

**Peach tree borer:  
characteristics  
and control**Whitney S. Cranshaw<sup>1</sup>

no. 5.566

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**Quick Facts**

The peach tree borer (also called the peach crown borer) is the most destructive insect pest of peach, cherry, plum and other stone fruits grown in Colorado.

The immature (larva) stage of the peach tree borer is the damaging stage.

The most consistently effective peach tree borer controls are preventive insecticide applications directed against the vulnerable egg and early larval stages of the insect on the tree bark.

Paradichlorobenzene (PDB) moth crystals, used as a fumigant, may also help control infestations of peach tree borer within a tree.

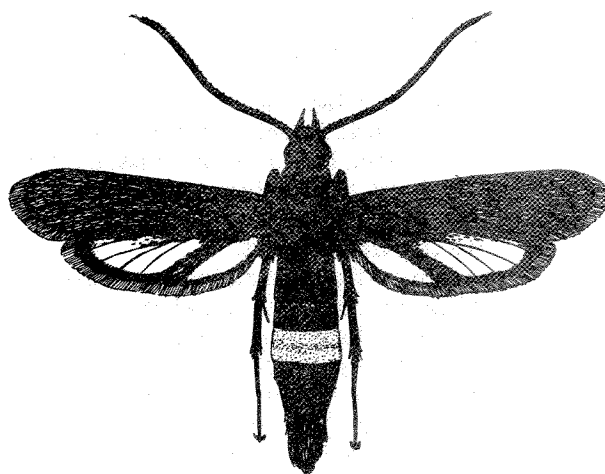
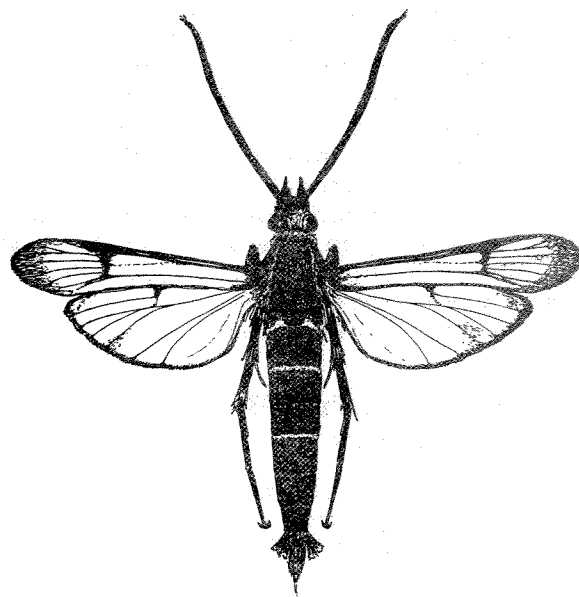
The peach tree borer (also called the peach crown borer) is the most destructive insect pest of peach, cherry, plum and other stone fruits grown in Colorado. The insect feeds underneath the bark of the tree and, when abundant, can seriously weaken and kill trees. Peach is particularly susceptible to this injury. Periodically, it may be necessary to control peach tree borer to maintain tree vigor.

**Life History and Habits**

The entire life cycle of the peach tree borer requires one year to complete.

The immature (larva) stage of the peach tree borer is the damaging stage. Upon emerging from the eggs, young larvae immediately begin to tunnel into the sapwood of the tree. Larvae that successfully enter the tree feed, grow and tunnel under the bark until early fall. As cold weather approaches, the larvae tunnel down the trunk, often reaching below the soil line. The insects spend the winter under the bark in the form of partially grown larvae.

In early spring, the peach tree borer larvae again feed on the tree and injury is more extensive. By June and July almost all of the larvae have finished feeding and change to the pupal stage.



**Figure 1: Adult peach tree borer moths. The male (top) is marked by thin light bands on the abdomen. The heavier bodied female (bottom) has a broad band of orange or red. Males are attracted to pheromone traps.**

Whitney S. Cranshaw, CSU Cooperative Extension specialist and assistant professor, entomology; drawings by Tess Henn (4/86)

The pupal stage of the insect lasts from one to two weeks. Adult peach tree borers then emerge and may be observed during the day flying around the base of the trees. The peach tree borer is a kind of "clearwing moth" which superficially resembles a wasp. See Figure 1. After mating, the female moth lays eggs on the bark of the lower trunk and on the soil near the tree base. Eggs generally hatch in about a week.

External evidence of peach tree borer tunneling is a wet spot on the bark or the presence of oozing gummy sap. The sap is clear or translucent and often darkened by the sawdust-like excrement of the insect. Most injuries are present along the lower trunk, extending beneath the soil line. Occasionally lower branches will receive injuries. (Note: Oozing wounds on peach that produce an amber-colored gum may be caused by *Cytospora* canker, a fungus disease that is often confused with peach tree borer. See Service in Action Sheet 2.937, *Cytospora* canker).

### Control of Peach Tree Borer— Preventive Sprays

Peach tree borer can be difficult to control since the damaging larval stage can not be easily reached with insecticides after it has moved underneath the bark. The most consistently effective peach tree borer controls are preventive insecticide applications directed against the vulnerable egg and early larval stages of the insect on the tree bark.

In Colorado, egg laying by the adult moths occurs over an extended period during the middle of the growing season. In warmer areas, first eggs may be laid by July 1. Egg laying may continue into September. In general, peak egg laying occurs from mid-July to mid-August.

Better determination of egg laying occurrence is possible using pheromone (sex attractant) traps that can detect periods of insect flight. These periods correspond with egg laying. In many areas of Colorado, information on pheromone trap catches is available through Cooperative Extension offices or through weekly Teletips "pest alert" messages.

At present, chlorpyrifos (Dursban, Lorsban) and lindane sprays are considered among the more effective treatments for controlling peach crown borer. However, lindane may be used only on nonbearing fruit trees. Chlorpyrifos is registered as a trunk treatment for peach and nectarine, but not other fruiting stone fruits. Thiodan

(endosulfan) is labelled for peach crown borer control on all stone fruits but is often difficult for homeowners to purchase. Great care should be taken to prevent any of these treatments from reaching fruit or foliage.

On commercial plantings, Pydrin, Pounce and Ambush are registered for peach tree borer control on peaches. These are restricted-use pesticides.

Mix sprays according to labelled directions. Thoroughly wet the lower trunk below the first set of branches and also spray around the tree base.

As a guideline, preventative trunk sprays should be applied the first or second week in July and again in August. Use of pheromone traps can improve the timing of these treatments. (Note: "clearwing" borer pheromone traps catch several species of related moths.)

### Other Controls

Paradichlorobenzene (PDB) moth crystals, used as a fumigant, may also help control infestations of peach tree borer within a tree. After clearing away leaves and other debris from around the tree base, the crystals should be placed in a band 1 to 2 inches from the base of the tree trunk. The crystals are then covered with enough soil to create a 5- to 10-inch packed mound around the plant. The crystals will release a gas at temperatures above 60° F that can penetrate into the trunk to kill peach tree borer larvae. Applications of PDB crystals are best made in late September—early fall. They may also be applied in late Spring.

**PDB can injure plants.** Plant injury can be avoided by following precautions below.

1. Do not allow the crystals to touch the tree bark.
2. Vary the rate of crystals used depending on tree size. Use ¼ oz. on first year trees, ½ oz. on trees 2 years old, ¾ oz. on trees 3 to 5 years old; 1 to 2 oz. on large, well-established trees.
3. Remove the soil mound three weeks after the application.

With some effort, many larvae can be dug out of the tree or killed by use of a strong thin wire to puncture them. Use care with these controls since they may cause more mechanical injury to the tree than the peach tree borer.

Maintaining tree vigor through proper tree care (water, fertilization, pruning, etc.) can greatly affect how well the tree can tolerate the peach tree borer injury. Extra care of already damaged trees is particularly important.