Integrated Pest Management
University of Missouri

Pest Monitoring Network
Taking an Environmentally Sensitive Approach to Pest Management
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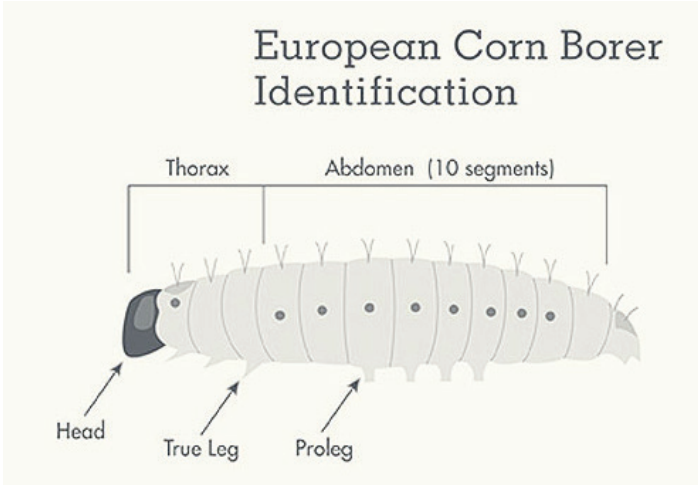
European Corn Borer

About European Corn Borer
European Corn Borers, *Ostrinia nubilalis*, are a pest of corn. Female corn borer moths lay clusters of eggs on corn leaves, usually on the underside of the leaf. The stage that damages crop plants is the larvae, but it is the adult moths that are attracted to and captured in traps.

European Corn Borer larvae are dirty white in color and may change to a light tan or pinkish gray as they mature. Their skin is smooth and free of hairs with numerous round dark spots scattered over the sides and top of their body. Their heads are dark-brown or black in color and they have four prolegs on their 3rd, 4th, 5th, 6th and 10th abdominal segments. They measure no more than 1-inch in length.



European Corn Borer moths measure 0.75 to 1-inch in wingspan. Their wings mimic a delta shape when they are at rest and contain several zigzag markings. The female moth is larger than the male, with a thicker body and yellowish buff to light tan wings. Male moths have a thinner body and darker tan-to-brown wings.

How to Field-Scout for European Corn Borer (BCW) Larvae
Scouting saves money and reduces insecticide use. Although European Corn Borers feed on several crop species (corn, cotton, and grain sorghum), thresholds for pesticide application have been established only for corn in Missouri.

Each year two to three generations of European Corn Borer are possible in Missouri and feeding location and thresholds differ for each generation. Scouting should begin in earliest planted field for the first generation moths once moths have been detected in pheromone traps and corn has reached the six-leaf stage. This occurs around late May to Early June in central Missouri and seven to ten days earlier in the southeastern counties. Fields should be scouted weekly for the next two to four weeks to detect first-generation infestations.

For second generation moths, fields should be scouted beginning around mid-July and until early August in central Missouri. To do this, enter the field at least 100 feet. Randomly examine 10 plants at 10 separate sites (100 plants) per field. Look for egg masses, signs of feeding, and larvae. For first generation larvae, focus on the middle third of the plant. Unwrap whorl leaves to find larvae. For second generation larvae, focus on the ear leaf, one leaf below the ear, and one ear above the ear. Count the number of plants that show feeding symptoms, contain live larvae, or have egg masses on leaves. Calculate the percentage of plants damaged and/or infested. For example, 27 plants damaged and/or infested among the 100 plants examined (10 plants x 10 areas) means that 27% of the stand is affected.

The threshold for insecticide application for second generation is when 50% of the plants are infested with egg masses or larvae.

For up-to-the-minute information on European Corn Borer:
visit our European Corn Borer page: http://ipm.missouri.edu/pestmonitoring/ecb/index.cfm