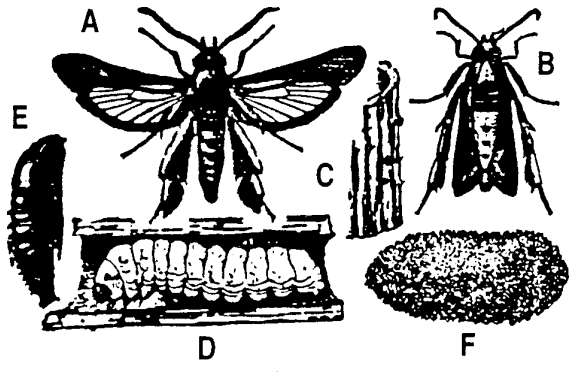
Cornell Cooperative Extension
Nassau County

Horticulture Program
Eisenhower Park
East Meadow, N.Y. 11554

Home Grounds Fact Sheet

Squash Vine Borer

(Melitte satyriniformis)



A. male moth
B. female with wings folded at rest
C. eggs shown on bit of stem
D. fullgrown larva in vine
E. pupa
F. pupal cell (all are 1/3 *larger* than actual size)

Description

The adult of this insect is a wasp-like moth having a 1-1 1/2 inch wingspan and metallic green forewings. The mature larva, or caterpillar, is a thick white, wrinkled worm about 1 inch in length with a brown head. The eggs are 1/25 inch in length and are found glued to the stalks and stems of squash vines.

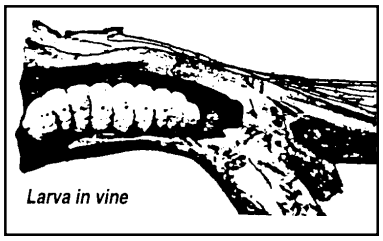
Injury

The larvae bore into the stems of squashes, pumpkins, gourds, cucumbers and muskmelons. Infested vines may be completely girdled and usually become rotten beyond the point of attack.

An infestation may be detected by the presence of coarse, yellowish grains of frass (fecal matter) that collect on the ground under the vines. Later the frass becomes moist and shiny, and may be seen oozing from holes in the stems.

Life History

Adult moths emerge from the pupae about the time vine crops come up. In New York State this is usually during the latter part of June. The moths are active daytime flyers and are often mistaken for wasps. Eggs are laid singly and glued to the stems and leaf stalks near the base of the plant. The young borers enter the plant about two weeks later and begin feeding on the inner tissues. The larvae feed for about one month. If an infected vine is split open, it will be hollowed out and partially filled with frass.


Larva in vine

Late in the season the borers may be found throughout the plant stem and in the fruits. When fully mature, the larvae leave the stems and make cocoons in the soil. The larvae usually overwinter in the cocoons, changing to pupae the following spring.

In warmer climates there may be two generations per year. The first generation causes the most damage because it attacks the young squash plants.

Integrated Pest Management (IPM) Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. insecticide, fungicide, herbicide, etc.

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Management

If the insect enters the vines, homeowners may use a sharpened wire to seek out and kill each tunneling larva, or remove larvae by hand. Chemical pesticides are available. If you choose to use chemical pesticides, contact your local Cooperative Extension office for specific recommendations.

Resource: Carolyn Klass, Cornell Diagnostic Lab

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