

of the States, and a ready market is found for the surplus annually, while a few are brought from England each year, both by the big importers and by private individuals, who have tested the breed and discovered its real merit.

Properly speaking, the Suffolk is an agricultural horse rather than a draft horse. He is in spots and places large enough for truck work in the great cities, but not as a rule is he used in the lorry in Britain. Indubitably his size is increasing from generation to generation, and he is in the hands of most careful breeders who are pushing his interests in a most intelligent manner.

LIVE STOCK.

Keep the Good Breeders.

Owing to the dry weather which many sections have experienced this summer, rough feed, especially where corn is not grown for this purpose, may be scarce, and because of this, some stockmen may be obliged to feed rather short rations this coming winter, or dispose of some of their stock. In districts where the hay was short, the straw crop is also quite light, so there only remains one class of feed to make up for this shortage, and this is the corn and hoed crops. Everything possible should be done to keep these crops growing. The corn crop will soon be too far advanced to permit of much work being done in it, but the root crops can be worked for some time yet.

Should it be found that, even after every effort to increase the production, there is still a shortage, the owner may hesitate between selling off some of the stock, leaving only what he has sufficient feed for, or trying to run the entire lot over winter on a small and insufficient ration. This latter method is seldom advisable, unless it be valuable breeding stock, for which a satisfactory price cannot be obtained. Where this is the condition of affairs, it would no doubt pay the breeder to buy feed and keep the stock. In fact, for the good of the farm, it would be advisable, in most cases, to keep it and buy a little feed, but it seldom proves profitable to keep animals on starvation rations. If the owner decides to dispose of some of his herd, he should retain all those that have proved themselves to be the most valuable breeders. It will afford a good opportunity to weed out the inferior specimens. Under no circumstances should the best breeding animals be sold on this account, because, if this is done, the value of the herd is impaired for many years to come. It should always be the aim of breeders, in reducing their herds, flocks or studs, to dispose of the inferior stock first. Too many stockmen are induced to part with their very best breeders for what appears to them a large price, while, if the real value of the animal and the progeny in future years was considered, the price would seem a mere pittance. The fact that outside breeders come into Ontario and take away with them the very best mares in the Province, is given by many as the cause of the scarcity of really high-class breeding mares and fillies in this Province. To keep up the very highest standard in all classes of breeding stock, it is necessary that nothing but the best animals be kept and used for this purpose. If you must sell off some stock, let the inferior scrubs go. Many of these are expensive burdens on the farm, and the sooner disposed of the better. If all the animals are reasonably good breeders, and the prices are not high enough to warrant selling them, the owner should not hesitate in keeping the entire lot, provided he can purchase feed at a reasonable price. Wholesale disposal of stock because of shortage of feed, should be discouraged, as should also the keeping of more animals than can be properly fed and cared for. In selling the stock, follow some system that will tend to raise the individual excellence of the herd, flock or stud, rather than the indiscriminate discarding of those animals which sell most readily. Depend upon it, the animal that the other fellow is keenest to get is usually the one most profitable to retain.

Experiments With Hog Pasture.

Without a doubt, hogs which have access to some kind of pasture or green feed can be raised much more cheaply than those which are closely confined and fed solely on a grain ration. In support of this contention, it will be readily granted that the majority of farmers who raise pigs provide them with pasture during the summer and fall. In the recently-published report of the Alberta live-stock commissioner, it was stated that, of the 263 farmers heard from re methods of feeding, 72 per cent. provided summer pasture, and that 33 farmers in every 72 preferred rape to any other kind of pasture.

To turn to the experiment stations, Professor Day, of the Ontario Agricultural College, found that hogs were raised much more cheaply if green

food was substituted for some of the grain usually fed; that rape was the most valuable crop for this purpose, and that it was cheaper to feed the rape as a soiling crop, rather than as pasture; but the former method took just twice as much time, and for this reason was often impracticable. Again, Professor Carlyle, of the Wisconsin Experiment Station, found that hogs pastured on rape made average daily gains of 1.06 pounds, and cost \$2.73 per hundred pounds of gain; and that, on the other hand, hogs fed grain alone made average daily gains of only .85 pounds, and cost \$3.36 per hundred pounds of gain. He concludes thus: "Pigs are more thrifty, have better appetites, and make correspondingly greater gains when pastured on rape, in conjunction with a grain ration, than when fed on grain alone. Rape is the most satisfactory and cheapest green feed for swine that we have fed."

Rape is usually considered to be about the best pasture that can be grown for hogs, though some prefer oats or barley, or a mixture of the two grains. Alfalfa is very highly spoken of, but at present, in this country, it is only in its experimental stage. The writer seeded some rape, mixed with wheat and oats, on May 24th, and at the present date, July 8th, is eighteen inches high. Some of it did not do so well, for parts of the plot were rather low, and rape does not thrive on low, wet ground. The plot of rape is one-quarter of an acre in extent, and at the present time has on it eleven growing pigs and two brood sows. One of these sows will pig in the middle of July. An acre of rape will, I think, support about forty pigs, but the number depends somewhat on how much grain the pigs are fed, in addition to the rape.

It has been proven by experiment that a greater gain per hundred pounds of grain fed is obtained when hogs are fed soiling crops in the pens than when they are pastured. Against this fact, however, is the great amount of time entailed in cutting the rape, or whatever the soiling crop may happen to be, and carrying it to the pens. The pigs would sometimes be apt to go without their green feed, especially during harvest and threshing times.

There is money in pigs at the present prices. Stay with them and raise them as cheaply as possible by the use of skim milk and of some kind of good pasture or green feed. Get the right type of pigs to make the quick gains, and you will get a good price for your barley and your labor.—[A. B. D., in Winnipeg Farmer's Advocate.]

THE FARM

Filling the Silo.

By W. J. Kennedy.

The problem of filling the silo for the first time is going to confront more farmers this year than ever before. Thousands of men are asking these questions: When should the corn be cut? What length should the corn be cut? Should the silo be filled rapidly or slowly? How should the corn be distributed and packed? Should water be added during the filling? How should the cracks or other air spaces be filled? What is the best way to prevent waste on the top of silo? What does it cost per ton to fill the silo? How soon after filling is the silage fit to use?

In attempting to answer some of these questions, the author, in addition to drawing upon his own personal experience of many years with silos, has consulted all of the leading experiment station workers who have had silo experience, and in addition, many of the leading beef producers and dairymen. The answers brought out many points of interest. Chief among them was a marked tendency on the part of the beef producers to advocate a more mature corn at filling time than in the case of the dairymen.

TIME TO CUT CORN FOR THE SILO.

While there is some slight difference of opinion on this matter, practically every answer indicated that the corn should be dented, in the dough stage, or when about one-fourth the husks and the lower leaves were turning brown in color. This would indicate that the best results are obtained when the corn is mature enough to cut for shocking purposes. The nearer the corn is to maturity, the more food nutrients it contains. Thus, the more valuable from a silage standpoint, providing there is enough moisture to insure proper fermentation. Immature corn makes a dark-colored, sour silage which may cause animals to scour badly.

LENGTH OF CUT TO USE.

In the discussion of the lengths in which the corn should be cut when put into the silo, much difference of opinion was manifested. Some advocate 1 1/2 inches, others 1 inch, others 3/4 inch, many 1/2 inch, while some advocated less than 1/2 inch. The longer the cut used, the more economical from the standpoint of power, and the more rapid the filling of the silo. The shorter cut, such as

the 3/4-inch length, insures less waste in feeding the silage, and makes it possible to put a greater quantity of corn in the silo. Taking everything into consideration, either the 3/4-inch cut or the 1/2-inch cut should be used. This will make a very palatable form of silage for the animal, and also make it easier to pack the silage so as to eliminate the air, thus preventing waste.

RAPID OR SLOW FILLING.

This is a point on which there is much difference of opinion. Where slow filling is practiced, it is always possible to pack the silage thoroughly by tramping and allowing it to settle. In this way the full capacity of the silo may be utilized. The objections to this system are that, where a large quantity of silage is to be put up on a farm, or on several farms, with the one filling outfit, it takes so much time that some of the corn must be put in too green at the beginning, and some more of it too dry at the finish. It is also more expensive than where rapid filling is practiced.

Where rapid filling is practiced, say from 80 to 100 tons per day, the cost of filling is reduced to the minimum. A large quantity of corn can be put in the silo in a short time, thus insuring a more uniform quality of silage. The chief objection to this method is, unless provision is made for refilling in about a week or ten days' time, that, after the corn is through settling in the silo, it will only be about two-thirds full. This may be partially overcome on a farm where two or more silos are built side by side, by filling one for a day then the other for a day, allowing some time for the corn to settle, until the two or more silos are filled. In some instances, where about three days are required for the filling, the work is commenced on Friday and Saturday, allowing the corn to settle over Sunday, and the work is finished on Monday. Where fast-filling is practiced, the only way to utilize the full capacity of the silo is to fill to the top, let it settle for a week or ten days, remove the waste on the top of the silo, then refill. This requires a resetting of the machinery when used by more than one farmer, but it will pay.

DISTRIBUTING AND PACKING CORN.

There are several different ways for distributing and packing the corn in the silo. The principal points to be observed are that the light and heavy portions of the corn should be uniformly distributed. That is, the stalks and ears should not be in the center or at one side, and the lighter portions, such as the leaves, at the other side. The corn should be uniformly packed or tramped in all parts of the silo. This is necessary to insure a good quality of silage. The majority of the silo-owners prefer having the surface of the silage saucer-shaped, about two feet higher at the sides than in the center, for the reason that the center, where the corn drops and the men usually stand, gets solid and hard, and does not settle afterwards as much as the sides. This is especially true of those silos filled without some form of distributing device. If the sides are constantly kept about two feet higher than the center, and well trod or tramped when the silo is full, the silage is wedged tightly against the sides and the heat of fermentation retained, thus killing the germs of mold. One reason why silage molds more at the sides than in the center is that it is not packed closely enough against the sides to prevent the air from reaching the heated silage, thus furnishing mold-making conditions.

There are several patented distributing devices on the market. The majority of these are very helpful in filling the silo. A very simple and cheap device may be made by sewing together a number of sacks (with the ends cut out), making a tube. This is attached to the end of the blow-pipe, and manipulated by a man inside of the silo. In this way the corn can be evenly distributed over the entire surface of the silo. The packing of the corn is an important point. True, in time it will settle down of its own accord, but more corn can be put in a silo, and much better silage made, when the packing is given careful attention. Tramping on the part of the men is helpful. The best way, however, is to use two good reliable men with cement tampers. The best silage the writer has ever seen was in a silo which had been packed by cement tampers. There was not a particle of waste after a few inches on the top had been removed.

ADDING WATER DURING FILLING.

Ordinarily, corn cut at the proper time does not need any water added to make good silage. There are times, however, when it is necessary to add water to the corn in filling the silo. The corn in the silo at the time of filling should feel moist; if not moist, water should be added. Under any of the following conditions water should be added to the corn when filling the silo: First, when the corn is too ripe, and the leaves and part of the stalks are dried out to such an extent that they will not pack well. Second, when the corn is severely frozen before it has reached the proper degree of maturity, liberating the moisture, and leaving the leaves and stems