

*Rhagoletis pomonella* (Walsh)

# Apple Maggot



Photo by Phil Huntley-Franck,

## HOST

Apple maggots infest apples, pears, plums, apricots, hawthorns and crabapples. They are a major problem in the midwestern and eastern United States and eastern Canada.

## LIFE HISTORY

**Egg:** The egg is whitish, small, smooth, elongated and slightly curved. Eggs are rarely seen because they are laid beneath the skin of the host fruit.

**Larva:** The apple maggot larva is a typical fly larva. It is cylindrical, tapering from a blunt posterior to a pointed head and has no legs. The mature larva is creamy white except for two dark mouth hooks and is 1/4 to 3/8 inch long. The larva tunnels through apple flesh and can be distinguished from other insect larvae found in apples by its lack of a distinct head capsule.

**Pupa:** The pupa looks like a large, dark brown grain of wheat. It is usually found within the top 2 inches of soil beneath infested trees.

**Adult:** The apple maggot fly is about the size of a common housefly. Its body is black, its eyes are dark red, and the thorax and abdomen have distinctive white or cream markings. The male has a blunt abdomen with three white stripes, while the female's more pointed abdomen has four white stripes. A characteristic banding pattern on its wings distinguishes it from most other *Rhagoletis* species except the snowberry maggot (*R. zephyria*), which is found throughout the western United States.

## DAMAGE

Apple maggot larvae feed on fruit and, if left unchecked, can damage almost all the fruit on an infested tree. Even the presence of small numbers of apple maggot adults can result in heavily damaged apple crops. When eggs are deposited under the fruit skin the cells surrounding the puncture are damaged. As the apple grows it becomes dimpled and lumpy. This is more evident in apples attacked early in the season. Feeding larvae leave brown trails throughout the apple flesh. When multiple larvae feed on a fruit, the flesh often turns mushy and the apple drops early. In hard, later maturing apples, internal breakdown may not be apparent until after the apple falls.



Photo by R. Kriner, Washington State University



Photo by Whitney Cranshaw, Colorado State University, bugwood.org



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