

fellows forage for themselves, save probably one feed a day from a stack of coarse hay during a severe winter storm. Our Trossachs trip ended at Aberfoyle, and from there to Glasgow the farming country is good, with large potato fields, oats, and plenty of grass, Clydesdale horses and Ayrshire and Shorthorn cattle, the Ayrshire appearing to be the popular dairy breed in Great Britain and Ireland.

On the ship coming home I had several interesting conversations with Mr. Sutherland, a giant farmer and school teacher from Caithness, as he said, "at the top of the map." I said to him that I had concluded, after reading what agricultural papers I had been able to pick up in Britain, that the British farmers used much more commercial fertilizers than we do in Canada. He replied that they do use a great deal, and that they cannot profitably farm without. He said that in the far north of Scotland they raise store cattle and sheep, sending two-year-old steers and one-year-old lambs to be fattened by farmers further south. He said the Shorthorn was most commonly used for feeding, but that the Polled Angus is being more used than formerly, because of the considerable amount of tuberculosis among the Shorthorns.

In concluding a rambling letter, let me say that I have not made any attempt to give an account of a trip, but rather to jump from point to point, and touch upon whatever I saw to interest me in connection with matters agricultural. My observations led me to or confirmed me in certain conclusions.

The great advantage to a farming community of good roads.

That one should think twice, and then several more times, before cutting down a tree.

That Ontario, especially on lands adapted, should have many more sheep.

That we can profitably use much more commercial fertilizer than most of us have been using.

That we can well do with less expensive, room-taking, landscape-disfiguring, weed-sheltering fences than are seen on many Ontario farms.

That we can easily better adapt our methods of farming, and the crops we grow and stock we feed, to the peculiar character and soil of our different farms, remembering that what would be good and successful farming on one farm, might be bad farming and quite unsuccessful on another farm in the same neighborhood.

That while we cannot have permanent meadows and pastures as they have in Britain, we can make up for it by growing corn and filling silos as they cannot.

That while we, because of the greater cheapness of our land and the greater cheapness of their labor, cannot always, with profit, farm as carefully as the farmers in the lands across the Atlantic, it will pay us to approach their carefulness and avoidance of waste much nearer than we often do.

That while it will pay a man of sufficient capacity and capital better to well farm 200 acres than 100, there are many farmers making much less money improperly cultivating large farms than they could make more easily and with less worry, properly tilling smaller holdings.

That we make a mistake when we conclude that Old Country farmers are for the most part slow and behind the times, and lacking in enterprise. We are in at least as great danger as they, and quite as much inclined to get into ruts and farm unintelligently.

That the Ontario farmer has as good an opportunity to make a living, and something over for a rainy day and old age, and has as many advantages as the tiller of the soil in any other part of this good old world.

Grey Co., Ont.

H. H. MILLER.

Whole Ensilage.

Editor "The Farmer's Advocate":

An American agricultural paper relates the experience of a Connecticut dairyman, who says that uncut bundles of corn may be put into a silo. The method of ensiling the uncut corn is as follows: The bundles of corn are bound with tarred twine. The bundles are then placed in the silo in regular order, the butts all one way, tops lapping to right or left as the sheaves are woven in. They are dropped in, one at a time, over a chute, so they reach the middle of the pit without interfering with the men working there. They come out in the reverse order with little trouble. If the silo is a good one, and the whole silage packed carefully, it keeps well and is as closely eaten by the stock as if cut.

Does "The Farmer's Advocate" know anything of this method of curing corn? It is urged in favor of this method, that it does away with the expensive machinery and other costs incident to cutting.

York Co., Ont.

J. D.

[Note.—This idea was tried in the early days of silo experience and given up. The labor of

getting the corn into a silo, especially a high one, and the inferior keeping of silage made from whole corn, particularly around the sides and in the corners, far outweigh the economy effected by the saving of machinery.—Editor.]

Home Growing of Root Seeds.

Notwithstanding the fact that the growing of corn for silage is increasing yearly, and upon many farms at the expense of the root crops, the latter crops still hold an important position in Canada's agriculture. Ontario alone grows annually upwards of 100,000 acres of swede turnips and nearly 70,000 acres of mangels, to say nothing of the acreage of sugar beets and carrots. Roots still have their place in the winter feeding of our live-stock, and every live-stock farmer who can secure the labor to care for the crop recognizes this fact by growing at least a small acreage to supplement his silage and other roughage, in the winter ration of his cattle, sheep and swine, and occasionally horses. There is no better winter system regulator and renovator for the stock among our farm crops than roots. They keep the bowels loose and the digestive system active. They add a succulency to the ration much relished by the stock, and not available in any other stored feed. Beyond their actual feeding value, as far as the various nutritive food properties contained are concerned—they act almost as a condiment when fed with other feed—they have a value which no feeder can afford to despise. The root crop is still a very important crop, and will continue to be so.

Seed selection is as years go by receiving more attention from farmers generally. It has grown steadily in connection with the more important cereal crops, grasses and clovers, but most of these are annuals, and seed is produced from the seed each year. This is not the case with roots which, being biennials, require two years to produce seed. Because of the amount of labor and length of time involved, and because in the past there has been a fairly large supply of these seeds on the market at comparatively low prices, few Canadian farmers have ever attempted to grow their own seed. In fact root seeds have not been extensively grown by seed companies in this country, Europe being the source of the supply of most Canadian seedsmen. One reason for this is that labor may be secured in European countries at much lower cost than in this country, thus enabling growers over there to put out the seed at lower prices than Canadian growers could do, and make a reasonable profit.

Root seeds are a source by which many noxious weeds gain access to the farm. Some of the worst of these pests have been found in mangel, turnip, beet and carrot seed. Clean farms are not in the majority, and it is important that those which are not now rendered less productive by the ravages of weeds, be kept clean for seed-growing purposes, and it is equally important that the owners of those already infested make a strenuous effort to get rid of the robber plants, and the first step in this direction is the sowing of clean seed. It should not be difficult for the average farmer to grow enough mangel or turnip seed for his own use, and it should not be any great amount of trouble to harvest that seed without having it become contaminated with foul weeds.

Vitality is of first importance in the selection of any seed, perhaps more so with root seeds than with many other classes. It is well-known that the Old Country seed-growers seldom send their best seed to Canada. This may be partially because we have in the past demanded cheap seeds and they sent us what we asked for, but it is only natural, the greater portion of their trade being their home trade, that they will endeavor to satisfy their largest customers—home buyers. The result is old seed and poor seed is sold in large quantities. Roots require a maximum amount of labor, and to be a profitable crop a good stand is imperative. Old seed does not germinate so quickly, so easily, or yet so strongly as does new seed, consequently there is a big risk involved in sowing it. Mangel and beet seed require considerable moisture for germination even when the germ is strong, and turnips are often sown in a dry hot time when it is necessary to have the most vital seed to ensure even germination.

These seeds can be grown in Canada, and if root growers do not feel like paying our seedmen a sufficiently high price to warrant their going into the business on a large scale to supply the country with home-grown seed, why not try it on a small scale on the farm. If the farmer selects his own roots and produces his own seed, he knows then how old it is and what variety it is. For several years past experiments have been

carried on at the O. A. C., Guelph, Ont., with home grown and imported seed, and the home grown has given good results. In 1909 and 1910 mangel seed of the Yellow Leviathan variety stood at the head of the list for percentage germination, with 116 per cent., while several varieties of the imported seed ran as low as 80, 70, 60, and even down to 16 per cent. In an average for three years of all seed, a German variety imported directly from Germany stood highest in germination, but in the Yellow Leviathan variety—a variety which has gained much prominence in Ontario—Canadian grown seed stood first with 123 per cent., while the same variety of seed imported gave as low as 62 per cent. germination. In the case of varieties which may have beaten Canadian seed, it must be remembered that the seed was imported from the best European growers, and is by no means a fair average of the European seed sold in Canada, being of a much higher quality. If home-grown seed of one variety can beat foreign seed of the same variety, why should the same not hold true of many or all varieties? Germination is not all. Of the different lots of Yellow Leviathan seed sown at Guelph in 1909 and 1911, the highest yield per acre was obtained from seed grown at the College. So far very little work has been done with Canadian grown root seeds, but these results would tend to show that they have an advantage over the very best imported seed, and a wide margin over the nondescript poorer class of European seed which finds its way to our markets. Turnip, beet and other root seeds may be just as easily and successfully grown here as mangel seed. Home grown seed is acclimatized, is suited to the soil upon which the roots are grown, may be more thoroughly selected and is almost surely to be more vital, the grower always knowing the age of the seed he is using.

Selection must start with the roots in the fall. It is best to go into the field and select a few well-grown shapely roots, and store them in a pit, in a cool cellar or in sand. They must not freeze and they should not heat. Do not select over-large or malformed roots. Medium sized smooth bottoms will be found most satisfactory. Be sure they conform to the recognized shape of the variety. If not they may be sports, reverted types, or possibly another variety which may have accidentally gained access to the seed used upon a former occasion. Leave considerable leaf on the root when topping, shake the dirt off carefully, and place in a cool cellar. It is difficult to pit a small quantity successfully, as they often freeze unless a great depth of covering is placed over them, which tends to heat them. Stored in sand in the cellar, or in a loose pile they will keep very well, and when spring comes they are removed to the field, planted and worked throughout the summer. When the seed is ripe it should be harvested and threshed by hand. The growing of the seed at home gives ample opportunity for selection. The most suitable roots are picked from the field, and if any of them do not do well during the seeding year a chance is left to reject the entire plant, and again with the seed it can be so cleaned as to do away with all shrunken or poor seed. There is no excuse for the presence of weed seeds in the root seed grown at home on the farm. While the price of labor in this country may curtail to some extent production of root seeds on a large scale by seed firms, the small amount necessary on the average farm makes it quite possible for the farmer, with very little extra labor or expense to produce his own.

If any readers of "The Farmer's Advocate" have tried home production of root seeds, we would invite them to give their experience through these columns.

Hauling Barbed Wire Around Corners.

Editor "The Farmer's Advocate":

Barbed wire, once having been strung upon a fence, becomes no easy article to take down and transfer to another part of the farm. This is especially so when a fence corner has to be negotiated, unless, of course, a person goes to the trouble of winding the wire upon a spool again, which is slow, tedious, hard and dangerous, not to mention the trouble this method of shifting wire gives when you start to unwind it. Recently when I was confronted with the problem I tried the following method and found it very successful:

Having taken the wire from the posts, by means of a clevis whiffletree and horse, I pulled it along to the first corner, around which I had to transfer it. About three feet from the corner post I drove a three-foot stake into the ground about two feet, so that it would slope away from the corner post at an angle of about 45 degrees. To the bottom of the stake I attached an iron pulley by means of a piece of wire. I then put the end of the barbed wire through the pulley, hitched on again at the other side, and away we went without any trouble whatsoever.

Sask.

HAROLD HODGE.