

## **Insecticides are Necessary for Maggot-free Cherries**

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The cherry fruit fly (also called the cherry maggot) is a native fly that feeds exclusively on cherries. The earliest records of eastern cherries being attacked by fruit flies dates from 1883 [1]. The flies infest mature or maturing cherries one to three weeks before harvest by depositing individual eggs inside the fruit. Eggs hatch in 3-7 days and young maggots feed on cherry flesh, mainly around the pit. Larval tunnels extend throughout the infested fruit.

Mature larvae make breathing holes and eventually drop to the ground and penetrate to a depth of 1 to 6 inches for pupation. Pupae spend 9-10 months in the soil and emerge as adults the following spring. 4,000-5,000 adult flies can emerge from the soil under each tree [2]. Each female may deposit 100 to 300 eggs under the fruit skin over a period of thirty days. Maggots and their frass within the fruit render the product unfit for sale [3]. If left untreated, nearly 100% fruit damage can occur [4].

Truckload quantities and even entire blocks of fruit may be rejected if any larvae from fruit fly are found. In the 1930s, the standard for No. 1 cherries allowed up to seven larvae in a 30-pound tin. Additional larvae meant a reduction to No. 2 grade. Now, there is zero tolerance for cherry fruit fly mandated by state and federal law and by the marketplace [5]. The zero tolerance for fruit flies has required that growers maintain intensive insecticide control programs to achieve perfect control [6]. Control of cherry fruit flies with insecticides must be preventative in nature. Once eggs hatch and larvae bore into the cherry, the damage is irreversible.

Without effective insecticides for cherry fruit fly control, the eastern cherry region would likely not be able to produce and market maggot free fruit within just a few years. The overall result of not having or using effective insecticides for cherry insect pests would be a rapid demise of the cherry industry in the eastern U.S. because of the inability to produce market acceptable, maggot-free fruit [7].

### **References**

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Cherry fruit fly



Maggot infested cherries



Cherry fruit fly larvae inside cherry, above and below

