

### Breeding and Raising Hogs.

From First-prize Essay By Mr. J. R. Oastler, Crookston, Minn. Winning the \$100 prize offered by International Stock Food Co.

I know that many advocate entirely separate buildings for sleeping and feeding quarters, and while I do not object to these, yet for hog-raising in all of its phases I prefer the old-fashioned pen with its feed troughs in front. This system is not considered objectionable in the case of horses or cattle, and if the same standard of cleanliness is maintained in the piggery the hogs will not suffer. It is very important, however, to have the piggery situated so that there can be yards built on each side and have the pasture and green fields as close by as possible.

I have found 32 feet the most convenient width for a piggery building. It can be extended as long as desired, but to keep ten breeding sows and their progeny in comfort it should be at least 80 feet long. This width of a building gives room for a 6-foot passage down the center and a row of pens on each side. I like a frame building best, and would use 14-foot studding so as to give ample room for a loft above for storing away straw and grain. For the walls a course of rough lumber, next the studding, a course of good felt paper, and a course of siding outside, and a course of matched lumber on the inside of the studding makes a building as warm as is necessary, except in extreme weather. The south side of the building I would divide into pens each 8 feet wide for the use of the brood sows. On the north side I would make at one end a room 6 feet wide, for use as a feed room. Adjoining this I would have a pen for the boar 10 feet wide, and then I would divide the remaining 64 feet into two large pens for the finishing of the young hogs for the market.

I would have a window every 8 feet on each side, so as to give abundant light for the passage in the center. I would make a cement floor in the pens. I would make a plank floor and have it raised, to a distance 6 feet from the wall, 4 inches, so as to make a sleeping platform for them. I would use plank for all partitions, as the hogs will soon break through 1-inch lumber. For feeding arrangements I have yet to find anything more serviceable than the old-fashioned feed-trough in front of each pen. For the breeding sows it should not be over three inches deep.

Ventilation is one of the important features in a building. The "hog odor," so prominent in many piggeries, has led many to have unfavorable opinions regarding swine. The "King system" of ventilation is the simplest and most satisfactory one in use at present. In this system the ventilating flue taking in fresh air opens on the outside near the ground, and the flue is continued in the wall, opening on the inside near the ceiling; the flue for letting the foul air out opens near the floor. If not interfered with by other drafts, this system works all right. I would have the windows hung on hinges, and in summer keep them open, and take a cotton sack over to keep out the flies.

No piggery is complete without having a constant supply of water in it. The hogs drink a great deal of water in warm weather, and nothing is more tiresome than carrying water or swill to satisfy a hungry lot of swine.

The breeder must decide individually which breed of swine he prefers. Numerous experiments have proved that there is no great economic difference between our popular breeds of swine, and in the pork market at present well-fitted hogs of any breed bring the same price. Individuals of the same breed have shown greater variations in the economical productions of pork than those of different breeds, teaching us that type rather than the breed is the important factor, not that breeding is unimportant, but the different breeds have nearly kept pace with each other in their improvements.

I would select sows of uniform type and good breeding from some reliable breeder. I would prefer to buy sows about six months of age, as one can then judge fairly accurately how they will turn out, and they can generally be bought cheaper than at breeding age. I have found that medium-sized sows make the best mothers. I used to have a fancy for very large sows, but so many of them have proved poor mothers that I became discouraged. The first thing I watch in purchasing a sow is to see that she stands straight and clean on her legs. If they are crooked she is too weak in bone and digestive capacity to ever make a good mother. She should have twelve teats, and if her dam has been a prolific breeder it is so much the better. I find swine very prepotent in transmitting their good quality to their offspring. I would not have a cross, wild sow, but if purchased when young their disposition can be improved. She should have a fairly short head, and fine neck neatly blended with the shoulders, which should not be conspicuously prominent. She should have a straight, strong back, deep, round sides, and long, well-developed hams. Avoid a sow that is too closely and

compactly built, and do not breed until one year old.

I like the boar to be on the large side, with a strong, hearty, active masculine appearance. He should have a strong head, and in a grown boar, a full, well-crested neck. It is especially important that he have a straight, strong back, and full, deep ham, and be well covered with a coat of fairly fine hair, and have an elastic skin. I have never found a hog with a harsh, board-like skin a good breeder.

The boar should be kept separate from the sows except when in service. They worry themselves, and often become useless if left with the sows all the time. In both the sow and the boar there should be the harmonious blending of all the good features which we term "quality"—something that can be readily seen but is hard to describe. It is better if the boar is not used until he is twelve months old. Early mating reduces the size and stamina.

In breeding hogs for pork, I would raise two litters each year, except from one good sow, which I would breed only once a year, and use her progeny to keep up and increase the number of the herd. I would have the spring pigs come the last of March; wean the litters when two months old, and then turn the sows out to pasture as soon as bred. If the pasture is supplemented with a light grain ration of almost any kind of grain, the sows will do well, for with plenty of exercise and liberty they will keep healthy. About two weeks before farrowing time I would bring them in and give each a separate pen; bed with chaff or cut straw lightly, and feed a ration composed of one-half bran and shorts, mixed to a thin slop with either skim milk or water. Feed very lightly for the first few days after farrowing, but give all the sweet milk or water she will take. After the pigs are three weeks old it is safe to feed the sow all she will eat—there is nothing I like better than shorts and sweet milk. Let the sow have the run of a yard after the pigs are a few days old, and give them liberty until it freezes up.

I have found nothing better for preventing scours than some crushed oat and barley slop, run through a screen to remove most of the hulls, placed in a low trough in a corner of the pen. The young pigs go for this greedily. At two months old they are ready to wean, and I put them in the two large pens, culling out the weaker ones and putting them in a couple of pens made vacant by grouping three agreeable sows together. It requires much more skill to raise young pigs in the winter than in summer. After taking them away from their dams, I like to feed them warm new milk for their first meal, and after that warm skim milk with a good sprinkling of shorts in it, increasing the quantity of shorts each day until it is about the consistency of thin porridge. I would mix a quart of oil meal with each barrel of feed, and have a box in the corner of each pen containing wood ashes, charcoal, and a little salt and sulphur.

When the pigs are three months old, or a little later, make a ration composed of equal parts of shorts and either crushed wheat or barley. If some unthreshed peas have been stored in the loft, there is nothing which will do the young pigs more good than to throw them in a forkful every day. I would let them out into the yard when the weather was suitable. When five months old I would confine them in their pens and change the ration to a mixture composed of equal parts—by weight—of shorts, crushed barley and corn; feed four times a day all they will eat up clean, and insist on regularity and quietness in the piggery. I have seen the whole piggery disturbed and made discontented by the attendant rattling a pail half an hour after feeding.

At the end of six months they should weigh 190 to 200 pounds. I have sometimes had them weigh more than that when fed milk and good house slop right along, but when one is raising many there is seldom enough of that to go around. I would expect to raise 70 pigs from the 10 sows for the first litter. I have frequently had good Yorkshire sows raise a dozen pigs after their first litter, but if they would average seven or eight under winter and summer conditions, I would be satisfied. It surprises one when he figures up how the average is cut down by poor sows; probably four of the ten sows would raise ten or eleven pigs, but there will always be some sows which prove almost a failure. It is the number of pigs a sow raises, not the number farrowed, that is the important consideration.

For the spring litters a different method is pursued. As soon as the pasture comes up good, the young pigs are moved out to it. For a hog pasture I prefer a field about 100 yards wide, fenced with a good hog-proof fence on the sides, and it is a good precaution to string a barbed wire along about four inches from the ground to prevent the hogs from rooting under the fence. For the cross fence I would use light, sharp-pointed posts; drive them in the ground two rods apart, and staple a strong hog fence on them. I would put three or more strands of barbed wire on this, so as to give the hogs a

wholesome respect for it. Two men with a chain and lever can build this fence in a few minutes.

Keep the brood sows and the young hogs separate, as the growing pigs will have to receive a good grain ration as well as the pasture to keep them growing well. I have never yet had young pigs satisfy me when kept on pasture alone. The kind of grain fed is not so important as in winter. A ration composed of equal parts of crushed barley and shorts, mixed with skim milk or buttermilk, is my favorite ration. They must not be fed too liberally either, or they will become too lazy to pasture well.

I castrate the boars two weeks after weaning. The size of the pasture depends, of course, on the quality of the clover crop. I would try to arrange it so that I would only have to move the fence twice to give them fresh pasture. I would sow some rape in the spring and have it ready for the hogs in August. Seven acres of rape should do to finish off the 70 young porkers until they were five and a half months old, when I would bring them in and feed them a full ration of equal parts of barley, corn and shorts; I would cut some rape and bring into the yard for them to pick over.

Care, constant care, is one of the great secrets in successful hog-raising. It is this watchful care 365 days in the year which wearies people of stock. It is only the man who likes it that will find pleasure and profit in hog-raising, and certainly none of our farm animals make the same gain for the food consumed as the hog.

### FARM.

#### Fertility Improves Seed.

In my limited experience, so far as circumstances would permit, I have always made it a point to sow only well-matured seed, and as well cleaned as possible. My neighbors and others, almost every year, have gotten more or less of their seed-grain from us. A matter I have noticed, that is of special importance in selecting seed grain, is that some varieties of the same kind of grain produce better than others in certain localities and different kinds of soils. In order to ascertain the varieties that will produce the best results on our farm, we have in a small way experimented by trying new varieties.

In preparing, we run the seed through the fanning-mill until all noxious seeds are taken out and the grain brought to nice, even sample. I prefer the best-matured grain, but that does not always mean the largest kernels. In screening, the abnormally large kernels are taken out. The reasons for using the best-matured grain are, there is no uncertainty in the laws of nature, like begets like, and the same causes will produce the same effects.

I think seed selected from fertile fields is more likely to yield heavily than if taken from exhausted soil, but cannot speak from actual experience. I started farming on a bush farm. My motto when starting, and continued since, was: That the fertility of the soil was to be kept as nature gave it to me, or made better. I think I have succeeded in doing so. My experience has been that it is a decided advantage to change seed from time to time. I do not say at stated intervals. There are none of us but what know that the varieties grown on our farms last year are not the same we grew ten or fifteen years ago. This applies to all grains, but more particularly to wheat and oats. We sow of oats, barley and small peas, two bushels per acre; large peas, three bushels; spring wheat, one and a half bushels. We usually sow with a drill, but my opinion is that if the seed is covered at the same uniform depth, that broadcasting has the advantage. I would not set the drill as open for small-sized grain as for large. I think, in a general way, it is a decided advantage to treat seed grain for smut. I have not taken any precaution against rust, for the reason that nothing has presented itself that would appear practical.

Brace Co.

JAS. TOLTON.

#### Changing Seed.

In preparing seed grain, we give it an extra cleaning with the Chatham fanning mill, and prefer the best kernels; that is, the largest in all grains. Grain grown on the most fertile fields is more likely to produce a better crop, because it comes away quicker and keeps up the growth. We change seed every second year, trying to get it from a different soil. We think it renews the seed, and in every case get better crops. We sow of barley, 2 bush. per acre; oats, 2½ bush.; peas don't grow here now. We prefer to drill in all cases, setting the drill to sow right quantity. Grain is not treated for smut, nor any precaution taken against rust, except to sow early. We think grain does not require to be sown so thickly when the land is in good heart, and find early sowing is a great deal the best; the sample of grain is always more plump and clearer in the hull.

Howick, P.Q.

R. NESS.