

THE VEGETABLE GARDEN.

Getting Rid of Cabbage-Worms.

EDITOR CANADA FARMER:—Please tell me how I can get rid of the green-worms on cabbages and kohlrabi. They were worse than the grasshoppers last year.

W. WAGNER.

Ossawa, Manitoba.

The best way we know to exterminate cabbage-worms is to hunt them persistently, to be as vigilant when they are in the chrysalis state. Remember that every one of the chrysalises which develops into the perfect winged state will leave a numerous progeny, watering with soap-suds is useful. And we have heard of a man who raised a good crop, while his neighbors raised none, by dusting finely-sifted buckwheat flour on the cabbages.

How to Destroy Weeds.

EDITOR CANADA FARMER:—Although weeds are very troublesome, injurious, and hard to exterminate, as everyone knows who undertakes to cultivate a garden, yet I am satisfied, that, if we were to take a different course from that which everywhere obtains, we would find our trouble with the weeds to be chiefly owing to our want of skill in exterminating them; the consequence of plodding on in the old track of our forefathers, instead of stopping to think for ourselves about the matter.

Allow me to suggest a method of treatment, by means of which we will find that the extermination of weeds from our garden beds will become an easy task.

Instead of, as usual, digging up the soil as soon as the frost is out of the ground, let the soil remain unlug until the weeds are fully up; then hoe them down at once, and dig up the soil spade deep. Thus the surface crop of weeds will be destroyed.

After the soil is turned up (and with it, of course, the seeds and roots of the weeds that lay buried a foot or more below the surface), instead of sowing the seeds therein at once—as is now universally done—let it alone, unsown, until the weeds peep up fully; then, without delay, hoe them down, and rake them off the beds; immediately after which sow the seeds therein. In a few days thereafter you will have the pleasure of seeing the infant plants above the soil, accompanied with very few weeds; not more of them than will help to shelter the young vegetable shoots, until they obtain strength enough to bear the increasing heat of the sun.

The great advantage of taking off two immature crops of weeds from the beds, before sowing them with the intended seed, will consist in this, namely, that, in the first stage of their growth, the shoots of the seeds sown will not be choked with innumerable weeds; and, having the chief benefit and possession of the soil, they will push up therefrom, strong and vigorous; and consequently their growth will be rapid and unchecked.

After taking off two crops of weeds, as above pointed out, there will be time enough to sow all the requisite garden seeds, (with, perhaps, the exception of onions,) as the extra warmth of the soil and the absence of weeds will facilitate their growth. Then, too, seeds will not perish in the ground from cold, nor will the plants be nipped with the frost, as it often happens when the seeds are sown too early.

Let all concerned make a note of the above suggestion, and fail not to put it into practice in the forthcoming spring.

Let me caution those who aim at exterminating the weeds at present existing, to take care that they do not sow any more of the seeds of those nuisances; which will be sure to be effectually done if fresh dung is put upon or into the soil, also if we do not make it a point not to let a single weed go to seed.

I term weeds, "Nuisances," when, through our negligence, they are allowed to encumber our garden beds, but like everything which God has made, they fulfil some wise design, and are "good" and useful for food or medicine, for man or animals, as we now in part know to be the case, and doubtless before long will discover fully.

Aurora, Ont.

GARDNER.

The *Journal of Horticulture* says: Sawdust is a good thing for earthing celery, placing it between the rows and around the plants after the leaves and stalks have been brought together, pressing the sawdust about them so as to lie compact and insure blanching perfectly.

Raising and Storing Winter Cabbage.

There is no crop that pays better than cabbages provided one is near a good market where plenty of manure can be obtained. As they are gross-feeding and bulky, there is no use trying to grow them to perfection, unless we have very rich ground or use plenty of manure. If grown at a distance from market, the freight or cartage will more than consume the rental of a piece of land close by market. Perhaps no ground is better to set them on than a piece of sod well enriched. By no means would I set them on ground that had grown a crop of cabbages or turnips the previous year, as they would almost surely be affected with the club root. On sod ground, with healthy plants, this never happens.

The plan which I have lately adopted is as follows:—As early in spring as possible I select my ground, and manure it with forty tons of manure per acre. I then thoroughly plough it, and strike out furrows three feet apart. In these I drop Early Rose potatoes, one foot apart, and cover them with a plough. I now sow radishes over the whole, and harrow them in. These are fit to bunch and sell by the time the potatoes are ready to plough. About the middle of June I hill up the potatoes with a shovel plough, and set at two and a half feet apart plants of Flat Dutch cabbage between the rows. These plants I have raised by sowing the seed in good, clean, rich ground, where there has been neither cabbage nor turnips the previous year. Sow the seed thinly in rows one foot apart, so as to have the plants stocky.

As soon as the potatoes are large enough for market I dig them and sell them. I run a half mold-board plough under the rows of potatoes by making the horse walk on the ridge. I then go through and pick up what potatoes are out, and pick up the vines, placing them between the cabbages. I then run through them twice with the shovel plough, picking up the potatoes each time. Then I uncover and hoe the cabbage. In this way we both dig the potatoes and plough the cabbage at one operation. If the ground becomes hard, I run the subsoil plough between the rows. I also frequently run the shovel plough, as this obviates the necessity of hoeing. If I see the light yellow butterfly near the cabbage I know that the worm will soon appear, and I sow wheat bran over the patch. As soon as they begin to form heads, I drop about a teaspoonful of fine salt in each head. This helps to harden them. If any of the cabbages begin to turn white, I cut them and sell them, as they are apt to burst.

My plan of preserving cabbage for winter is simpler and better than any I have ever seen described. I wish every grower who reads this would try putting up a few heads this fall in the same manner, for I know if they do they will never go back to the old way. I go through the patch, taking two rows at a time, and cut out all the good heads, leaving a few loose leaves on each, and drop them at my left hand. This makes four rows in one. A man then take the first-class heads and pitches them to me. I catch them and place them in rows, two side by side, with two on top and a third one as a cap. I generally place them in heaps of fifty. I serve the second class in the same way. I now take a corn-knife and cut off the stumps with the loose leaves remaining, as also the soft cabbages, which I feed to the cows. I now cover those heaps of heads with about six inches of soil. The line of the heaps ought to extend north and south. In the winter when I wish to get at them I break in the south end with a pick or hoe, put in my hand and draw them out for about two feet, then break down the frost, and thus proceed until they are all out.

The advantages of this system are:—The cabbages keep brighter and better, as there is no stump sticking out to lead in the frost and rain, thus rotting the heart; they are more easily buried; they are more easily gotten out; they are already cut from the stumps, fit to market; we save a great many of the loose leaves for fodder, which by the other plan are entirely lost. The potatoes and radishes ought to pay all expense, leaving the cabbage for profit, which at a low price will bring \$300 per acre.—*New York Cor. Journal of Agriculture.*

The Horse-Radish Bed.

This, in an amateur's garden, is often a neglected corner. It need not necessarily occupy the best situation in the garden; but it should neither be thrust into a corner nor made under trees, where it is both smothered overhead and impoverished at the roots. Choose a piece of ground moderately open; and, although horse-radish will grow in strong, heavy soil, it will do much better in such as is rather open; for which reason, if the land is very retentive, dig in 8 or 10 inches of rotten vegetable matter from the refuse heap, leaf mold, or old tan; if the latter, it must be such as has been used for fermenting purposes the year before, for, if at all new, it will prove injurious to the roots.

If there be depth enough of soil, dig the ground 2 feet deep; but do not bring too much of the raw under-soil to

the surface—simply loosen it well, and incorporate some of the rotten materials with it. If the ground be light enough naturally, dig in a moderate dressing of manure. Under the old system of growing this root, the crowns only were planted, dropping them into holes made a foot or more in depth; but, when planted in this way, the principal or useful portion of root often becomes forked. A better plan is to open a trench at one end of what we will suppose is the existing bed, as deep as the principal roots have gone, and to take out the whole of the roots, placing all that are fit for use in a corner out of the way; then select the straight whip-thong-like roots for planting; the longer they can be got the better, up to 15 or 18 inches.

In planting, use a stout 15-inch dibber for making the holes, unless the soil is of more than ordinary depth; make the latter slanting at an angle of about 45°, and into each hole place one of the long roots sufficiently deep to allow the top to be covered about an inch, pressing the soil close to it throughout its length. The holes should be in rows 18 inches apart, and 15 inches asunder; nothing more will be required through the season, except keeping the ground clear of weeds. With good plants in deep soil well manured, roots may be grown in a single season, by this method, as much as 2 or 3 lb weight each. Where horse-radish is thus well grown, half the ground usually employed will be found sufficient. Being a plant that commences to grow early in spring, the sooner it is now planted the better.—*Garden.*

Soil for Hot Beds.

In starting a hot bed the compost used at first should be composed largely of leaf mold from the forest, mixed with composted manure or the scrapings of the barnyard, for the reason that at short notice this is usually the most available. The preparation of two parts good loam, two parts leaf mold and one part of compost will give a light friable material. This makes a good soil for the principal plants cultivated in hot beds. For sweet potatoes, however, the covering should be much lighter than this; say three parts of leaf mold, one of sharp sand, and one of friable loam, thoroughly mixed together.

The soil, whatever it be, should be passed through a quarter-inch mesh sieve, to remove stalks and other trash; and, once prepared, it should be carefully saved from year to year, adding to it as necessity requires.

This is readily done by piling it, when no longer wanted for the season's work, in a compact conical mound, covering it before cold weather with slough hay, and over this sufficient fresh manure to keep it from freezing deeply. When wanted, the hay and manure may be taken off from one side, and the heap cut down as wanted with the shove.

The initial soil having been procured at whatever cost of time and labor may be necessary, pains should be taken to prepare for its renewal, so that thereafter there shall be no lack of soil for all hot beds or other propagating purposes.

Sod or turf from some loamy pasture or fence row is the easiest and most available basis for compost. Gather as much as possible, and lay up regularly, mixing with it, if procurable, leaf mold, layer for layer. Add barnyard scrapings, keeping the whole moist, not wet, turning from time to time until all is thoroughly mixed, completely decayed and homogeneous. Sift as before directed, and add the siftings to another pile; and thus you may always have compost that will be available, not only for hot beds, but also as the basis for any and all pot plants. If to the heap, while decomposing, is added the wash of the kitchen, it will hasten decay and disintegration, and add to the organic value of the compost heap. Do not be afraid of getting too much. If you have a surplus it will always be available in the special culture of all garden plants.

TRANSPLANTING.—M. B. Batcham says, in the *Ohio Farmer*, that the effect of transplanting on the growth and habits of some kinds of vegetation is remarkable, and needs to be better understood by horticulturists. It is peculiarly noticeable in the form and growth of young evergreen trees in the nursery, causing a more stocky and symmetrical habit. Florists also find it of benefit to the form and flowering of many plants. Various vegetables, as lettuce, cabbage and celery, are especially benefited by one or two removals when young. It is, he declares, hardly possible to have the largest and finest heads of lettuce if the plants are allowed to grow without transplanting, even though otherwise well cultivated.

WHY POTATOES RUN OUT SO SOON.—A Steuben Co., N. Y., farmer is reported as saying: Some one asks why it is that potatoes so soon run out. There are two grand reasons. There are but few potatoes in a hill that are fit for seed. Some are overgrown, coarse, rank, and will not transmit the original quality. Others are undergrown, and not full-developed seed. A potato of medium size, perfect in all its parts, with change of ground, will produce its like, *ad infinitum*. One other reason, cutting potatoes between stem and seed end continually, will demoralize the institution. It requires the stem and seed end to make perfect seed. If cut, cut lengthwise. Single eyes will run out any potato. There is no other seed that will bear mutilation like the potato; the only wonder is, that it does not run out completely.