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Cherry Fruit Flies*

Prof. L. Caesar, Provincial Entomologist, O.A.C., Guelph

CHERRY Fruit Flies, at least in the Niagara district, which is our chief cherry district, are by far the worst cherry insects we have. They do much more injury than the Plum Curculio and Cherry Aphis together. The injury is caused by the flies with their sharp sting-like ovipositors laying their eggs just under the skin. The maggots that hatch from these work their way to the pit, where they destroy the pulp, causing the interior to become unsightly and the cherry to be unfit to eat. In many cases there is little or no sign of the presence of the maggot until the cherry is opened. Often, however, the skin above the place where the maggot is working turns brown and sinks in and frequently there is a little round hole or two in it made by the maggots to ensure an abundant supply of fresh air. There is usually only one maggot in a cherry, but occasionally two, three, or even four may be found.

The maggots are ordinarily glossy white in color, though some are cream or even yellow. They are about one-quarter of an inch long when full grown, scarcely so thick as a knitting needle, tapering sharply towards one end and

blunt at the other. They have no legs and no head, but at the small end are two little black hooks that they can protrude and retract at will, and with which they tear the pulp to free the juice. The maggots devour only the juice.

Another source of injury due to these insects comes from the fact that infested cherries as they ripen are commonly attacked by Brown Rot, and then spread the disease to neighboring cherries. Moreover, the sale of wormy cherries injures the market for good cherries.

SUSCEPTIBLE VARIETIES

The cherries worst attacked are Montmorency and all sour cherries that ripen as late or later than these, also all late sweet varieties. Early varieties, like Early Richmond, are almost immune, probably because they are nearly ripe before the flies are ready to lay eggs, and because the flies prefer to lay eggs in green cherries or those just beginning to color.

Not all the orchards in the Niagara districts are attacked, but many are, and a considerable percentage of these are among the very best orchards in the country. The amount of injury varies from year to year greatly. Some infested orchards will have only about five per cent. of the fruit wormy; others equally as well cared for will have ninety-five per

cent. It is not an uncommon occurrence to find beautiful Montmorency cherry orchards so badly infested that the fruit is not picked. Some growers, especially in towns, have become so discouraged that they have cut down part of their orchards. It was clear, therefore, to me that if I wanted to help cherry growers I could not do so in any better way than by trying to find a remedy for this pest.

WHEN DISCOVERED

The first discovery of Cherry Fruit Flies in Ontario as the cause of wormy cherries was made by me near St. Catharines in 1910. Only one species, which because of the white cross bands on its abdomen I shall call the White-banded Cherry Fruit Fly, was discovered on that occasion. In 1912 I discovered in the same locality, but in a different orchard, another species resembling closely the former, but easily distinguished by having the abdomen entirely black, without any of the above-mentioned white cross bands. This species I, therefore, purpose to call the Black-bodied Cherry Fruit Fly. Both species of flies have undoubtedly been in the province for many years, but no one ever knew what they were hitherto.

As both flies can be easily seen on the leaves or fruit of the cherry in any in-

*An address delivered at the recent convention in Toronto of the Ontario Fruit Growers' Association.



Members of the Wentworth Fruit Growers' Association Loading a Car of Apples for the United Relief Association of Hamilton, an Organization That Looks After the Poor of the City.

This association has had a successful season. Over 13,000 barrels of apples were handled, of which 2,000 were exported and the balance sold in the west at a good average price. The members will receive from 75 cts. to \$1.50 a barrel picked on ground according to the commercial value of their apples from No. 2 Greenings to No. 1 Spys.