

Providing Leadership in Environmental Entomology

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PECAN WEEVIL

The pecan weevil is a light brown to gray beetle ranging in size from 3/8 to 1/2 inch in length. Both males and females have a long beak or snout. The male's beak is generally shorter than the body (Fig. 1).



Figure 1. A male pecan weevil.

The larva or grub is about 1/2 inch long when mature. The body is creamy white and the head is reddish brown (Fig. 2). Pecan weevils attack both pecans and hickories. In some years as much as 95% of the nut crop can be lost to weevil damage.

Two types of damage occur. The first is caused by adult feeding. It takes place in early August prior to shell hardening or the water stage of nut development. Adult feeding at this time causes premature nut drop. The weevils penetrate the nut shell with their beak and feed on the developing kernel. This can be identified by a tobacco-like stain around the puncture site. Feeding damage may be confused with damage caused by other insects. The second and most important type of damage is caused by the feeding of the larva or grub. These larvae feed on the kernel for several weeks until they are fully developed and most of the kernel is consumed. There are few external signs of larval infestation. Shucks may adhere to the shells in the fall.



Figure 2. Pecan weevil larva.

Early varieties are more susceptible to attack than later varieties. The life cycle of the pecan weevil is quite unique. Adults begin emerging from the soil in late July or early August. In late August females begin to lay from 1-4 eggs in each nut. The

larvae hatch in 7-10 days and feed for several weeks. At maturity they chew a circular hole, about 1/8 inches in diameter, through the shell and drop to the ground. Here they burrow several inches into the soil and form an earthen cell. The larvae remain inactive in the soil for 12-24 months before entering the pupal stage. They transform to the adult after 30 days. The new adult remains in the soil for another 12 months before emerging from the soil. Most adults emerge from late July to early October. Prolonged dry spells may delay emergence.

Control measures are aimed at the adult stage. To achieve optimum control it is necessary to monitor adult activity, especially in dry years. Choose a tree or trees that have had weevil problems in previous years. Several trapping methods are available. The screen cone-trap is one of the better traps. Sticky bands or burlap bands around the tree trunk also will trap the weevils that attempt to climb the tree. A tarp or sack spread on the ground will also give an indication of adult emergence. Check the underside several times a week. A final method is to spread a ground cloth under the tree and jar the branches over the cloth with a pole. Monitoring should begin about the last week of July and continue until early October or until no weevils are captured.

Check with your local County Extension Agent for specific insecticide recommendations.

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