Common Cutworm Management

Cutworms are a sporadic early-season pest in corn. Damage varies from minor (small holes in leaves) to severe (plants clipped at the soil line). Several species invade crops; however, few species are expected in fields based on primary geographies and life cycles.

Black cutworm

Larvae are black to pale gray and can be distinguished from similar species by the convex granules on the abdominal segments (Figure 1). The pest can be found in southern Canada, the continental United States, Hawaii, and Central and South America. Larvae feed on many host plants including corn, vegetables, cotton, tobacco, and various weed species. Black cutworm can cause economic damage to corn. Damage can be particularly severe in weedy, late-planted corn following a soybean crop and in corn planted in flood plains. Corn seedlings that are cut at or below the soil surface, may not recover. If water is adequate, seedlings that are cut above the soil surface may recover, but yield potential can be reduced.

Claybacked cutworm

The larvae are pale gray and translucent with a gray-brown head and bars on the front of the face. They have a broad yellow-brown stripe on the back (Figure 2). Native to North America, it is most abundant in the North Central and Eastern United States. Claybacked larvae are active at night and can be very destructive to seedling corn, especially corn following clover. Small larvae can pull the leaf down into a burrow and eat leaves from tip to base, and large larvae can cut plants just above the soil surface and drag them into burrows to continue feeding.

Dingy cutworm

Larvae are pale gray to brown with a red tinge and have a faint, dark V-shaped marking on the back of each abdominal segment (Figure 3). This cutworm occurs in southern Canada, southward to Virginia, Tennessee, Missouri, Kansas, Colorado, and Utah. Larvae feed on vegetables, clover, alfalfa, tobacco, wheat, corn, grasses, and broadleaf weeds. The cutworms infrequently feed on corn, but when they do, they usually nip the ends of young corn leaves and rarely cut or drill into the plant.

Cutworm Management Options

Because of the irregular distribution in geography and time, cutworms can be a challenging pest to control. Cultural practices, monitoring of adult moth flights, and scouting can be used for cutworm management.

Figure 1. Black cutworm.

Figure 2. Claybacked cutworm. James Kalisch. University of Nebraska. Bugwood.org.

Figure 3. Dingy cutworm. Frank Peairs, Colorado State University. Bugwood.org.

Common Cutworm Management

- Removal of winter annual weeds with cultivation or herbicides at least one to two weeks prior to planting can help starve small cutworm larvae before crop emergence.
- Avoid susceptible crops in fields with a cutworm history.
- Avoid planting a susceptible crop after long-standing pastures, meadows, alfalfa, or red clover.[2]

Trapping Adults

Trapping night-flying adult moths can be an important tool to determine the potential threat posed by some species. Several corn growing states have cooperated on a black cutworm trapping program.

- Significant flights are indicated when eight adult moths are captured over two nights.[1]
- Date of this capture helps predict dates when larval development and feeding may begin.
- Scout for damaged seedlings when 300 growing degree units have accumulated after a significant moth trap capture.[1]

Seed Treatments and Traits

Acceleron® Seed Applied Solutions for corn provide control of black cutworm. Also, SmartStax® technology corn products with Acceleron® Seed Applied Solutions with Poncho®/VOTiVO® provide an additional mode of action against black cutworms. Soil-applied insecticides may not be economical due to the sporadic nature of cutworms.

Threshold

- Scouting can begin as soon as crop emergence.
- Look for clipping including plants leaning or severed.
- As a guideline, 6 to 8% of seedlings cut above ground or 2 to 4% of seedlings cut below ground warrant postemergence insecticide applications.[2]

Summary

Cutworms are the larvae (caterpillars) of several species of night-flying moths that can feed on a wide range of cultivated and wild plants. Cutworms differ in shape, color, distribution, and feeding habits. Farmers should identify, monitor, scout, and avoid planting in fields with a cutworm history.

Sources

[1] Bailey, W. Black cutworm monitoring and the forecasting program. University of Missouri.

[2] Boyd, M.L. and Bailey, W.C. 2002. Black Cutworm in Missouri. University of Missouri. G7112. Steffy, K.L., Rice, M.E., Andow, D.A., Gray, M.E. and VanDuyn. J.W. 1999. Handbook of corn insects. Entomology Society of America. Web sources verified 03/09/2018. 140529060409