



# Pest e-alerts



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## September Insect Considerations in Pecan – Diligence is the key

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September is the peak period of time for pecan weevil activity in Oklahoma. With a potential harvest that promises to be above average, growers should be encouraged to protect the quality of that crop. While it may seem that much of our annual pecan weevil population may have already emerged from the soil, the weevils will continue to emerge. Continued emergence and prolonged life of female weevils, based on the readiness of the crop, may dictate protecting the fruit for another month or more. Several growers

have called or emailed me concerning weevil activity and survivability over time. These are both common questions during years like this, where early and heavy rainfall has contributed to early weevil emergence and pecans are not mature enough for egg-laying activity.

In 1971, Van Cleave and Harp wrote about post emergent longevity of pecan weevil, citing an average length of survival of 8.6 to 17.6 days for males and 14.6 to 23.1 days for females. Female weevil longevity averaged 6 days compared to males. In Oklahoma, in most years, weevil emergence will begin in August and peak in September (2nd to 3rd week); however, occasionally late July or early August rainfall can accelerate emergence and populations may actually peak in August. Over centuries of native production with a native pest, the pecan weevil has evolved in nearly perfect synchrony to development of its host (pecan). The question arises, that with the advent and variety of new cultivars, has this perfect synchrony led to an increased length of emergence and both early and late emergence, to cover a multitude of maturity ranges? In 1975, Criswell and others found that weevils emerging early actually had a greater life span than those that emerged later in the season. They also indicated that early emerging female weevils could survive until nuts were acceptable for oviposition. In the latter

study, early emerging weevils (July 21-August 8) could survive on the Mahan cultivar for 40 to 56 days for male and females, respectively. In comparison, weevils emerging under the same cultivar late in the season (September 1-17) survived from 9.1 to 17.8 days for male and females, respectively.

Obviously, none of this information is consoling to those who grow pecan, but certainly alludes to reasons why we continually discuss managing pest problems late into the season. Another late season insect robber of quality assurance is the stink bug. This triangular-shaped true bug penetrates the shuck and even the shell with their piercing-sucking mouthparts, tapping into the kernel and leaving behind black spots and pungent off flavors in the final product. Areas that have experienced increases in soybean, alfalfa and other similar commodities that these insects favor will have greater management problems related to this pest. Chemical management of this pest can take two approaches. First, use pyrethroids in managing weevils in pecan as these chemicals will control both pests effectively. Second, use trap crops to draw stink bugs in and control the problem in the trap crop. One good crop for such an undertaking is pearl millet. This crop heads out for a longer and later period of time than many of our pea crops and is somewhat drought tolerant. It can serve as an excellent attractant to stink bugs and the problem can be treated in that location much easier than in the pecans, using a variety of different chemicals. Growers using off label chemicals that are effective at controlling stink bugs should not attempt to harvest the millet crop and utilize it or sell it for other purposes. Therefore, keep the amount of acreage dedicated to a trap crop relatively small and do not plant it under the canopy of the trees or where drift could become an issue on the pecans.

Bringing a pecan crop to harvest, with good quality and few pest problems is a tremendous challenge, but one that growers must be diligent about to be successful. Insect pest problems represent only a small portion of the many negative impacts that can affect overall production and quality assurance. Growers are faced with managing plant pathogens (e.g. - scab), weeds, fertility, other predators (e.g. - crows, squirrels, deer, etc.), and ultimately weather. Each of these challenges represents significant investment in time, money and management for each grower and only the most meticulous manager can establish a record for consistent success. Growers sometimes have little or no control on some of the many detractors acting on their crop (weather, predation, etc.) especially in controlling the magnitude of these problems; however, managing plant competition, insect damage, disease progression, crop load and fertility can go a long way in getting a good, high quality crop to market. The take-home message here is diligence and perhaps nowhere in the pecan production business is this more evident than when it comes to insect and disease management.

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