



# Arizona Department of Agriculture Plant Services Division

## Exotic Pest Fruit Flies Not Wanted In Arizona

True fruit flies (Diptera: Tephritidae) are among the most diverse groups of insects with more than 4000 species worldwide. Most of these feed on the fruits (thus the name) of native plants or weeds and go unnoticed by the casual observer. However, about 90 species of fruit flies around the world are considered serious pests of commercial agriculture, and of these, six exotic species pose a significant threat to Arizona's crops.

These six fruit flies (outlined below) lay their eggs in more than 400 different kinds of fruits and vegetables, many of which are important commercial crops in Arizona such as citrus, apples, melons, and stone fruits. The immature stages (maggots) go through several growth stages feeding inside the fruit, destroying marketability.

### Mediterranean fruit fly (*Ceratitis capitata*)

**Distribution:** Native to Africa, but has spread to Europe, Australia and the New World Tropics. It has been regularly trapped in California.

**Description:** Adults are short, squat and 3.5-5mm (.25") in length. The wings are distinctly pattern with two light brown bands across the wing, gray flecks near the base.



**Host:** Largest known host range of any pest fruit fly, including apple, stone fruits, citrus, grapes, avocado, and pomegranate.



United States Department of Agriculture

### Mexican Fruit Fly (*Anastrepha ludens*)

**Distribution:** Found in Mexico, Central America, and northern South America. It has been found in southern Texas and southern California and occasionally in Florida.

**Description:** Adults are yellowish-brown with green eyes and 7-10mm (.38") in length. The wings are distinctly marked with yellow and brown looping stripes. Female flies have an ovipositor



sheath that is longer than the abdomen.

**Host:** Known to feed on many different fruits, but optimal hosts are grapefruit, other citrus, mango, peach, and avocado.



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Entomology Web Sheet– Exotic Pest Fruit Flies

**Caribbean Fruit Fly (*Anastrepha suspensa*)**

**Distribution:** Found in Cuba, Jamaica, Hispaniola, Puerto Rico, south and central Florida.

**Description:** Adults are yellowish-brown with green eyes and are 7-10mm (.38") in length. The wings are distinctly marked with brown looping stripes. Female flies have an ovipositor sheath that



is as long as the abdomen.

**Host:** Known to feed on many hosts, including: apple, avocado, bell pepper, citrus, date palm, stone fruits and pomegranate.



Florida Div. of Plant Industry Archive,  
Florida Dept. of Agriculture and  
Consumer Services, Bugwood.org

**Oriental Fruit Fly (*Bactrocera dorsalis*)**

**Distribution:** Native to Southern Asia, and is restricted in the United States to Hawaii.

**Description:** Adults are usually bright yellow and 8mm (.38") in length. The abdomen has a dark "T" shaped marking and the wings are mostly clear. Female flies have an ovipositor sheath that is pointed and narrow.



**Host:** Has over 230 potential hosts, including: citrus, apple, avocado, bell pepper, fig, melons, pomegranate, tomato and walnut.



**Melon Fruit Fly (*Bactrocera curcurbitae*)**

**Distribution:** Native to Asia, but has spread to Africa and Pacific islands. It has been detected and eradicated in California.

**Description:** Adults are orange-brown and 6-8mm (.38") in length. The abdomen has a faint "T" shaped marking and the wings are mostly clear, with a dark spot at the distal edge.



**Host:** Most commonly attacks melons, cucumbers, squash, and gourds.



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**Apple Maggot (*Rhagoletis pomonella*)**

**Distribution:** Native to North America, established in central and eastern United States, Washington, Oregon, California, Utah and Colorado.

**Description:** Adults have black and white bands on the abdomen and are 5-6mm (.3") in length. Wings are marked with four black bands.

**Host:** Known to feed on apples, cherries, plums, cranberry, peach and crab apples.



Central Science Laboratory, Harpenden Archive, British Crown, Bugwood.org

**Walnut Husk Fly (*Rhagoletis completa*)**

**Distribution:** Native to North America, east of the Rocky Mountains. Spread to Pacific Northwest in 1950s and is currently detected in California.

**Description:** Adult is light brown with light stripes across the abdomen and 7-8mm (.38") in length. Wings are marked with four black bands.

**Host:** Principal host is *Juglans* spp. (walnuts).



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Unless otherwise noted, all photographs in this document were taken by Arizona Department of Agriculture – Plant Services Division – Entomology

For more information, please contact your local Agricultural extension office.