

Problem: Bronze Birch Borer - *Agrilus anxius*



Plants Affected: Though this insect attacks paper birch, yellow birch, gray birch, poplar, cottonwood and willow, the European white birch is the tree most commonly damaged in Kansas.

Description: The adult is a slender, iridescent olive-bronze to black beetle. It is normally less than ½ inch in length. The larvae are a flat-headed borer that is cream color and about ¾ to 1 inch long. Adult beetles emerge from holes in the branches and trunks during June and July and lay their eggs in cracks in the bark. The adults feed on the leaves of birch, aspen, poplar and willow trees but do not cause significant damage. The larvae make crooked, crisscrossing galleries in the inner bark. The galleries are packed with dark brown sawdust-like excrement. Frequently callous tissue will form around the winding larval galleries and cause ridges to appear, like varicose veins, on the bark. When the larvae are full-grown, they are about 1 inch long, ribbon-like, with a flattened, enlarged head area. In the fall, they bore into the sapwood and excavate overwintering cells. In the spring, the larvae pupate and later the adults chew D-shaped holes through the bark and emerge.

Tunneling by the larvae often girdles branches, cutting off the flow of sap. This causes the tips of the branches to die back to the point of girdling. Infested trees die from the top downward. Girdled branches retain dead leaves after they die.

Recommendations: Heavily infested trees should be cut down and destroyed. To reduce infestations that only affect a branch or two, prune below the visible infestation and destroy branches showing symptoms of borer attack by early May. This should destroy the insects before they emerge to lay more eggs.

Spray to kill adults and newly hatched borers. Treat the entire tree, especially the upper part, in late May and repeat the treatment twice more at 3-week intervals. Permethrin found in Hi-Yield 38 Plus; Hi-Yield Garden and Farm Insect Control; Bonide Eight Vegetable, Fruit & Flower Concentrate and Astro can be used for control.

A soil drench containing imidacloprid (BioAdvanced 12 Month Tree and Shrub Insect Control, Bonide Annual Tree and Shrub Insect Control, Fertilome Tree & Shrub Drench, Merit) may also be use for control but should be applied either in the fall or in early spring.

References:

1. [Borers: Common Kansas Species](#), K-State Research and Extension Pub MF-2735
2. [Borers, Management and Prevention](#), K-State Research and Extension Pub MF-2736
3. *Insects That Feed on Trees and Shrubs*, Cornell University Press, pg 232

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