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Buffalo Treehopper

in Eastern Canada

by

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CONTROL OF THE BUFFALO TREEHOPPER IN EASTERN CANADA

By

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The buffalo treehopper¹ occurs in all fruit-growing areas of Canada and sometimes causes serious injury to young fruit trees, especially apple and pear. The injury is more widespread in Ontario and Quebec than in the Atlantic provinces.

INJURY

The injury results from deep slits made in the tender bark by the females when laying their eggs. The slits are made on the upper surfaces of the lower branches and on the trunks of young trees. Older trees are seldom injured. Egg laying usually does not occur more than six or seven feet above the ground. The female makes two slightly curved slits opposite each other and deposits from 6 to 12 eggs in each of them. The wood between the two incisions does not heal and causes an ugly scar, which continues to enlarge for several years (Figure 1). The growth of heavily scarred trees may be stunted, and in severe cases the young twigs may be killed.

DESCRIPTION AND LIFE-HISTORY

The adult of the buffalo treehopper (cover illustration) is a grotesque insect about a quarter of an inch long that resembles a small hazel nut. It has a heavy, robust body of a uniform leaf-green color, and a pair of short heavy horns pointing sideways from the front of the body. From in front it resembles a miniature buffalo. The nymph, or young treehopper, resembles the adult in shape and color, but has conspicuous, branched spines on its body.

The eggs are laid in August and September in the bark on the upper surfaces of two- or three-year old twigs and on the trunks of young fruit trees and other trees such as elm, hazel, sumac, and some of the oaks. The eggs hatch from late May to mid June, depending on the season. The nymphs, on hatching, move to the ground and feed on succulent plants such as alfalfa, sweet clover, potato, and weeds while completing their development. They reach maturity from mid July to early August in fruit-growing areas in Eastern Canada. The adult females then return to the trees to deposit their eggs. The insect overwinters in the egg stage and there is only one generation each year.

¹ *Stictocephala bubalus* (F.) (formerly known as *Ceresa bubalus* (F.)).



Figure 1. - Egg-laying scars of the buffalo treehopper in the bark of a young apple tree.

FOOD PLANTS

Alfalfa is the preferred food plant of the nymphs. They feed to a lesser extent on sweet, alsike, and red clovers, and on some weeds, especially dock, chicory, and thistle. Except in a few rare cases, neither the nymphs nor the adults have been observed feeding on fruit trees. The insects were observed to be abundant in one young orchard where potatoes were interplanted with the trees. The adults feed on the same plants as the nymphs, but to a much lesser extent. They are also commonly found resting on a wide variety of trees and shrubs.

CONTROL

The most effective control measure is clean cultivation through the month of June as this deprives the insect of the food necessary for survival. In young orchards, avoid interplanting favorite host crops such as alfalfa, clovers, and potatoes if possible.

Where clean cultivation is not practised in young orchards, a DDT spray gives good control. Spray the trees and the cover crops, and the shrubs, weeds, and grasses for about 100 feet around the orchard, with 50 per cent wettable DDT at three pounds per 100 gallons of water. In Quebec and the cooler areas of Ontario apply the spray about August 10, and in the Niagara Peninsula and other warm areas of southwestern Ontario about August 1.

For further information write to the Entomology Laboratory at Vineland Station or Simcoe, Ont., or the Science Service Laboratory at St. Jean, Que., or Harrow, Ont.

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