

Rhode Island Department of Environmental Management/Division of Agriculture



Cotton Cutworm

Spodoptera litura

This moth species is distributed throughout tropical and temperate Asia, Australasia, and the Pacific Islands. This species will mainly spread through international trade, more so than natural distribution. It has been intercepted about 700 times at U.S. ports of entry mainly on cargo imported from Asia. It has not been reported or established in the U.S. to date. It is an extremely serious pest, mainly during its larval stage when it feeds on host plants such as grape, strawberry, apple, rose, soybean, and other crop species.



S. litura larva, photo by Surender Dalal of BioLib

Damage:

During the larval stage is when damage to host plants occurs. This is from complete stripping of the plants since this species feeds on the leaves, stalks, bolls (cotton buds), buds, and fruit. Defoliation is a major occurrence since the larvae feed on the leaves first, which causes skeletonization, curling, or drying of the leaves which leads them to falling off. If a plant loses enough leaves, it can stunt the growth of the plant leading to a smaller size and later development of fruit. Larvae can also mine in young shoots which can cause die off of the plant above the entrance hole.



Adult S. litura, photo by Surender Dalal of BioLib

Description:

The eggs are pearly green that turn black during development which are laid in batches and are covered in a pale orange-brown or pink hair-like scales from the female during the laying process. Adult females can lay thousands of eggs within six to eight days. When larvae hatch, they are blackish green with black bands. As they develop, their coloration varies from dark gray, or black, to a dark brown with yellow or orange stripes that follow the body lengthwise. When they first hatch, the larvae stay hidden on the undersides of leaves. As they develop, larger larvae drop to the ground to loosen soil and start to develop a clay cocoon for their pupation stage. Adults are a whitish to yellowish color with pale red permeated all over.



Photos:

Dalal, Surender. Gallery: Noctuinae. BioLib. Photos: S. litura adult, larvae, and egg mass. 2014. April 2015. http://www.biolib.cz/en/gallery/dir1656/pos756,21/Information:

Cooperative Agricultural Pest Survey. Grape Commodity-based Survey. April 2015. https://caps.ceris.purdue.edu/node/596