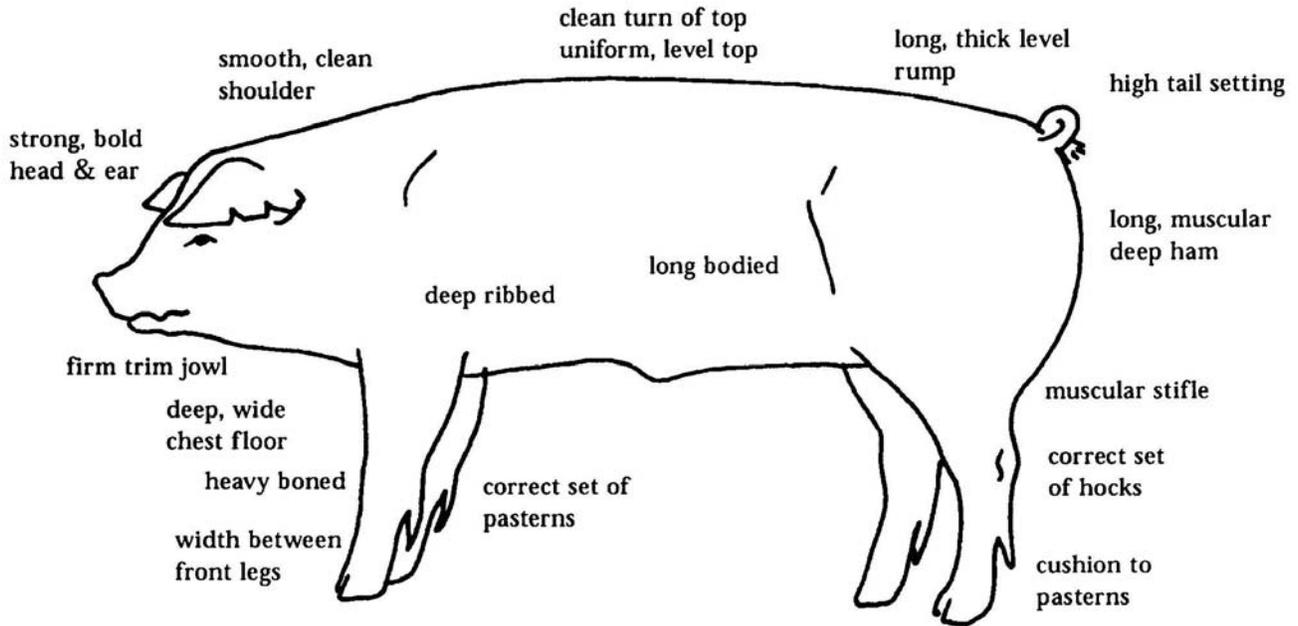
Market hogs with size and scale will have adequate length of side, capacity and adequate bone and length of leg. In contrast, pigs without enough size and scale, even if they are muscular, tend to be dumpy, short sided and short legged.

Structure

Correct feet and legs are necessary for breeding and market stock. The legs must have adequate bone and straight, strong legs for a long productive life.

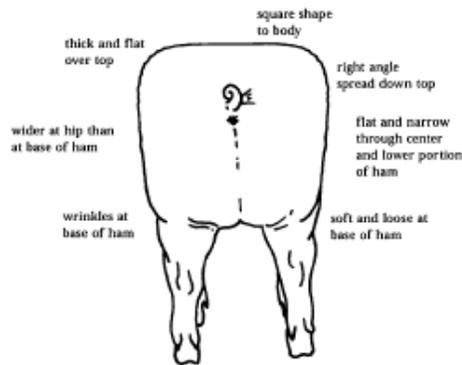
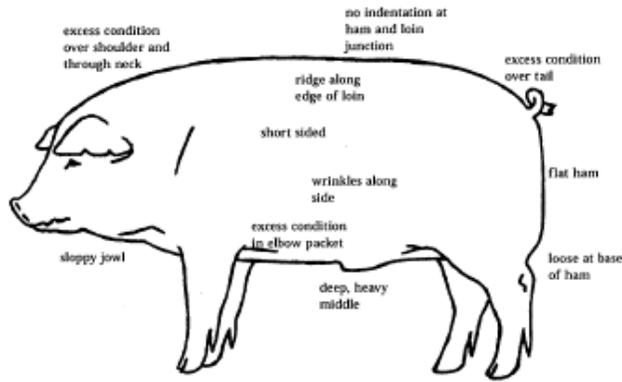
Excellent Type Market Hog

Correctly finished, full in the ham, wide loin, trim and smooth throughout.

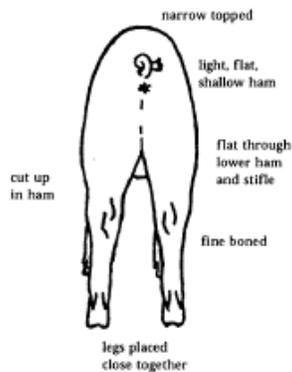
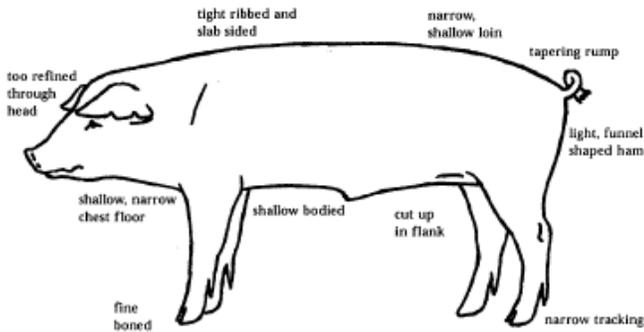


Poor Type Market Hogs

Over finished, wasty, short, thick, and wide in the body.



Under finished, narrow, shallow, and cut up in the ham.



Market Hog Scorecard

		Perfect Score
General Appearance		35
Weight	0-110 kgs at 6 to 7 months	5
Condition	deep, uniform covering of flesh, especially in the ham and loin	10
Form	long, level, smooth, reasonably deep, controlled vigorous movement	10
Quality	hair fine, lying close to skin; skin thin and smooth; no bunches of fat or wrinkles; legs medium length, squarely set, clean cut, straight, firm; feet medium size, toes slightly apart	10
Forequarters		16
Head	moderate length and size, trim, forehead wide	2
	Snout - medium in length, slight dish	
	Eyes - medium in size, clear and bright	
	Ears - trim, medium size	
	Keep in mind that there are some breed differences	
Jowl	light, trim	2
Neck	medium length, width and depth, trim; smoothly blended with shoulders	2
Shoulders	free from roughness, open, not bulging, flat on top	8
Breast	moderately wide, full	2
Body		33
Chest	deep, full girth	4
Back	long, oval, uniform in width with shoulders and rump slightly arched, no evidence of excess fat at break of rib	12
Sides	long, smooth, deep; ribs uniformly sprung	8
Belly	trim, firm, thick; flank full and well let down, not flabby; underline straight, clean, and trim	9
Hindquarters		16
Hips	smooth, wide; proportionate to rest of body	2
Rump	long, even, straight, well rounded toward tail	2
Hams	full, tapering toward hock; firm, free of wrinkles	12
Total		100

Note: This score card is designed as a guideline to help you understand the relative importance of the body parts, and the locations on which you should put the most emphasis.

Terminology For Market Swine

Use the following comparative terminology together with the specific body part you are referring to. Remember to move from general to more specific information as you compare each pair.

Conformation	larger longer wider stronger	stretchier broader taller	more size more scale more stylish more capacity
Muscle	meatier thicker firmer deeper	fuller carries further heavier muscled plumper	more width more flaring more muscle expression
Finish	trimmer less wasty	firmer freer from waste	cleaner neater

Sample Reasons - Duroc Market Barrows

I placed this class of Duroc market barrows 2 3 1 4.

I placed 2 over 3 because 2 was a longer, stretchier barrow with more desirable finish. 2 was trimmer and firmer through his side and trimmer about his middle, shoulders and jowl than 3. I grant 3 has more thickness through the center of the ham than 2.

I placed 3 over 1 because 3 is heavier muscled than 1. 3 has a greater arch of back and more muscling over the back and loin than 1. Furthermore, 3 stood wider through his ham than 1 and showed more evidence of muscling in the hind quarter than 1. I realize that 1 was a smoother, higher quality barrow showing more scale than 3.

I placed 1 over 4 as 1 was a much trimmer barrow with more scale and more length and quality of leg than 4. 1 was a longer sided barrow, cleaner down his top and more desirable turned over his loin edge than 4. 1 was trimmer throughout and will hang a longer, trimmer carcass than 4.

I grant that 4 was thicker through his lower ham than 1. However, I placed 4 last as he was over-finished and wasty through the middle and jowl, and is the fattest, wastiest barrow in the class.

These are my reasons for placing this class of Duroc market barrows 2 3 1 4.

Judging Breeding Swine

Breeding swine should have the same general body conformation as market hogs. The same terminology can also be used. The main difference between market and breeding swine is that in breeding, you place more emphasis on structural soundness.

Selecting productive, performance oriented breeding stock is the first step in breeding quality swine. Productive breeding stock is sound in conformation, fast growing, muscular, lean and reproductively efficient. If you select swine with these characteristics, your chances of being a successful operator are increased.

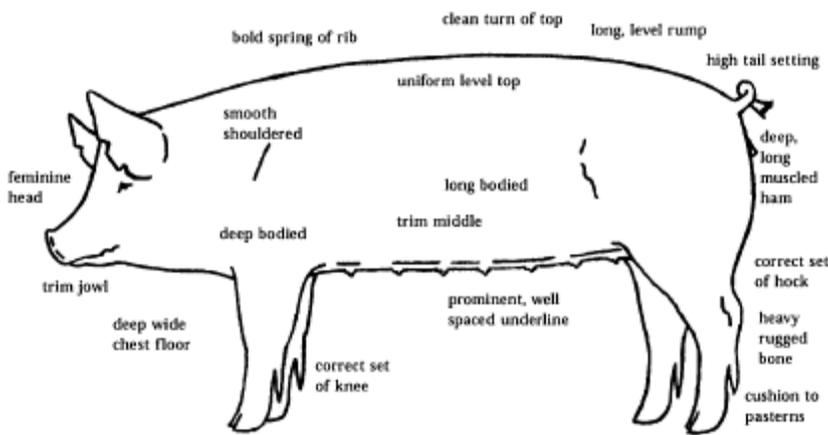
In today's confinement rearing of hogs, structural soundness is necessary. Because of the demand for sound, fast growing, durable and efficient breeding stock, breeding stock suppliers must produce livestock which will adapt to the breeding pens, farrowing crates and finishing floors.

Structural Soundness

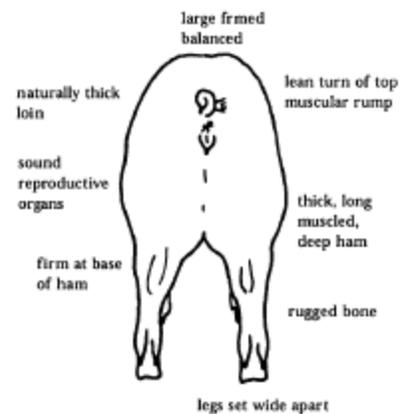
The characteristics of structurally sound breeding stock are:

- sloping shoulder, forearm and pastern
- level rump
- high tail setting
- proper set to the hock joint
- spring or flexion in the hock
- level top
- moderate length of neck
- large, even sized toes, slightly apart
- legs placed squarely under the body.

These characteristics will allow the animal to move freely and soundly on pasture or in confinement. The sow must be able to get up and down in the farrowing crates. Boars must be able to service the sows comfortably.



Ideal Gilt



Feet and Legs

In breeding swine, structurally correct feet and legs are very important.

Ideal Fore Legs

- Sloping shoulder, forearm and pastern serve as front shock absorbers
- Large, even-sized toes, slightly apart
- Straight with strong pasterns

Ideal Hind Legs

- Spring or flexion in the hock joint provides a cushioning effect
- Move soundly and freely
- Large, even-sized toes, slightly apart
- Proper set to the hocks
- Legs squarely under the body
- Strong pasterns with good bones

The front legs should angle out of the shoulder into a long, sloping pastern. If the shoulder is too straight, there will be more pressure at the shoulder and knee joints. Because the knee offers little resistance to pressure, the front legs will buckle over.

The front legs should reach forward with a long, loose stride. Short, choppy front leg movement comes with straight shoulders, steep pasterns and strongly arched tops. In normal rear leg placement, the hocks are slightly closer together, and the toes are turned slightly to the outside. With this placement, the joints will absorb the shock equally.

The rear legs should have long, loose strides with good cushion in both the hocks and pasterns.

Large bone size is desirable and important for durability, as long as the animal is structurally correct. The hog must move freely, with the body weight distributed equally on all eight toes.

Growth Rate

Fast growing breeding stock are a must. You cannot measure growth by visual appraisal alone. Performance must be documented to give you accurate information on the actual performance of the animal. If growth records are available, inspect them and use them in your evaluation class.

Head, Neck, Jowl and Shoulders

The Ideal

- Jowl is firm and trim with no sign of flabbiness
- Neck is of medium length and blends smoothly into shoulder
- Shoulders free of wrinkles and muscular
- Head is trim, wide, between the eyes, clean cut
- Snout is of medium length and straight
- Broad through the chest



Ideal



Poor

Ham

The ham is one of the most expensive retail cuts on a hog. Therefore, it is critical that the ham be desirable.

The Ideal

- Outside of the ham bulges
- Good with through center of the ham
- Muscling extends far down the hock



Good



Poor



Poor

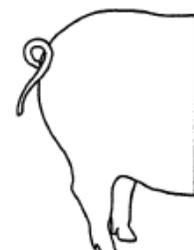
Rump

The Ideal

- Long rump, with a gradual slope towards the tail setting
- Root of tail rests above the bulge of the ham
- Hams well muscled, long and thick



Ideal Rump

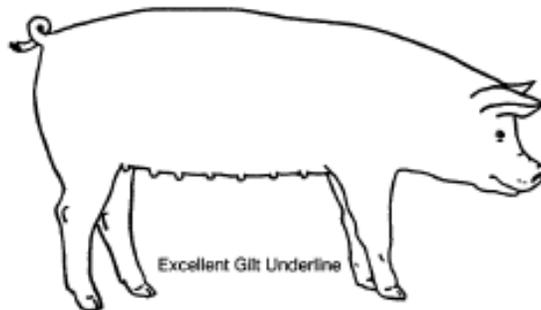


Poor Rump

Underline

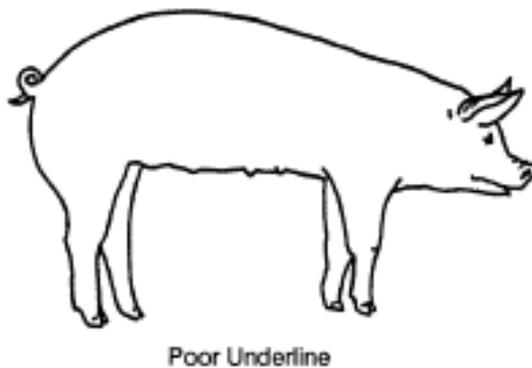
The Ideal

- Starts just behind the front legs with the first pair of nipples
- Nipples long, narrow and well-defined
- Nipples even in size and spacing
- Both gilts and boars should have at least six well-spaced prominent nipples
- At least three pairs of nipples should be ahead of the navel
- Correct underlines are important for raising large, healthy litters and increasing profits



Poor Underline

- Teats begin too far back from the front
- Teats are inverted or not prominent
- Teats are blind and/or not functional
- Poor spacing between the teats

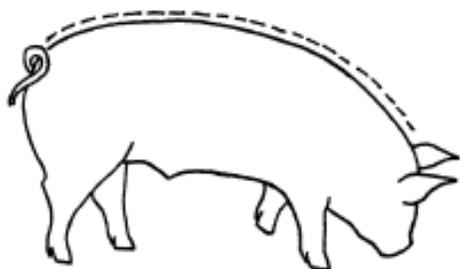


Arch

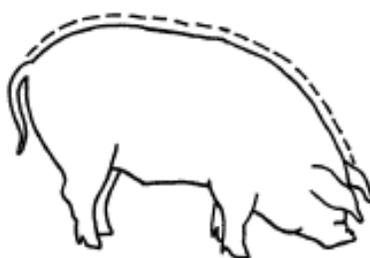
With correct feet, legs and rump structure, the arch should naturally be correct. However, this does not always happen.

The Ideal

- Strong with a gradual arch
- Hog naturally holds this arch
- Sides are long, flat and trim showing muscling at front and rear flanks



Ideal



Poor Arch

Capacity

Desirable

- Body cavity should be deep and square
- Ribs well sprung
- Wide throughout the chest and cavity
- Depth should continue through the length of the animal's body in a uniform manner from forerib to rear flank
- Important for maintaining health, intake of feed and having adequate reproductive volume

Muscle

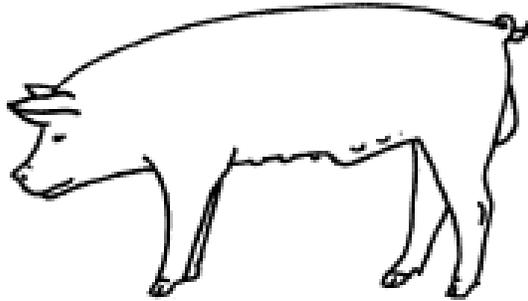
Desirable

- Long flat muscles preferred
- Thickness is important too
- Thick, bunched muscles produce lean and heavily muscled carcasses, but their productivity (litter size, farrowing ease, structural soundness, mating ability) and meat quality was not so desirable
- Ideal is greatest amount of muscle mass (length, depth, thickness) possible without interfering with overall productivity

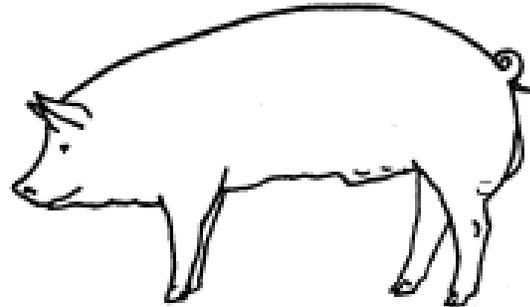
Trimness

Desirable

- Clean over the loin edge and shoulder blades
- Free from excessive waste in the cushion of the ham



Trim, lean topped boar.
Evidence of muscle and skeletal
expression.



Fat, round, wasty boar.
Smooth, lacks expression.

Character

Desirable

- Breed character refers to the presence of desired features of the breed
- Head, ear, carriage, and colour markings are some features to check
- Each breed has specific desirable characteristics
- Check the Canadian Centre for Swine Improvements for more information

Sex Character

Desirable

- Evidence of masculinity and femininity
- Check head, mammary development and external sex organs
- Behaviour also plays a factor

Breeding Swine Scorecard

	Perfect Score
General Appearance	20
Weight	appropriate for age and breed 5 to 6 months - 100 kg 9 months - 145 kg mature sows - 160-250 kg mature boards - 180 - 270 kg
Condition	moderate finish in all classes middle trim and free from flabbiness
Form	well balanced, long, neat and trim sides deep and trim slightly arched topline
Head and Neck	5
Head	face medium length, clean cut eyes well apart and alert ears medium in size, fringed with fine hair
Neck	neck blends smoothly into shoulder jowl smooth, neat and trim, no sign of excess flesh
Forequarters	10
Shoulders	smooth, showing muscle
Chest	broad
Fore legs	straight, good bone, even toes, strong pasterns
Body	25
Loin	long and muscular
Back	long and muscular strong, slightly arched topline
Sides	long, flat and trim showing muscling at front and rear flank
Underline	sows should have a minimum of 6 pairs of sound, well developed, evenly spaced teats
Hindquarters	17
Rump	long and muscular
Hams	well muscled, long and thick
Hind Legs	straight, strong pasterns with good bone
Feet and Legs	13
	stands on even toes and soles legs squarely under the body
Trimness	10
	minimum amount of smooth finish, uniformly distributed over body excess finish is undesirable blemishes are undesirable, i.e. tail biting, bruises, teeth marks, cuts
Total	100

Terminology For Breeding Swine

The terminology to use for breeding swine is the same as the terminology for market hogs. Refer to the information in the section on market hogs (page 8).

Remember that structural correctness is more important in breeding swine. Discuss your most important points first, then move to the less important ones. Discuss general information, then refer to specific traits.

Sample Reasons - Duroc Breeding Gilts

I placed this class of Duroc breeding gilts 1 2 4 3.

Starting this class with the two largest volume gilts in the class, I placed 1 over 2 because 1 was larger framed, longer sided, longer rumped and cleaner and longer in the neck than 2. 1 was deeper ribbed and wider sprung than 2, and stood on more cushion at the knees and pasterns.

I grant that 2 was a leveler rumped gilt than 1.

In my middle pair, I placed 2 over 4 because 2 had more balance, being taller in front and more level over the rump than 4. 2 showed a more desirable slope of the shoulder and was freer moving on all four legs than 4.

I grant that 4 was longer and cleaner in the neck, and had a more prominent, more desirable spaced underline.

In my bottom pair, I placed 4 over 3 because 4 was longer sided and more upstanding than 3. 4 carries less fat throughout, and showed more size and scale than 3.

In an easy placing, I placed 3 at the bottom of the class as 3 was short sided, steep rumped and buck kneed. 3 lacked the structural correctness to place any higher in this class today.

For these reasons, I placed this class of Duroc breeding gilts 1 2 4 3.

Sections of the Judging Fact Sheets were adapted from the Alberta 4-H Judging Project Guide with the permission of the Alberta 4-H Council.

Manitoba 4-H Contact Information

1129 Queens Avenue Brandon, MB R7A 1L9

Ph: (204) 726-6613 Fax: (204) 726-6260

4h@gov.mb.ca

www.manitoba.ca/agriculture/4-h

www.4h.mb.ca