

manure until its juices become necessary for the crops of the succeeding years. The greater variety there is in the crops of this field, the better it will be, provided the soil is suitable for them. Thus, this field ought, as nearly as possible, to look like a kitchen garden.

Under the actual circumstances of the country, I would particularly call the attention of farmers to the cultivation of the Carrot as being one well adapted to our soil and climate. The Carrot has fewer enemies than any other plant that I know: the best sorts for field culture are the Red Altringham and Large White Belgian. The latter kind has been introduced into the District of Montreal since the first edition of this pamphlet was written. As food for cattle it may prove better than the Altringham—the seed germinates quicker, grows faster, and produces a heavier crop. It will do better on a thin soil, as the root rises considerably above the ground. I have raised a heavy crop of them on wet mossy soil, many of the roots rising ten or twelve inches above the surface. They also keep better during the winter. The method of cultivating the carrot is as follows:—

Culture of the Carrot.

The land which has been manured in the fall, as above described, ought to be ploughed at least twice in the spring, the one furrow across the other, and both as deep as possible. It is then to be harrowed until it is properly mellow. You then make with the plough two furrows, distant two feet, or two feet three inches from each other, taking care to raise the soil as much as possible between each. You pass the roller over this ploughed portion, and then with the corner of a hoe, make a small furrow or drill along the top of the rows: drop the seed into this furrow, and pass the roller over it again: this last operation will cover the seed sufficiently.

If you can get a seed-sower, that will simplify matters considerably. A roller is essential in the culture of root crops which spring from small seeds, but it can be readily got by all farmers. A log of twenty inches diameter, and five feet long, with a pole fixed at each end, will do the business admirably.

Carrot seeds (and you may say the same of other seeds) ought to be soaked in rain, or soft water, until they are about to sprout, and then rolled in quick lime until the grains are dry enough not to stick to each other. When there is no lime wood ashes will do as well. A pound of seed, if it be good (and you ought always to try it before sowing), will be sufficient for one acre of land. By the above plan, the young plant will come up before the weeds, so that it will be easy to distinguish the rows of carrots before the weeds appear: this renders the cleaning comparatively easy, since it may be done (except the thinning) by means of a cultivator. This cultivator is an instrument which every settler ought to have, and which,

like those already mentioned, is extremely simple in its construction. It is made of three bars of wood joined in front and separated behind according to the width of the furrows which you wish to clean. The instrument, called the Horse-hoe, or Drill harrow, or Cultivator, is drawn by one horse and has handles to it like a plough, only lighter. A man or a boy may guide it so as not to touch the rows of Carrots or other crops, but only to raise the soil to a greater or less depth, at pleasure. As soon as the weeds appear, you draw this harrow between the rows, so as to stir the soil as close as possible to the young carrots, but without touching or covering them. This process will keep the plants sufficiently clean until the time for thinning them and leaving them four or five inches apart from one another; soon afterwards you may plough between the rows thus harrowed and raised. These operations do good to the plant by permitting air and moisture to have access, and by facilitating evaporation. My plan for gathering the carrots in autumn is to pass the plough along the right side of the plants as close as possible, without injuring them: this frees them on one side, and the stem is strong enough to allow us to haul up the roots by it afterwards.

This method of culture requires a good deal of labour, but the return is more than enough to recompense the farmer.

When we consider the large amount of nutritive matter contained in this root, and its general application to all the living things on a farm, its culture cannot be too strongly recommended, besides it is relished by all animals, especially by working horses, to whom it may be given instead of Oats.

I have dwelt particularly upon the culture of the Carrot, because the same method applies to the culture of all the root crops, which can be advantageously grown in this climate, such as Parsnips, Beets, Mangolds and Turnips.

Parsnips will grow in a close soil, almost in clay, and do not require cellars since they will remain uninjured all winter in the ground. In this case, you will have them in the spring affording a new and succulent food, at a time when it is most necessary. Every animal will eat parsnips with relish, and cows fed upon them yield a very rich milk.

Beets and Mangolds have the same value as a crop, and as food for milk cattle; but I do not consider them to be so good for fattening cattle.

[In spring, all the manure made during the past winter should be carted to the field, placed in a heap, and twice turned. All bones should be gathered and broken up with a hammer, all coal and wood ashes, scrapings of sewers, the dung of the fowl-house, and the contents of the privy, should be collected and made into a compost, with dry loam or bog earth.

The above manure may be used for that portion of the field devoted to cabbages,

potatoes, and turnips. It should be put in the bottom of the drill on which the above are to be planted or sown.

When the ground is properly ploughed and harrowed, and a sufficient quantity of sound seed sown, say at least four pounds to the acre, the Turnip crop is as certain as any other.*

The sowing of Turnip seed should be commenced early in June, and may be continued up to 20th July. If the fly takes the first sowing, a second will be likely to succeed.

The Turnips, when well up, and getting strong, should be thinned out to a foot apart, and the hoe and cultivator passed through them, at least twice before they meet in the drills.]

Horse-Beans and Peas.

If the land is too heavy for root crops, horse-beans or peas will suit for No. 1, taking care to sow them in drills, and to prepare the land as above described for root crops.

Ploughing.

If it be thought absolutely necessary to summer-fallow, that is to plough without sowing, which only happens when the soil is so hard and heavy that it cannot be pulverized in any other way, you ought not to spread the manure on the land in the preceding fall, but plough the land and ridge and furrow it with as much care as for a crop. You need not touch it again before the month of June, when you must plough it again and harrow it so as to render it even, and destroy the roots of the weeds. You may then draw the furrows in a straight line, giving them a uniform breadth, and so as to facilitate drainage. About the middle of July you must plough it again, and sow it with plenty buckwheat. At the end of September, plough it again, having previously spread it with dung. In this case the buckwheat is ploughed under with the manure, and serves greatly to increase the latter. The land thus prepared ought to be sown with wheat in the ensuing spring, and you may add a little timothy and clover. A bushel of timothy will suffice for four or five acres, and three or four pounds of clover to each acre.

By following the method above described, you will have, in the year 1851, quadrupled, or more than quadrupled the fertility of the soil.

I have now done all that I can for field A. I have weeded and manured it as well as I can; and after having taken the crop of

* That four pounds of sound seed to the acre on ground properly prepared will render the Turnip crop as certain as any other, is not in the original, but has been inserted by the Publishers of the New Brunswick Edition of this Pamphlet, and for which the Author is not responsible. It may be the case in the Sister Province, but it is not so with us here, in the District of Montreal. No amount of seed or preparation of the ground has made the turnip a certain crop. These may be helps, but that is all.