



St. Croix  
Tree Service, Inc

651-770-3744 or 715-749-3475

www.stcroixtreeservice.com



# TREE FACTS

## TWO-LINED CHESTNUT BORER

### STAGES OF INFESTATION

**Stage 1:** In late summer the leaves on the top of the crown will turn brown but will not fall off. Affected branches become uniformly red-brown. Do not confuse with oak wilt fungus, which causes leaves to fall off in early summer.

The adult beetle emerges in spring and early summer and feeds on the foliage of the oak before depositing eggs in bark crevices. In 1-2 weeks the eggs hatch and the larvae burrow into the cambium (growth layer). After feeding all summer the larvae construct an individual chamber in which to spend the winter. In the spring the adult emerges from an exit hole and seeks out oak foliage.

#### *Exit Hole*

The D-shaped exit hole is unique to the two-lined chestnut borer. Other oak infesting borers leave circular holes. The area of the tree with the hole is most likely already dead. Other wood boring insects will soon follow to colonize the dead wood.

**Stage 2:** Usually the following year, the infestation moves down to the lower crown. The top of the crown is now dead but the trunk is still alive.

Larvae feed on the inner bark and the outer sapwood. Oak trees conduct water almost entirely within the outer one or two growth rings. The meandering galleries created by the larvae cut off the supply of nutrients from the crown and water and minerals from the roots.

Larvae are about one inch long when fully grown. They have two spines at the tip of the abdomen not found on other wood borer larvae.

**Stage 3:** The larvae infest and kill the trunk usually in the second or third year.

### Treatment

The best treatment for infested oak trees is by injecting specific insecticides directly into the trunk of the tree. This act should only be prescribed by a certified arborist and conducted by a certified chemical applicator. Trees that are showing less than 25% canopy decline can usually be saved. It is important that trees that are infested and cannot be saved be removed, ideally when the insect is in its larval stage (September through March). It is also important to consider preventative treatment of other, non-symptomatic oaks near oaks that are infested.

### Quick Facts

- ◆ There are three stages of infestation.
- ◆ Larvae feed on the inner bark and the outer sapwood.
- ◆ It will take 2-3 years to infest and kill the entire tree.
- ◆ Treatment can be successful with early diagnosis