

says that a light sprinkling, just enough to colour the soil, answers the purpose. As this substance, however, can only be procured from a town where there are gas works, it may be impossible to get it in many localities. A substitute for it may be readily made in the following manner: "Take two quarts of soft soap and boil it in rain water until all is dissolved, then turn in a pint of crude carbolic acid. When required for use take one part of this mixture with fifty of water, and when mixed well together sprinkle directly upon the plants." This carbolic wash has been found entirely successful in the case of the Radish-maggot, which is very similar in its attack to the Onion-maggot. It is recommended to sprinkle the beds every week, commencing two days after the seed is sown, and before any of the young plants are up.

As a direct remedy when the onions in the kitchen garden are attacked, it is recommended to pour boiling water upon the affected bulbs; it is stated that this will kill the maggots and not injure the plants. It is certainly worth trying in a few cases to begin with, and then it may be continued, if found satisfactory.

It is an important matter, also, to remove from the beds all the onions that are attacked with as little delay as possible. They may be known at once by their leaves fading and turning yellow. It will not answer, however, to merely pull them up by the hand, as in most cases the leaves only will come away, leaving the infested bulb still in the ground, but it will be found necessary to use a spud, or trowel, or some such instrument, in order to take up the whole onion with its rotten mass full of maggots. This should at once be put into a pail, from which the creatures cannot escape, and then carefully destroyed. By so doing the next brood of flies will be materially reduced and the severity of attack diminished. One further point is not to grow onions two years in succession on the same ground, and if a bed has been infested by the maggot to turn the surface soil deeply under in the autumn and bury the pupæ deep enough to prevent, or at any rate retard, their development in the spring.

THE SQUASH-BUG (*Coreus tristis*, De Geer).

Most persons who cultivate the squash in their gardens have probably noticed at times several of the leaves to be strangely withered, and on investigating further have found the cause to be a number of disgusting looking bugs gathered together on the underside of the leaves. There is usually a large colony collected together, composed of individuals of all sizes from the tiny newly-hatched bug to the old winged specimen half an inch long, represented in Fig. 41.

The life-history of the insect may be briefly related, as follows:—The full-grown insects that have managed to escape the various perils to which their lives are exposed during the summer, retire into winter quarters on the approach of cold weather, and conceal themselves in various nooks and crevices. There they remain in a torpid state all winter, and come forth when warm weather returns in May. At this time of the year and also in the autumn, they may be found in all sorts of unlikely places, but as soon as the squash plant has put forth its first few leaves, the insects take shelter under them and lay their eggs for the future crop of destroyers. The female deposits her eggs in little patches on the underside of the leaves, to which they adhere, and performs the work for the most part at night. This takes place late in June, or even in July if the season is backward, but the eggs are soon hatched and there issue from them the tiny little bugs. At first these are ash-coloured, with large flattish antennæ, and without any wings, but they grow rapidly and with each moult become darker above and paler beneath; at the same time they gradually change their form from a round scale-like appearance to an oblong oval, with a triangular head. As the eggs are laid at intervals, fresh broods keep coming out all summer, and thus specimens of all ages and sizes are usually found crowded together on the same leaf. They all have an excessively disagreeable smell, which is intensified when their bodies are crushed. Like all true bugs they live by suction, each one being provided with a long slender beak or sucker, with which it punctures the leaves and draws up the sap.



FIG. 41.

The effect of a speedy withering

As the bugs and their present numbers burning. It is plant, and destroy only a few square large scale, than remedy may then to it a tablespoon stems and leave (Lintner's Report) but it should applied it this had commenced several seasons use of liquid manure when the plant not so much fell allied plants.

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Everyone noticed the amount so widespread

the most effect the ravages of them, even at