

thousand people were on the grounds to day. Among the principal items of the second day's programme were the trotting races, and a bicycle race, one mile, best two in three, first prize given by Messrs. J. J. Mullin & Co., of the People's Favorite Store, second, by Messrs. Hill & Morse, merchants. Some of the finest displays of ladies' work to be seen in floral hall consists of fine hand knit laces of all patterns and descriptions, also a fine display of stuffed birds, animals, etc., by C. H. Corey and crayon pictures, paintings, etc., by Mrs. F. C. Borden. There was a balloon ascension given by the Kickapoo Indian Medicine Company last night in front of their concert hall, which delighted the crowds remaining over night in town.

Swine.

SWINE BREEDING IN EUROPE.

Pig-breeding is conducted on an extensive scale on the Continent. Bulgaria and Serbia are great pig-breeding and pig fattening countries. It is to Great Britain that the breeders of pigs in these countries come for their best sires. Hanover had a pig population of 1,037,104 in 1892, as against 762,881 in 1883. The most popular animal of the race there is the cross between the Yorkshire White boar and the native German sow. The latter have the reputation of being hardy and fertile, but, although known, the Tamworth, Berkshire, and Poland China are not at all in the same favor for crossing as the Yorkshire White. There is a large breeding establishment at Eggersen, where Large White Yorkshire pigs are raised, and, in order to prevent inbreeding, with its attendant evils, sires are, from time to time, introduced from pedigreed herds in England. The breeding stock, as a rule, numbers between ninety and one hundred sows and four breeding boars. From these about nine hundred young swine are annually produced, and out of these two hundred and fifty or three hundred are selected for breeding. The others are castrated when eight weeks old and taken off the dam. Young swine intended for breeding are nursed for about ten weeks, and sows are not bred from until they are from ten to twelve months old. They have litters twice a year, and both boars and sows are kept for breeding until four or five years old. The food is not garbage, but good wholesome bran husks, middlings, maize, whole wheat, turnips, and potatoes. The nursing sows are fed thrice daily and sows in pig twice a day. Young pigs are fed from three weeks old, chiefly on middlings and whole wheat, and the utmost attention is paid to cleanliness, exercise, and fresh air. These methods differ widely from those followed by breeders in other countries; yet they are only rational, and it is unwise to expect the sow to breed successfully before she has reached maturity, or wholesome pork to be grown in the midst of dirt, and from pigs fed on every kind of offal.—*Farming.*

YOUNG PIGS UNTIL WEANING TIME.

If the place for farrowing is warm, the sow should be but little disturbed while she is farrowing. But it is better when the owner can be on hand. His presence may oftentimes save the life

of a young pig. When the weather is so cold that there is danger of the young pigs becoming chilled so as to perish, they may be put into a basket lined with warm cloths almost as soon as they are born, and conveyed to a warm place by the kitchen fire. They may then be brought out at intervals to take nourishment from the dam. But it is better, in every way, if the farrowing pen is warm enough to obviate the necessity of taking the young pigs away from the dam.

As soon as they are a day or two old, they will get along nicely without any very special attention if the sow is fed properly, and the bedding is sufficient and also dry. But if the sow is overfed during the first week, or if the food is not what it ought to be, disaster in one form or another will come upon the young pigs.

If the sow is overfed just at the first, her udder will become inflamed, and she will not allow the pigs to nurse. If she is fed improper food, the digestion of the pigs will become deranged. They will probably be visited with an attack of diarrhoea. Such a visitation is, in a sense, calamitous where many litters are kept, as, unless great care is taken, the disease will go through the whole herd. To prevent this, lime should be spread upon the floors several times a day, and the pigs of the other litters kept entirely away from them.

Diarrhoea may arise from a sudden change of food in the sow; as from ordinary swill to clover, from feeding sour food to the sow, from overfeeding the sow so as to produce indigestion, and from a filthy condition of the pen. The remedy is to modify the food given to the sow, changing from the kinds more difficult of digestion to those that are less so. A tablespoonful of sulphur given to the sow once a day for two or three days will help to prove a correction in the milk. Exposure of either sow or young pigs to a cold rain may induce diarrhoea.

Where but one litter is to be reared a year, the young pigs may be encouraged to eat with the dam. When between one and two weeks old, a few oats may be thrown on the floor of the pen. They will soon learn to eat the oats without swallowing the shell. The trough for the sow should be quite low, so that the young pigs may soon learn to eat with her. The food that is best suited to her wants will be best suited to theirs. They will soon learn to take their food regularly with the dam, and as time advances they will become less of a drain upon her, inasmuch that when weaning time comes, at the age of ten to twelve weeks, they do not feel the deprivation when they milk of the sow is taken away from them. In fact, they will sometimes voluntarily wean themselves when they get to be about three months old.

But where two litters a year are raised, a somewhat different system will have to be adopted. The aid of skim milk from the dairy will have to be called in. A place may be made in which the young pigs can take food apart from the sow. They should be given a low trough, and a little skim-milk may be put in this trough when the pigs have got past two weeks old. They will soon learn to take this milk freely. It should be fed warm, and should not be allowed to stand long in the trough. As soon as they learn to drink it, some shorts may be added, and then the same kinds of meal as are being given to the sow. A little oil meal may also be added with much advantage. In this way the young pigs soon learn to take what will

prove a substitute for their mother's milk.

When sows have farrowed, the young pigs should not be allowed to go to pasture with them, and more especially in the spring, until they have reached the age of three or four weeks. In the autumn when they come early, they may go with the dams at a somewhat earlier age. When the sows only are allowed to go to pasture, they do not stay long away from their young; hence they get accustomed gradually to the change of diet which the pasture brings to them.

Any food given to the young pigs directly should be highly nitrogenous in character. It should be calculated to promote the development of muscle and bone rather than to the laying on of fat. If a highly carbonaceous ration were given the pigs, such as corn, or even peas, and in large quantity, the young pigs, if kept confined, would soon lose the use of their limbs, more or less, and they would cease to develop properly. No food ration is better for them than skim-milk, and a meal adjunct added, consisting of equal parts of shorts, ground oats, and ground corn, or, in the place of the corn, ground peas.—*Farming.*

The Flock.

SELECTING A PUREBRED FLOCK.

In the choice of which breed of sheep he should select, the beginner must be governed by circumstances. Although on the rich pasture lands of Canada any of the heavy breeds may be handled with success.

Generally speaking, the new beginner has already fixed in his mind which is his favorite variety, and success is more likely to follow when a decided preference has been decided upon, for the breeder must be an enthusiast in his work, or he is not likely to succeed.

THE CHOICE OF A RAM.

If judgment has been required in selecting the ewes, still more care should be exercised in purchasing a suitable ram. Cattle men tell us that the bull is half of the herd. The same rule may be applied to the flock. Hence it will be a great mistake to buy a ram that will not bring improvement into the flock. For this is the true method of progress. Upon the quality of the sire depends the improvement of the flock, and here comes the profit, in producing offspring of a higher value than the ewes from which they spring.

EWES FOR THE SHAMBLES.

All ewes culled out for sale should be made ready for the market, and sold for what they will bring. Old ewes do not give a return for winter finishing as young lambs do. They will not bring a price sufficient to pay for a costly ration of grain food. They should, therefore, be fattened, as far as possible, in the pastures, and sold before the winter closes in, or, if a sale cannot be made of them then, they should not be allowed to go beyond the Christmas season. Such stocks fatten most cheaply on good grass, or on rape. Some grain added may, in

many instances, be turned to good account. Of course, there are different kinds of cull ewes. Some may be culled because of age, and some because of an unshapely form, or injury to the udder. The latter may be young, and will, of course, feed much better than the former. But, as a rule, the aim should be to feed lambs in winter, rather than matured sheep.

FEEDING PUREBRED RAM LAMBS.

Purebred ram lambs should be well fed. If they are not, they will be undersized, and this means that they cannot be sold during the present season. It is well that they should be sold, for as shearlings they will not bring very much more. When weaned, the lambs held for sale should, where practicable, be separated from the others, and put upon a liberal allowance. The amount of the grain food required will be largely dependent on the character of the other food. If the lambs can be put upon a nice clover pasture, or upon rape, or some such green food, they will not want much meal. And it is better that they should have succulent food rather than much grain. Such food keeps them in better breeding condition. And they are also kept in better health. But where the pastures are dry, they should get ample supplies of grain, such as oats and bran, for instance, with some oil cake added.—*Farming.*

SHEEP AS FERTILISERS OF THE SOIL.

Sheep may be made to render great service in restoring fertility to worn soils, and also in preventing lands from being depleted of their fertility. In fact, the assumption is safe that no quadruped kept upon the farm will equal them for this use. It has been noticed that where sheep are kept, better crops can be reared upon the arable portion of the lands than where they are not kept, and this increase in fertility is a factor that should not be overlooked when we are estimating the profits which accompany sheep husbandry.

Some of the reasons which give sheep the pre-eminence claimed for them in this paper are not far to seek. In the first place, they are out on the pasture during a large portion of the year. While thus pasturing, they are distributing droppings over the surface of the land. The droppings are more evenly distributed than those of cattle and horses. They fall amid the herbage that is being pastured, and lie close upon the surface; hence, when rain falls, the fertility in the manure is washed into the earth, and comes at once into contact with the roots of the growing plants, and much of the droppings is actually incorporated with the surface soil by the treading of the sheep.

In the second place, the distribution thus spoken of is a great saving in labor. When manure is made on what is termed the soiling system of feeding in its strictest sense, that is to say, by the system of feeding in sheds or stables, the manure has to be carted and distributed. This means labor, and labor means outlay or its equivalent. The distribution of fertility by sheep upon the pastures is a factor that must be considered when we are estimating their relative economical value. And owing to their natural