



UC Marin Master Gardeners
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Advice to Grow By ... Ask Us!

THERE'S A FLY IN YOUR OINTMENT

By Barbara Levinson, Marin Master Gardener

Spring and summer often bring an onslaught of some of our least favorite insects. Tops on my list are flies! Flies are members of the insect order Diptera that includes mosquitoes, fruit flies, and the appropriately names "filth-breeding flies" as well as beneficials like robber flies and flower flies. All flies have one pair of wings unlike most other insects that have two pairs of wings. Let's focus on some of the most common species:



Fruit flies (*Drosophila* sp.) appear small and innocuous, but a few species have a devastating impact on agriculture and even to the home garden. As Steve Swain said, the "spotted wing drosophila (*D. suzukii*) is doing its best to bring the specialty fruit crops industry to its knees." It is also a significant problem for Marin gardeners who are trying to raise cherries or cranberries. Similarly another exotic bad guy is the olive fruit fly (*Bactrocera oleae*), which was introduced to California in 1998 and is damaging both commercial olive groves and home landscapes.

Filth flies are commonly encountered around livestock or the household. These flies lay their eggs in "filth" such as manure, garbage, and other warm organic material including bodies of dead animals; for this reason all are capable of spreading diseases such as dysentery. Their life cycle (from egg to maggot to pupa to adult) can be as rapid as a week, depending on the temperature.

The most common filth fly in our area is the housefly (*Musca domestica*). Its tremendous breeding potential (and no lack of filth) make it one of the most common insects in the world. Eggs are deposited in clusters of 75-100 and can hatch in 24 hours. The maggots then feed for 3-4 days, pupate and emerge as adults. This process can be as short as a week. The adults live about 30 days, are strong fliers and can migrate several miles from their birthplace.

The adult housefly feeds using its sponging-type mouthparts moving from one food source to another, sampling and eating by regurgitating liquid onto food to liquefy it. Not a pretty thought!! Light colored spots called flyspecks are signs of this type of feeding while darker flyspecks are fecal spots. The housefly's feeding and breeding habits along with its ability to invade homes and feed on human food enable it to spread a variety of intestinal diseases.

Filth flies more commonly associated with livestock and dead animals include blowflies and bottle flies in the family *Calliphoridae*. The adults are typically bottle green or metallic blue and though pretty, they can also spread intestinal diseases. Flies in the genus *Sarcophagida* are "flesh flies." Their maggots feed on dead rodents and birds, in attics or walls of houses (that you have no idea are there). Have you ever walked into a room and suddenly find what seem like hundreds of flies buzzing around? These flesh flies are probably the culprits.

What can we do to control these unwelcome guests?

- * There's nothing a filth fly likes less than proper **sanitation**. Adult flies need a place to lay their eggs, and a clean home and yard just won't appeal to mama fly. Clean up all pet and animal feces promptly, dispose of kitchen scraps and other organic waste promptly and properly. If you save your kitchen waste for composting (which all good Marin Master Gardeners do!0, you can add sawdust to help absorb moisture and odors that attract flies, or keep the waste in a tightly covered receptacle. Remember, no meat or animal wastes go into your compost!
- * **Exclude** flies from your home using screens around any open windows, doors or vents. Also seal windows and doors tightly so those sneaky pests can't wiggle through into your home.
- * **Mechanical controls** include using a fly swatter, sticky flypaper or other flytraps; non-pesticide attractants may be effective indoors, while traps emitting bad smells or ultraviolet (UV) light are better suited for outdoor use.
- * **And finally, there are an array of pesticides that can work but this should be the last option used in your arsenal.**
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Good luck in this endless contest against "Super-fly"! Do remember these flies provide valuable ecological services. They're friends, just not ones we want over for dinner.