

same week we read in one farm journal that no packing house in Canada is running at more than half its capacity, on account of the scarcity of hogs, in another we are told that owing to heavy supplies "hogs have dropped 15 cents." Usually the Old Country Christmas market is made to carry the responsibility for the low price of hogs for the last three months of the year and then it generally forgets to unload its burden for three months of the new year, and so the business goes.

But, to be sure, the packer may at all times pay just what he pleases for hogs; he may, so long as he can find publication in the agricultural press, continue his kindly advice on the one hand and his tirades against the farmer on the other, for not receiving a steady and sufficient supply of hogs; like the Standard Oil people he can even demoralize a considerable portion of public opinion. But one thing he can't do; he can't get a sufficient supply of hogs if the farmer thinks hogs don't pay. Very many Canadian farmers have thought so for some time now and have largely gone out of the business. The packer knows it, and knows also that his factory has been running on short supply for the past year. The one very funny feature about the whole business is that the packer, who is no doubt an intelligent man in his own line, cannot get into closer and more sympathetic touch with his source of supply. Leaving the question of price out of consideration altogether, it surely does not require a very severe mental effort on his part to see that the very tactics he is following are such as tend to antagonize the very men whose good will he is so anxious to gain.

Why has our butter industry increased in quantity, quality and consequently in value? Simply because the source of supply is a paying line of farm industry, much more so than hog raising. Then again the farmer has more confidence in the reported conditions of the trade and more faith in the business methods of the manufacturer than he has in that of the hog business.

In conclusion allow me just to say that the farmer knows his own business, not too well, but well enough to decide as to what pays or doesn't pay, and if the packer is going to get an increased supply of hogs he will certainly have to change his methods.—J. W. H., Wentworth Co., Ont.

Winter Feeding of Horses

Although one or two articles have already appeared in this paper on this very timely subject during the present autumn, I venture to supply another, hoping to look into the subject from a different standpoint. The former writers dealt with the subject largely from the standpoint of economy in feeding. I shall consider it in its relation to disease. It is a fact (I think generally admitted) that digestive diseases are much more prevalent among farmers' horses during the winter than in the summer months. The question might be asked, "why?" Some will in all probability say because it is practically impossible to provide as much succulent food during the winter as in summer. While this answer would be, to a certain extent, true, it is not the main reason.

In order that a horse's digestive system may be in first-class condition it is necessary to have the stomach emptied of the previous meal before he gets another. In summer conditions this is usually the case. A horse gets his breakfast and goes out to his work and fasts till noon, probably about five hours. He comes in with an empty stomach to his dinner, eats his rations, goes out to work and fasts till supper time, returning to his evening meal with an empty stomach again. Now, this is just as it should be, first the right conditions as regards food to keep him in good health. But how is it with many a farm horse during the winter months? Hundreds of them stand from morning till night almost every day

of the week with more or less of some kind of food before them all the time. As a consequence the stomach is never empty and the process of digestion cannot possibly take place in a proper manner under such conditions.

There is not one horse in a hundred which will not eat too much if he gets a chance, especially if the food supplied is of good quality. Even where straw is being fed it would be good practice to remove everything from the manger about three hours before each meal to give the stomach a chance to finish up one meal before it started to digest another. Many farmers who feed hay to their idle horses allow them to eat far too much, more than is good for them. Thus good food is wasted and worse than wasted, for it predisposes to attacks of indigestion.

Horses that are fed a reasonable amount of hay, enough, say, to keep them eating for an hour or an hour and a half each meal and made to fast between meals are not nearly so likely to suffer from digestive troubles as they would with food before them all the time. Horses fed in this way will come out in the spring in better condition, and better health and a large saving of hay will have been effected.

Again, there is danger in driving a horse on an over-loaded stomach. Consequently, the careful feeder never gives his horse a full feed of hay except at night when the stomach will have till

noon, for if too little is sown the stand will not be thick enough to smother the weeds, and if on the other hand too much is sown the plants will be too crowded and not grow vigorously enough to keep ahead of the thistle. Sow the rape when the land is sufficiently moist to insure quick germination of the seed. If the rape is slow in starting the Sow Thistle may get a start in the rows and thus necessitate hand cultivation there. Cultivate the rape every week or ten days until it occupies all the ground and makes further cultivation impossible. If, when the rape is cut or pastured, and Sow Thistles remain, the field should be ridged up the last thing in the fall and put in with a hoed crop the following year. This should not be necessary if a good stand of rape is secured.

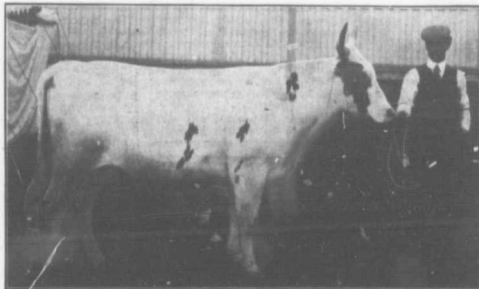
Method No. 2. This is a system of intensive cropping suggested by Professor Zavitz. As soon as a cereal crop is harvested, plow the land and give frequent cultivation to the first or middle of September. Then sow winter rye at the rate of about two bushels an acre. This can be pastured the following spring, or cut for hay or grain. As soon as the crop is off the land, put in rape, turnips or buckwheat. The advantage of this system is that three crops are harvested in two years and the Sow Thistle fought at the same time.

Method No. 3. This method is recommended by Professor Day. Immediately after harvest gang-plow shallow and run over the field several times with the broad shaver cultivator. Later in the fall plow a little deeper, and continue cultivating every week or ten days as long as the season permits. Last thing before the ground freezes rib up the land with a double mould board plow. The following spring give frequent cultivation up to the first of July, then sow pasture rape.

Method No. 4. This is a short rotation which has been recommended by several Farmers' Institute workers. Clover is followed by a crop of grain, then clover again. The clover is cut in June, and the land plowed about four inches deep and given frequent and thorough cultivation during the rest of the summer. The following spring a grain crop is sown, seeding down with clover. For best results the grain crop should be one which can be cut early enough to prevent the thistle from seeding.

Method No. 5. Directly after harvest plow the land lightly, and then give frequent cultivation as long as the season permits. The following spring gang-plow, and leave in summer fallow until it is time to sow fall wheat. The summer fallow to be effective must be a bare fallow. The field must be cultivated thoroughly and frequently, with the object of keeping the tops down and breaking up and bringing to the surface of the ground as many of the "roots" as possible. The gang-plow should occasionally be run over the field in order to insure the cutting of the roots. Bare summer fallow has given excellent results on the College farm in seasons when other methods were at best only partially effective.

Twenty to 30 lbs. of roots can be fed to a dairy cow each day at a profit.—John Fixter, MacDonald College, Que.



A Coming Champion—Netherhall Milkman (imp)—25775—

Owned by P. D. McArthur, N. Georgetown, Que. He was first in the Ayshire, 2-year-old class at the Canadian National Exhibition, 1908. He is a deep, typey fellow, and gave the champion bull of the breed a close run for his place.

morning to finish its work. In fact horses which do a large amount of driving are usually fed hay only twice daily, at breakfast and night, and not very much at breakfast either. But, of course, farm horses do not need to be so carefully managed as they are most usually expected to drive very fast or very far.—"Centaur."

Detailed Method of Eradicating Sow Thistle

J. Eaton Hewitt, M.S.A., G.A.C., in Bulletin 63

Several methods of exterminating the Perennial Sow Thistle are here outlined in detail. They have all been suggested by practical farmers. It is hoped that those who are looking for information on this subject will find among them a method suited to their own conditions.

Method No. 1. This method is suggested by Professor Zavitz, who found it effective in the eradication of Quack Grass. Cultivate the field until about the middle of June, running over it frequently with the cultivator so as to keep the tops down and thus weaken the "roots." Then apply manure at the rate of about 20 tons an acre (12 good loads). Cultivate the manure in thoroughly and with a double mould board plow slightly ridge up the land, making the ridges about 36 inches apart. On the ridges sow pasture rape at the rate of 1½ lbs. an acre. It is important that the right amount of rape should be