

be more convenient to wean the pigs, to allow the first period to pass; this will usually be observable three or four days after weaning. It is a good plan to wean gradually by allowing the sow to stay away from her pigs a longer time each day. The milk will gradually become less, and the pigs will not miss the sow at all when finally weaned. Some persons advise the taking away one or two of the pigs at a time, but this is troublesome and sometimes leads to injury of the sow's udder, as the milk in those teats not sucked is liable to cause garget. (1) If the pigs are being gradually weaned the sow will sometimes receive the boar whilst the pigs are still sucking her, she may be mated, and, if successfully, the milk will speedily dry up. Some sows evince a desire for the boar when the pigs are not more than three or four weeks old, but it is not then advisable to have her mated, as should she become in pig, the little pigs will suffer from a restriction and early cessation of the flow of milk, besides this nothing is gained from working the sow so hard,—the pigs come weakly and the sow will soon be worn out. For suckling sows during the first five or six weeks nothing is better than sharps and broad bran, in the proportion of about five to one. It is the practice with some breeders to give the sows, after farrowing, a good deal of physic, stout treacle, &c. If the sow be properly fed the less of these nostrums the better; nature has ordered that the sow is so constituted that the arrival of the family is attended with little risk.

As soon as the pigs have arrived it is desirable to give the sow about a gallon of thin slop, in which is mixed one ounce of sulphur, and one sixth of an ounce of nitre. In cold weather this should be given warm, and if the sow appears exhausted or weakened, a little milk stirred in the slop will often tempt her appetite. The sow should be walked about when she has farrowed twelve hours, and kept gently moving until she has relieved both the bowels and the bladder, this natural motion is far better than if the result of medicine. Sometimes the teeth of the newly-dropped pigs are abnormally long; this is generally the case when the pigs are carried over the usual period of sixteen weeks, it is then advisable to break off the teeth with pincers; if the sow is excited by the squealing of the little pigs, place them in a hamper and carry them out of hearing. One person can easily break off the teeth. The pig is tucked under the left arm, its mouth opened with the left hand, and the teeth broken off with pincers held in the right. There will then be no danger of the sow's teats being bitten nor of the little pigs biting each other in the fight for their own particular teat. When the pigs are three or four weeks old the sow may be let away from them for an hour or so in the middle of the day, a little skim milk placed in a trough, and a handful of whole wheat sprinkled on the floor of the sty to entice the little ones to eat and thus reduce the drain on the sow. When the pigs commence to feed they usually suffer from an attack of diarrhoea; as soon as the droppings are dry and like blackened peas a gentle dose of opening medicine given to the sow will ward off or moderate the attack; a shovelfull of mould occasionally thrown into the sty is a good thing, cinders, small coal, and wood ashes are also readily eaten by the young pigs and prove of benefit. One

of the best foods for the latter is skim milk given fresh and sweet. If this can be purchased at 2d. per gallon no cheaper food can be obtained, (1) the other food mixed with it is more readily eaten and better digested. One of the great secrets in feeding is to feed little and often, and, when the weather is cold, the food should be made slightly warm. The pigs not intended for breeders should be operated upon when five or six weeks old, being fed lightly the night before the operation.

The old-fashioned plan of keeping pigs for nine months in a growing state, or as stores, is gradually becoming less general, like all popular errors, it dies hard. It cannot require much thought to be convinced of the fact that a certain proportion of the food eaten each day is used up in keeping the machinery going, or as fuel to supply heat, &c. It therefore follows that at least twice the amount of food is required for this purpose if the pig is so fed that it takes twelve months to arrive at the same weight as might be attained in six months had the food supplied been either more in quantity or better in quality. The question may be asked, can a pig be as cheaply kept on food which keeps it in a progressive state as on inferior food? We should say certainly, even more cheaply, for the simple reason that if the pig's digestive organs have to extract the small quantity of nourishment from inferior food, they must waste a considerable amount of energy, as so much more useless matter has to be dealt with to obtain a sufficiency of nutrition. Besides this, if a pig be well and liberally fed it soon makes room for another, so that two pigs can be fattened and two profits made where only one was before obtainable. Another thing—and this is a most important matter to the pig keeper who has an allotment or large garden—the manure made contains at least twice as much goodness, whilst the expense of everything except food, is no greater in fattening two sets of pigs in twelve months than in only turning out one in the same period. The straw and attention required is the same, whilst the money is turned over twice, and the profits from the same capital are twice as large. We would strongly urge that young pigs should never be allowed to become poor or to be kept as stores. In every way it is more profitable to add good food to the garden stuff, or the house swill which is fed to the pig, so that by the time it is seven or eight months old it is ready for the butcher. Experiments have been made which clearly prove that a pig of 100 pounds weight requires less food to make one pound weight increase than one weighing 300 pounds, and that the amount needed increases in proportion to the extra weight of the pig; whilst the ten or twelve stone pig is more ready of sale, and at a higher price per stone than a 15 stone pig. In most districts a young fat pig of some 150 pounds weight appears to be more readily saleable than an older pig weighing considerably more. In years gone by the fashion was for large joints of fat meat; now small joints are more generally in demand.

The manner of feeding pigs has also altered of late year. We can remember when almost everyone fattened their pigs on barley meal; a few farmers who had grown peas and beans would sometimes use the latter, and generally the former, but the pork was usually hard and not as saleable. Then we had the maize period, the enormous quantities of Indian corn appeared to be so cheap

that pig feeders used it so largely as to injure the quality of the pork, which was soft, yellow, and oily. At the present time pig-keepers have a great choice of foods at a lower price than ever known—barley meal at 7d., wheat meal at 8d., peas and beans at 7d., rice meal at 6d., and sharps and bran at 6d. and 5d. per stone respectively. Surely pork can be made at a profit even if it realises only 5s. to 6s. per stone.

We are strongly in favour of a mixed meal; wheat, barley, and rice meal, in the proportion of 3, 2, and 1, is, perhaps, the most economical and best. At the present time 5 to 6 lbs. of this mixture should make 1 lb. of pork, and as this weight of meal should not cost more than 3d., a profit must result if the produce is sold for 4½d., leaving the manure to pay for attendance. (1)

There may be many points missed on which information is sought. A book entirely on pigs would scarcely suffice to discuss every point, but we would impress on our readers that the best and most expensive of styes, foods, &c., are as nothing compared to attention; boiling up the little potatoes and giving the food warm to the pigs in cold weather; the frequent and regular feeding on just as much food as the pig will clear up; and the few leaves, bracken, or straw to make it a dry bed on which to rest and grow fat may be simple matters, but they often determine the question of loss or profit in connection with pig keeping.

THE BREEDING AND MANAGEMENT OF SWINE.

BY J. O. SNELL.

(Continued)

There are a few principal points to be considered in breeding hogs which apply, in a general way, to all classes of stock. One of these—and perhaps the most important—is to secure a strong constitution; without this the best results cannot be attained in breeding or in feeding. This means a wide chest and a large girth, giving room for the vital parts—the heart and lungs—to have free and easy play. This calls for a good spring of ribs and good depth of fore-ribs, good depth of body, giving capacity for working up food; and these give a guarantee of health, of the ability to resist disease, and to overcome disease when attacked.

The inexperienced breeder is apt to attach undue importance to fancy points and non-essentials, such as color, markings, and a pretty face, and to neglect the weightier matters of constitution, symmetry, and feeding qualities. A good head on a hog is desirable, and the head is often an index to the general character of the animal; but when we speak of a good head for a hog, we do not want that of a pug dog. A very short head and heavy jaw generally go with a small class of hogs, with the tendency to produce an excess of fat meat and a minimum of lean meat. Such a hog is apt to go wrong in his breathing apparatus, to become wheezy and is generally short lived and unprofitable. A long, narrow face, on the other hand, indicates a hard, slow feeder, a restless, discontented disposition, and an unprofitable animal for the farmer to keep. The best type of head is a happy medium—not too long and not

(1) But we have made such capital pork and bacon on barley-meal and skim-milk, with a finish of 3 weeks on peas!—Ed.

too short—a free, open countenance with an intelligent expression, and wide between the eyes and ears. A strong back and loin is always in order, and hams are worth more than heads, so that more attention should be given to the improvement and development of the more valuable parts.

The condition and quality of bone, of feet and legs, in hogs has had too little attention in this country, both in breeding and management. The appearance and usefulness of an otherwise faultless hog are often spoiled by a bad set of legs and feet. It used to be thought that a horse was the only animal on the farm whose feet and legs needed special attention; but the careful breeder of hogs knows that weakness in these points is often an indication of weakness of constitution, and is a serious objection.

Strong but not coarse bone should be sought after, with straight legs and standing straight up on the toes—points that must have weight in the selection of the ideal hog for breeding purposes. This, of course, also depends largely upon the treatment. Confinement upon plank floors is too common in this country, and only exerts upon the ground will keep the feet and legs in the best condition.

With regard to the management of pigs, I would say it depends much upon what the object is. If it be to produce the greatest weight in the shortest time and at the least cost, to secure early maturity, and to market at six to eight months old, it will be necessary to push the pigs from the day of their birth, giving due attention to necessary exercise, and avoiding over crowding with too rich food, especially in the first few weeks of their life.

If the pigs are to be kept for breeding purposes they will require different treatment. They should have abundant exercise, a chance to run upon a field of grass, or, at least, a large yard, where they can develop muscle and a strong constitution.

Breeding-sows while in pig should not be confined in close quarters, but should be made to take exercise. A host of young pigs are lost in this country every spring—and it is a heavy financial loss to the farmers—from this cause. The sows are, as a rule, too well fed, and lie in their beds too much; the pigs come weak and flabby, and thousands of them—whole litters, in many cases—are born too weak to reach their mother's milk, and come into the world only to gasp and die.

It is a worthy ambition to have a complete piggery—roomy and warm and comfortable, and a breeder of pedigreed stock can hardly do without it; but I am fully persuaded that for the best results in breeding, the fancy piggery should be used mainly for a show room, and that the pigs should not be kept in it long unless provision is made for their getting out upon the ground frequently, if possible at their own will. For breeding-sows and growing pigs nothing is better than an open pen, or a pen with an open door, and the privilege of running in the barnyard or a large yard or small field.

I think that, as a rule, in this country sows are put to breeding at too young an age, which tends to check their growth, and if continued from generation to generation, tends to degeneration in size, and in strength of constitution. For the best results I think a sow should not have her first litter before she is sixteen or eighteen months old, certainly not before she is a year old.

(1) Very sensible; but it never struck us before.—Ed.

(1) 40 cts. per 100 lbs.!