

LESSER PEACHTREE BORER

Ric Bessin, Extension Entomologist

The lesser peachtree borer, similar to the peachtree borer, is a native North American pest that causes serious damage to peach, cherry, plum, nectarine, and apricot trees. Borers underneath the bark can be some of the more difficult insect problems to manage in stone fruits. While the peachtree borer and lesser peachtree borer are similar in biology and management, there are some significant differences. The peachtree borer primarily attacks young non-bearing or unmanaged trees at or below the soil line. The lesser peachtree borer attacks older trees and does not confine its activity to the lower trunk but can be found in the scaffold limbs, branches, and the trunk above ground.

Larvae of the lesser peachtree borer are usually found under the bark of wounds. Infestation by the lesser peachtree borer is often identified by oozing of gum on the outer bark where the borer started its attack. The gum is usually mixed with reddish-brown frass. Bark eventually peels off of damaged areas, predisposing the tree to attack by other pests and diseases. Frequently empty brown pupal cases can be found partially exposed at the head of the larval gallery. Branches can be girdled by these borers and die.

Adult male and female lesser peachtree borers are similar in appearance and look more like wasps than moths. Unlike most moths, these fly during the day and are most active from 10 a.m. to 2 p.m. Lesser peachtree borer moths are slender, dark blue with some pale yellow markings, and both pairs of wings are clear, except for the edges and veins that have blue black scales. The antennae of the male are finely tufted. Lesser peachtree borers resemble the male peachtree borer. The second and fourth abdominal segments of the lesser peachtree borer have narrow yellow bands, while the male peachtree borer has 3 to 4 narrow yellow bands on the abdomen.

Larvae of the lesser peachtree borer are similar to other clear-wing borer larvae. They are about 1 inch long when mature. The head is light brown and the body is creamy white, but may be pinkish in some individuals.

Biology

Lesser peachtree borer overwinters as larvae underneath the bark. Larvae of all stages except the first may be

found during the winter. The larvae feed for a period in the spring before burrowing just below the surface of the bark to pupate. Borers remain in the pupal stage from 18 to 30 days before emerging as adults. Female moths deposit eggs in small clusters in cracks and crevices near wounds between ground level and eight feet high. Females lay an average of 400 small oval, reddish brown eggs. Larvae begin to hatch in 8 to 10 days and burrow into the bark, often entering through cracks caused by other factors such as winter injury, pruning scars or machinery wounds. Moths emerge from early May until late September in Kentucky, USA. There are two generations per year with adult emergence in May and June, then again in August and September.

Prevention is the Key to Control

Control of lesser peach tree borers in commercial orchards relies on preventing larval establishment underneath the bark. Once under the bark, chemical control is usually ineffective. Insecticides should be timed just before or to coincide with egg hatch. To aid in the timing of sprays, pheromone traps are used to alert producers to the presence and activity of moths. Because egg hatch begins about 8 to 10 days after moth emergence, insecticidal sprays should be applied 7 to 14 days after the first moths are captured in the traps. With trees that show little or no lesser peachtree borer activity, a single insecticide application can be used to coincide with the peak of the second generation flight (usually early September). Trees that have had problems with lesser peachtree borer may require two applications, one 10 days after initial moth flight (mid May) and the other at peak of the second generation flight (early September).

Sprays containing Asana XL, Ambush, Lorsban, Pounce and Thiodan are labeled for control of lesser peachtree borer on peaches. In commercial orchards, insecticides applied with an air-blast sprayer will do little for lesser peachtree borer control. Directed sprays should be applied uniformly to drench the trunk and scaffold limbs to about eight feet above ground. Thorough coverage of the trunk and limbs is necessary. Do not allow Lorsban sprays to contact fruit foliage. Asana XL, Ambush, Pounce, and Lorsban have 14 day preharvest intervals, while Thiodan has a 21 day preharvest interval. Asana XL, Ambush, Pounce, and Lorsban are

a RESTRICTED USE insecticide.

Monitoring

To determine the most effective time to apply an insecticide, pheromone traps should be used to monitor moth activity. These lures are synthetic copies of the chemicals female moths use to attract their mates. A trap consists of plastic top and bottom held together by a wire hanger with the lure placed inside. The inner surface of the bottom is coated with a sticky material to hold the insects once they land in the trap. Traps are hung in the tree 4 to 5 feet off the ground, usually one for each ten acres of trees (minimum of two traps per orchard) in commercial orchards. For a list of source of the various types of pheromone traps, see ENT-54, Vendors of Microbial and Botanical Insecticides and Insect Monitoring Devices.

It is important to note when moth flight begins and when emergence reaches its peak. Moth activity can occur anytime between mid May and late September. In order to detect the first activity, traps should be hung in the trees well in advance of the anticipated flight. Trapping should begin in late April. Trap lures need to be replaced once a month. Trap bottoms should be replaced when the sticky surface becomes clogged with other debris.

Proper identification of the moths captured in the trap is essential. There are other moths which may wander into the trap, even other clear wing moths. Captured moths should be examined carefully to be sure that they are the correct species.

Worming Trees

Before the development of chemicals for controlling lesser peachtree borer, producers relied on digging the borers out of the bark by hand. This is still an alternative for backyard gardeners. In the spring, about the time of bud break, insert a knife or wire into the galleries to locate and remove or smash the larvae. Care should be taken not to cut the sound bark more than necessary, and cutting should be done vertically. Carelessness may result in more damage to the tree than the damage that would have been caused by the borers!

Revised: 11/03