

# Cotton Insects

## Slugs and Snails

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### Classification and Description

Slugs and snails are not insects. They are gastropods. Snails can be distinguished from slugs by the presence of a shell. Several species of slugs and snails can occasionally be found in cotton fields. Many of the snails found in cotton are detritivores, which normally do not feed on plants.

### Hosts, Life History, and Distribution

Plant-feeding slugs and snails generally have a wide host range, and most species are widely distributed throughout Tennessee. Slugs feed primarily at night. They overwinter as eggs or larvae. Slugs may be seen early in the morning, especially on cool and cloudy days. With the help of the morning sun, reflective slug trails can sometimes be seen on plants. Once the sunshine hits, slugs head for cover. During midday, slugs may be found 1-inch deep, under plant debris or in cracks or crevices.

### Pest Status and Injury

Even though snails can sometimes be present in large numbers, they rarely if ever cause economic injury to cotton. In contrast, many slugs (e.g., marsh





slug) will feed on cotton and other crops. Slugs feed by making irregularly shaped holes, normally along the leaf margins. Severe feeding may result in “cut plants,” similar to the damage caused by cutworms. Heavy infestations are uncommon but can cause significant stand loss.

Slug injury is primarily an early-season phenomenon. Good growing conditions and dry weather help to alleviate potential damage. Both slug and snail populations tend to be much higher in no-till fields. Recent history suggests that most of the severe slug infestations are found in fields rotated from corn or sorghum. Slug damage also tends to be greater in low areas of fields. The worst damage seems to be in fields, or parts of fields where the seed furrow did not completely

close because of wet conditions at planting. This essentially creates a slug “highway” that concentrates their activity in the row.

### **Management Considerations and Thresholds**

Unfortunately, there are not any insecticides that provide satisfactory control of slug infestations. Met-aldehyde is the active ingredient used in baits (e.g., Deadline MP) for control of snails and slugs, but these baits may not be economically feasible or readily available for field-scale applications. Some literature indicates that the application of fertilizer, which essentially “salts” the slugs, may suppress infestations. Data from the Midwest suggests that aggressive row cleaners, which keep the seed furrow relatively clean of debris, will also reduce slug injury to the emerging crop. If baits, insecticides or fertilizer are used for slug control, applications late in the day or even at night may increase the chances of success.

#### **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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W111 06-0072 E12-4615