

PEST ALERT

WEST VIRGINIA DEPARTMENT OF AGRICULTURE

Gus R. Douglass, Commissioner

Blueberry Fruit Fly

Rhagoletis mendax Curran



Adult blueberry fruit fly laying eggs on blueberry fruit. (U. of Maine Ext.)



Adult blueberry fruit fly laying eggs on blueberry fruit. (USDA-ARS)



Blueberry fruit fly maggot feeding on blueberry fruit. (USDA-ARS)



Drawing of blueberry fruit fly maggot. Like most fruit flies, it lacks prolegs and a hardened head capsule.

The blueberry fruit fly, *Rhagoletis mendax* Curran, also known as the blueberry maggot, is a serious pest of blueberries in Canada and the Eastern United States. Originally detected in Maine and New Hampshire in 1914, this pest has spread into the North Central United States and as far south as Florida and Georgia.

Life Cycle

The blueberry fruit fly overwinters as a pupa in the soil. In Florida and Georgia, adult flies appear about late May and persist until late July. Adults forage for a period of one to two weeks before mating and laying eggs. Normally, a single egg is laid into a berry. Females produce 25 to 100 eggs over a period of 15 to 30 days. Eggs incubate for three to 10 days before hatching to produce maggots, or larvae. Larvae feed in the fruit pulp for period of 17 to 22 days while passing through two molts. After feeding, the larvae drop to the ground, enter the soil, and pupate a few inches below the surface. In northern states, most pupae overwinter only until the following season, but some pupae may remain in the soil for up to five years before metamorphosing to the adult stage.

Damage

The blueberry fruit fly causes moderate to severe damage to fruit, in the form of scarring and/or greatly increased rate of decay. Adult egg laying damage may not be noticeable, even in a heavy infestation, but once larvae begin feeding, the fruit will show signs of decomposition and feeding damage. Often a single maggot can completely devour an entire fruit in the course of its development.

Host Plants

Hosts include lowbush blueberry, highbush blueberry, sourtop blueberry, hillside blueberry, deerberry, lingonberry, black huckleberry, dangleberry and dwarf huckleberry.

For more information or to report suspected infestations, contact:

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