

Insects

Cutworms in Field Corn

Charles R. Patrick and Professor, Scott Stewart, Associate Professor, Entomology and Plant Pathology and Angela Thompson, Assistant Professor, Plant Sciences

Introduction

Field corn is susceptible to damage from several species of cutworms that occur in Tennessee. Usually, this damage occurs in early planted corn when the temperatures are cool and the ground is moist. Cutworms are less likely to cause economic damage after corn reaches two feet in height.

Occurrence

Fields having one or more of the following characteristics should be watched carefully.

- History of cutworm damage
- Surface litter – especially soybean residue
- Fair to poor drainage or overflow land
- Winter annual weeds prior to tillage
- No-till plantings

Adult moths (Fig.1) may be found depositing eggs on winter weeds in fields in early spring. Newly hatched larvae will move to corn plants as the plants emerge from the soil. Early detection is important to properly time insecticide applications and prevent additional cutworm damage.

Damage

Small larvae or “worms” chew holes in the corn leaves. Larvae that are one-half inch or longer may cut small plants and pull the plant parts into their burrows. Symptoms of injury are cut or wilted plants (Figure 1).



Figure 1. Black Cutworm Adult

Scouting and Treatment Thresholds

Cutworm counts should be made when any cut or wilted plants are found. Examine 20 consecutive plants 4-5 in randomly selected locations and write down the number of cut plants. Determine the percentage of corn plants cut by dividing the total number of cut plants by the number of plants inspected and multiplying by 100. Look for live cutworms around damaged plants. They will usually be covered or underground during the day. Check under dirt clods near the base of the plants. Finally, record the number of live worms per 100 plants and whether they were near the soil surface or deep in the soil.



The treatment threshold for cutworms is when five percent of the plants are damaged and larvae are present (or when two or more larvae per 100 plants are found). If borderline conditions exist, check the field again every 24 to 48 hours until a final decision is made. Stand counts should also be made to determine if a treatment is necessary.

Control Measures

Larvae that are present in the field at planting are typically those that do the most damage. Infestations in tilled fields are less likely because tillage destroys weed hosts and kills many of the larvae that are present. In reduced-tillage fields, serious cutworm infestations can be often be prevented by maintaining a weed-free planting bed for three or more weeks prior to planting. Cutworm infestations can be controlled with pre-plant or at-planting insecticides or by post-emergence, foliar applications. The following insecticides are recommended to control cutworm infestations. All pesticides should be used in accordance with the label directions.



Figure 2. Black Cutworm & Damage

Insecticide	Rate	Application notes
Asana XL	5.8 - 9.6 oz per acre	Broadcast or band
Aztec (2.1%)	6.7 oz/1000 row ft	At-planting, Band or T-band
Baythroid 2	0.8 - 1.6 oz per acre	Broadcast or band
Capture 2EC	2.1 - 6.4 oz per acre	Broadcast or band
Force (3G)	4 - 5 oz/1000 row ft	At-planting, Band or T-band
Lorsban (4E)	2 - 4 pt per acre	Broadcast or band
Lorsban (15G)	8 - 12 oz/1000 row ft	At-planting, Band or T-band
Mustang Max	1.28 - 2.8 oz per acre	Broadcast or band
Poncho	5.64 oz/80000 seed units	Seed company treatment
Pounce (3.2 EC)	4 - 8 oz per acre	Broadcast or band
Sevin (XLR Plus)	2 - 6 qt per acre	Broadcast or band
Warrior	1.92 - 3.20 oz per acre	Broadcast or band

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 that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

04-0312 SP290-J Rev 5/04

The Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, national origin, sex, age, disability, religion or veteran status and is an Equal Opportunity Employer.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture, and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.

Agricultural Extension Service
Charles L. Norman, Dean