University of New Hampshire
Cooperative Extension

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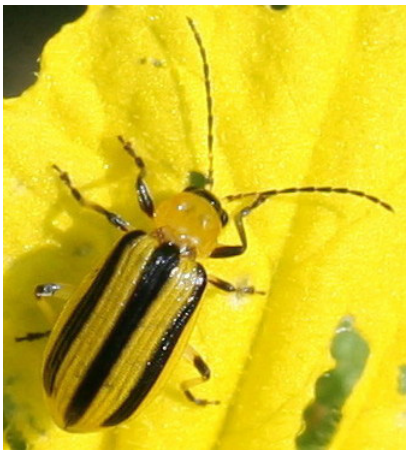
Striped Cucumber Beetle

Introduction

The Striped Cucumber Beetle (SCB), *Acalymma vittattum* (Fab.), is one of the most devastating pests of cucurbits (cucumbers, summer and winter squashes, all types of melons and pumpkins) east of the Rocky Mountains. Both adults and larvae feed on cucurbit crops. This insect is also responsible for the spread of plant diseases such as bacterial wilt and cucumber mosaic. Cantaloupe and muskmelons are especially vulnerable to bacterial wilt spread by the beetles.

Description



The adult beetle is 1/4 inch long and yellow-green in color with black longitudinal stripes. Eggs are small and orange-to-yellow in color. The worm-like larva is slender, white, and about 1/3 inch long when full-grown.

Life Cycle

The Striped Cucumber Beetle overwinters as an unmated adult in the neighboring areas of old cucurbit patches, under fallen leaves, in hedgerows, near their wild food sources (goldenrod, aster) and in garden debris. The adults emerge in the early spring before cucurbits are available as food, feeding on pollen, petals, and leaves of alternative hosts.

Once the cucurbits begin to emerge, or protective covers are removed, the adult beetles migrate to their preferred host and begin chewing on leaves and stems. The beetles mate at this time and females deposit their eggs at the base of the host plants below the surface of the ground. Upon hatching (8-10 days) the larvae will migrate to the root system and feed upon the roots for a period of 2-6 weeks during which time they may consume the entire root system. Larvae pupate in the soil, emerging as adults in about one week. After feeding on the cucurbits the adults return to the outlying areas for the winter. Depending on geographic region and weather conditions, New Hampshire gardens may experience one, two or even three generations of CB in any given season.

Control

Prevention and non-chemical control

Rotate cucurbit crops to a new place in the garden each year. Deprive adult beetles of homes for overwintering by removing crop residues and alternative host plants such as asters and goldenrod from around the garden.

Covering planting beds with floating row covers immediately after planting seed or setting out transplants will protect cucurbits from early damage by cucumber beetles. *Be sure to remove row covers as plants begin to bloom, to ensure adequate pollination by bees.*

Applying a heavy mulch of straw, leaves or grass clippings around established plants may help reduce beetle attack.

Check plants frequently for adult beetles or chewing damage on cucurbit stems and foliage; adult beetles are difficult to handpick, as they fly away or drop to the soil to hide when plants are disturbed. Presence of adult CB or visible damage to plants may indicate a need for chemical control.

Chemical control

Hundreds of products are registered to control SCB. Organic gardeners may prefer to try pyrethrins or surround. Neem/azadirachtin is registered but reported to be less effective. Artificial chemical treatments include active ingredients like bifenthrin, carbaryl, esfenvalerate, and many more. Check the labels of any products you purchase, to be sure that both the target insect (stripped cucumber beetle) and the plants you intend to spray are listed on the label. Follow all label instructions.

Do not use insecticides while cucurbit crops are in bloom. Most insecticides are hazardous to bees. An exception is surround, which doesn't kill insects, but instead is designed to plug up taste and smell receptors that pests use to confirm identity of plants before feeding on them. In some areas striped cucumber beetle has become resistant to chemical insecticides.

Stop! *Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. All pesticides listed in this publication are contingent upon continued registration. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to NH regulations.*

Reviewed and amended by Dr. Alan Eaton, UNH Cooperative Extension Entomology Specialist.
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