

## **PUREBRED OR COMMERCIAL**

In a purebred enterprise, the breeder must direct his attention towards a constant improvement of his herd by the selection of boars that will improve the weak points of his herd without losing the outstanding qualities already obtained. About 70 percent<sup>2</sup> of the progress made in improving a hog herd comes from the boar. Both boars and gilts must measure up to two standards.

First: They must be of the right type as measured by visual inspection. This includes breed character of the breed selected, including masculinity or femininity whichever is appropriate, and with the proper set of ears. There must be good length, not less than 30 inches from the first rib to the aitch bone, and a well developed ham, not loose and soft, but with firmness and neatness, being well filled out down toward the hock.

The back should show at least moderate arch and no sign of weakness. Both boars and gilts should be smooth and uniform from the shoulders to a point even with the bulge on the rear of the ham. They must stand well on their feet, with strong pasterns, and dew claws well off the ground. The throat should be clean and not show a loose, wasty jawl.

The underline on both the boar and sow should be straight, with not less than six well developed, uniformly spaced nipples on each side. Do not buy a boar or sow with inverted or underdeveloped nipples. A boar should have testicles well developed and of uniform size. He should show no sign of scrotal hernia; there should be no umbilical hernias on either boars or gilts, and in both instances, on any of their litter mates.

These are all characteristics a hog man can see, and should be taken into consideration in all selections for improving the herd or when buying foundation stock.

Second: Boars especially should be performance tested or come from performance tested litters if the greatest improvement in rate of gain and feed efficiency is to be expected in their offspring. In a production testing program

boars should be selected from litter mates or lines that have the desired meat qualities on a cut out basis.

This includes a gain of not less than 1.8 pounds per day for the boars and a weight of at least 200 pounds in 165 days. A feed efficiency of 100 pounds of pork on less than 300 pounds of feed during either winter or summer is desirable. The backfat thickness measured in three places, over the shoulder loin and ham, should not average over one inch if the rate of gain per day is 2 pounds or less. The following schedule<sup>3</sup> gives the maximum backfat thickness allowed, depending upon the daily rate of gain:

If gain is 1.80 - 1.99, maximum probe 0.9 inches

If gain is 2.00 - 2.19, maximum probe 1.0 inches

If gain is 2.20 - 2.39, maximum probe 1.1 inches

If gain is 2.40 or more, maximum probe 1.2 inches

Litter mate barrows should have a loin eye of 4.50 square inches or more. All boars should index 170 or more, which maybe calculate on the following basis.

The boar index (8) is calculated using 250 plus (50 x rate of gain) minus (50 x backfat probe) minus (50 x feed per pound of gain). If a boar gains 1.97 pounds per day, has .78 inch backfat and a feed efficiency of 261 pounds of feed per 100 pounds of gain, he should index 179.00.

In the performance test rate of gain of barrows from the same litter as the boar should be considered, along with their length, loin eye, and backfat probe. All can be taken as a mark of what to expect from pigs the boar sires. Pigs from the first litters by a boar give a good indication of what the boar will do as a herd sire.

A program of constant performance testing should be followed. New sires brought into the herd should have a background and meat qualities that have a potential for improving the herd. Take great care to eliminate any characteristics that are inherited, such as ruptures, cryptorchid, poor underlines, etc.

In the pure bred business the breeder must direct his attention toward having serviceable boars and open gilts for sale at all times of the year. Only boars and gilts of the best type should be sold as purebreds. Always furnish papers

for purebreds sold; the buyer will prize his animal more highly. Cull inferior animals and market them for slaughter. This will do much to hold good customers over a period of years.

When starting a purebred herd, it is desirable to select a breed prevalent in the area, unless the prospective breeder feels strongly against these breeds. This provides an avenue for sales that should not be overlooked.

In starting a purebred herd the operator should secure the best animals he can in the breed selected. There is no one best breed, but constant improvement of the herd should be each breeder's goal. Animals selected should be of a modern meat type, and performance tested if possible. The market usually is quite good for breeds that farrow good size litters, are good gainers and have a cutout record above average.

In a commercial swine operation the same consideration should be given to the purchase of foundation herd that is given selecting a purebred herd. In a commercial herd, pounds over the scale at a low cost is the index of the return. The best type meat animals will bring the top market price.

The commercial man can raise or buy his feeder pigs. To raise his own feeder stock requires a farrowing operation.

Feeder pig production can be a good enterprise for the commercial man, since it has some advantages not common to a finishing operation. This includes a more rapid turnover in the number of pigs that can be marketed each year. Each farrowing period up until the pigs are 4 to 8 weeks of age requires maximum labor, which is cut to a minimum from then until the next farrowing period.

The disease problem with each individual pig is less, because the producer has the young pigs for only a short period of time. The operation, however, does require the best disease control precautions and immediate treatment for an ailing pig. This is a specialized operation, and the operator, to be successful, must keep his herd free from disease by handling parasites and disease, even in the mildest form, in a minimum of time. This means treatment of an ailing pig not later in the day or night, but immediately, within the hour, when the sick pig is discovered. To delay treatment can mean a stunted or dead pig.

Pigs from this operation, unless the producer has a finishing operation, normally go direct from the producer to the feeder who has a growing-finishing operation. The more feeder pigs are handled, the longer they are in transit and

the more places they are unloaded between the producer and finishing operation, the more danger there is of stunted pigs, disease, and pig losses. Large litters of uniform, strong, healthy pigs are essential for maximum profit and rapid turnover.

For rapid feeder pig sales, besides being free from disease, they must not show signs of scours, must have smooth coats and be alert, with a vigorous and healthy appearance.

The producer may raise his own pigs, or buy them from a feeder pig producer. Don't go through channels that permit the pigs to come in contact with facilities that may harbor disease organisms. If feeder pigs are bought, be sure they come from a diseases free herd. Be sure that disease is not held down in the herd by antibiotics. This will cover up such diseases as infectious atrophic rhinitis. When pigs are taken off antibiotics, an outbreak may occur.

Growing and finishing pigs takes a little longer period than that required to raise feeder pigs, usually between 3 and 4 months. If watched closely, disease and parasite troubles can be kept from getting acute as easily when raising feeder pigs.

Pigs in a finisher operation should be fed in a small area, using a self-feeder, or on a tight floor of concrete, plank, or other hard surface material which can be thoroughly cleaned. Feeding in limited space prevents excessive exercise, which does not contribute to maximum gains and best feed efficiency. If a disease problem arises, a concrete floor can be more easily disinfected and kept clean than a wood floor. A dirt floor does not lend itself to good disease control methods when space is limited, and especially in a large swine operation.

In the North Dakota climate, with small or limited operation, a dry lot or pen with the house or shed for sleeping quarters, which provides only wind and sun protection, is satisfactory in the spring, summer and early fall. In the winter hogs being finished should be housed in either a building of the shed type which may be open to the south, a hut type house, or a confinement setup. Growing and finishing large numbers of hogs can be handled under confinement with less labor, and is desirable if the operation is large enough to provide a fair income even when the margin is small. Without temperature controlled winter quarters, feed efficiency will drop slightly. With small numbers it is possible to house growing and fattening pigs in the small houses, which have certain advantages. These houses can easily be moved to a new location, and the old location cleaned up with tractor mounted equipment.

With this type of setup, wind protection for both the feeding and watering areas may have some advantage in keeping up the rate of gain and feed efficiency.

Growing and finishing can be done on pasture during summer. This requires more space, almost the same feed costs, and slower gains because of exercise the pigs take on pasture. Limiting the feed on pasture may not increase the cost per 100 pounds of pork, but does slow up the rate of gain.

In the grower-finisher setup, self-feeding or feeding on concrete are best for more rapid and more economical gains. Select a self-feeder of strong construction and one which gives pigs the least chance to waste feed.

The basic ration in North Dakota should be made of home grown feeds, oats and barley being the most practical to get, except where corn is available, with only enough supplement to give the protein content desired.

Facilities should be available for storing and handling a good volume of feed if the growing-fattening operation is for a large number of hogs.

## **BERKSHIRE**

The Berkshire is a prepotent breed of hardy hogs, with good soundness and the ability to perform well in the pasture or in confinement. The sow is easy to handle at farrowing time.

Berkshires sometimes are considered a balanced breed in the fundamental necessary for profitable pork production (1) productivity (2) feed conversion (3) carcass quality and (4) soundness. The sows are good mothers, with a docile disposition that makes them easy to handle during farrowing time. They farrow and raise good sized litters with heavy birth weight. They make good rates of gain and have a good feed efficiency. The Berkshire produces a high quality carcass.

The American Berkshire Association is at 601 West Monroe Street, Springfield, Illinois.

## **CHESTER WHITE**

Chester White sows are prolific, do an exceptionally good job of suckling their litters and are good mothers.

The breed is known for its deep smooth sides of ample length and uniform width. The breed is long and comparatively level at the rump, carrying down into deep plump hams. Chester Whites are early maturing and can be satisfactorily marketed at a lighter weight than some breeds, they will sunburn until acclimated, after which sun is no problem. The sows have good disposition and are easily handled in farrowing crates. The Chester White Swine Record Association address is Box 228, Rochester, Indiana 46975.

### [DUROC JERSEY](#)

The popularity of the Duroc among hogmen indicates the success the breed has had in satisfying the requirements of a good commercial hog.

The breed matures early, developing readily at an early age. The Duroc is noted for fast growth, feed efficiency and hardiness. They are of mild disposition and are fair grazers. The breed is prolific and the sows are good mothers.

The association is the United Duroc Swine Registry, 1803 Detweiller Drive, Peoria, Illinois 61614.

### [HAMPSHIRE](#)

The Hampshire breed is outstanding in its ability to cross well with other breeds and the crosses perform well in the feed lot.

The breed has a good record in rate of gain and feed efficiency. They excel in muscling, and have low backfat. They have a good record in crossbreeding programs. As a breed, they have to a rather high degree those traits that can be measured and that are important to profitable hog production. Hampshires are vigorous, particularly sound on feet and legs, and are well suited for conditions prevailing on large, modern, intensive units.

The association is the Hampshire Swine Registry, 1111 Main Street, Peoria, Illinois 61606.

### [POLAND CHINA](#)

Farmers have always liked the size of the "Polands," one of the largest modern breeds. They are a very uniform and attractive breed, with a black body and white points. Poland Chinas are very quiet in disposition and rugged in constitution. They can grow well in confinement as well as under pasture conditions. They are good in loin eye and muscling and are very meaty, growing extremely large when kept as mature animals. Polands are aggressive. Problems rarely arise because a boar fails to breed. They are extremely hardy.

The record association is the Poland China Record Association, Box 71, Galesburg, Illinois 61401.

### [SPOT](#)

This breed was developed for use on the American farm where pork production is a major enterprise.

The Spot is a large breed of hogs that carry down deep in the ham and are neat and uniform in depth of body. They are considered above average in growth, soundness of feet and legs, soundness of underline and length. They are above average in mothering ability, litter size and muscling. They have ample bone and stand well on their feet and legs.

The National Spotted Swine Record Association is located at 110 West Main Street, Barnbridge, Indiana 46150.

### [YORKSHIRE](#)

No breed does a better job of suckling their litters than do Yorkshire sows or sows carrying a high percentage of Yorkshire blood.

Yorkshires are very muscular in confirmation, deep, uniform, and well laid in at the shoulder. They carry down into well shaped hams. Yorkshires are cleancut along the underline, about the jowl and the face of the ham. Because of their length they weight heavy for their appearance. Yorkshire sows are prolific and make excellent mothers. When kept in the barn or under extensive shade and are turned out to pasture on bright, hot days they may sunburn rather severely. They become acclimated if turned out on days with moderate sunshine, and no sunburn problems then result.

The registry association is American Yorkshire Club, Box 878, Lafayette, Indiana 47902.

## LANDRACE

The Landrace was developed in Denmark and other Scandinavian countries solely on the basis of progeny and performance listing. The first shipment into the United States was in 1934.

Landrace hogs are high in lean meat with a good rate of gain and feed efficiency. Litters are large, strong, and grow fast because the dams are good milkers, and show good mothering ability. Boars and gilts weigh 200 pounds at five months of age. The body is long, trim, medium in depth and free of wrinkles. The Landrace is sometimes called the universal hog because animals of the breed are found in many different countries. They are used extensively in crossing programs.

The American Landrace Association, Inc. is located in Culver, Indiana, Box 111.

- [Farrowing pen showing guard rails and brooder.](#)
- [Farrowing pen showing gate with built in trough for feed and water.](#)
- [Swinging gates used as a farrowing crate.](#)
- [After farrowing one gate is removed and the other is swung back to protect the brooder, leaving ample room for the sow.](#)

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