



## Whitefringed Beetles

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### Plants Attacked

Whitefringed beetles have a wide host range that includes field and row crops, including potato, soybean, turnip, peanut, sweet potato, cabbage, collards, tobacco, sweet corn, strawberry, and blackberry. They may attack young pines and other ornamental trees grown in nurseries or plantations, especially if grown on converted cropland. Wild host plants serve as a reservoir for beetles that move into crops and nurseries.

### Description of Damage

Adults feed on foliage and do not cause much damage other than notching leaves. However, larvae feed on roots, tubers, and underground parts of host plants where they debark and gouge roots (Fig. 1). Affected plants may wilt and die.



Figure 1. Sweet potatoes damaged by whitefringed beetle larvae (Russ Ottens, University of Georgia, Bugwood.org).

### Identification

Several species of beetles in the genus *Graphognathus* are known collectively as whitefringed beetles. Adult beetles are grayish-brown snout beetles (Fig. 2). “Whitefringed” in their

name describes the distinctive light-colored band that runs along the sides of the abdomen. These beetles are somewhat bristly and measure about 13 mm (0.5”) long. Adults are flightless.

Coleoptera: Curculionidae, *Graphognathus* spp.



Figure 2. Adult whitefringed beetle (Clemson University – USDA Cooperative Extension Slide Series, Bugwood.org).

Larvae are C-shaped, legless, bulky grubs (Fig. 3). Their bodies are yellowish-white with a dark brown head capsule and measuring up to 13 mm (0.5”) inches long.



Figure 3. Whitefringed beetle grub and feeding damage to plant (Jim Baker, NC State, Bugwood.org).

## Life History

Whitefringed beetles have a complete life cycle of an egg, larval, pupal, and adult stages. Eggs are laid on plant stems, plant debris, or directly on the soil surface. Newly hatched larvae burrow into the soil where they develop and pupate. Adults emerge in summer. There is a single generation per year.

## Distribution

Native to South America, but localized infestations occur in the southeastern United States. The Whitefringed beetle was once regulated by the Virginia Department of Agriculture but not any longer.

## Cultural Control

Clean cultivation, including tillage between rows, removal of weeds, and destruction of crop residue, should serve as an effective aid in managing whitefringed beetles. Plant oats or other small grains in fields known to be infested with whitefringed beetles as these beetles do not do well on small grain crops. Follow a crop rotation pattern in which summer legumes such as peanuts and soybeans are only planted in the area every three or four years. Infested fields should be monitored for the presence of these beetles in subsequent years as populations can persist for some time.

## Organic/Biological Control

No organic or biological control for white-fringed beetles is known at this time.

## Chemical Control

Work a granular insecticide into the soil at planting time. Or, for control of adults, spray foliage with an insecticide registered for use on the host plant in need of protection.

## Revised

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