

## European corn borer

(Order: Lepidoptera, Family: Crambidae, *Ostrinia nubilalis* (Hubner))

### Description:

**Adult:** The moths are fairly small, with males having a wingspan of 20-26 mm and females 25-34 mm. Adults caught in south Georgia are generally smaller than the 'typical' European corn borer from the mid-west corn belt. Females are pale-yellow to light brown, with darker zig-zag lines across the forewing and hind wing. Males are darker, usually pale brown, with dark zig-zag lines across the forewing and hind wing. Both sexes also have yellowish to gold colored patches on the wings, which are more apparent against the darker background in the male.

**Immature stages:** Eggs are oval, flattened and creamy white when first laid and darken with age. They are deposited in small clusters with the eggs overlapped like fish scales. Larvae tend to be light brown or pinkish-gray, with a brown to black head capsule. Full grown larvae are about 2 cm in length. The body is marked with darker circles on each segment along the midline of the back. Larvae are frequently referred to as having a 'greasy' look. Larvae can be easily confused with other borers present in plant stalks.



European corn borer adult.

### Biology:

**Life cycle:** Eggs are generally deposited in irregular clusters of about 15 to 20 on the underside of leaves and hatch in 4 to 9 days depending on the temperature. Larvae usually develop through 5 or 6 instars with a development period of over 30 days and a pupal stage of about 12 days. There are probably 3 or 4 generations in Georgia.

**Seasonal distribution:** European corn borer overwinters in the larval stage, with pupation and emergence of adults in early spring. Populations in Georgia generally do not reach very high levels, but are of concern in sweet corn, peppers and snap beans because of shipping restrictions associated with the presence of this pest.



European corn borer early instar larvae.

**Damage to Crop:** European corn borer is considered to be the most important sweet corn pest in northern production regions. In Georgia, this pest is usually controlled by insecticide applications targeted at corn earworm. ECB can attack all above ground parts of a corn plant, including the leaves, stalk, tassels, silk, kernels, and cob. Older larvae tend to bore into the stalk, base of the ear, cob, or kernels. Larvae damage both the stem and fruit of beans and pepper. In Georgia, level of damage from ECB in vegetables is usually minimal, but the presence of this pest in these crops restricts shipment to some states. Trapping and treatment programs allow for shipment of these crops to California and Texas. For regulations associated with shipment of these crops to California or Texas, contact the Georgia Department of Agriculture.



Entrance hole under the calyx of pepper caused by European corn borer larva (Image from NCSU).

**Management:** In Georgia, European corn borer is generally controlled by insecticide applications targeting other pests. The regulatory programs for sweet corn, pepper, and snap bean require monitoring of ECB with pheromone traps, insecticide applications, and phyto-sanitary certificates, depending on the crop involved and the state to which the produce will be shipped. For regulations associated with shipment of these crops to California or Texas, contact the Georgia Department of Agriculture.