



Vinegar Flies, Pomace Flies or Fruit Flies

Injury and Nuisance: Flies in the family Drosophilidae are often called vinegar flies, pomace flies or fruit flies *Drosophila* sp. In houses the flies are found around overripe fruits and vegetables, especially when they begin to ferment. They may also be attracted to bread or other baked goods containing yeast, and to beverages including fruit juices, soda pop, beer, and to vinegar. On occasion you may see one on a moist wash cloth or sponge near the sink getting a drink of water. Several species of this group have been used in studies of genetics and heredity by scientists because of the ease in culturing them and their short life span.



Fig. 1. Adult fruit flies, *Drosophila* sp. Note the red eyes, which are common in many species. (Photograph courtesy of © The Exploratorium www.exploratorium.edu)

Description: The flies (**Fig. 1**) are relatively small, 3-4 mm (about 1/8") in length, and brownish to yellowish in color. Many species have red eyes. They generally are found around decaying vegetables and fruits. The larvae are seldom seen, but occur inside the decaying food. Larvae are whitish in color and worm-like in appearance.

Life Cycle: Eggs are deposited by the adults on the surface of the soft food on which the larvae will feed. The eggs hatch and the maggot-like larvae begin to feed on the host plant material. The life cycle can be completed in 10 days when temperatures are in the mid to upper 70°s, however, at 68°F. it may take 15 days. The larvae transform into puparium while adhering to some relatively dry surface near the food source. A few days later the adult flies emerge, at first light in color but on exposure to air, the color darkens.

Management: The discovery and removal of the breeding site is usually necessary to eliminate these insects. A few overlooked sources

in houses may include: small quantities of milk, soft drinks, catsup and the like left in the bottoms of bottles, sour dish cloths or floor mops stored away in a closet, home canned foods that may be fermenting, fermenting cider and fruit juices. Check vegetable and fruit storage bins as well to be sure there was nothing overlooked. Fermenting and decaying food items should be discarded.

Adult flies may be present for a few days even after the source of them is removed. Remember to discard garbage regularly and to wash out garbage containers if spills occur in them.

Use traps first; baited and sticky traps are available. **Home remedy*:** make a trap by putting a funnel into the opening of a jar, and put a bit of ripe banana sprinkled with yeast in the bottom of the jar – use about 10 days, then replace.

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***Home Remedy:** Although gardeners claim that certain herbs, onions, garlic, and other plants will repel insects, evidence for such claims is scarce. Numerous commonly available products such as vegetable cooking oils, soap, and baking soda have pesticidal properties as do concoctions made from plant extracts such as mint, citrus peel, and marigolds. Both state and federal regulatory agencies prohibit their use on a commercial basis (even though they are environmentally safe and inexpensive); to comply with these regulations we are obliged to refrain from recommending them in most cases. We do list a few home remedies in this publication, but these remedies are *not* endorsements by Cornell University of any product or procedure, nor are they recommendations for use either express or implied. Neither Cornell University nor its employees or agents is responsible for any injury or damage to person or property arising from the use of this information.

The New York State Department of Environmental Conservation (NYSDEC) Bureau of Pest Management maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested in this diagnostic report at <http://www.dec.ny.gov/nyspad/products?0>. This replaces the no longer updated (as of August 15, 2016) PIMS website (<http://pims.psur.cornell.edu/>).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (NYSDEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional NYSDEC office. Read the label before applying any pesticide.

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