

Late Season Pecan Insect Pests

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Pecan producers are nearing the end of the production season. Shuck-split in early maturing cultivars is at hand, with harvest to begin shortly. Pecan weevil season has been somewhat sporadic. Normal peak for Pecan Weevil in Oklahoma is mid to late September (Fig. 1). Early August rain events caused emergence in areas that received significant moisture prompting insecticide applications by late August, while other areas receiving less rainfall may have not seen any emergence, yet. The forecast for the next few days calls for increased rain chances. If significant rainfall would occur, it could cause a late season weevil emergence and subsequent damage in some areas (Fig. 2).



Figure 1. Adult Pecan Weevil
Photo Credit: OSU Entomology



Figure 2. Pecan Weevil Damage
Photo Credit: OSU Entomology

Aphid populations have also been sporadic. In most years, beneficial insects will keep aphids in check until late season. During weevil time, many producers will incorporate an aphicide in conjunction with their late season weevil application to help control potential outbreaks late in the season. Three aphid species can prove problematic in pecans: black pecan aphids and two species grouped together in what is referred to as the yellow aphid complex, or simply yellow aphids (Fig. 3&4).



Figure 3. Yellow Pecan Aphid
Photo Credit: Influential Points



Figure 4. Blackmargined Pecan Aphid
Photo Credit: Bugguide

Black pecan aphids can cause more damage to the tree than the yellow aphid complex (Fig. 5). They cause yellow, angular, chlorotic spots between leaf veins, which can lead to defoliation in late summer (Fig. 6). This aphid species can be found on the top and bottom of the leaves. The black aphid, normally not as prevalent as yellow aphids, has been popping up in various locations this season and within certain cultivars. Monitoring for aphids (especially black aphid) is essential since defoliation not only contributes to poor nut quality but also reduces return bloom in the orchard the following year. Threshold is only 1-2 black aphids per compound leaf.



Figure 5. Black Pecan Aphid
Photo Credit: Noble Research Institute

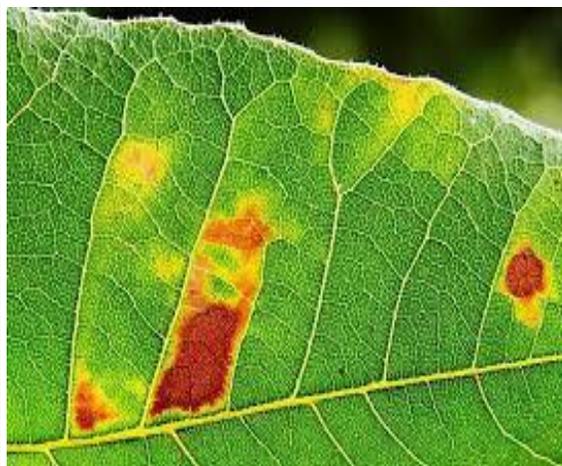


Figure 6. Black Pecan Aphid Damage
Photo Credit: Bugguide

Confirmation of leaf-footed bug infesting pecans in Logan County has recently been reported (Fig. 7). Stink bug and Leaf-footed bugs are a potential problem late in the season. Although stink bugs and leaf-footed bugs don't reproduce or develop on pecan trees, they can cause significant crop loss (Fig. 8). Host plants

can include various species of weeds, such as thistle, and cultivated crops such as cowpeas, cotton, corn, soybean, millet, grain sorghum, and alfalfa. As the season for these crops come to an end or mowing occurs prior to harvest, stink bug and leaf-footed bugs search for other food sources. Their feeding on the nuts cause two types of damage—black pit and kernel spot. Black pit occurs with feeding prior to shell hardening, and eventual premature nut drop. Kernel spot occurs after shell hardening and causes dark brown to black spots on the kernel surface, making this area bitter tasting (Fig. 9). Control options include elimination of weed host within and around the orchard, control of insect populations in the host crop, if possible, and utilization of insecticide for other late season pests can sometimes help with control.



Figure 7. Leaf-footed Bug
Photo Credit: Texas A&M Extension



Figure 8. Stink bug
Photo Credit: Pecan South



Figure 9. Stink bug and Leaf-footed bug damage
Photo Credit: Kansas Ag Fax

As with any of the listed pests, continued monitoring is imperative until the crop is harvested.

Any late season applications must be made with harvest in mind. Choose insecticides carefully. Depending on the product, pre-harvest interval (PHI) can range from 7-21 days.

For more information on pecan insect pest management options go to EPP CR-6209, *Commercial Pecan Insect and Disease Control*.