



PLANT DISEASE AND INSECT ADVISORY

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Apple twig borer problems continue to surface in state's grape vineyards Phil Mulder, Extension Entomologist



With hardly a leaf developed, this year, more than previous years, several reports have surfaced about damaging beetle populations in Oklahoma grape vineyards. The culprit is the apple twig borer, *Amphicerus bicaudatus*. This worrisome little beetle has been damaging grapes and other plants for quite sometime, since it is likely native to this part of the country. Damage consists of perfectly round holes (about 1/8 of an inch in diameter) drilled just below or above the bud or node of young grape plants. Attack is not limited to younger plants, but so far these are the ones they seem to be gaining their attention. In addition, they have produced similar damage on young pecans and various fruit trees.

The apple twig borer has an incredibly wide host range, attacking pecan, peach, plum, apricot, pear, ash, butternut, hickory, maple, apple and grape. Adult activity occurs in early spring and fall, although there is only one generation per year. Eggs are laid in the bark of twigs and small branches. After hatching, the larvae burrow into the twig, generally straight to the pith and tunnel along this path, packing the frass behind them. In the fall larvae mature and pupate within the larval tunnel. They may or may not transform into adults, but usually hibernate inside the larval gallery in winter. Some adults will actually emerge and later enter another cane when winter sets in. All adults will emerge in spring from March through May and repeat the cycle again. While damaged or dying trees are usually attacked the beetles will bore into living, healthy branches. Plants that were in good shape prior to attack, will begin to wilt, droop and never look as healthy as adjacent uncompromised plants. These infested plants may not die immediately because the entire vascular system of the plant has not been disrupted; however, they will never catch up to the healthy plants. The problem often goes unnoticed because of the timing of their emergence and size and position of their exit holes. The exit hole is generally located near a bud (either just above or below) and they are only about 3-5 millimeters.



The primary means of managing this devastating beetle can take several approaches. First, keep all plant material healthy and well-fertilized. Second, eliminate wild grapes, or other hosts near

the vineyard. Third, any infested branches broken limbs and prunings should be routinely collected and burned. If widespread proliferation of beetle populations is evident a well-timed application of insecticide may help in reducing beetle populations, but total control will continue to be a challenge with the prolonged emergence pattern of beetles. Sanitation (burning) and exclusion (eliminating wild hosts) is the best long term solution to this potentially reoccurring problem.

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