

BRONZE BIRCH BORER

The bronze birch borer is the most important pest of ornamental birch trees, and to a lesser extent poplar trees. The insect targets old and stressed birch trees, boring underneath the bark and feeding off the sap conducting tissue. The borers start at the top of the birch tree and eat their way down. A sure sign of a bronze birch borer infestation is a leafless, dead, tree top. Unfortunately, once a tree is infested with bronze birch borer, controls are largely unsuccessful and complete death of the tree will result. Prevention of infestation by maintaining tree health is the best course.

DESCRIPTION

The adult borer is olive green to black with metallic coloured reflections, about 6-11 mm long and slender. The adult beetles feed on leaves of birch and poplar trees. The larvae are cream coloured and about 35 mm at maturity. The larvae have a pair of spines at the posterior end. Larval galleries are from 75-125 mm in length.

DAMAGE

The feeding larvae girdle tree trunks and limbs cutting off sap flow (resulting in death) by tunnelling underneath the bark and causing a ridge. The ridge may be seen, but is more likely to be found by feeling along the bark and noting a slight rise. The bark covering the raised area can be gently sliced away revealing a serpentine trail of darkened material (excrement). The emerging adults will chew a hole in the bark shaped like the letter "D". This distinctive "D" hole is about the same size as the "D"s on a typewritten document.

LIFE CYCLE

The bronze birch borer has a two-year life cycle. The adult borers emerge and chew their way out of the tree bark in June. The adults lay eggs near the top of the birch tree. The eggs hatch and the new larvae chew their way into and underneath the bark. The larvae feed and grow working their way down the trunk. The larvae over winter and pupate in the spring. The pupa mature into adults and the cycle is repeated. As attacks are repeated the egg laying takes place on lower parts of the tree.

CONTROL

The best control for bronze birch borer is to keep the tree healthy as the borer larvae cannot live in healthy trees. One of the most important factors in a birch tree's health is sufficient watering. The birch trees are native to rivers, lakes and other areas with high water availability, therefore trees are not likely to do well in areas subject to drought. In the spring a birch tree may utilize hundreds of gallons of water a day. If the water reserve is not in the soil, the tree is put under a great deal of stress. If this lack of water is a chronic condition repeated year after year, the tree is almost certain to be targeted by the bronze birch borer.

It is because of the birch tree's high water use in the spring that fall and spring pruning is not recommended. Birches and maples should only be pruned in late spring after the leaves have reached full size otherwise they will bleed sap depleting the tree of moisture and sugar. Late summer pruning is also discouraged because the non-healed cuts will begin to bleed as soon as sap begins to flow in spring. Even commercially available pruning paints will not slow the flow of sap from a bleeding wound therefore when a birch tree is bleeding about all you can do is keep it well watered so the moisture loss is minimized.

Birch trees should be watered quite heavily in late October so that in spring there is a reserve of soil water present as the ground begins to thaw. Watering at a lighter rate through out the summer (until mid-August) is also suggested to maintain tree health. The best way to water is to place a soaker hose upside down at the tree's drip line (the outside edge of the leaf canopy). The frequency of watering depends on the weather. Control of the birch leaf miner and other pests will prevent additional stress to birch trees. A good fertilizer and deep watering is highly recommended.

Once a birch tree is infested by the bronze birch borer, control is very difficult and the chances for a cure are very slim. It is possible to remove dead or infested branches and trunks. Wood should be removed well below the last sign of a borer and burned before the next spring as the larvae can over winter underneath the bark. Trees with a great deal of dieback from the bronze birch borer should be removed.