

Section III
Biological & Cultural Control

**INVESTIGATION OF MATING DISRUPTION OF PEACH TREE
BORER, *SYNANTHEDON EXITIOS*, IN LAUREL, *PRUNUS LAUROCERASUS***

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Objectives:

Investigate the efficacy of mating disruption for peach tree borer (PTB) in laurel production.

Methods and Materials:

On May 26, 2006 diamond traps (Pherotech International) with peach tree borer pheromone lures (Pherotech International) were placed in a commercial nursery site in Gresham producing several varieties of *Prunus laurocerasus* with a history of PTB. We set three traps per plot with four sampled plots in the mating disruption area and two in the untreated area on the other side of the farm, separated by a distance of 1633 feet (plots ranged in size from 10,452 ft² to 37,024 ft²). Several additional traps were set outside but near the area of the untreated plots. On June 27th Isomate®-P pheromone dispensers (Pacific Biocontrol Corporation) were placed in the upper canopy of the laurel plants in treated plots at the recommended rate of 100 dispensers per acre. The entire area treated was approximately 5.08 acres. Traps were monitored weekly from June 2, 2006 and monitoring continued until the end of the flight period (through September 2006). PTB pheromone lures were changed in the traps on August 15, 2006. Additionally, a sample of off-size, off-colored shrubs were evaluated and quantified for PTB presence and damage

Results:

Two male PTB moths were observed in plots on 6/2/06 but no trap catches were positive until four moths were found in three separate traps in one of the plots in the untreated area on 8/8/06 (Figure 1.). The action threshold for PTB in mature orchards is 2 moths/trap and Pacific Biocontrol recommends treatment at this level. On August 10, 2006, the grower made applications of chlorpyrifos to both the treated and untreated areas (per the Pacific Biocontrol protocol). Two additional moths were caught in an untreated plot on 8/22/2006. The grower made an application of chlorpyrifos to all plots on 8/23/06. A final application occurred on 9/11/06 and 9/12/06 upon the advice of an agrichemical crop consultant. No additional moth captures occurred through the end of the sampling in late September.

Ten plants with low vigor were removed from plots throughout the farm and evaluated for damage and presence of PTB. All ten plants exhibited tunneling damage with frass and decay. Six of the 10 plants had live larvae (including one pupa). Most of the larvae were found below or at the soil line.

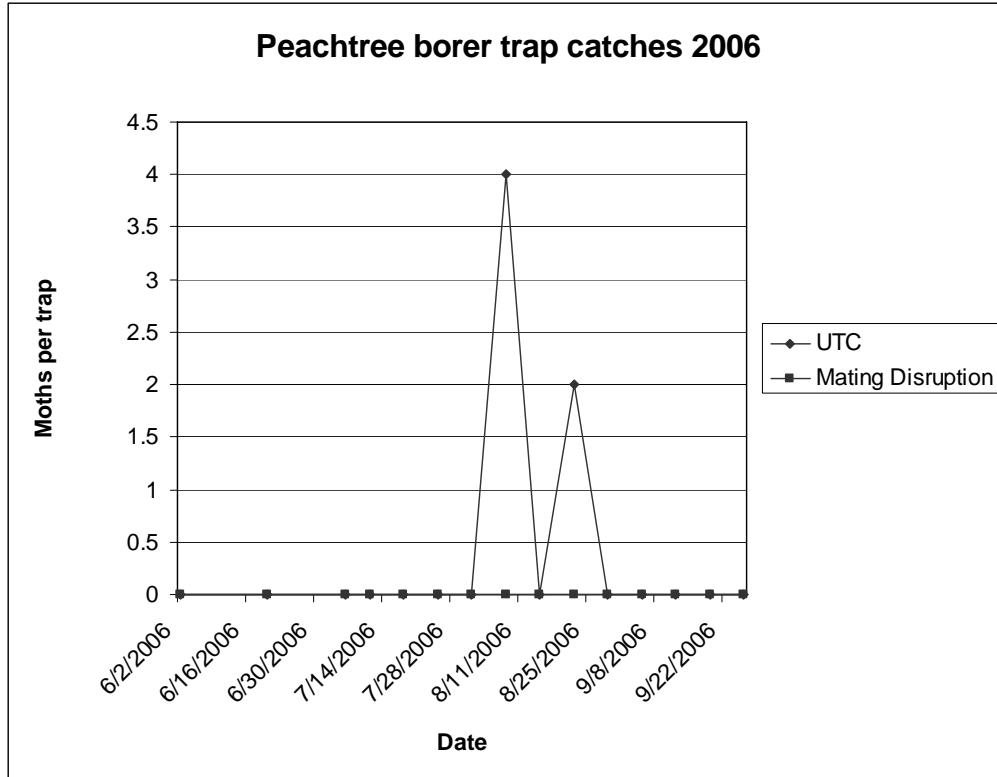


Figure 1. Peachtree borer trap catches in laurel, *Prunus laurocerasus*.