

# THE CANADA FARMER.

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## The Field.

### The Colorado Potato Beetle.

EDITOR CANADA FARMER:—The Colorado potato-beetle appears to be increasing very rapidly in this part of the country. About three weeks ago a strong southerly wind brought myriads down the Owen Sound Bay. The beach at Presqu'île was covered with them, but a week later I was unable to find one there.

It is useless to think of evading their ravages by planting potatoes this year in a different place from where they were planted last year. In ploughing some fall wheat stubble, this spring, in a field where potatoes were never planted before, and at some distance from where I have had potatoes these last few years, some beetles were noticed. I have never used Paris Green, as I prefer walking between the drills with a can half full of water or ashes in one hand, and a short stick in the other, and knocking them off the potatoes into the can, as they do not adhere very firmly; and if any fall on the ground they should be picked up and thrown into the can.

They are not easily provoked to bite, but when they do, a leaf of tobacco, moistened with water, and laid on the bitten part, is said to be effective in preventing any ill effects. One of my neighbours has told me that he has often crushed them in his hand without experiencing any harm, but I think if there had been any abrasions on the skin of his hand, he would have smarted for his temerity.

I was last year thinning out some early cabbages in my hotbed, and amongst them I found a Colorado-beetle. As it presented a peculiar appearance, I placed it on the palm of my hand, and found the appearance was caused by a number of small beetles which left the old one and commenced running about my hand, which of course I closed and considered the whole brood to the fire. This seems to prove that they can produce their young alive, and may account for their being so very numerous in the spring before the early potatoes afford them a supply of food, and a convenient place of deposit for their eggs.

They appear not to be so bad on the Early Rose as on the late potatoes, and I prefer to plant the Early Rose, as soon as the frost is out of the ground, say about the 15th May in this township, and if the season is favourable they will be fit for the table by the 1st July and dead ripe by the first week in August, when they may be taken up, and the ground set, a with white globe turnips. Should there be a shower or two about that time the turnips will soon be up, and even if not large enough for winter storage, they would afford a good bite for the cattle in October, but in a very dry season it is of little use to sow turnips in August, at least on a clay loam.

SARAWAK.

The "small beetles" noticed by our correspondent were probably some of the numerous parasites which prey upon the potato-beetle, and not young ones, as he supposed. This way of picking them is a good one, and can be still further improved by the use of a folded newspaper to hit with instead of a stick. A blow sufficiently hard to dislodge the vermin can be struck, but the vines can not easily be hurt.

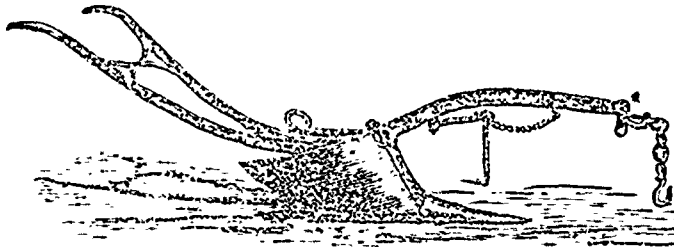
### How to Grow Turnips Cheaply—Hoeing Remedy for Turnip-Fly.

It is somewhat late in the season to be talking of sowing turnips, but the season has been of so exceptional a character that many farmers will not have got in their white turnips by the time this reaches them—and the lateness will render all the more valuable any hints by which time and trouble may be saved.

For root crops, the soil should be ploughed in the fall, turning under as much good, rich, well-rotted manure as can be spared, up to, say, twenty loads to the acre. In the spring, after the rush of seeding is over, pass a harrow over the land intended for roots, and, after harrowing, cross-plough it. Many may be inclined to question the utility of harrowing before the spring-ploughing. To such objectors we simply say, try it before you condemn it. Many of our most advanced farmers practise it, and find

that they are well repaid for their trouble. After ploughing, harrow again.

The soil having been brought to a fine condition, free from lumps, moist and mellow, apply such artificial fertilizer as may be determined upon. Here, again, there is a way of doing it cheaply, easily and efficiently. If the fertilizer is applied in the drill row along with the seed, and unmixed with the soil, it will be apt to burn up the seed, and if applied in the drill row and mixed with the soil, a costly amount of labor is required. Therefore, we say, sow your superphosphate or other fertilizer broadcast and proceed in the following manner to bring it within reach of the young plants: Use a ridging or double moul-board plough, of the form of which the engraving below will give an idea to those who may not have used them. The moul-boards of these ploughs can be expanded to any desired width. Attach a marker to the plough, and run it so that the ridge formed by the one journey of the implement nearly but not quite reaches the ridge formed on its return journey, leaving a little depression as shown in the cut. The fertilizer which has before been sown broadcast, is by this process mixed with the earth as thoroughly as could be desired, and is rolled into the



channel on the top of the ridge. Along this channel run the seed drill, which should be one of the modern pattern fitted with a concave following roller that will close the drill row, and compact the earth upon the seed.



It is a very common thing to hear farmers say that "Root-crops are uncertain in Canada," or that "Roots do not pay because they take so much high-priced labor to grow them." There are some farmers however, who always succeed in getting good root-crops, and it will be found, upon investigation, that these farmers are most careful about the condition of the soil—that they plough and harrow, cross-plough and harrow again till they have got their land into that condition of fineness of tilth in which roots delight, and from which alone can a crop be expected with certainty. And those farmers who object to roots on account of the expense of the process of cultivation, will see that, by the mode we have given above, the expense of production is reduced to a minimum.

It is essential to the cheap cultivation of roots that the hoe be applied to them immediately upon weeds becoming visible, and while they are shallow-rooted. And here, again, there is a cheap, expeditious and efficient way of getting through the work. Some farmers, while hoeing, will face down the row and cut on one side of two ridges. It will be found a quicker and better plan to get a proper turnip-hoe—which has a broad but shallow blade, set on almost at right angles to the handle—and stand facing across the rows. By doing so the hoe can be used both from and to the person, thus utilizing motions of which, in facing along the row, half are lost entirely.

In this connection, we may as well give a preventive against the depredations of the turnip-fly which is stated to have succeeded admirably:—Take fourteen pounds of

sulphur, one bushel of fresh lime, and two bushels of dry road-scrappings or road-dust. Mix them well together, and apply at night, either by means of a drill, or strewed along the rows by hand. If the fly continues troublesome, repeat the process.

### Cool Water in the Field.

There is nothing new in the following method of keeping water cool, for the principle is used by the Egyptians at the present day, and, as may be seen by their inscriptions, has been used by them for thousands of years. They keep their water in unglazed vessels, through the pores of which the water forces itself. The evaporation of this leakage on the outside carries off the heat from within, precisely in the same way that the evaporation of perspiration from the human body enables it to stand a heat which would otherwise be fatal.

If the pail or large vessel containing the water be enveloped in cloths that are kept constantly wet, and be placed in the shade, the water will be found to keep as cool as water for drinking ought to be. Each person on drinking should empty what is left in the dipper or drinking cup upon the cloths, so that they will be kept from drying. Water kept cool in this manner will be more grateful to the palate and less dangerous to the system than ice-water.

### The Effect of Plaster.

It is generally conceded, says the *Rural New Yorker*, that Plaster (gypsum) produces its best effects on land that is high and dry rather than that which is wet and low. Fields which are always wet from springs or tenacious subsoils are rarely benefited much by the use of gypsum. But drain them thoroughly and they respond to its use as fully as any others. In years gone by we have frequently heard farmers say that plaster did little good excepting on sandy soil. This was before the era of under-draining, when none but sandy soils were dry enough for profitable working. Of late years these farmers have learned that heavy uplands or lowlands, if made dry enough, need plaster for clover, and after that for other crops. The effect of clover roots in penetrating the subsoil is to leave it porous and friable, often partially superseding the necessity for under-draining. Hence we find that farmers who grow clover largely are most strenuous in advocating the use of gypsum. This is commonly explained by saying that this fertilizer is specially adapted to clover; but the effect extends beyond the first crop. Corn or other crops on clover ley are much more benefited by plaster than on timothy or blue grass soil. And herein is one important advantage in growing clover rather than other grasses. The roots of clover decay rapidly and give off large quantities of ammonia, while timothy sod contains less nitrogenous matter and decays more slowly, yielding ammonia very gradually. With blue grass the case is still worse, and unless well turned under and kept under, much of its sod will scarcely decay appreciably during the first summer. The fertilizing elements in clover are thus immediately available, and the farmer who grows it experiences the advantages of the nimble sixpence over the slow shilling. In fact, the advantage is even greater, for clover in contrast with other grasses is rather the nimble shilling, as opposed to the slow sixpence.

The use of gypsum on decaying clover is to fix the ammonia, changing the sulphate of lime to a sulphate of ammonia, a manure worth twenty-five to thirty cents per lb. It is easily seen that buying gypsum at five dollars per ton and getting from it a manure worth two hundred times that price ought to be a paying operation. That veteran farmer John Johnston was fully justified in saying that rather than do without plaster he would pay forty