

# Cotton Insects

## Clouded Plant Bug

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### Classification and Description

The clouded plant bug (*Neurocolpus nubilus*) belongs to a group of insects collectively known as plant bugs (Hemiptera: Miridae). This group includes the tarnished plant bug and the cotton fleahopper. These cotton pests belong to a larger group of insects known as “true bugs,” which include stink bugs and a number of important predatory species (e.g., big-eyed bugs, insidious flower bug and damsel bugs). All true bugs have a piercing-sucking mouthpart (i.e., beak).

Adult clouded plant bugs are about 3/8-inch long with a general brown color mottled by patches of white, yellow, reddish-brown or black. The antennae of both adult and immature (nymphs) clouded plant bugs are characterized by having the first segment thicker than the remaining segments. The hind legs are also noticeably larger than the other legs (and those of other plant bugs). Eggs are individually embedded into plant tissue and are not easy to find. Immature clouded plant bugs are typically yellowish-green to green in color, and their antennae are horizontally striped with red and white, giving them a candy-cane appearance. A dark-colored spot on the dorsal surface of the abdomen is readily visible in larger nymphs.



### Hosts, Life History and Distribution

Clouded plant bugs are relatively common in much of the United States. Besides cotton, its hosts include evening primrose, goldenrod, honeysuckle, Johnson grass, morning glory, smartweed, stinkweed, soybean, alfalfa, button bush, black willow and others. Winter is passed in the egg stage with the eggs hatching in the spring. Three to four generations can occur each year.



## Pest Status and Injury

Historically, the clouded plant bug has been an occasional pest of cotton grown in Tennessee, particularly in mid- to late-season. Both adults and nymphs cause similar injury. In recent years, clouded plant bugs have been a relatively common occurrence in the southern and central counties of West Tennessee. A reduction in the insecticides previously used to control boll weevil, bollworm and tobacco budworm is undoubtedly contributing to the increased populations of this pest.

Early-season (prebloom) populations of clouded plant bugs in cotton are normally small and composed mostly of adults. Feeding injury appears to be similar to that caused by the tarnished plant bug, causing square abscission. Once blooming begins, overlapping generations of nymphs and adults may be present. Feeding injury to larger squares, in blooms and on small bolls is reminiscent of that caused by the tarnished plant bug. However, data indicates this pest



causes more damage than the tarnished plant bug on a per-bug basis. During late-season, nymphs and adults congregate on squares and within blooms, but significant boll feeding (cat-facing) may also occur. Unlike stinkbugs, clouded plant bugs do not appear to specifically target developing seed within bolls. However, injured bolls sometimes fall off, or the lint may be stained.

## Management Considerations and Thresholds

Damaging infestations of clouded plant bug are most likely during mid- to late-season. Sweep-net sampling and monitoring square retention are recommended prior to bloom to determine the level of plant bug infestation, including clouded plant bugs. Later in the season, drop cloth or visual sampling is suggested because these techniques are better for detecting nymphs. Specific thresholds have not been developed for this pest. When using a drop cloth, the current recommendation is to use treatment thresholds for the tarnished plant bug but to count each clouded plant bug as equivalent to 1.5 tarnished plant bugs. Alternative treatment thresholds of 10 clouded plant bugs per 100 plants or 20 percent internally damaged, thumb-sized bolls may also be used. When high numbers of nymphs are present, a single insecticide application may not be sufficient, giving only 60 – 70 percent control of clouded plant bug populations. Currently, recommended insecticides are the same as those recommended for the tarnished plant bug (see the Tennessee Cotton Insect Control Guide, PB 387).

### Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

### Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticides registrations are continuously reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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