

Imported Cabbageworm

(Order: Lepidoptera, Family: Pieridae, *Pieris rapae*)

Description:

Adult: The adult white butterfly has a wingspan of 45-65 mm and has either one (male) or two (female) brown to black spots toward the end of the forewing. This butterfly usually can be seen hovering over cole crops during the day.

Immature stages: The eggs are ridged, elongate (1.0 mm long) and are deposited singly on the surface of the leaves. Larvae are velvety green in appearance because of the dense short hairs on the body and range from 3.2 to 30.1 mm in length from the first to fifth instar. The pupa is variable in color (yellow, gray, green, to speckled brown) and occur either on the plant or in nearby debris on the soil.

Biology:

Life cycle: The cycle from egg to adult requires 21 to 61 days depending on temperature (about 3 weeks at a mean temperature of 25°C). However, during the summer, this species is not as prevalent as other Lepidoptera larvae in south Georgia, suggesting some limitations to population growth at high temperatures.

Seasonal distribution: There are 6 to 8 generations of imported cabbageworm per year in Georgia, but seasonal abundance is greatest in the fall season.

Damage to Crop: Damage to cole crops is similar to that of other Lepidoptera larvae, defoliation of mature leaves and feeding on the outside of the developing head. Generally populations are heavier in the spring growing season, but can also build up later in the fall.

Management: Generally, control of other Lepidoptera with traditional insecticides results in adequate control of this pest, but newer insecticides might not be specific for imported cabbageworm and therefore constant testing of new chemistries is required. Scout weekly to twice weekly to determine if a 0.3 larvae/plant threshold has been reached and, if so, treat with an effective insecticide spray. Inspect for beneficial natural enemies, which are numerous. They include predators such as shield bugs, vespid wasps and birds, and parasitoids such as *Costesia* wasps, Tachinid flies, and *Trichogramma* wasps that attack the eggs. There is also naturally occurring disease of imported cabbageworm in the granulosis viruses that can cause up to 90% mortality of worms at high population densities. As the season progresses, higher numbers of worms are encountered, so early transplanting in the late winter can avoid populations of this pest in the spring.



Imported cabbageworm adult.



Early instar larva and frass on leaf.



Imported cabbageworm pupating on damaged leaf.

Prepared by Dr. Alton "Stormy" Sparks, Jr. and Dr. David G. Riley - University of Georgia