

# Mediterranean Fruit Fly

**Background** – Invasive species are organisms that are moved by nature, people, or animals into an ecosystem where they have not been previously found. Some of these organisms are spread naturally or accidentally by people, while others are spread intentionally, without understanding the harm they might cause. Although most of the organisms brought into our state cause no harm, a few are able to thrive in California to the detriment of native ecosystems, recreation, agriculture, including specialty crops, infrastructure, and public or animal health. These invasive species include plants and animals, insects and other arthropods, and pathogens.

**Description:** The Mediterranean fruit fly or Medfly has been called one of the world's most destructive pests. It is a little smaller than a house fly, with a short body about one-quarter inch long. It has a blackish colored mid-section marked with silver and a tan abdomen with dark stripes. Its wings are clear with light brown bands and gray flecks near the base.

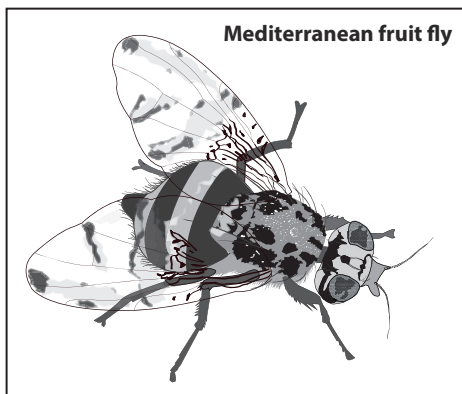
Medfly eggs are tiny, white, and banana-shaped. Larvae that hatch from eggs look like small carrot-shaped worms before they enter their resting stage, called a pupa, which looks like a brown grain of rice. A Medfly can develop from an egg into an adult in about two and a half months depending on the weather.

**Habitat:** The Mediterranean fruit fly is originally from Africa, but has spread to many other parts of the world including Europe, Australia, Central America, and South America. Medflies need fruit or vegetable plants to survive. The female lays her eggs inside fruit growing on a tree or vine. The fruit is destroyed when the eggs hatch and develop into larvae, also called maggots, which eat the fruit pulp. After the infected fruit falls to the ground, maggots leave the fruit and burrow into the ground where they develop into adult flies. The adult comes out of the ground to start the cycle again. Each fruit fly can lay about 300 eggs.

**How it spreads:** The Medfly "hitchhikes" to California from infested areas. It comes into the state in three main ways: through mailed packages of fruit, fruit smuggling, and tourists bringing fruit back from a trip.

**Why it is a problem:** The Medfly can live in a variety of climates and in a large variety of plants. It can attack more

fruits, nuts, and vegetables than any other fruit fly. If Medflies become established in California, both home gardens and farm crops would be at risk for infestations. Shoppers would pay more for fruits, nuts, and vegetables because of higher production costs and damaged crops. The Medfly can attack more than 250 fruits, vegetables, and nuts.



**How it affects California specialty crops:** Many of the affected crops are California specialty crops. Specialty crops are fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops (including floriculture). Many of the fruits, nuts, and vegetables eaten in the United States are grown right here in California. The

Medfly can attack more than 250 California plants, including: apple, apricot, avocado, bell pepper, citrus, date, fig, grape, grapefruit, guava, mango, nectarine, orange, papaya, peach, pear, persimmon, plum, pomegranate, tangerine, tomato, and walnut.

**How you can help:** Preventing Medflies from coming into California is the best way to control this invasive pest. Make sure you don't bring fruit or vegetables to California that you purchased when on vacation out of the state or country. If you find infested fruit or vegetables, place them in a sealed container and take it to your county agriculture commissioner's office. When Medflies are found, regulators limit the movement of fresh fruits and vegetables within the area. One way inspectors control the number of Medflies is to breed male flies that are infertile in the laboratory. These males are then released. When they breed with females, they are not able to produce offspring and over time, the number of flies drastically drops. Inspectors may also spray trees to prevent an outbreak of Medflies in an area where the flies have been detected. Traps can be put out in trees to keep track of how many flies are in the area.

For Additional Information:  
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