

## THE VEGETABLE GARDEN.

## Slugs.

EDITOR CANADA FARMER:—I am gardening a piece of low land which is infested with the slug, so much so that they eat through my cabbage, tomatoes, spinach, cauliflowers, and plough and groove my celery, and in fact they attack everything to their taste. If you will be so kind as to tell me in your next issue what to do with these pests, it will be thankfully received.

Cobourg, Ont.

M. F. K.

The importation of a few toads on to that piece of garden ground is the remedy indicated by nature. Toads are persistent devourers of slugs, bugs and the host of insect enemies which the vegetable world is heir to. The number of slimy abominations which a healthy toad will dispose of in the course of a week is astonishing—and no less wonderful is the activity which the ungainly brutes show in securing their fill. Make shelters for the toads in the daytime with stones or pieces of board.

Cabbage plants, etc., may be protected from slugs, by wrapping a strip of paper loosely around them at the time of planting, leaving the paper about an inch above the ground. This is some trouble, but will pay better than replanting.

## A Hot-Bed in the House.

However cheap and economical the hot-bed made of heating manure may be for general use, the operator must have some considerable knowledge of the requirements necessary to success, in order to work it economically, especially in the early part of the season when both days and nights are cold, for then most constant attention must be given as to air and heat, so that the plants be shielded from cold wind or frost, else failure is certain.

To those who wish to raise only a few plants for the family garden, or, perhaps, strike cuttings for the flower garden, the plan which we now propose will, although it will be some expense at first, be found in the end economical.

Have a pan made (say 24x30 inches) of strong sheet iron, with the sides somewhat flaring, and stiffened with pieces of thin board, or, better, buy an ordinary cast iron sink, and fix a faucet or plug in the bottom of the pipe, to draw off the water when necessary. Put this in a strong frame, made ornamental, if it can be afforded. Put also a shelf underneath the pan, at such a distance that the flame of a common flat-wicked kerosine lamp may just reach the pan. Into the pan fit a strong battened box, the bottom pierced with a number of holes to furnish drainage; and, with flaring sides to correspond with the sides of the boiler or hot water pan underneath, cover the bottom of the box with any old sleazy woollen cloth, to prevent the earth working through the holes in the bottom of the box. Have the water never so high as to touch the box; for the use of the water is simply to diffuse the heat regularly throughout the pan, or, as would be better, make a second pan of sheet iron within the first, against the sides and bottom of which the water may come.

From the lowest part of this earth pan a very small pipe must extend down through the drain hole of the water pan; this is to provide drainage for the earth pan. Any tinman will easily accommodate this small pipe, and still leave room for a small faucet besides, for draining the water pan. Have also a pipe sufficiently large to admit the end of a funnel, so that water may be poured in at the top to enable you conveniently to fill the water pan.

Now fit a frame to the earth pan as for any hot-bed, with sides sufficiently high so that when there are eight inches of earth therein, there will still be a distance of six inches between the earth and the soil which is to be placed over all.

Thus you may have complete, and at a comparatively small expense, a case or hot-bed, wherein plants may be grown, or cuttings struck all through the winter if desired. These, when ready for potting, may be removed, and about the first of March, the soil may be sown with tomato, egg plants, pepper, and other seeds of tender plants, which will be large enough to plant out in a slight hot-bed, when all danger of freezing is over. They will furnish a pleasant recreation and study in winter, and this at the light daily expense of a few cents for oil, or, in cities where gas is used, all that will be required will be to carry a gas pipe under the tank, affix a burner, and the whole is complete. So, you may start seeds of verbena and other flowering plants early enough to be potted and kept growing, until ready for transplanting, and then follow with tender vegetable seeds for the garden as before directed.

If you have a water tank on your kitchen stove, it will not be necessary to keep the lamp burning during the day, since the water may be drawn off from the water pan once or twice a day, and refilled from the tank or boiler.

What you require is to keep the temperature of the bottom of the soil at about 80° during the day, and

if it sink to 60° or even 50° at night, no damage will occur. You may keep up any desired heat with your lamp during the night, and this with no change of water, except to add what may have been lost by evaporation.

It will be necessary that you have a soil thermometer, a simple bulb containing quicksilver, and stem, graduated from 32° to 120° Fahrenheit. Place the bulb in the earth next the bottom. Thus the thermometer should show a temperature of 80° for very tender plants, and say 65° or 70° for more hardy ones.

Now if you place this frame near a window where it may receive the light and heat of the sun, you can grow plants as healthy and as successfully as in a hot-bed or greenhouse. You will also soon learn the different requirements of various plants, which of itself is a most pleasant and profitable study, and besides have a sufficiency of ornamental plants and early vegetables for all ordinary purposes.—*Western Rural*.

## Henderson's Early Summer Cabbage.

A reliable and good early variety of cabbage is a great desideratum to gardeners both for market and home use. Such a one, apparently, is the new variety of Early Summer cabbage illustrated on this page, now introduced by the well-known seedsmen, Peter Henderson & Co. They themselves are satisfied that it will rival, if not to some extent supersede, the Wakefield. The merit of this variety consists in its being the earliest of all large Cabbages, coming in but a few days after the Wakefield. It has another valuable peculiarity, of rarely or never bursting



open when ripe, so that if a crop cannot be used at once, it will not spoil, as is the case with most of the other early sorts. The introducers are confident that it will become a standard variety, either for market or private uses.

## Onion Culture.

The best soil for the successful growth of the onion is one known as a clayey loam, not so heavy as to prevent being readily worked at all times, nor yet so light as to dry off and leave the onions with little or no moisture at just the time when they need it. The preparation of the soil consists in ploughing thoroughly and pulverizing well by harrowing repeatedly. Let the soil be broken up as early in the spring as the season will admit of, for this vegetable requires cool weather to grow rapidly, and the earlier you plant the better will the onions be in regard to size and quality. The reason many growers do not produce as fine onions as they should, is owing to late planting, much of the other spring work being done before the soil is prepared for the onion crop. But do not plant so early as to have the sets frosted, for frozen onions do not produce as fine bulbs as those which have not been pinched by Jack Frost.

We like planting on ridges much better than planting in beds, for we can cultivate with horse power, which is quite an item when from one to four or five acres are planted. The ridges are made by first drawing furrows, with a two-horse plough, about three and one-half feet apart, and putting a good sprinkling of well-rotted stable manure in these furrows just drawn. Two furrows are thrown on each of these rows of manure, making a ridge. This is done with a one-horse plough in the hands of a good ploughman, going twice around to level them up nicely and to put more fine earth on the top of the ridge. These ridges are now nicely levelled off with an iron rake until they are very little higher than the ground between them, and are about eight or ten inches wide on the top. No more ridges should be thrown up at a time than you can plant—throwing them up as you plant them—so as to have moist soil to put the bulbs in. This is an important item. We next stretch a line along on the top of the ridge, planting two rows of onions on each ridge, about six inches apart, the onions or sets being but about four inches apart in the rows.

As soon as the weeds commence to start, commence the work of cultivation by using an ordinary cultivator or hoe-harrow, running close enough to the onions not to disturb either the ridge or the onions. Having done this, take a narrow hoe, about four inches wide—a narrow prong hoe is

an excellent thing for the purpose—and hoe carefully and well between the rows on each ridge. We now let them remain a few days, after which we carefully sprinkle a moderate sprinkling of good guano or hen dung between the rows of onions on each ridge, doing this just before a rain, or else hoe it in. Two, or at the most three, applications of this kind generally bring the desired result. Cultivate well at all times, keeping the occasional weed tops pinched off, and hand-weed if at all necessary, which is generally the case.

As we have grown all the onions we raised from sets, which are produced from seed sown thinly in drills the previous year and then carefully wintered, we cannot give any practical directions of our own for growing from seed.

When the tops of the onions commence to wither and die, say about one or two inches at the extreme end, they have attained their growth. We then generally go over and bend or lay the tops over, together, as we have found them to keep much better that way, for they will not be so apt to take a second growth if a spell of wet weather comes on them. In harvesting this crop, choose a dry day, taking them as soon as they are gathered to some dry, airy and cool place, where they can be left until danger from frost is apprehended, when they should have the tops carefully rubbed off preparatory to removal to a dry and cool place, a dark place usually being advisable. At no time, especially immediately after removal from the field, should you put the onions in close heaps; the heaps should not be more than from two to three or four deep, or else they will heat and rot rapidly.

The culture of onions under favorable circumstances proves profitable year after year, the exceptions generally being due to neglect in some of the above particulars. The profits range anywhere from fifty to one hundred and fifty dollars per acre. In many cases more has been realized, but I wish to keep within bounds. The white or silver skin requires richer ground than either the red or the yellow (Danver's), but generally commands higher prices. We usually raise about an equal quantity of both the red and the white. There are many other kinds, but we rely on these, having tried them a long time in preference to others we have not had experience with.—*D. Z. Evans, in Ohio Farmer*.

## The Wire-Worm.

The simplest and surest way to get rid of wire-worm is to plant potato-sets everywhere as a first crop, and take them up a week afterwards and cook them for poultry. By this very simple course of procedure any piece of ground may be completely cleared of wire-worm. As a matter of course, it requires judgment to carry it into effect. The wise way of proceeding is to trench and manure in the usual way, as if wire-worms were unknown. A lot of chats should be saved and kept in the dark until wanted, because if they get green the wire-worm will not take to them. When the ground is in a nice condition, dig in the potatoes quite thick, and in a week take them out and cook them. Then you may sow seeds, and go ahead, thoroughly satisfied that the ground is cleared of wire-worm. The cost and trouble amount to almost nothing, and it is a capital use for chats where they are not wanted for the pigs. Potatoes will rid any ground of wire-worm, and it will actually pay in the case of land newly broken up from pasture to grow potatoes in order to carry away the wire-worm. The pest soon passes away on land devoted to potatoes. They love the root, they are lifted with it, and very few of them get back to earth again.—*The Gardeners' Magazine*.

WHY CUCUMBERS ARE BITTER.—One of the causes gardeners give for cucumbers being bitter is that such are grown too slow; that in order to secure sweetness and crispness, they should be forced to grow as fast as possible.

TURNIPS.—Among the early white-fleshed sorts there is not much choice; but the Redtop Strap Leaf is probably as good as any. The Small Berlin or Tilton is the richest flavored of the early, yellow-fleshed varieties, but rather small, unless sown upon very strong soil. Robertson's Golden Ball is a larger sort, also of excellent quality. For a late winter variety we have never found any superior to the "Sweet German" for table use.—*R. N. Yorker*.

TO DESTROY CABBAGE LICE.—For years past the writer (a correspondent of the *Journal of the Farm*), has been in the practice of clearing this plant from an insect that infests it at an early stage of its growth, and often continues its ravages to a later date. These are little blue lice, which are so nearly the color of the plant, that it is sometimes difficult to fix their identity. This is, however, soon determined by the curling of the inside leaves, a considerable time previous to heading. The concave portions of these leaves being closely inspected, disclose often hundreds of the little insects, scarcely larger than the seed of the plant. An effectual exterminator of these has been used for a number of years, with unfailing success. It is simply this: Take some dry ashes in a pan, and while the dew is on the plant in the morning, sprinkle the ashes all over the plants, being careful to spread it on the inside of the curled leaves. Hickory ashes, or that of corn cobs, on account of the strength of the lye caused by the dew, is preferred. For a length of years this remedy has been tried with unfailing success. If well applied, it will not be necessary to perform the operation more than once.