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The University of Tennessee Agricultural Extension Service

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Insects

The Sugarcane Beetle in Field Corn

Charles R. Patrick, Professor, Entomology and Plant Pathology
Angela Thompson, Assistant Professor, Plant Sciences and Landscape Systems

Introduction

The sugarcane beetle is an occasional pest of field corn in Tennessee. Infestations have been spotty to date and not too damaging in terms of stand and yield losses. However, the beetle caused serious damage in corn during the 2001 and 2002 growing seasons. The fields affected were corn planted into pasture, sod or no-till and some conventional tillage corn.

Description

The adult beetle is black, with strong legs and coarse spines adapted for digging. The back of the beetle has numerous "pits" or punctures. The larva is C-shaped and dirty white, with the hind end of the body darker in color. The mature larva is 1¼ inches long, and the adult beetle is about ½ inch in length.

Life History and Damage Potential

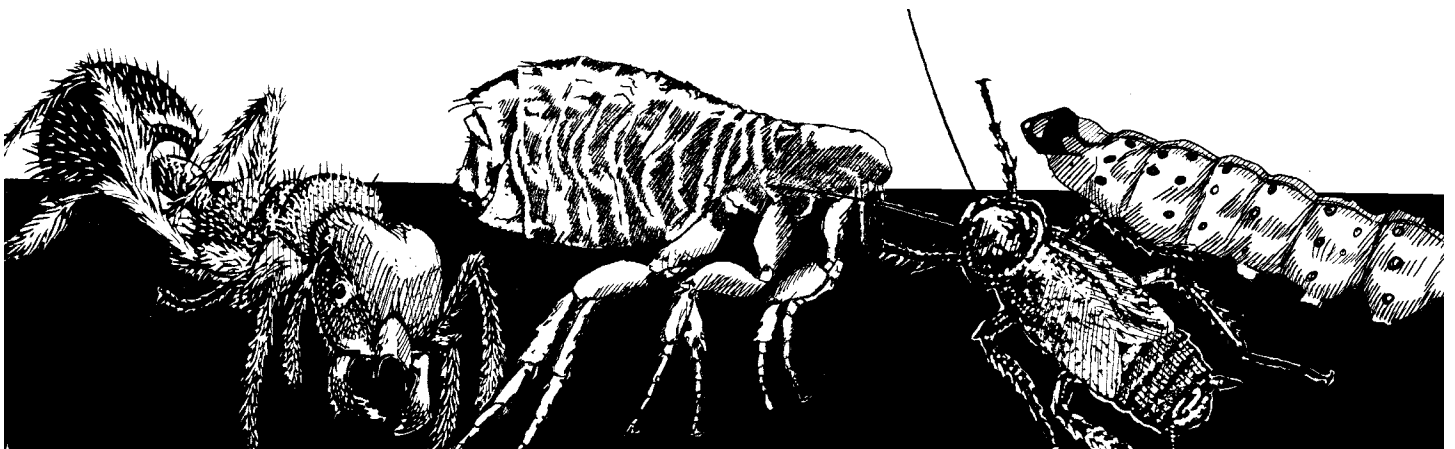
Adult beetles mate in the ground during the spring. The female beetle deposits the eggs into groups of three or four eggs in earthen cells. After hatching, the grubs feed upon decaying plant matter in the soil. After the larva develops into an adult beetle, the food preference changes. Adult beetles attack the stems of young corn plants, rice and sugarcane feeding at or below the soil line. Damage to young corn plants can be very serious, causing the plants to wilt and die. A single beetle is capable of destroying several plants in a row.

In Tennessee, most sugarcane beetle attacks have been in corn that is next to pasture or corn planted into sod and in river bottom areas. There does not appear to be any difference in conventional or no-till corn relative to sugarcane beetle damage.

The adult beetle overwinters in the soil in Tennessee, with only a single generation each year.



Adult Sugarcane Beetle



Control

Presently, no specific insecticides are labeled for field corn with the sugarcane beetle as a target pest. Some research in other states has shown that a granular insecticide, such as Counter 15G or Lorsban 15G, reduced beetle infestations when the insecticide was banded and incorporated into the row. Beetles may be partially controlled with a foliar insecticide directed at the base of plants at the full labeled rate using 20-30 gallons of liquid per acre. Most infestations of the beetle in field corn in Tennessee are so unpredictable that research efforts have not been successful. It would be advisable to watch the progress of this insect and to be aware of its potential to cause serious damage in corn.



Damage by beetles.



Checking for beetles. Forty percent of corn plants on this field were destroyed by beetles.

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticide registrations are continuously reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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Charles L. Norman, Dean