

CORN INSECTS

An Aid to Identification and Control



1. WIREWORM



2. CORN ROOTWORM OR BUDWORM. SHOWING LARVAE AND DAMAGE TO CORN. INSET - ADULT



3. CUTWORMS



4. CORN EARWORM



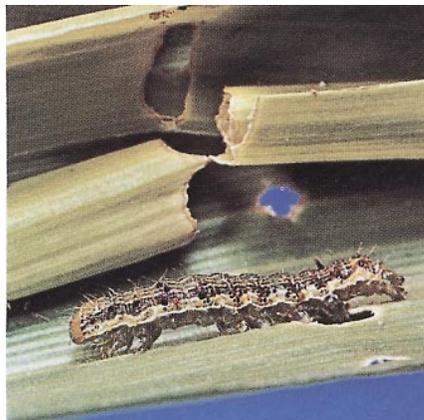
5. UPPER - FALL ARMYWORM
LOWER - EUROPEAN CORN BORER



6. SOUTHERN CORNSTALK BORER



7. BILLBUG



8. CORN EARWORM DAMAGE TO YOUNG CORN, SOMETIMES CALLED "BUDWORM"



9. SUGARCANE BEETLE

Photo Description And Life History Information

1. Wireworm. Several species of wireworms damage corn in South Carolina.

Wireworms feed on the kernels when the corn is planted and on the roots when the seed germinates and starts to grow. Pupation occurs in the soil, and the new adults — known as click beetles — emerge during early summer. Eggs usually are laid in the soil, and the winter is passed in the larva stage.

2. Corn Rootworm. This insect is often called the corn budworm because of its habit of eating directly into the heart or bud of the plant.

The adult is the familiar spotted cucumber beetle. Winter is passed in the adult stage. On warm days between January and April, the eggs are laid in the soil near any growing crop or weeds. The larvae feed for about two weeks and then pupate in the soil. Adults emerge and lay eggs near other crops, weeds or corn.

3. Cutworm. Several species are involved but most injury is caused by those species that feed just above or just beneath the soil surface.

Cutworms spend the winter as partly to fully grown larvae in the soil or under trash or clumps of grass. They start feeding in the spring, continue growth until early summer, pupate in the soil and emerge as moths during the summer.

4. Corn Earworm. This is the most common corn insect.

When the plants are small, moths (adult stage) lay eggs on the leaves. The larvae go down into the whorl to feed, and by this time this “budworm” or “shatterworm” injury is first seen, most of the damage has been done.

Foliage injury occurs before tasseling. Later generations of moths oviposit on fresh corn silk as it appears. Larvae cut a small hole at the side of the ear, through which they emerge. They drop to the ground to pupate beneath the surface.

Each female moth may lay from 1,000 to 3,000 eggs. Winter is passed in the pupal stage in the soil.

5. Upper: Fall Armyworm. The larvae feed on corn foliage, stalks and ears, and even tunnel into the cob.

This insect is unable to overwinter in South Carolina but must fly here from much farther south. The moths choose fields thickly covered with grass. If the worms are still unsatisfied when they have eaten all the grass, they start in on the corn. When mature, they enter the soil to pupate. The moths emerge about two weeks later.

Lower: European Corn Borer. The first sign of injury appears as broken tassels caused by the borers feeding in the tassel stems. Late in the season its presence is indicated by small, round holes at any location on the stalk.

The tunneling within the stalks weakens them so that plants break and fall over. As a result, many ears are lost due to spoilage or to being missed by the picker. Feeding on the shank of the ear causes it to fall to the ground.

There are probably three generations a year in South Carolina. Full-grown larvae spend the winter in the stems where they have been feeding, especially down close to the ground.

6. Southern Cornstalk Borer. Early-season larvae start to feed in the whorl; then they bore up and down in the lower portion of the stalk. Late-season larvae feed little on the leaves but tunnel through the base of the stalk. Masses of frass accumulate outside the entrance holes. There are three generations each year. Larvae overwinter in the stalk below the ground level and pupate in the early spring.

7. Billbug. Several species have been found feeding on cornstalks in South Carolina. The one causing the most damage over the state is the maize billbug.

Billbugs attack seedling corn at the base of the stalk at or just below the soil surface. They pierce the stalk with their beaks and feed on the tender inner tissue. The eggs are laid inside the stalk.

The larvae are legless, ivory-colored grubs that eat out the inner stalk; then they hollow out a cell in the taproot where they pupate and hibernate. New adults leave the soil during April about the time most corn emerges and feed on seedling corn.

Most species of corn billbugs depend on crawling to reach a new field of corn even though it may be a quarter of a mile away.

8. Corn Earworm. Photo shows the larva and typical feeding damage to young corn. For details, see the corn earworm description, No. 4.

9. Sugarcane Beetle. This robust black beetle, about a half-inch long, burrows down along the side of the corn seedlings and begins to eat the stalk just above the base of the roots.

These insects prefer old sod growing in low, poorly drained, open fields, such as those often used as pastures. Eggs are laid in these fields during the early summer and the white grubs emerging from them feed on the dead and decaying vegetable matter accumulated there. They mature in about two months.

The adults hibernate in the ground, emerging in late March or early April or about the time corn is beginning to appear aboveground.

Note: Since controls change often, consult your county Extension agent or Clemson University Extension entomologists for specific details on controlling these pests.

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