

Some Insects Injurious to Vegetables

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AT the time the seed leaves of turnips, radishes and other cruciferous plants first appear above ground they are often attacked and the plants completely destroyed by the so-called "turnip fly," which is a small, very active, shining, black beetle, about one-eighth of an inch long, with a yellowish stripe on each side of the wing-covers.

As soon as the beetles are noticed, the plants should be dusted with Paris green and land plaster, one pound of the former to twenty of the latter. This is best done when the plants are covered with dew. If turnips are not sown until the third week in June, injury from this insect will be avoided, as by that time the swarms of beetles from the first brood have, as a rule, disappeared.

THE SQUASH BUG

Although the squash bug is seldom abundant enough as far east as Ottawa to do any serious harm, still it is one which should be familiar to all growers of cucurbits. In western Ontario the squash bug is usually abundant enough to be decidedly injurious. It is dark brown in color, about three-fifths of an inch long, and, being a true bug, gets its food by suction. The winter is passed under rubbish, etc., and as soon as the young plants are up in spring they immediately begin their depredations. The sexes pair at once and soon the clusters of eggs may be found on the under side of the leaves. There are two broods in the season.

In the earlier part of the season the old bugs may be trapped by placing shingles or short pieces of boards among the plants. The bugs hide under such shelters at night and the next morning when the boards are examined can be easily destroyed. When the bugs are young they can be killed by spraying the vines with kerosene emulsion, or whale oil soap. As soon as the crop is gathered if the vines are burned at once many of these insects in all stages will be destroyed. It has been found a good plan in districts where the squash bug is prevalent, to plant a few hills of the ordinary squash among melons, cucumbers, etc., so that they will appear above the ground a week or so before the other plants. The bugs are particularly fond of squash and will at once collect upon them, where they can then be killed.

THE STRIPED CUCUMBER BEETLE

The striped cucumber beetle passes the winter in the perfect state and as soon as the young cucumbers, squashes and melons appear above ground, it at once begins to attack them. The beetle is yellow with three black stripes down the back and is about two-fifths of an inch in length. The larvae are slender, white, worm-like grubs with dark heads; they live in the ground, feeding on the roots

of the plants, sometimes even burrowing up into the stems.

If frames of cheese cloth are put over the young plants, these will be protected from the attacks of this insect. When the plants have grown large enough to require the removal of the frames, these of course can be dispensed with, and by that time most of the first brood of the beetles will have disappeared. If the young plants are sprayed with the poisoned Bordeaux mixture, they will also be protected largely from the attacks of this beetle. The beetles of the second brood are very active and fly freely from plant to plant. Paris green and land plaster (one of the former to fifty of the lat-

For cabbages and cauliflowers, the tarred paper disks which are made from ordinary tarred building paper, cut three inches in diameter, with a slit running to the centre, so as to allow of their being put round the plants, have proved very useful. The disks, of course, should be pressed down close to the ground. The flies do not lay their eggs to such an extent on plants thus protected.

The Cook carbolic wash which is made with one quart of soft soap, or one pound of hard soap, half a pint of crude carbolic acid, and one gallon of water, has proved very useful for radishes. This mixture after it has been boiled together for a few minutes is the stock solution, and,



Tomatoes Grown in a School Garden by the Children

The school gardening idea is rapidly gaining ground and should be encouraged in every way. The tomatoes illustrated were exhibited at the Niagara District Horticultural Exhibition two years ago by the Rittenhouse School at Jordan Harbor, Ont.

ter) if dusted over the plants at short intervals will kill large numbers of the beetles.

ROOT MAGGOTS

These well known small white maggots which bore into the roots of radishes, cabbages, cauliflowers and so on, and into the bulbs of onions, may be treated of, from a practical standpoint, as the same species. The perfect flies are similar in appearance to the ordinary housefly, but are smaller and more slender. They appear in gardens as soon as the young plants are above ground and lay their white eggs on the stems close to the earth. The maggots hatch in a few days and work their way down beneath the soil and into the roots, or bulbs, which are eventually destroyed. Unfortunately, no good practical remedy is known for these insects. In our experiments we have found that where white hellebore had been dusted along the rows of onions once a week, from the time the young plants first appeared above ground, good results were obtained during some years.

before using, one part by measure is added to fifty of water. It should be applied first just as the plants appear above the ground, and afterwards once a week until the radishes are a marketable size.

During the last two years we have been experimenting with sulphate of iron as a remedy for root maggots. This was highly recommended to us. From results obtained, the late Dr. Fletcher thought it wise to advise its use in the proportion of two ounces to every gallon of water, the application to be the same as in the case of the Cook carbolic wash.

In many Saskatchewan homes it is thought that no fruit can be grown. Try it once, and give the bushes as good a chance as you would give a cabbage plant.

"Be up-to-date!" is the feeling among the best orchardists in Nova Scotia. Old lines of hose, old pumps, old methods are being thrown aside and the best taking their places.