



BRONZE BIRCH BORER (*Agrilus anxious*)

Damage/Description: Bronze birch borer larvae feed beneath the bark of birches. This interferes with nutrient and water transport and seriously injures trees. Chlorotic leaves and sparse upper foliage are the first symptoms seen. Lumpy bark (where trunks or limbs have healed) and D-shaped or half-moon shaped holes are further evidence of infestation. Feeding galleries filled with sawdust and excrement are beneath the bark. Adult beetles feed on leaves, but this damage is usually insignificant.

The adult is an olive-brown beetle with a blunt head and tapering body, about 1 inch long. The larvae are flat headed, milky white and 1 inch long at maturity. The tail segment of the body terminates in two dark brown horns.

Lifecycle: Bronze birch borers overwinter under the bark as larvae. They begin feeding as soon as sap begins moving in spring. After a period of feeding and growth, larvae pupate and adult beetles emerge in June. They chew D-shaped holes in bark to leave the tree. The adult stage, which includes emergence, flight and egg-laying, lasts until about the end of August. Eggs are deposited under bark flaps or in cracks in trunk or branches. Emerging larvae bore into bark and make extensive feeding galleries in the cambium layer. When the weather turns cold, larvae construct cells where they overwinter under bark. There is one generation per year in our area.

Cultural Control: Weakened birch trees are extremely susceptible to bronze birch borer attack. Keep trees healthy by watering regularly and **deeply**, and fertilizing as needed.

- Avoid mechanical injury.
- Immediately prune out sick or dead limbs. Do other pruning from late summer through the dormant period to avoid "bleeding" which weakens trees.
- If a birch must be removed, burn or remove trunk and branches to prevent emerging beetles from infesting other birch trees.
- Weeping birch, *Betula pendula*, is very susceptible to borer attack. Avoid planting this variety.
- Supply ample water, especially during summer and fall drought.
- Birches are sensitive to herbicides. Be cautious when applying them.

Chemical Control: **Foliar** pesticide sprays should be timed to control emerging adults **before** they lay eggs.

Apply material to trunk and lower limbs. Apply carbaryl as a **foliar spray only** in three applications at two to three week intervals beginning in late May. Read the product label and follow directions carefully.

Compiled by Levi Strauss. For more information contact Master Gardeners at (509) 477-2181.
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