

comes with it, grows with far greater luxuriance than either oats or barley, and ripens either with or before them. Each seed has either a hook or a series of hooks, with which it attaches itself to passing objects, so that cattle carry it from place to place whenever they pass through the ripe stems. It is very fond of any manure heap or waste place, and affords a plentiful crop. If cut off before the seed stems attain a certain age and strength, it actually becomes a biennial, and almost perennial, in its nature. The seed lies any length of time in the ground, and is always ready to put forth at every favourable opportunity. Cattle will not eat it when they can get anything else, but they will eat it. These being the attributes of the plant, it may be easily seen that a more dangerous one for the Canadian farmer cannot be found. When often cut down, it will bear seed on stems only a few inches high, although on favourable soil the plant in its natural state reaches the height of from four to even six feet.

In our newly cleared lands it is most dangerous; it gets possession of the soil, and as the plough cannot be used amongst the roots and stumps, it flourishes beyond measure, and once in the soil, it is believed to be all but impossible to eradicate it. There is only one cure, name'y, absolute eradication; the plant grows so large, and so much higher than the rest of the crop, that it is easily distinguished, and must be pulled up by the roots; nothing else will do. If any part of the crown is left in the soil it shoots forth again. Absolute root and branch work is the only thing that can be depended on.

Of course, a thorough summer fallow will get rid of all the seeds which are in any way so exposed to the air as to germinate; like all plants in a seedling state, the wild oat is then easily killed. But the seeds do not germinate easily, and plough and cultivate as you will, there are always some left in the soil. It seems also to have the power of sinking to the subsoil, and once there, it will remain in a state of preservation for ages. As an instance of this, the writer's father had a farm in England on which wild oats were certainly known, for they are known all over England, but they were not plentiful, and from having been well kept under, were not even a nuisance, although duly weeded out of the growing grain with the docks, thistles, etc., every spring. Well, there was one field which it was supposed would be greatly benefited by the bringing up of an inch or two of subsoil, and this was done in the fall, so as to give it the benefit of the winter's frost. The field was well manured, and sown to peas. In due time the peas came up, but with them so plentiful a crop of wild oats, that they would have smothered the peas but that peas like something to climb on. The whole crop as green stuff amounted to more tons per acre than I should like to say; it was all cut green and fed to cattle in the way of soiling, and destroyed in the farm-yard, and every exertion was used to eradicate

the wild oats by immediate ploughing, and fallow, or rather hoed crops; but that field was many years thoroughly infested with the wild oats, and they certainly had all been brought up by that two inches of subsoil, which by its appearance might have remained till that time undisturbed since the deluge. The second best protection against this pest is well harrowing the stubble after harvest; this sets the wild oats growing, and they are then, of course, destroyed by the subsequent fall or spring ploughing.

The Canada wild oats were first seen in the County of Perth, near Stratford, and are supposed to have been brought in by some Germans who imported barley for seed. They were at first thought a great curiosity by Canadian settlers who had not made their acquaintance before, and were even propagated for fodder and as a winter oat—no one knew the danger, and all were consequently careless. When they once got thick in the crops, the birds, cattle, and above all the travelling threshing machines, spread them like wildfire. Settlers, too, who were short of feed, bought straw and hay, and thus inoculated their farms. Now, the Perth farmers spare no trouble to eradicate the wild oats and keep them off their farms, and many have bought threshing machines rather than run the risk of importing the wild oat in the travelling machines. The borrowing and lending of winnowing machines has also been a fertile source of the spread of the weed, but cattle, birds, and the clothes of men have done their share.

VECTIS.

The Cultivation of Carrots

Having received several letters from subscribers wishing for information as to the best mode of growing carrots, we re-publish in reply to such enquiries a portion of an article on the subject contributed to the pages of the CANADA FARMER of last year by an esteemed correspondent—W. R. of Cobourg. The republication, moreover, is justified not only by the excellence of the article, but because the number containing it is now out of print.

The carrot crop is deserving of more attention than it generally receives, as it is one of the surest of our roots, withstanding our summer drought better than any other of our root crops.

In preparing the ground for carrots, the best way is to manure and plough the land in the fall, and if there is time subsoil it at the same time, as carrots delight in a deep mellow soil. Then cross-plough the land in the spring, as soon as it can be done. After it is in order, and after harrowing and cultivating and rolling too if required, drill the ground up in drills, say about thirty inches wide—not that carrots require so wide a drill for their growth, as eighteen to twenty-four inches would be wide enough for that; but room is required to clean the carrots—so that they can be easily cultivated between the rows.

If the ground had not been subsoiled in the

fall, we would drill up the land, and then run the subsoil plough up one drill and down another as deep as we could, and then drill up the land anew, so that the seed would be sown directly above where the subsoil plough had run. There is a marked difference in the length of the carrot when thus treated, and when the ground is drilled up without any subsoiling. Carrots are often sown by hand; but if the seed is properly cleaned they can be sown with a drill, care being taken that the drill does not choke up. I generally use a light roller, attaching the seed drill to it, thus rolling the drill I am sowing, and the seed sown. In this way the seed is well covered, and the drills left fine and smooth. The carrot is a slow seed to start, so that the weeds are generally before them, and require to be checked as soon as possible. So soon as the young carrot can be fairly seen, a drill cultivator should be run through them. Up one drill and down another will be sufficient, then take a sharp hoe, and pare the sides of the drills as close to the young carrots as possible, walking backward—and paring half the drill on each side, so that the weeds may not be trodden into the fresh loose earth, but die as quickly as possible. When they are well pared off thus, all the weeds left in the row (which need not be much more than an inch wide) will not hurt the young plants much, till they are sufficiently strong to thin out. In thinning and weeding them, use a small sharp hoe about four inches broad. It may be made out of an old cradle scythe, as by this means one can thin and clean them much faster than when all the weeds in the row are pulled by hand. After they have been thinned they ought to be gone through again—some time after—hoeing out all the weeds and any carrots that may have been left too thick. Carrots, like all other root crops, are the better for having the ground stirred frequently between the rows; indeed, they would be all the better if cultivated once in a week or ten days, if time can be found to do so.

Though carrots grow slowly at first, they grow rapidly in the fall, and may be left in the ground as long as there is no danger from frost. I have pursued different ways of taking them up, according to circumstances; sometimes when they are white carrots, standing well up out of the ground, the harvesting has been done in this way: with a hoe cut off the tops, and draw them out of the way; then take a subsoil plough, with the side plate taken off, and run it close alongside of the rows of carrots, loosening and raising them up, so that they can be thrown into a cart or waggon without any further trouble. If the ground is clear and mellow, this is perhaps the quickest way. Another plan is to run the subsoil plough alongside the row of carrots, and then pull them up and cut off the tops. This method has to be pursued with orange or red carrots, as they do not grow at all above the ground like white carrots. But where the ground is stony, or