

November on the Farm.

We have enjoyed our Hallowe'en and may now expect winter weather any day. We may, it is true, have yet some weeks of pleasant weather, and there is no more pleasant, invigorating season than our Canadian fall, very few seasons excepted, and, in the country especially, we enjoy it the more that we know not how short it may be. The Indian summer sometimes remains with us till the month is over, but sometimes November comes in with chilling breath, the ground is soon bound by frost, and "All the hills are covered with snow, and then it is winter fairly."

This uncertainty of what a week or a day may bring us makes it all the more necessary for us not to lose an hour in making every preparation for the winter. Leave nothing undone that may be done, and when the winter shall have come we can with the greater ease do the work that even in the depth of winter must be done on the farm.

The potato crop is safely stored ere this. This year, more than others, there has been early maturity, and early ripening makes the way for early gathering into pits and cellars. There are, however, other root crops to be cared for, and we believe the acreage under such crops is every year increasing. The unceasing cutting down of the old forests makes the country colder by depriving it of the natural protections against the winds, and, consequently, cattle require a better supply of winter food than formerly; besides, our access to better markets for our meat and dairy produce must stimulate to greater improvement in our stock husbandry.

All roots should be secured with as little delay as possible. We need not now expect them to make a greater growth, and a few days may not only make the saving them more laborious and expensive, but may also cause a serious loss in the crops. Let us see to it that our turnips, mangolds, carrots and beets are so stored as to be safe from the winter, and at the same time within easy reach for feeding our cattle. We see in some parts of the country there is a greater variety in the root crops of the farm. We have learned not to depend on one variety. There might be a failure of the turnip crops, from drouth at the time of sowing, or from attacks of the fly, and we then find the advantage of having a plot of mangolds; so it is with all our root crops; besides, it is well to have a variety of root crops for feeding.

A good root-house is most convenient for storing roots. It should, to save the labor of much carriage, be near the stable and byre. Roots intended to be fed late in the season may be safely stored in pits, and if carefully taken from the ground and carefully stored they will keep well till late in the season. There is no way in which they will keep fresher and retain their nutritive properties better than in the pit.

Carrots are very valuable for winter feed for horses. They serve to keep them in good health and condition. They have been largely fed to horses in England, and there is no other country in which the horse is so well cared for. We have also fed turnips and beets to horses, but only in small quantities and at intervals—merely enough to prevent costiveness when long confined to the stable and to dry food.

In pitting or storing turnips care must be taken that ventilation is secured, otherwise their heat when heaped together might cause decomposition. Ventilation is as necessary for the preservation of roots as it is for animal life. They must not be kept stored in too high a temperature—they keep best just about the freezing point, no higher.

This month, at furthest, all cattle should be housed. If the weather be cold and wet, they should be housed even earlier. The cold rains of

an early winter, or even of an unfavorable fall, "wash away the flesh" they had gained. There is no greater waste, no source of more certain loss to the farmer than to let his cattle stand out on bleak, wet nights exposed to the cold. They would be better in the house or shed even if without food. It is easy to keep up the condition of stock, but very difficult to restore it if lost. This is equally applicable to all stock—milk cows, young stock and store cattle. If neglected they will be a source of loss instead of profit. If kept warm and comfortable they will continue improving in appearance, health and flesh.

Fattening hogs should be finished for market as early as possible. They thrive better before the cold weather sets in, and every additional day's food is additional cost incurred. When housed early, and in good condition, they are finished for the market at comparatively little expense of food.

Horses should be well fed and groomed. A good span of horses well cared for will do as much work as two spans of wretched, hungry animals, and in the hurried season the owner can rely on them. A good horse is a good friend.

Keep the plow going till prevented by frost. Plowing at this season will expedite the spring work; and ground such as can be profitably plowed in the fall must be greatly benefited by the action of frost. We have proved this by the experience of years.

One more hint. The collecting and saving of manure is a very important part of the November work on the farm. Let nothing be lost that can be converted into manure. Now that the cattle are housed everything that will absorb the liquid manure may be made a valuable addition to the manure heap.

The Potato Crop of 1876.

Never was the uncertainty of the yield from the potato crop more clearly shown than in the crop of 1876 and the preceding year—the former a season of abundant produce and consequent low prices; the latter a season of crops so light as by some to be called a failure. In 1875 potatoes were sold in these markets at 20c. to 25c. per bushel, and so it was throughout the Dominion. In the Maritime Provinces they were bought at as low prices, and large quantities of them made into starch. From New England we had similar reports. This year, in the very season when potatoes are cheapest, they are sold here at \$1 per bag of 1½ bush. In the Maritime Provinces they are bought at 50c. per bush., and shipped in large quantities to New England. A correspondent of the *Ohio Farmer* says:—"I won't have two hundred bushels of potatoes from five acres. From the same field last year I dug eight hundred bushels." He adds:—"According to my estimate, an acre of potatoes cannot be cultivated for less than twenty dollars, which is just about what my field will produce this year, leaving nothing for use of the land."

The question naturally arises, Is such a loss unavoidable? Is there no method by which we can guard against the recurrence of such losing results? We cannot, we know, by any means in the least control the weather—and to the drought or humidity of the weather much of the poverty of the crop must be attributable; but is it not within our power to guard against the injurious effects of an unfavourable condition of the weather. That this can be, at least, partially effected, we have little doubt; and the more clearly we see that there is such a possibility, the more likely will we be to inquire into and to adopt preventive measures.

Were this failure wholly owing to the nature of the season, there would be little difference between the returns in the same or similar localities. But this has not been the case. Some, a few, farmers

have good potato crops, while their neighbours' potatoes have scarcely been worth the labour. This difference of produce must be attributed to other causes—to the quality and nature of the soil, its condition for the crop, and the variety of potato planted. Any soil may be so treated as to produce a pretty good crop of potatoes in favourable seasons; but a farmer need not be told there are soils naturally adapted for its culture. Rotation of crops is another requisite to successful potato culture. With the writer mentioned above this course was not followed.

That light potato crop of '76 seems to have followed a potato crop of the previous year. This may in part account for its being almost a failure. Some crops are better adapted to take their place in a rotation after other crops of a different mode of growth. We have raised our heaviest potato crops, and those of the best quality, on ground that had the previous year been under grass, peas, or corn. As to the variety of potatoes, the best crops we have known this season have been of early sorts, as the Early Rose. They took hold of the ground early; the unfavorable season had less effect on their growth; their maturing and ripening was not forced as it was of later sorts. A slow-growing, late-maturing potato is not the most suitable for our short seasons.

Were every farmer to make inquiries such as are here suggested, and to communicate the result of his inquiries to an agricultural paper, he would be doing good service to himself and other cultivators of the soil.

Beet Culture.

A BONUS OF SEVENTY THOUSAND DOLLARS PER ANNUM FROM THE QUEBEC LEGISLATURE.

The present annual production of beet sugar in France, Belgium, and other countries, is 1,050,000 tons—France alone producing 360,000 tons. We believe the French Government gives a bounty or drawback on exported beet sugar. That is, we believe, to encourage an industry that is comparatively undeveloped; for no sound economist would tax the entire nation for the benefit of a class. However, it proves the importance to the agriculturist and the nation generally which the French Government entertains of an extended cultivation of the sugar-beet and of its manufacture. We believe at the last session of the Quebec Local Legislature \$7,000 annually, for ten years, were voted to encourage the establishment of a Beet Sugar Refinery. We are not aware how far this grant has operated to extend the cultivation of that root, and not even so far till there is a demand for it. It would seem, therefore, that a refinery must precede beet cultivation. Not many will enter on an enterprise while the material for manufacturing it is wanting. For the present the farmer has no market if he would raise the sugar-beet, and the refiner has no root to manufacture. No doubt does exist of the suitability of the soil of this Province for raising roots. The local Agricultural Shows and Provincial Fairs have produced ample evidence of the fertility of the land, and plentiful crops might be secured; but we imagine the refinery must somehow precede the culture of the sugar-beet before its production becomes general.

The above article on a very important subject we abridge from our Eastern Township contemporary, the *Sherbrook News*. We would suggest to cultivators and manufacturers that both branches of the undertaking proceed simultaneously, so that while the beets are growing for the sugar-maker, the manufactory be erected and put into working order. Were the establishment of a "refinery" undertaken by a company, they could, on land bought or rented for the purpose, grow beets to give partial employment for the first year's operation, as has been done by the proprietors of the Potato Starch Factory in

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