The magnolia leafminer

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The small leaf mining weevil Odontopus calceatus (Say) has caused severe problems in Louisiana and is a pest throughout the magnolia range. It is called by a variety of names: yellow poplar weevil, sassafras weevil, and tuliptree leafminer, depending on the host damaged. Its range is from Massachusetts to Florida and west to Louisiana, Iowa, and Michigan.

Damage is caused by both the adult and larval stages. Adults feeding on the leaves and flowers give the tree a tattered appearance, while larval mining of the young foliage gives the tree a scorched look associated with chemical injury. The damage is extremely harmful in the nursery business as terminal growth on stock trees taken as cuttings for new plants may be too damaged for use.

The adults overwinter in trash and leaf litter beneath the host trees. When the weather warms in the spring, they fly up the trees and feed on buds and new leaves. Egg deposition occurs in May, usually at the apex of the

magnolia leaf, but always in the upper one-third of the leaf. Upon hatching, the larvae, which are white, legless, and less than 2mm long, feed side by side, producing blotchy type mines in the foliage. Individual leaves usually contain four to six larva but as many as nine have been counted in a single leaf. Larval activity occurs in late May and early June.

Pupation occurs in the hollowed-out mine of the leaf. The larva pupates in a small circular cocoon spun of plant material and fecal matter. Ten to fourteen days later, the young adults emerge to feed on the new foliage and blooms. Feeding will continue at a reducing rate from late June through August.

Prior to its removal from the market. Chlordane was an effective control on both the adult and larvae of this pest. Presently, Dursban will help to control the adults but does little for larval control. Studies are presently being conducted to evaluate materials for larval control.

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