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PEACHTREE BORER AND LESSER PEACHTREE BORER POPULATION DYNAMICS IN TEXAS

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Background. The peachtree borer (*Synanthedon exitiosa*) and the lesser peachtree borer (*Synanthedon pictipes*) are serious pests of peach trees in some areas of Texas where peaches are grown. These insects injure the tree by boring into trunks and branches. Feeding damage causes infested trees to become weak and exposed to diseases and wood-rotting organisms.

The adult male of both species can be caught in traps provisioned with a synthetic pheromone that is specific for each species. Trapping of these species has in the past been done in various locations throughout the peach growing regions of the state. However, a trapping study has not been coordinated to monitor these insects in several peach growing regions in one season.

Adult peachtree borers typically have one generation per year. Adults are present in orchards from June through September. Lesser peachtree borer adults are commonly found in orchards from March through October.

The purpose of this study was to deploy traps in peach in Gregg, Camp, Sabine, Freestone, Limestone, Parker, and Gillespie County orchards to determine: 1) the presence of the peachtree borer and the lesser peachtree borer in these counties; and 2) the seasonal abundance of the insects in these orchards.

Four peachtree borer and four lesser peachtree borer traps each were placed in peach orchards in the listed counties. The only exception to this is that the lesser peachtree borer traps were not used in Sabine County. Traps for both insects were deployed in the orchards on various dates in the cooperating counties. The traps were checked usually on a weekly basis for the presence of the insects. The number of moths caught were counted, recorded and removed from the trap.

Research Findings. Peachtree borers (PTB) were captured in Gregg, Camp, Sabine, Freestone and Limestone Counties only. These are considered East Texas Counties, but according to the Texas Land resource Areas, Gregg, Camp and Sabine Counties are in the East Texas Timberlands Area while Freestone and Limestone Counties are in the Claypan Area. No PTB were captured in Parker or Gillespie Counties. Parker County is in the Cross Timbers Area and Gillespie County is in the Edwards Plateau Area.

Of the counties trapped for lesser peachtree borer (LPTB), only traps in Gregg and Camp Counties captured moths of this species. No LPTB were caught in Freestone, Limestone, Parker or

Gillespie Counties. The traps in Gregg County were deployed in mid March and almost immediately began to catch moths. In this orchard, LPTB were caught almost continually for the duration of the study. The data suggest that there may be several generations of this insect each year in peach orchards in this area. LPTB were captured in Camp County from mid April through mid August when the study was concluded.

Application. The results of this study represent trapping for only one year. Although PTB were not captured in Parker or Gillespie Counties, the insect may be present but in numbers too low to capture or it may be not have been present in the orchard where the study was conducted. Extension Service publications on peach insect control allude to the fact PTB may not be in these areas. Further studies or review of PTB collection records in the Texas A&M University Insect Museum may clear up this question.

In East Texas where the insect was captured, it has been a known pest and one in which peach growers must contend with each crop year. The data from this study does support the Extension Services's recommendation on timing of insecticides to control this insect.

It was not surprising to find no captures of LPTB in Parker or Gillespie Counties because the insect has not been reported from these counties or has it been a pest. It is interesting to note however, that in this study that the LPTB was not captured in Freestone or Limestone Counties. It was expected that the insect would be captured in these counties. Further trapping is needed to confirm these data.

Data from Gregg and Camp Counties confirm earlier trapping studies of this pest in these areas. The data also support the Extension Service recommendations of timing of pesticides for the suppression of this pest in East Texas orchards.

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Figure 1. Average number of peachtree borers caught per trap in East Texas Counties. 1997

