

BRONZE BIRCH BORER

Agrilus anxius Gory (Coleoptera: Buprestidae)

DESCRIPTION

The Bronze Birch Borer is a wood boring beetle, common across the northern half of the United States, which attacks all birch species. The adult is a copper/bronze colored slender beetle. The larvae, which does the damage, are unseen, feeding on the vascular tissue under the bark. The Bronze Birch Borer typically attacks trees which are already stressed or in decline. A birch infested with Bronze Birch Borer will start showing dieback in the crown, increasing in severity as the infestation continues, often leading to death of the tree. In later stages of infestation, the trunk will show D-shaped, rust-stained exit holes and may also have swollen extrusions under the bark where the tree tried to grow over larval galleries.

SYMPTOMS

Bronze Birch Borer larvae live under the bark and feed on the nutrient and water-conducting vascular tissues. Larvae create meandering galleries through the phloem, vascular cambium and etch the xylem, effectively girdling the tree. Dieback of the canopy is a symptom of Bronze Birch Borer larval infestation; more than one half of the branches may die back as infestation progresses. The tree responds to canopy dieback by sprouting new (epicormic) branches below the disrupted tissues. The bark will split over dead vascular tissues, and trees may die within only two years of the onset of symptoms.

TREATMENT

Independent studies strongly recommend that treatments be applied early, before extensive disruption occurs to the vascular tissues. Arborjet recommends treatment when Bronze Birch Borer is detected in your area, but trees still appear healthy for best outcomes (dieback symptoms on infested trees should be <40%). Treat birch with either TREE-äge® Insecticide (emamectin benzoate) using the TREE I.V. system for high volume dosages or IMA-jet (imidacloprid) or the QUIK-jet™ micro-injector for lower volume applications. The comparatively large vasculature in birch trees will readily move IMA-jet upward into the canopy. TREE-äge is more viscous and will take slightly longer to inject but will provide a longer residual effect. TREE-äge and IMA-jet will eliminate the Bronze Birch Borer larvae inside the tree.

See the TREE-äge and IMA-jet labels for dosage rate based on tree size.



PHOTOS

A: Bronze Birch Borer adult beetle.

B: Bronze Birch Borer larva.

Photo A courtesy of: Steven Katovich, USDA Forest Service, Bugwood.org

Photo B courtesy of: Whitney Cranshaw, Colorado State University, Bugwood.org

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WHEN TO TREAT

Treat birch if Bronze Birch Borer is reported in your area. Do not wait for visible dieback in the canopy, as there is a significant delay between disruption to the vascular tissues and expression of symptoms in the canopy. Delaying Bronze Birch Borer treatment could result in canopy dieback or tree loss. Applications should be made in the spring, about 30 days prior to expected adult emergence; however, treatment may be applied during the growing season (May – September) to protect trees. Uptake of formulation is fastest when trees are actively transpiring, after they have developed a full canopy. Bronze Birch Borer treatment in the spring will prevent the adult beetles from feeding and laying eggs in the tree, whereas summer treatment will kill the larval stage of Bronze Birch Borer feeding under the bark. Make summer treatment applications in the morning when temperatures are moderate. If soil is dry, water trees prior to treatment. Injection in the fall (after leaves color but before they fall) can protect the tree for the following season.

Trees need to be closely monitored for symptoms of Bronze Birch Borer as infestation builds in your area. In general, applications are not made more than once a year. TREE-äge treatments for Bronze Birch Borer may provide two years of activity.

WHAT TO EXPECT AFTER TREATMENT

TREE-äge will kill both the Bronze Birch Borer larvae under the bark as well as adult beetles that feed on the tree. IMA-jet will kill the Bronze Birch Borer larvae under the bark and deter adult feeding on the treated tree. TREE-äge will provide two years of residual control. A single application of IMA-jet will provide control of Bronze Birch Borer for a full year. The long term prognosis for trees that are treated early (i.e., before vascular injury) is very good to excellent. Tree recovery from an established infestation is relative to the severity of the infestation at the time of treatment.

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WORLD CLASS FORMULATIONS

For treatment of Bronze Birch Borer, use either TREE-äge® or IMA-jet Insecticide.

TREE-äge is the latest chemistry developed by Arborjet for the treatment of Bronze Birch Borer. TREE-äge has demonstrated greater control and longer residual activity than any other product in control of flat-headed borers like Bronze Birch Borer. TREE-äge provides two years of control against Bronze Birch Borer.

IMA-jet is a broad spectrum systemic insecticide proven in university studies to be very effective against Bronze Birch Borer. A single injection of IMA-jet has been shown to provide extended residual control of Bronze Birch Borer.

Our products can be purchased at your local Arborjet distributor. For a distributor near you visit arborjet.com/distributor



QUIK-JET INJECTION

TREE I.V. INJECTION



ARBORJET DELIVERY SYSTEMS

Arborjet's delivery systems are designed to be fast, affordable and effective. Contact us today to determine the right system for your needs. To find a distributor near you, go to www.arborjet.com.



QUIK-jet Kit



TREE I.V. 2-Pack Kit



TREE I.V. Pro Kit



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