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POLAND CHINA SWINE

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Fossil forms of the genus *Sus* have been found as early as the middle of the Pliocene to the middle of the Miocene time. Our first traces of the real Peccaries come in the Oligocene and Eocene time. The groupe reached an important stage of its evolution in the Tertiary Period, and to the present time this family has made many changes and variations. In connection with the Geological origin of this family we should also consider its original habitat and disposition that we may the better see wherein the improvements have been made and also that we may understand what characteristics this family has had which has made it so important and useful.

The Peccaries live in hords and are naturally herbivorous in their habits but are sometimes more or less carnivorous. These hords are very ferocious especially when attack by an enemy. The males are extremely dangerous, being provided with large tusks which enable them to put up a courageous fight. Boars fight viciously in order to gain preference with the female. If by chance any animal invades the abode of one of these hords they are immediately siezed and literally torn to pieces and devoured. They are fond of shade and moist places where they remain during the heat of the day. Traveling in hords as they do serves as

a protection for the young and weaker ones. Originally the family was distributed in tropical or semi-tropical regions. The type-genus is *Sus* of which the wild Boar of Europe and Asia is the most prominent species. India and the Malayan region have together three other species; Western Africa a fifth. The Western African Wart hog is distinguished from *Sus* in that they have larger tusks and greater proturbences on their face. Another important characteristic of this family which must be kept in mind throughout this entire discourse is the fact that it has the power of adapting its life to its environments more readily than most animals which is one of the reasons for its importance. However, mean and groveling may appear the habits of the hog when reduced to slavery, we know that when it is properly cared for or left in its natural state that it is in many respects the cleanliest of animals. They are capable of a great amount of training and cases have been known when a hog has done marvelous feats in circul performances. No animal mother is more tender to her young than a sow or more resolute in her defence.

Now that we have a brief synopsis of the origin of the hog and his habitat, it is necessary to take a brief survey of the important primitive breeds in Europe and Asia, that we may more fully understand the foundation of our present day breeds.

The Wild hog of Europe and Asia which was often spoken of by the poet had a very shaggy coat and a ferocious appearance, possessing very strong limbs and a sturdy body. The

head was massive and rough, being provided with huge tusks.

The Siamese Breed from Eastern Asia is an altogether different type of hog which is of a finer make up and possessed a fine coat of hair, but was not nearly as hardy or robust. This breed served its purpose, however, in correcting the extreme coarseness of the English hogs.

The old English breed of the low lands grows to an enormous size but is very common in appearance, having large lop ears and often an ungainly form. This breed is late in maturing and is a slow feeder.

The Primitive Berkshire was a red-spotted hog with ears erect and a more compact body than the old English hog. It was the result of several beneficial crosses made to correct the extreme coarseness in hogs of that day.

The Metropolitan Hog was also a hog of finer coat and finish throughout.

Before considering the breeds which were concerned more directly in the formation of the Poland China breed, let us see what must constituted the common hog of the forest. There were hogs brought from almost every part of the inhabited world, because immigrants always brought hogs with them. During the slave trade hogs were brought in from Africa. Knowing the early custom of turning the hogs out into the woods we can easily form some conception of the heterogeneous mixture which composed the common hog.

The Byfield was an important breed in Butler and Warren Counties Ohio in 1842 and were described as being large, lop eared hogs with a fine white coat. Another type was

described as having a short nose, broad disked head, and fine tipped ears.

The Irish grazer had an upright ear, light jowl, fine coating, and would fatten at almost any age. They are the hogs which gave our Poland Chinas their fine coat and symmetrical form.

The Russian Hog came, but no one knows exactly how it came. However we know this, that it was one of the unimportant primitive crosses which aided in forming the Poland China Breed. This hog gave the Poland China a good grazing capacity, appetite to fatten, and rapid growing capacity at the same time.

The China hog did most to improve the Poland China of the Miami Valley. They were first introduced by the Shakers in 1816. By their use on the Mongrel, Russian, Byfield, and common hog, came the Miami Valley hog.

The Red hog or Poland Hog was very much like the old English Berkshire and was named Poland because a Polander owned the first pair of them. The name Poland in our Poland China Breed is undoubtedly derived from this same Polander. This breed made much discord when a stylish ideal was set for the Poland Chinas, because sandy patches would keep cropping out generations after they had been used.

The common hog, as previously described, had also an important part to play in the formation of the Poland China

Breed. The immediate origin of the Poland China is in Miami Valley, Ohio. We have seen how that the different breeds of hogs were brought together in such a way as to develop a breed that would retain the greatest number of good qualities; now we must note how the natural environments aided in the accomplishment and also appreciate the true significance of the necessity of favorable surroundings in animal breeding. Miami Valley was the most fortunate place for the early settlers engaged in the Swine industry. The great variety of rich, nutritious grasses, with the nut bearing trees in the hills, afforded a most excellent place for the growing of Swine. The pure water and abundance of shade along with the abundance of corn made it a veritable place for Swine. All these favorable conditions were not in vain because the Poland China Hog was originated which has been of inestimable value to man. Every breeder of pure bred hogs may learn a lesson in the development of the Poland Chinas which means dollars and cents to the business world. For instance if a man is striving toward an ideal type of animal, he must realize that next to proper selection is proper feeding and care. Every up-to-date breeder today sees that his herd is properly provided for so that they remain in the best possible condition, which is undoubtedly a powerful feature in breeding hogs to a desired ideal.

We have seen that the Poland China originated in the fertile Valley of Miami by chance crossing of the different breeds just described or by their progeny, but no exact or

definite conception of the exact percentage of crosses is attempted any more. This is immaterial of course, but we do know that from these conditions a result of all these breeds sprung up and crystallized in the form of the Poland China breed of hogs.

The next object of this paper will be to trace briefly the history of the Poland China from this stage of its development unto the present time, pointing out its variations and mistakes with their accompanying reasons and also to make a feeble attempt to show how we can correct our present mistakes and to suggest such a theory as should bring us face to face with an ideal hog. It is a fact that several of the improved breeds are beginning to converge to that perfect type of a hog.

The wide range allowed these early Poland Chinas to develop strong limbs and rugged forms so that when they were fattened for market they were able to carry it off with considerable ease. We see again that conditions were such as to favor this type of hog in that there were no railroads and the means of travel were very meager and what few roads they had were almost bottomless so that we can readily understand why a premium was placed upon hogs which were capable of a large weight and still capable of carrying it off to market. The matter of most economical assimilation at this time was not a matter of consideration, but later when the country settled up more and a feed became scarcer, the people began to seek a finer quality with better fattening qualities.

ties and this was carried to such an extent that the limbs, pasterns, and feet were greatly impaired, and to such an extent that it took many years of careful selection and proper care to correct this serious error. There are a number of prominent strains even today, which are defective in this respect. Of course the confinement and general environments of hogs today have tended to change the type of hog to a certain extent, but this has not been the only reason. Imperfect standards have been a serious thing to the welfare in the perfection of the Poland China. That is to say the judging at our fairs and shows has not been based on the proper standards of excellence. It is very easy for the best of judges to place fine finish with a fancy ear and good head above another individual which may have many more of the fundamental qualities but lacking a little in this particular. Utility should be the first thing in the mind of a judge and not aesthetic qualities.

Before criticizing out present systems and standards of hogs too severely we must understand that the hog that was the most practical in the early career of the Poland Chinas would not be an ideal type now. Because we have more railroads and better roads and we do not need to develop as large a frame and furthermore we have found out by experiment that the most economical production of pork is on hogs weighing from two hundred forty to three hundred pounds, so that we are not raising as large hogs as we formerly did and this has had the most to do in creating a



neater, more compact standard. The best interest of the Poland China is, however, being thwarted by a number of illegitimate practices of which I shall mention a few of the most conspicuous.

As suggested before the imperfect standards upheld at our fairs and exhibitions to say nothing of the rope pulling at such places, has done much to delay the real progress which the Polands should have made. The cooperative graft used by certain Breeders using newspaper men as their spokesmen, have also been and now are more than ever serious enemies of the breed. For instance several breeders go together and pay fabulous prices for a few individuals of a certain strain and use all means possible of booming this strain. People loose their reason and no other hog is any good but those which are more or less directly related to this particular strain. This situation of course cripples lesser breeders in that their hogs are unfashionable and there is no particular demand for them, despite the fact that their hogs are often times superior to those in fashion. Such a situation has often torn down years of careful breeding for many breeders and it is generally a serious proposition. But as long as there are people to be fooled there will be people to fool them. The only thing to do is to educate people to know the good stock and think a little for themselves.

Ignorance of hog husbandry is also another serious affair and leads to much dissatisfaction in general. Improper feed-

ing materials might well be mentioned first. We know by experiment that young animals should be fed a more or less nitrogenous diet in order to develop to good frame, strong muscles and firm bone. In the corn belt particularly, too much corn is fed to young growing pigs. It tends to fatten instead of developing their bodies so that in the later stages of development the animal will be able to stand the stress of life alright. Not only does heavy feeding, especially of corn, weaken the system, but also impaires the reproducing organs in such a way as to develop an unprofitable strain of hogs. This same evil result is often brought about by over ambitious breeders who try to force their young animals. It is from such herds as these that we hear dissatisfactory cries arise from people who have <sup>purchased</sup> several animals to start herds. It is largely on account of the ignorance in breeding that the breeder must continually face the remark, "Pure bred stock are alright but they are not prolific and many times unprofitable". If judgment is used in selection and proper care taken of (<sup>Pure</sup> thorough) bred they are just as prolific as any animal. The subject of ignorance in hog husbandry is so wide that only a few points can be mentioned in this brief treatis. The care of the dam during the period of gestation is another very vital factor in successful breeding because loss in farrowing and weakly pigs is almost always due to improper treatment of the sows and boar either before or after the period of gestation. Plenty of exercise and succulent foods must be considered carefully if best re-

sults are to be obtained. On the other hand many good hogs go from well regulated herds into hands who are wholly unfit to take care of them. The sudden change is often too much for the animal and as a result the deal proves very unsatisfactory to both parties concerned. It also hinders the progress of the breed and costs many disreputable and untruthful statements, which could have been avoided very nicely if a little knowledge of hog husbandry would have been present.

Now to set things right for the best progress of the breed, we must see that correct utilitarian standards are uplifted, which experiments have proven to be a hog of compact form, smooth finish, and ready fattening qualities. The demand on the market is calling for smaller hogs which have as little waste and cheap meat on them as possible. The numerous substitutes for lard which have been placed on the market has also had much to do in creating this demand for a smaller hog. Breeders and buyers as well must have a better knowledge of hog husbandry and see that rope pulling be eliminated as much as possible, from contests at exhibitions, and in the get rich schemes which are propagated by certain plungers in the business, who are in it only for what money is to be gained. Newspaper influence is also often corrupt and needs regulation. A true breeder has something more in mind than the financial side of the business. He is in the business because he loves it and because he desires to do his country some good by improving his live stock which is not altogether an egotistic aspiration.

We have traced the Poland China from his origin to his present state of perfection, noting his environments, changes he has made, criticizing his weaknesses, showing why such have been made, and attempting to suggest a remedy.

Now we are in position to discuss the higher theory of animal breeding, that we may hope to make greater improvement after having profited by the failure of others and viewed the new field of opportunity. "Animal Breeding is the Art of improving all domestic animals." In the art of breeding we at once think of the expressions, "Like begets like", and "Breed from the best." Though we may be able to recite theory; not all of us could ever hope to be a Bakewell. In order to be a successful breeder we must first have an intense love for it, a true and keen observation, one which fails not, one upon which we can place absolute confidence, and we must also have a definite, unchangeable ideal in view to which we are working. Resoluteness is also necessary and absolutely necessary for a breeder to keep his bearings. A breeder should know and be fully conversant with the laws of heredity that he may use wisdom and discretion in his judgments. The law of heredity may be used to do our biddings if used intelligently, but if ignored thwarts any ideal of perfection. The atavistic properties of an animal must also be studied by the breeder before selecting his breeding stock, because many apparent, inexplicable qualities of progeny are explained by the laws of atavism, and therefore if we have a know-

ledge of the law we can to a more or less extent control the characteristics of the progeny. The law of variation is the law which permits improvement and a keen observer will not be slow in taking advantage of favorable variations, neither will he be slow in discarding negative variations. It is the positive variation, which the breeder is always looking for and seeding to perpetuate. The law of Correlation, Fecundity, Cross-breeding, Relative influence of parents, Influence of previous impregnation, and Intra-Utra-Uterine influences are all phases of this subject, which must be duly considered if we were to succeed in reaching the ideal we set out to realize. The theory of breeding is indeed a very intricate problem and is always open to new discoveries and is intensely interesting. It requires a far-seeing and keen observing intellect to breed stock successfully. All these phases of animal breeding are important and should be thoroughly understood in order that the breeder may perform the most important phase of animal breeding intelligently, namely; that of selection. For our success rests very largely upon our ability to select rightly.

The Poland China hog has led other breed of hogs for years and there is no reason why he should not continue to do so. Many preidet that he has had his day, but no sane arguments is advanced to prove this statement. Many condemn the Poland China hog because some other breeds of swine are more prolific. Granting that this statement be true, numbers are not the only things to be considered because the net

