

FOREST ENTOMOLOGY 5.

March 27, 1916.

Brief Information on
B R O N Z E B I R C H B O R E R
and I T S C O N T R O L.

Character and Extent of Injury. During the past twenty years or so the birch trees of many city and private parks have died. The top branches dying first, the vitality of these trees gradually deteriorates and finally the entire tree succumbs one or two years later. This condition is usually due to the work of the bronze birch borer.

Evidence of infestation.- (1) Characteristic reddish or rusty brown spots or discoloration on the white bark of the trunk and larger branches, which, on being cut through will usually disclose peculiar winding burrows in the bark and wood. (2) Ridges in the bark on the branches often develop over the burrows of the insect. (3) Dying tops.

The Borer, Its Seasonal History and Habits.- The borer itself, i.e. the stage of the insect mainly responsible for the damage, is a slender, flattened, footless, creamy white grub, about 3/4 inch long when full grown, which transforms to a small, slender, olive-bronze, winged beetle nearly 1/2 inch in length. This beetle emerges from the trees in May or early June, depending on the location and season, and the female deposits her eggs in crevices on rough surfaces of the bark, several together. These eggs hatch into tiny grubs which burrow their way through the bark, underneath which they tunnel in a zigzag course through the bark and sapwood until they are full grown. In the autumn they excavate a chamber in the wood or outer bark where they spend the winter. About April or May the following spring they transform to pupae, and these into the adults which gnaw their way out, leaving peculiar oval holes in the bark. Their life cycle is thus completed in a year. The beetle attacks birch, poplar and aspen trees wherever they grow in the United States, being particularly destructive to imported birch in parks and lawns in the Northern States and attacking from slender branches to trunks of trees over 25 years old.

Prevention.- Badly damaged trees are not only past saving but are a menace to the trees of the neighborhood still free from attack; therefore trees showing dead tops and other evidences of infestation should be cut down and burned during autumn or winter and **not later than May 1.**

Note.- A tree cut here and there will not check the ravages of borers. It is a neighborhood or community problem, and, to insure the work is thoroughly done and in good season, it must be enforced either by community ordinance or by aroused public sentiment and understanding.

Control.- Trees still worth saving, spray thoroughly with kerosene emulsion as per accompanying Brief, in July, which will kill the eggs and the young larvae before they enter the wood.

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