

# AGRONOMIC

## Spotlight



### Corn Earworm

Losses from Corn earworm (CEW) have been estimated as high as 7% and populations may reach economic infestations of 35 million acres across the entire United States. Between the difficulty of effectively controlling CEW with insecticides and the damage generally being overlooked until harvest, many farmers have elected to accept the lost yield potential. New tools are becoming available to combat CEW and help protect yield potential.

#### Life Cycle

There are usually two generations in much of the Midwest. CEW migrate in from the south with winds and storms from southern states. Moths typically lay eggs in corn and other host crops. The first generation larval stage feeds in the whorl of corn and other food sources although first generation damage is generally minimal.

First generation moths lay eggs on corn silks. Larvae travel down silks within one hour of hatching. Larvae feed on kernels for the most of the larval stage.

#### Identification

Larvae of CEW, fall armyworm (FAW), and western bean cutworm (WBC) are often mistaken for each other (Figure 1). Accurately identifying them is critical to manage them appropriately.

CEW larvae are light green to dark brown, usually have an orange head capsule, and 3 to 4 stripes across their body length. WBC larvae are tan with a darker, faint diamond-shaped pattern on their back, and dark stripes immediately behind their head. Larvae turn pinkish tan or pale brown as they mature. FAW have an inverted Y on their head capsule, and vary from light tan or green to almost black.

#### Management

Planting early can help avoid peak moth flights. Corn with tight husks also help reduce feeding potential. Several foliar insecticides are labeled for control of CEW. However the contact needed between CEW larvae and foliar insecticides for good efficacy is rare due to larvae burrowing down the silks soon after hatching.

While the YieldGard® family of traits has assisted in providing control for many major corn insects, CEW is only suppressed by these products. The introduction of Genuity® corn traits now offers advanced above-ground insect protection that can improve grain quality and increase yield potential (Figure 2). Genuity® VT Double PRO™, Genuity® VT Triple PRO™, and Genuity® SmartStax™ corn provide dual modes of action against lepidopteran species such as CEW. CEW

Figure 1. Larvae commonly mistaken for each other.



Western Bean Cutworm

Corn Earworm

Fall Armyworm

control through advanced trait technology will be a farmer's best option for reducing kernel damage, which can increase yield potential and reduce the potential for mycotoxins.

Sources: K.A. Cook and R. Weinzierl. 2004. *Corn Earworm Insect Fact Sheet*. Univ. of Illinois Integrated Pest Management. K. L. Steffey and others. 1999. *Handbook of Corn Insects*. Entomological Society of America.

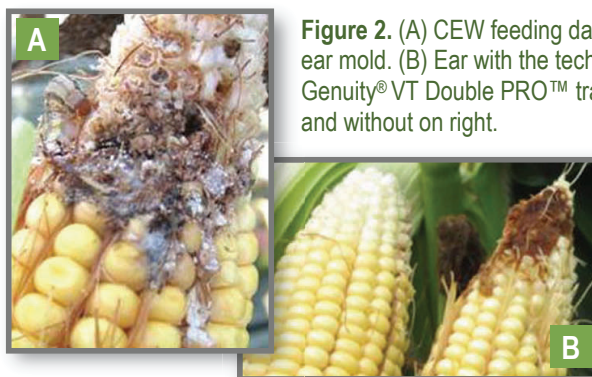


Figure 2. (A) CEW feeding damage and ear mold. (B) Ear with the technology in Genuity® VT Double PRO™ trait on left and without on right.

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