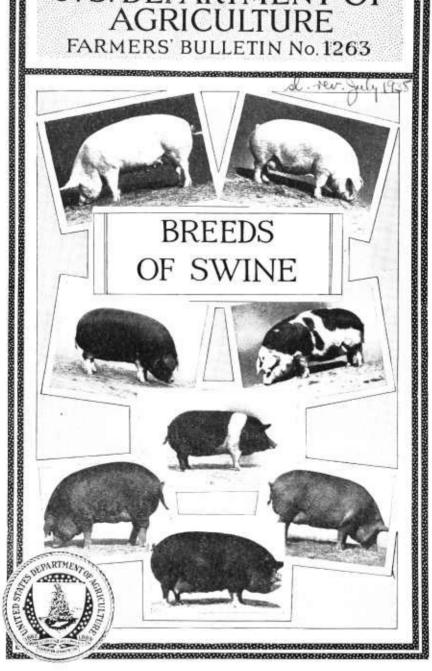
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000 U. S. DEPARTMENT OF AGRICULTURE BREEDS



THE purpose of this publication is to present in a concise manner the most important features regarding the principal breeds of swine in this country. For information regarding the rules of registry and the issuance of herdbooks, or for lists of breeders, the reader is referred to the various associations. The officers of the breed-record associations change from time to time; hence their names are not included in this bulletin. But, on request, the Bureau of Animal Industry will furnish the names and addresses of the secretaries of established associations as last reported.

Although encouraging the development of improved types of swine and other livestock, the Bureau of Animal Industry has no jurisdiction over the registration of animals or the operation of the respective associations.

Washington, D. C.

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# **BREEDS OF SWINE**

By E. Z. RUSSELL, senior animal husbandman, Animal Husbandry Division, Bureau of Animal Industry<sup>1</sup>

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### CLASSIFICATION OF SWINE

IN THE UNITED STATES there are two distinct classes of swine, represented by breeds of the lard type and breeds of the bacon type. Lard-type hogs are bred much more extensively than those of the bacon type by farmers throughout all parts of the United States. The principal lard-type breeds are the Duroc-Jersey, Poland China, Chester White, Berkshire, Hampshire, and Spotted Poland China. The only breeds of bacon-type hogs bred extensively are the Tamworth and the Yorkshire.

# INDIVIDUALS MORE IMPORTANT THAN BREED

The selection of a breed is largely one of personal preference. There is no best breed of swine. Although there may be conditions on farms in the same locality under which one breed may do better than another, generally the best breed to raise is the one which the breeder prefers.

The individuality of the animals is of far greater importance than the breed. About 15 years ago many breeders of purebred hogs began to select breeding animals of extreme size, a large proportion of which were very deficient in hams and loins. Also they were long-legged and narrow-bodied, and in many instances proved to be uneconomical feeders. Most of the farmers who bought breeding stock of this extreme type sooner or later concluded that they were not the most profitable type to have and began looking for hogs that were better fleshed, more compact, with good hams and broad backs, and that could be made to weigh 200 to 225 pounds at about 6 months of age. Experience has shown that extremes of type, either large or small, should be guarded against.

Practical hog raisers know that the most profitable hog is the one which can be grown to the desired market weight in the shortest possible time and by using the least amount of feed per pound of gain. The best market weight is generally from 175 to 225 pounds.

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<sup>&</sup>lt;sup>1</sup>Mr. Russell retired December 31, 1936. The bulletin has been slightly revised by J. H. Zeller, senior animal husbandman, Animal Husbandry Division.

The type of hog selected for breeding purposes must not be so large and rangy that the offspring when raised for market will show an unfinished condition, nor should the type be so small or blocky that there will be an excess of fat when hogs are marketed at the abovestated weights.

Prolificacy in the breeding herd must receive attention by the hog grower. One of the essentials in producing good, strong, prolific, breeding animals is plenty of exercise. The short-legged, low-set breeding hog will not exercise so freely as the one somewhat larger in type.

Building up and maintaining a herd of breeding animals can be done only when careful selection is practiced. It is necessary, therefore, for best results, to select the breeding animals of the herd carefully and then to provide the right kind of feed and management.

#### BREEDS OF THE LARD TYPE

Within the last 30 years rather drastic changes have been made in the appearance of the lard-type hog. Formerly it was a rather low-set, broad, blocky, type of animal. Today most lard-type hogs are fairly upstanding, having good length and depth, with medium width. The shoulders should be full and smooth, not coarse; the hams full and as wide as the shoulders, carried back well to the root of the tail, and fleshed down to the hock. The flesh should be evenly distributed over the body.

The following are the principal lard-type breeds to be found in the United States:

#### DUROC-JERSEY

The Duroc-Jersey breed originated in the northeastern section of the United States. It was derived from mating strains of red hogs developed in sections of New York and New Jersey. Those in New Jersey were originally called Jersey Reds; those in New York are said to have been developed by a man who owned the noted stallion Duroc, and people in that vicinity called the red hogs which this man was breeding "Duroc" hogs. Several years after the independent breeding of Durocs and Jersey Reds, these hogs were intermingled in breeding, with the result that there was formed the breed known at the present time as Duroc-Jersey. This breed is red in color, without admixture of any other colors. The popular color is referred to as cherry red; some animals, however, are dark, while others are light. There is no recognizable difference in the feeding or other qualities among hogs of the different shades of color in this breed

qualities among hogs of the different shades of color in this breed. From its early history the Duroc-Jersey breed was noted for hardiness and prolificacy. It began to be popular in the United States at about the time Poland China breeders were producing the small type of hogs or so-called "hot bloods." This situation had much to do with making the Duroc-Jersey breed popular with the farmer. Animals of this breed had sufficient quality and hardiness to make them profitable to hog growers. In type they are similar to big-type Poland Chinas. The older boars when in show condition do not as a rule acquire quite so much weight as those of the Poland China breed. The legs are of medium length, with good bone. The sows

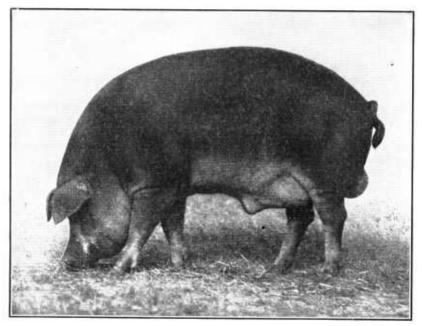


FIGURE 1.-Duroc-Jersey boar.

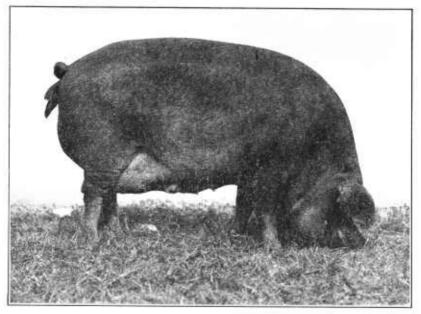


FIGURE 2.-Duroc-Jersey sow.

are prolific and are good milkers and mothers. Duroc-Jerseys are good grazers and are profitably adapted to following cattle in the feed lots.

Pigs of the most desirable type attain a weight of 200 pounds at 6 months of age and are capable of producing a greater weight at a profit if market conditions justify their being fed for a longer time. Boars are massive and have good length and depth with good backs (fig. 1). In show condition they may attain a weight of 1,000 pounds. In breeding condition an aged boar generally weighs from 650 pounds up.

Duroc-Jersey sows (fig. 2) generally are upstanding, having good depth with good backs as well as good feet and legs. One seldom finds a sow of this breed cross or fretful. In show condition sows generally weigh from 600 to 700 pounds. In some instances a greater weight is reached.

The association for recording hogs of this breed is the United Duroc Record Association.

#### POLAND CHINA

The Poland China hog originated in Butler and Warren Counties, Ohio. This breed undoubtedly was derived from the crossing of several breeds. In the seventies two farmers—A. C. Moore, of Canton, Ohio, and D. M. Magie, of Oxford, Ohio—developed a widespread reputation for their hogs and advertised them extensively. Their hogs were known at that time, respectively, as the Moore hogs and the Magie hogs. From the Moore and Magie hogs was developed the breed now known as the Poland China.

The early Poland China hog was a large, rugged, coarse-eared, heavy-boned, prolific, spotted animal that attained a good market weight but was not of the easiest feeding type. During the last decade of the nineteenth century and the first decade of the twentieth century many Poland China breeders, especially those breeding for the show ring, followed what may be termed a fad in their breeding operations. The fashionable type was a short-legged, small, compactbodied hog popularly known as the "hot blood." It has six white points, namely, four white feet and a white splash on the end of the tail and at the point of the nose. The sows were neither prolific nor very good sucklers.

During the last 30 years the type of Poland China hog has been changed materially. On only very few farms can one find any of the old hot-blood Poland Chinas. On a large number of farms, however, Poland Chinas of what may be termed the "medium type" are produced. Many breeders of Poland Chinas still produce the large type, but not the extremely large type, which was popular among some breeders shortly after the close of the World War.

The boars have big, heavy bone, are rugged, possess plenty of length and depth, and with it all have good quality. Mature boars of this type (fig. 3) in show condition weigh from 850 to 1,000 pounds. Some animals show greater weights. In breeding condition aged boars should weigh from 650 pounds up and sows from 500 pounds up. The sows (fig. 4) are prolific, good sucklers, and are capable of raising good-sized litters. They have plenty of length, are smooth, with good, full shoulders and well-rounded hams. They are naturally active, take plenty of exercise, and are capable of producing strong litters at farrowing time. The color of the present-day Poland China generally is black. Many of them have white spots on different parts of the body.

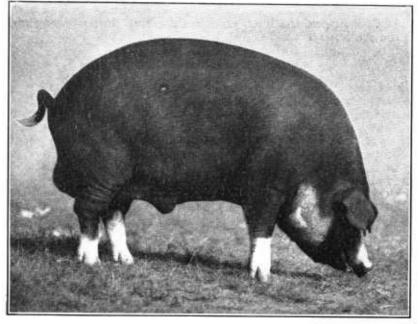


FIGURE 3.- Poland China boar.

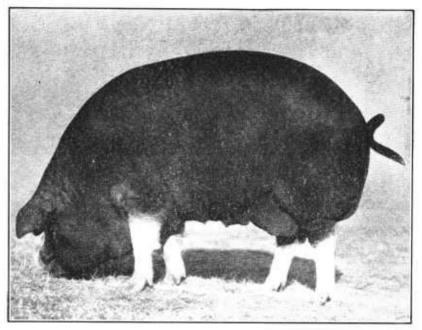


FIGURE 4.-Poland China sow.

The Poland China produces an excellent finished carcass at an early age. Hogs of this breed often weigh 200 pounds at 6 months of age. There are three associations in the United States that register purebred Poland China hogs, namely, the American Poland China Record Association, the Standard Poland China Record Association, and the National Poland China Record Association.

#### CHESTER WHITE

The Chester White breed had its origin in Chester County, Pa. The large, coarse, hogs found in the Eastern States especially in Pennsylvania, early in the nineteenth century, were a mixture of the Yorkshire, Lincolnshire, and Cheshire hogs, all of which were of English origin. In Pennsylvania these hogs were crossed on smaller type hogs, but the most successful cross was by using an imported hog from Bedfordshire, England. This crossing was continuously improved up to 1848, when the breed reached such a degree of purity

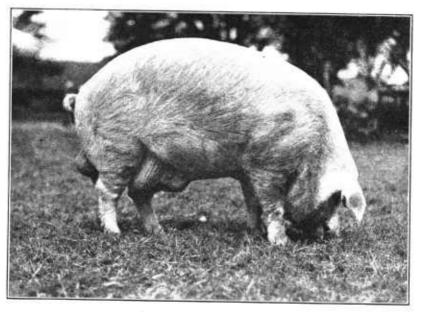


FIGURE 5.-Chester White boar.

that it could be relied on to reproduce its desirable qualities. It was named "Chester County White" in 1848, but the word "County" was soon dropped and the present name became established.

The first record association for the breed was formed in 1884, and to its records all individuals of the breed trace. Later there were eight different record associations catering to the business of the breed, and as these lessened the unity of action among the breed's advocates the popularity that the breed had acquired during the latter half of the nineteenth century seemed to wane but in recent years it has regained its popularity.

The Chester White is a very prolific hog. It has a good disposition and easily adapts itself to its environment. It matures early, and, being a good grazer, a good feeder, and possessing good dressing qualities, has demonstrated its utility on many farms. From 1884 the uniformity of size for age of the Chester White has been commendable. The score-eard type or the standard of excellence is very similar to the type of the other lard breeds of swine. Mature boars (fig. 5) of this breed weigh from 600 to 900 pounds, some individuals showing a weight of 1,000 pounds. The sows (fig. 6) weigh from 500 to 700 pounds.

The record associations for the breed are Chester White Swine Record Association and the Breeders Chester White Record Assoeiation.

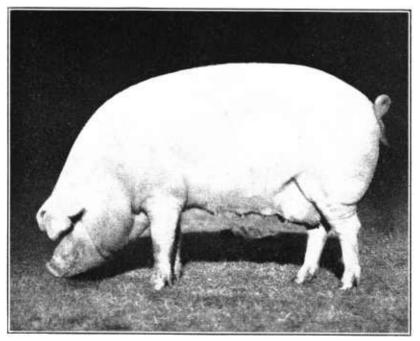


FIGURE 6.-Chester White sow,

#### BERKSHIRE

The Berkshire is one of the oldest of the improved breeds of swine. It was originated and developed in England and is still raised extensively in that country. Many animals of this breed have been imported into the United States and Canada from English herds. Mention is made of the Berkshire hogs in England and Scotland as early as 1789.

Berkshire hogs are of medium size, generally smooth and of good length and depth, having legs of medium length with fair size. In color this breed is similar to the Poland China, but has not so many white spots as are usually found on the Polands. Some breeders object seriously to too many white spots. The peculiarity of the Berkshire breed is the short, upturned nose. The face is usually dished and the ears are erect but inclined slightly forward. Berkshire hogs have good width of body, the back is broad and the ribs well sprung. The hams and shoulders are generally smooth and well fleshed. The meat of the Berkshire is generally regarded as good in quality.

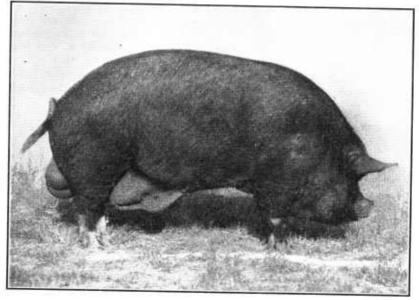


FIGURE 7.-Berkshire boar.

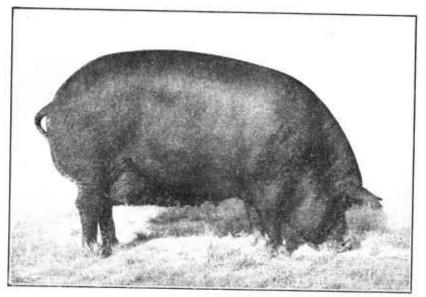


FIGURE 8.-Berkshire sow.

Good Berkshire pigs can be fed to market weight at from 6 months of age up. Mature boars of this breed (fig. 7) in good show condition usually weigh from 600 to 850 pounds. Some attain a heavier weight. Mature sows (fig. 8) should weigh from 450 to 650 pounds. The record association for this breed is the American Berkshire

Association.

#### HAMPSHIRE

The Hampshire breed originated in the English county of the same name and was introduced into the United States during the first half of the last century. When the Hampshire hog first began

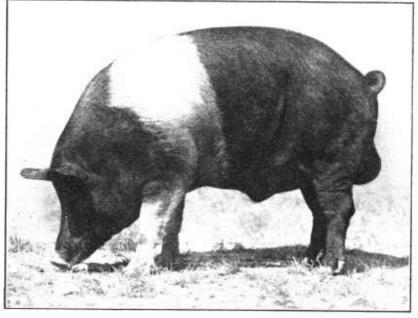


FIGURE 9.-Hampshire boar.

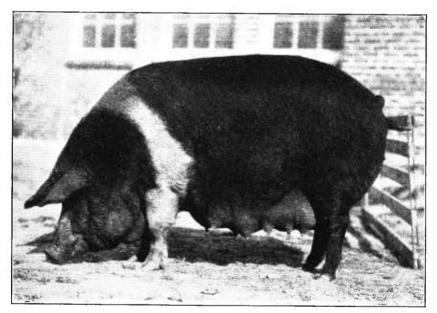


FIGURE 10.-Hampshire sow.

to be popular in the United States it was often referred to as the "Thin Rind" hog and was classed as a bacon breed. It is now recognized as one of the lard breeds. Hampshires have made rapid progress in popularity during the last 20 to 25 years. Sows of the breed are prolific. The mothers are good sucklers and make good use of pastures.

The most striking characteristic of the Hampshire is the white belt around its body, including the shoulders and front legs. The standard of perfection for Hampshire looks with disfavor upon white showing high on the hind legs and on belts greater than one-fourth the body length. Hampshire breeders sometimes discard excellent animals in their breeding operations because of imperfect belts or because they have white hind feet or legs.

The Hampshire in general appearance is smooth and has legs with medium-sized bones. Hampshire breeders are making efforts to increase the size of the bone and the strength of the feet and legs. The body is often not so broad as that of typical hogs of the other lard breeds, but it is deep and smooth and produces desirable sides for bacon. The jowls are light, the head is small and narrow, the snout rather straight and of medium length, the ears erect, the shoulders smooth and well set, and the hams deep but usually not especially thick. The flesh is of good quality. Animals of this breed sell readily on the open market.

The Hampshire possesses good growing and fattening qualities, and pigs may be brought to marketable weights at from 6 months old up. In show condition mature boars of the breed (fig. 9) weigh from 600 to 850 pounds, some attaining a greater weight. Mature sows (fig. 10) in show condition weigh from 500 to 700 pounds.

The record association for this breed is the Hampshire Swine Record.

#### SPOTTED POLAND CHINA

The Spotted Poland China in many ways is very much like the Poland China, but there is much more white on the body of the former. The appearance is rather that of a black hog with numerous white spots. The standard requirement of the present record associations for the breed is that at least 20 percent of the body be white. These hogs began to be noticed more during the time when there was a tendency throughout the country to get away from the hot-blood Poland Chinas. The Spotted Poland China hog, having more length and greater size than the hot bloods, attracted the attention of farmers who were looking for larger hogs. The first record association of this breed, known as the National Spotted Poland China Record Association, was organized January 1, 1914.

The general type found in this breed is a hog with good length, fairly straight, broad back, good depth of body, legs of medium length with heavy bone of medium quality. The head is short and broad, and the ears are somewhat larger than those of the Poland China breed. Some Gloucester Old Spots, imported from England into the United States as foundation animals in some herds and recorded in the Spotted Poland China Record, have influenced the type in this breed to a considerable extent. Boars (fig. 11) in show

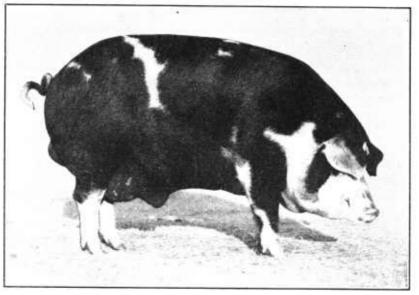


FIGURE 11.-Spotted Poland China boar.

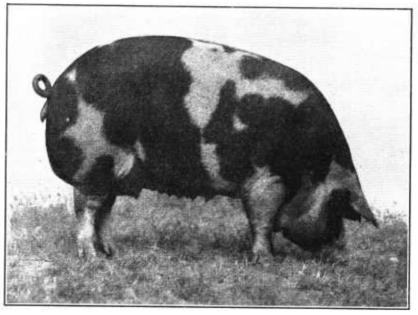


FIGURE 12 .- Spotted Poland China sow,

condition weigh from 650 to 1,000 pounds, and sows (fig. 12) from 500 to 700 pounds. The sows are prolifie and raise good-sized litters. The present record associations for this breed are the National Spotted Poland China Record Association and the American Spotted Poland China Record Association.

## BREEDS OF THE BACON TYPE

Hog growers in the United States do not raise the bacon-type hog to any great extent. The Tamworth and the Yorkshire, of English origin, are the two breeds grown in the United States which represent this type. The Tamworth breed is established in many localities. The Yorkshire is confined principally to the Northern States.

Baeon hogs are different from lard-type hogs in that they have extreme length, the object of breeders being to produce the maximum amount of bacon with relatively small hams and shoulders. Animals of this type have good depth, deep sides, and are comparatively narrow, with generally smoother bodies than most of the hogs of the lard breeds.

#### TAMWORTH

The Tamworth is one of the oldest and probably one of the purest of all breeds of hogs. There is no evidence of its having been erossed with other modern breeds. On the other hand, there is evidence of

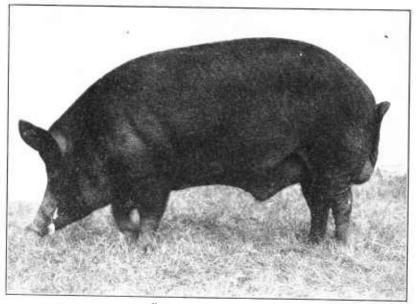


FIGURE 13 .- Tamworth boar.

pure breeding dating back more than 100 years. The name of the breed is derived from the town of Tamworth, located on the River Tame, in Staffordshire, near the north border of Warwiekshire, England. Sir Robert Peel is eredited with having introduced these hogs into England from Ireland about 1812, although their real origin is obseure. The first record of any of this breed having been brought to the United States appears to have been in 1881.

Hogs of the Tamworth breed are rather long-legged, with long, deep, smooth bodies, good baeks, narrow heads, rather long snouts, and fairly large ears, usually ereet and often inclined forward. The jowls are light and the bone is medium in size, but generally of very good quality. The color is red, varying from light to dark. These hogs are good grazers and take on weight readily. Pigs of 200 pounds weight at 6 months of age are not uncommon. They do not mature quite so early as some of the other breeds. At the same time they attain a market weight at as early an age as any of the lard-type breeds and can be fed profitably to greater weights. Mature boars (fig. 13) weigh from 700 to 1,000 pounds. Mature sows (fig. 14) weigh from 550 to 800 pounds. The sows are prolific and generally good sueklers.

The record association for recording hogs of this breed is the Tamworth Swine Association.

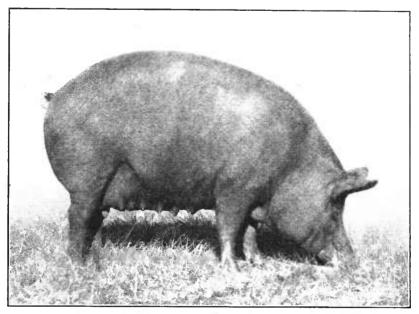


FIGURE 14.-Tamworth sow.

#### YORKSHIRE

There are two distinct types of the Yorkshire breed, known as Large and Middle Yorkshires. All originated in England, where they are known as Large and Middle Whites. The Large Yorkshire greatly outnumbers the other and is the type raised by Yorkshire breeders in the United States.

They are large, white hogs with smooth, even, deep bodies, very long, capable of dressing out a large percentage of meat with bacon of very good quality. The body is supported by legs of good length, having bone of medium size and generally of very good quality. Occasionally there are black pigment spots in the skin of animals of this breed. This does not disqualify them, yet it is objectionable from the standpoint of breeders of purebred stock. Large Yorkshire sows are prolific and are generally very good sucklers. Mature boars (fig. 15) of this breed weigh from 700 to 1,000 pounds. Mature sows (fig. 16) should weigh from 500 to 800 pounds.

The American Yorkshire Club is the recording association for this breed.

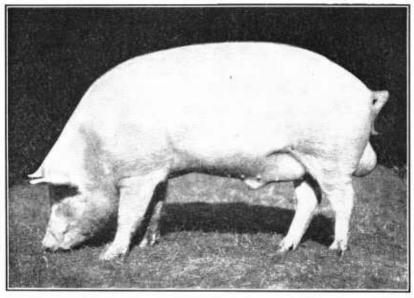


FIGURE 15.-Yorkshire boar.

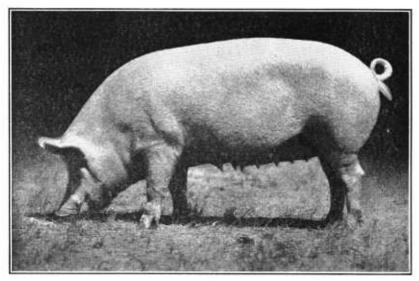


FIGURE 16.-Yorkshire sow.

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