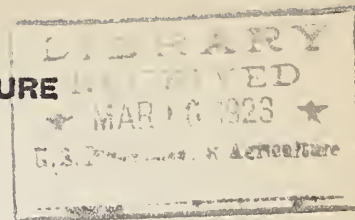


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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY
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FOREST ENTOMOLOGY BRIEF 45.

THE SUGAR MAPLE BORER

How injurious.- In some sections of the country, especially along roadsides in New York State, this insect is regarded as the most serious enemy of sugar maple. It attacks trees in full vigor, killing large limbs and entire trees.

Signs of Borer Presence.- The trees show dead limbs here and there; ridges and dead spots appear on the bark, or naked scars on the branches and trunk, especially near the base of the larger limbs, sometimes with oval holes $\frac{3}{8}$ to $\frac{5}{8}$ inch in diameter and sawdust at the base of the tree or in bark crevices; the foliage on a large limb suddenly wilts, dries up, and dies with sap and small masses of frass flowing from some point.- Any one or a combination of several of these signs indicates the work of this borer.

Description, Seasonal History, and Habits of the Insect.- The borer is a whitish grub about $\frac{1}{2}$ inch long with brownish mouth parts, located at the end of the burrow in the sapwood, or about 2 inches long and of similar shape and color in a larger burrow somewhat deeper in the wood. The parent insect is a beetle, about 1 inch long, stout, shorthorned, black, brilliantly marked with yellow. It comes out between June and August through oval holes in the bark.

The serious damage is done by the grubs, especially when their burrows meet so as to girdle the tree or limb.

Remedies.- Dying trees or limbs should be cut down and burned before June, so as to kill the grubs in them before they have transformed into adults and emerged.

Specially prized trees should be examined in the fall and spring for signs of the insect, and the borers killed either by cutting them out (in which case cover cut surfaces with good white lead paint), or by forcing a flexible wire to the end of the burrow, or by injecting carbon disulphid into the holes and promptly plugging them with clay, putty or similar substance. Handle carbon disulphid with care as it is poisonous and inflammable.

Where facilities are at hand the trunk and larger branches of the trees may be sprayed, as described in the companion Brief, in the late summer with poisoned kerosene emulsion or miscible oil which will reach and kill the borers that have just penetrated the bark. Care should be taken to avoid spraying the foliage, as this is injured by these solutions.

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