CORN EARWORM IN CORN
(CORN GROWING AREA)

WHAT YOU’LL LEARN

- Corn earworm (CEW) feed on more than 100 wild plants and at least 16 cultivated crops; they are also called cotton bollworm, soybean podworm, tomato fruit worm, and vetchworm.¹
- Yield losses from CEW in the United States are estimated to range from 5 to 7% annually.¹
- Proper identification of CEW is critical for an appropriate management strategy.
- Insecticides are expensive and may not be effective against CEW; however, new tools are available to combat this pest and help protect corn yield potential.

Corn Products with Insect Trait Protection

Genuity® brand corn insect trait products have the potential to improve grain quality and increase yield potential by providing multiple modes of action for advanced above ground insect protection (Figure 1). Genuity® VT Double PRO®, Genuity® VT Triple PRO®, and Genuity® SmartStax® technologies provide dual modes of action for above-ground insects, including CEW. Other corn products containing insect protection traits such as Optimum® AcreMax® or Optimum® Intrasect® have no mode of action against CEW (Table 1).

CEW Larvae Identification

Corn earworm larvae feed on corn ears, cotton squares and bolls, grain sorghum seed heads, and soybean pods and seeds. When small, CEW larvae are pale yellow, while the larger larvae are pale green to dark brown. There are 3 to 4 stripes across their body length and numerous small, black spines along their back and sides (Figure 2). When disturbed, they curl into a C-shape.¹

CEW Larvae similar to CEW. The TAW and SWCB images are courtesy of Frank Peairs, Colorado State University, bugwood.org.

CEW Life Cycle & Feeding

There are usually two generations per year in much of the Midwest but multiple generations can occur in the South...
If there is no damage from

When silks begin to appear, attached:

CEW, silks will stay attached and resist being pulled out (Figure 5).

If silks are not attached and can be pulled; using slight pressure, continue to pull until the silks are out of the husk. Damage can include cut silks and kernel feeding; larva may still be present (Figures 6-7).

Comparing Larval Ear Feeding Damage.

- CEW larvae enter the ear through the silk channel, while the ECB and FAW enter through the husks or cob. The latter also enter at the base of the ear feeding along the sides and may tunnel into the cob. They usually emerge at the base of the ear, leaving round holes in the husks.
- ECB feed on pollen and silks before entering the ear by tunneling through the shank and cob. ECB feeding is not focused on any one area. Injury can occur at both ends and along all sides of the ear.
- WBC enter corn ears through silk channels or by chewing through husks, causing injury to the tip, base, and sides of the ear. Larvae of the WBC are not cannibalistic, and several may infest an ear.

Insecticide Applications

If the corn crop doesn’t contain B.t. traits that offer control against CEW, an insecticide application may be considered in whorl stage corn, if economic threshold levels are met. Insecticide use for CEW feeding on corn ears is not economical because the CEW is protected by the ear husk.


Developed in partnership with Technology, Development & Agronomy by Monsanto.

For additional resources on this topic, contact your local seed representative or visit your seed brand website.

Monsanto Company is a member of Excellence Through Stewardship® (ETS). Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto’s Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. This product has been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship. B.t. products may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state. Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Genuity Design®, GenuityX®, Roundup Ready 2 Technology, and Design®, Roundup Ready®, Roundup®, SmartStax®, VT Double PRO® and VT Triple PRO® are trademarks of Monsanto Technology LLC, L2a Design® is a registered trademark of Monsanto Company, LibertyLink and the Water Droplet Design® is a registered trademark of Bayer. Herculex® is a registered trademark of Dow AgroSciences LLC. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. All other trademarks are the property of their respective owners. ©2015 Monsanto Company. 14061370102 06182014SMK