

percentage of pairs and all seem strong, vigorous and growthy then the ram's value may be easily determined. But when purchasing a ram lamb, or one whose progeny cannot be inspected all that one can do as a safeguard is to learn the breeding qualities of his ancestors, and examine him carefully to see if he individually has the conformation, fleecing and other qualities desired in his offspring. It must always be remembered in choosing a ram that he should be exceptionally strong in those points in which the ewes as a class are weak, that is, if the ewes show a tendency to run bare in fleecing underneath or are inclined to be raw on top, a ram should be used on them that is thickly woolled on all points and is good in his fleshing on the back and loin.

The most important quality in a ram is that one previously mentioned, masculinity, for with this quality there usually goes all the other characters desirable in a ram or flock. His face should be somewhat short and broad between the ears. The neck should be full and strong, swelling smoothly and firmly into the shoulder, rising thick and strong in the crest, but of not too great a length. These things in a large measure constitute masculinity. Then there is the important matter of constitution. The chest should be deep, its floor sinking well down between the forelegs, and broad. The ribs behind the shoulder should be deep, well sprung out from the back bone, making the girth large, and giving to the brisket in front plenty prominence and width. These features are indicative of constitutional strength, stamina and vigor. A ram should be short in the legs. No matter of what breed he is he should be close to the ground with the legs straight and strong. A straight leg is one that shows no tendency to buckle in or out at the knee. A strong leg one that is flat and fairly large in the bone with good straight upstanding pasterns. Excessive fleshing should not be looked for, but the flesh he does carry should be even and firm without a roll on any part of the body. On rams that have been highly fitted we sometimes find that the flesh has "slipped" down to the fore flank leaving the back bare. Avoid a ram of this kind as you would a mad dog. Such a condition is usually an indication that at one time the ram was in high fit, likely for show purposes, and the chances are that he is unweildy in his movements, broken down in the pasterns and useless as a breeder. The fleece, too, is an important point to consider. It should be "alive," spring not dead to the touch, densely covering the belly, thick on top, and if he is of a breed characterized by woolled heads and legs see that he is well covered on these points. They are the strongest indications of breed character. A well woolled belly, too, is taken as indicative of constitutional vigor.

A word also on the selection of ewes might be seasonable just now; flocks are improved by weeding from them the old and faulty sheep. The weaker members are yearly withdrawn and drafts made from the lamb flocks to fill the vacancies. The points that should be considered in weeding out the older ewes are in the first instance age, together with such defects as broken mouths, rupture, bad udders or indifference as breeders. Ewes that are defective in fleece or form should be eliminated from the flock just as rapidly as individuals of superior merit in these respects can be secured to take their places. Weak necked, mean headed females, ewes with loose fleeces, flat ribs and scraggy quarters should be taken out of the breeding flock just as quickly as younger breeders more densely woolled, stronger in constitution and fuller in fleshing can be bred up.

In selecting lambs to enter the ewe flock individuals should be chosen that conform to the type desired. The same strength in neck and head is not looked for in them that is required in the ram. The face may be longer, the neck more feminine in conformation, but the body should be deep, the heart girth full, the ribs long and well sprung to provide lots of room for the growing lamb. She should show signs of being a good milker, that is her type should verge strongly towards that which is typical of a good dairy cow. She should be somewhat wedge shaped, deep in the chest and body, wide across the loins and hips. The flesh as in the ram should be even, with lots of it on the back, and no bunches around the tail head. The same thing in the matter of fleecing applies to her as was remarked in the ram. It should have all the density possible, with plenty underneath. She should, too, be the offspring of a ewe

that is a good breeder. The tendency to produce twin lambs is largely hereditary, hence in making selections of breeders care should be taken to choose those that come from a strain noted as prolific producers.

There is no class of live stock that may be more quickly improved by careful selection than sheep. The early age at which they reach maturity makes it possible in a very few years to affect vast improvements in the flock of this principle if selection and weeding is kept steadily in view. The annual progress of a flock is effected by the withdrawal of the weaker members and the importation of the newest and the best, and to this improvement there is practically no limit.

### Hog Trouble: Paralysis.

EDITOR FARMER'S ADVOCATE:

Something strange happens to my hogs. Have a spring litter five months' old confined in a fenced corral. We feed moistened chop (all oats and first class grain) noon and night and green feed (rape, mangolds, or corn) at noon. A pair of brood sows also under identical conditions. About a month ago one of the shoats got out and remained out some days, when I noticed her lying about a good deal and when molested seemed to have some trouble to get a move on. The trouble seemed in the hind part, something like a weak back. When up a while seemed to be fairly good. We threw her into the corral and she seemed all right in a day or two. It was only a few days till we noticed some more showing actions similar to the above. Sometimes the hind quarters refused to work at all and would trail three or four yards, presently it would become natural and the hog would hustle round the trough eating as usual. Once or twice a meal was refused but very seldom. I watched the brood sows but saw no signs of any trouble with them, but the thought occurred to me would the litters be all right. That my thoughts were not unfounded is now being proven. Both sows have farrowed. About one-half of one sow's litter are partially paralyzed in the hind quarters. The largest, strongest looking are the worst. They lie around and seem to sleep. The sow has lam on three, or they died naturally during night. I am not able to say which. She has two yet that are not able to walk. None of the other sow's are entirely knocked out, but am of the opinion they have some symptoms, but of lesser degree. One sow has had two litters before and never lost one. Both are in pretty good flesh but scarcely think too much so. The shoats that became crippled were first somewhat scoured. Did not notice any of them seriously affected that way. I am blaming the rape, but two of the shoats went off on a feed of mangolds. They have not had a very liberal supply and have had green oats and barley ever since it was large enough to use. Would like to know if you have ever heard or seen anything of the kind before and can point one to a removal of the cause.

Man.

G. A.

From these symptoms we would infer that your pigs are suffering from partial paralysis, a disease not uncommon among swine but seldom found as general in a herd as it is in yours. Paralysis may arise from a number of causes, the usual one being over-feeding on dry food with insufficient exercise. It may be due to hereditary predisposition, or it may occur from no obvious cause whatever. In this case we would be inclined to think that it has been transmitted from the sows to the young stock which might easily occur without the sows themselves being affected. It is a disease more common to young than to older pigs. From the rations you have been feeding it is difficult to see how it should be induced by the feed, unless the oats and other grain were out of all proportion to the green feed, and the corral too small to afford any room for exercise at all. We never heard of rape, mangolds or green corn being injurious in this way. It is just such food as this that is required to correct the condition.

For the shoats that are crippled up we would advise purging with two ounces of raw linseed oil, repeating the dose in 24 hours if necessary. Feed on milk, bran, grass, rape, etc. Give sufficient of Epsom salts, sulphur and powdered charcoal in the food, to keep the bowels moving freely, say about a dessert spoonful of each daily. Turn them into a grass field and provide shelter. They must get regular exercise and plenty of green food. In the meantime give ten

grains of nux vomica to each pig three times daily, until the paralysis disappears.

For the sucking pigs that are affected give a dose of castor oil, two table spoonfuls in some new milk. And then follow next day with six grains of calomel. The application of pure turpentine over the loins is also beneficial. These ones may only be suffering from too much feed and too little exercise. The sow is probably a heavy milker, turn her out and provide plenty of salt, charcoal and ashes for her and the litter.

The best way to drench a pig or to give medicine if it won't eat, is to use an old shoe with the toe cut off, pressed into the mouth to keep the jaws open. The liquid is poured into the shoe and passes into the throat of the animal from the opening in the toe.

## FARM

### 'Carrying Water by Siphon.

In districts where the water supply is not very abundant questions like the following are frequently asked:

"Will water run through a siphon a distance of 100 yards provided the outlet is lower than the inlet?"

Sask.

F. W.

The length of a siphon does not materially effect its working only as far as it increases the danger of air getting into the pipe. The explanation of the siphon lies in the fact that the pressure of air upon the surface of a body of water is equal to the weight of a column of water 32 feet in height in a case where there is no air pressure upon the top. Thus, when the air is removed from a hose by sucking or by filling it with water and one end put in a barrel the water will run through the hose to a point below the surface of the supply only so long as the hose does not carry the water up more than 32 feet. In practice, however, very few siphons will carry water this high on account of air getting in. Most calculation place the height at 21 feet which is safe and always gives satisfaction. Our correspondent will be able, therefore, to run water 100 yards by siphon provided he does not need to run it over a rise of more than 21 feet or at most 32 feet.

### Cutting Frosted Grain for Feed.

A reader at Fillmore, Sask., writes us as follows: "The frost of Aug. 21st, killed the larger part of the growing wheat in this section of the country. The wheat was all well headed out and the grain was just beginning to form in the heads. Is this frost killed wheat of much value as feed for cows? Some claim it is no better than wheat straw, others say it is good feed if cut now, but not if left till the unfrozen wheat gets ripe, kindly give us your opinion."

Any grain whether frosted or not, makes more nutritious hay feed for stock if cut before it ripens its grain. As the process of ripening proceeds the nutrients taken up by the soil and elaborated into food within the plant, are transported upward and stored within the seed. For some time previous to complete maturity, the roots die off, and the plant draws no further nourishment from the soil. But the transportation of the food materials previously taken in, goes steadily on. The nutrients in the stem and leaves, continues to be forced into the developing seed, until finally growth in that quarter is complete. By the time this condition is reached the stem and leaves have been pretty well depleted of all the nourishing matter which they contain, hence it is that straw contains little material for flesh or milk production when fed to animals. For this reason timothy or any of our grasses, are cut before maturity is reached, in order that their nutrients may be contained in the stem and leaf, not in the seed. Similarly wheat or any grain that has been frosted should be cut before the processes of growth have ceased, before the plant has poured upward all the available and transportable growth producing nutrients it contains in its useless endeavor to develop seed. Frosted grain intended for hay, should be cut at about the same stage of maturity as ordinary grasses, say timothy, intended for this purpose. If severely frozen it may as well be cut immediately after the frost occurs since no more growth can be made.