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INSECT NOTES

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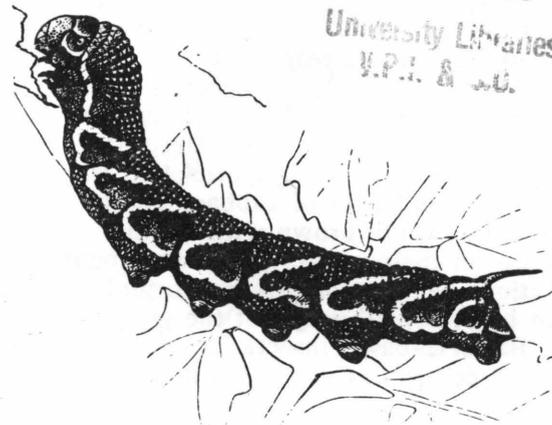
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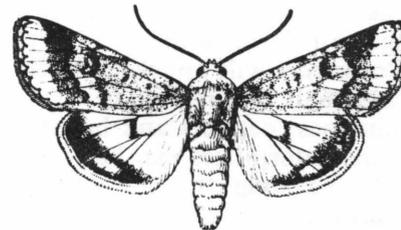
BIOLOGY AND CONTROL OF VEGETABLE INSECT PESTS

It is time to think about controlling the insect pests that can attack vegetable garden plants. We want to make sure that we get more to eat out of the garden than the insects do! Let's look at some of the common insect pests of home vegetable gardens.

Tomato Hornworm. This ferocious-looking caterpillar is found most often on tomato and eggplants, but it will attack peppers and potato. The hornworm is light green with white stripes down the sides. A red horn near its hind end gives the insect its name. When full grown it is 3-4 inches long and can be as big around as a nickle! Hornworms mature into beautiful "hawk" moths. When infestations are light, just pick off the caterpillars and destroy them. (The horn is harmless!) Most garden sprays are effective in controlling this occasional pest.



Corn Earworm. This caterpillar will attack corn ears and tomato plants! When full grown earworm larvae are 1-2 inches long, and may be pink or green in color. The adult moths prefer to lay their eggs on corn silks. By spraying an appropriate insecticide or simply mineral oil on the silk tips good control can be achieved.



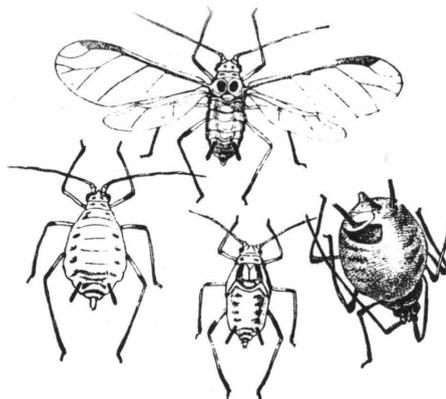
Aphids. Aphids are probably the most common garden insect pest. There seems to be an aphid species for every vegetable! These



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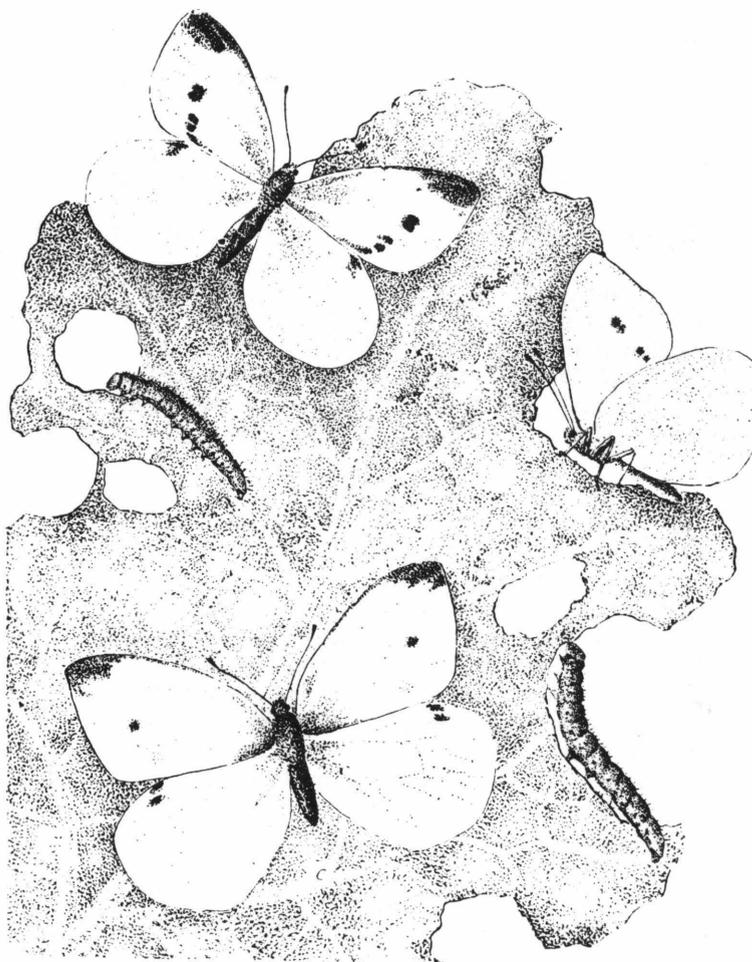
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tiny (1/6--1/4 inch) insects suck sap from plants, and in the process they excrete a sticky substance called "honeydew". A few aphids on a plant are harmless, but they reproduce quickly and many aphids on a plant can quickly cause wilt and disease. When apply chemicals to control aphids, be certain to treat the top and bottom of the leaves, and the stems--aphids can be everywhere.

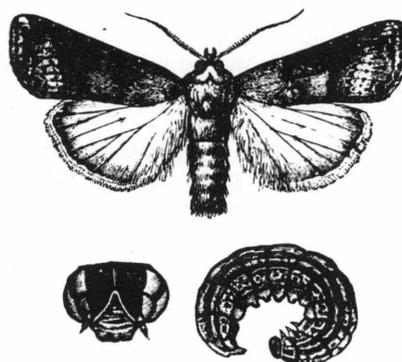


Imported Cabbage Worm. The caterpillars of this moth are pests of all crucifers--cabbage, broccoli, cauliflower, etc. The caterpillar eats ragged holes in the leaves of the plants, and often tunnels into the heads of cabbage and cauliflower. The caterpillars grow to about one inch and are bright green. The adults are well known, they are the butterflies with the pale yellow or pale white wings with 3-4 black spots. There are bacteria-based insecticides (such as Dipel) that can help to control this pest. Imported cabbage worms can be resistant to some of the common insecticides.

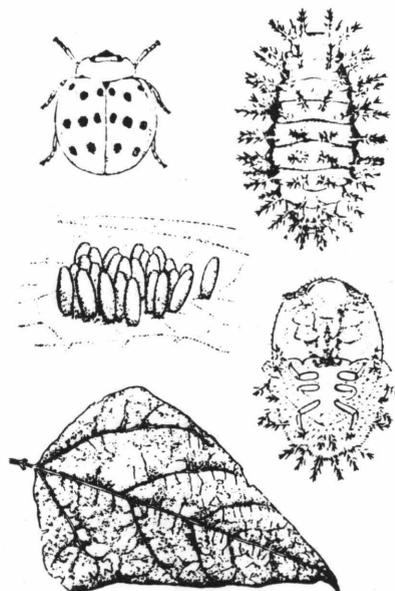
Cabbage Looper. This insect is also a pest of all the crucifers. The caterpillar is the pale green "measuring worm" that is often seen on the leaves of cabbage plants. The adults moths are brown with distinct white spots on their wings. There are about 4 generations per year of this insect, and they can be present throughout the growing season. Bacteria-based insecticides can be effective in controlling the caterpillars.



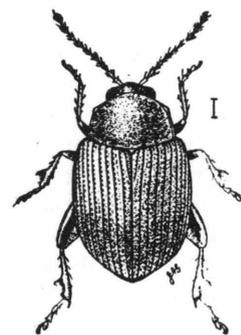
Cutworms. These caterpillars can be serious pests in gardens, especially early in the season. The caterpillars are dark gray to black, rather large, and grow to about 2 inches long. They do most of their damage at night by cutting their favorite plants off at the soil line! Cutworms will attack most all garden plants, but their favored hosts include corn, tomatoes, peppers and beans. During the day the caterpillars can be found under clods of soil near plants. Beware of cutworm problems during the first year of a garden that was sod or turf the previous year. The best control is to apply insecticides at or before planting.



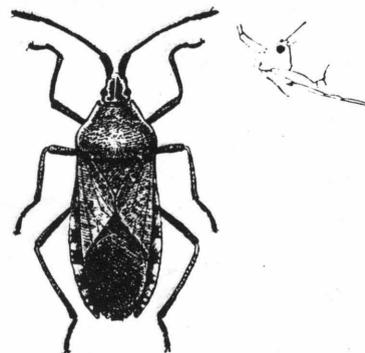
Mexican Bean Beetle. The adult of this beetle resembles a ladybug beetle, but is larger (about 1/4 inch) and has 16 black spots on its back. Adult beetles and the yellow, spiny larvae skeletonize the leaves of snap and lima bean plants. If not controlled they can destroy a crop--and there are four generations per year to keep under control! The eggs are laid on the underside of leaves and hatch in about two weeks. Look for the eggs and squash them. If chemicals are applied, be certain to apply to the underside of the leaves.



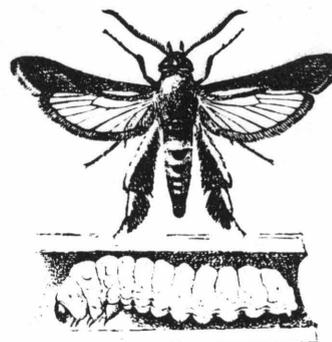
Flea Beetles. These small beetles are one of the earliest pests in the vegetable garden. The shiny black or blue-black beetles jump like fleas when disturbed. They chew holes in the leaves of a number garden plants including beans, peas, corn, eggplant, and tomatoes. Keeping weeds from in and around the garden can help reduce the number of these pests.



Squash Bug. The squash bug is primarily a pest of vine crops, such as squash and cucumber. They have piercing-sucking mouthparts and suck large quantities of sap from plants. The adult bugs are brown with green or orange underneath. When handle they can emit a disagreeable odor. Symptoms of their attack include wilting and a browning of the leaves and the entire vine. When these bugs are numerous entire plants can be killed by their feeding. Squash bugs overwinter as adults, and populations can build up quickly in the summer.

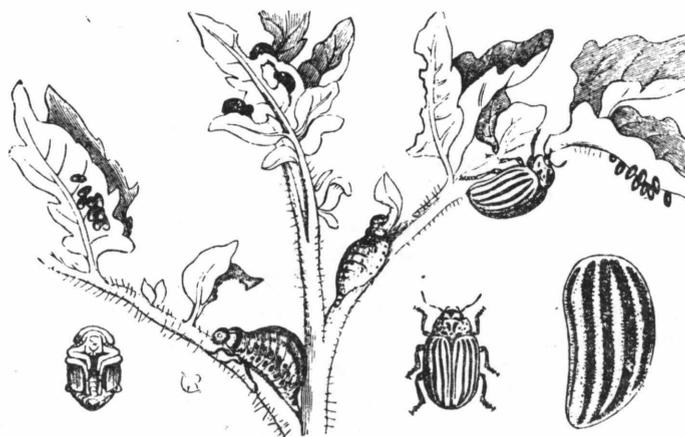


Squash Vine Borer. The squash vine borer is a caterpillar that attacks the vines of cucumber, squash, and pumpkin. The caterpillar feeds within the vine, pushing out yellow "sawdust" out of a hole near where they are feeding, and can cause sudden wilting of plants. They are most common late in the season. The adults are a clearwinged moth that are often mistaken for wasps. This pest overwinters as pupae, so plowing gardens in late fall may help eliminate this pest.



Colorado Potato Beetle. This beetle is a very important pest of potatoes, eggplant, peppers, and tomatoes. Both the

adult and the immature stages defoliate vegetables. The adult beetle has spots on the front part of its yellow body, and 10 stripes on the back. The immature stages are pinkish-red with black spots along the sides. This pest is often resistant to many commonly used insecticides. When spraying be certain to treat the underside of the leaves of vegetable plants.



Spotted Cucumber Beetle. The 12-spotted cucumber beetle is a slender, greenish-yellow beetle with spots scattered on its back. It is a major pest of cucumber and other vine crops. The adults feed on leaves and new shoots. The larvae feed on roots and cause wilting and yellowing of plants. Late planting and mulching have been effective in reducing damage by this insect.

Harlequin Bug. These bugs are easily recognized by their shiny black or deep blue, marked with bright red or orange. They are about one-half inch long and flattened. These insects suck the sap from the leaves and stems of cabbage and other crucifers. Plants attacked by these bugs wilt and die if the insects are not controlled. Kale can be used as a "trap crop" for the harlequin bug, as they prefer this vegetable over others. Chemical control should include the treatment of the underside of the leaves with garden insecticides.

