

## TREE DOCTOR TIPS

### Borers

#### DESCRIPTION:

Borers are chewing insects, usually in larval stages, that chew and feed on the inner bark and/or wood of trees. Most species are the larvae of beetles. Some are wood-boring caterpillars or other insects.

#### HOSTS:

Almost every species of tree may be susceptible to borers under favorable circumstances. Borers are particularly destructive to newly planted trees and those in poor health because of drought, root injury, weakening from other insects or disease, physical injury, or other environmental stresses.

#### BIOLOGY AND SYMPTOMS:

Borers feed unseen inside the roots, trunks, branches and twigs of many trees. Depending on species, they girdle the vascular system and disrupt the normal flow of water and nutrients, or weaken the wood to the point where the structure of the tree is compromised.

The first signs of a borer attack are often sawdust-like material and/or sap and resin oozing from small holes in tree trunks or branches. Bark appears swollen, knotty and callused, and may develop cracks that eventually cause small areas to break off. Leaves in the upper part of the tree are undersized and discolored, and branches begin to decline and die.

#### MANAGEMENT:

The best way manage borers is by keeping the tree healthy in the first place, by properly fertilizing, mulching,

watering and managing other insects and diseases. These practices will help increase your tree's tolerance or avoidance to borer attacks, and help it recover if borers are already present.

Borer treatments may not kill large larvae already inside the plant. However, trees can be treated to help reduce further infestations by future borer generations. If a borer infestation has progressed to where a large portion of the tree is infested, tree removal may be the only practical option.

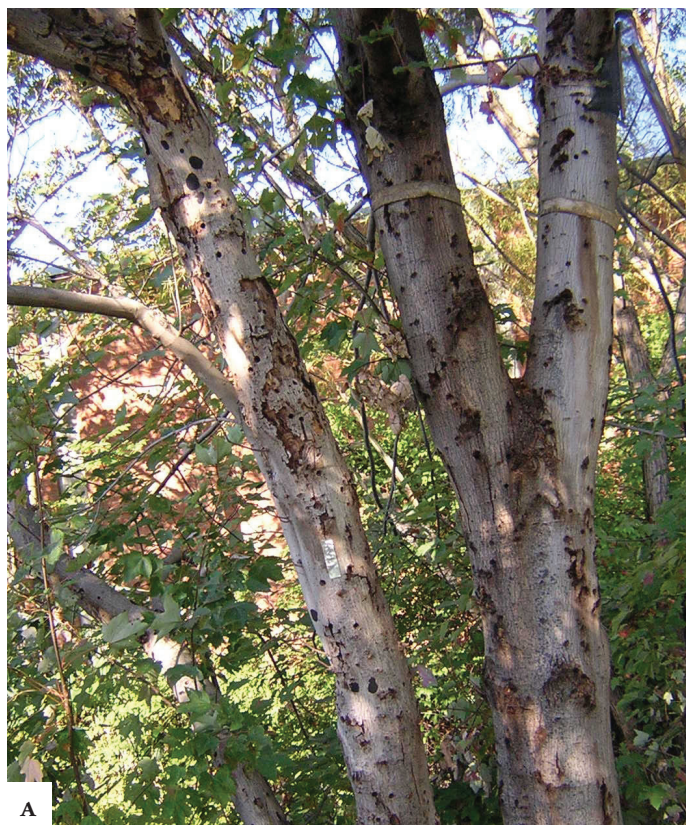


FIGURE A. DAMAGE FROM BORERS ON A MAPLE

*The scientists at **The Davey Institute** laboratory and research facility support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult **The Davey Institute** PHC Handbook.*