

## FILTH FLIES in Residential Areas

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The housefly, *Musca domestica* (Family Muscidae), is one of the most cosmopolitan of insects and has been indicted as a pest for centuries. The housefly measures 4-7½ mm long and can be distinguished from other similar flies by the 4 dark stripes on the thorax and the yellowish abdomen with dark markings. The housefly can transmit dozens of diseases, including diarrhea, dysentery, polio, typhoid and *Salmonella*, if the fly comes in contact with the pathogen and then “passively” moves the organism into contact with humans. These diseases can also be spread (perhaps just as easily) by skin contact or in contaminated food or water.

Houseflies are called “filth flies” because of their habit of breeding in excrement or rotting plant materials. Housefly populations can build up to huge numbers depending on the magnitude of the food source and can be particularly troublesome around poorly managed poultry or other livestock operations where dung accumulates and is saturated with moisture.

**Life Cycle:** The adult female lays eggs in a suitable habitat. If the weather is warm and adequate moisture is present in their food source, the eggs hatch within a day. The larvae go through three stages and then pupate within a week. As pupation approaches, the larvae seek out a site considerable distances from the food source. This may explain some of the unusual places housefly pupae are found (e.g., living rooms, garage floors, etc.). The pupal stage typically lasts 4-6 days. Adult flies can survive 15-25 days before dying. Houseflies may even overwinter as adults in some areas, but in the Pacific Northwest they generally overwinter in the pupal stage. Under ideal conditions, a housefly may complete its lifecycle in about 8 days. Given this short lifecycle, the potential for the fly population to increase is enormous.



Housefly life cycle

Several other species of filth flies related to the housefly can plague residential areas. These flies include look-alikes such as the face fly, which lays its eggs in undisturbed cow droppings, and the stable fly, which lays its eggs in rotting vegetation such as grass clippings, urine saturated straw, or decaying fruit. The face fly is believed to transmit pink eye in cattle. The stable fly is a fierce biter, which adds a little pain to its nuisance status. Another fly that resembles houseflies in appearance and breeding habits is the little housefly, which has an interesting habit of hovering in groups in door or entryways.

Finally, one other “filth fly” from a different family (Family Scatopsidae) that is commonly submitted to our diagnostic laboratory for identification is called the minute black scavenger fly. This fly is often found where human excrement (a major breeding site) is available (e.g., privies, unwashed diapers, etc.). These flies are quite small (no larger than 3 mm) and are brown or black in color.

**Management:** The best control or management strategy for these flies is sanitation-identifying and removing feeding and breeding sites. If the breeding site is unidentifiable or unreachable (these flies can fly 1-2 miles from their breeding site), then window and door screens should be installed to help prevent entry of the flies into living spaces. Be careful where you place vegetation waste relative to doorways, etc. so as not to attract flies to these areas. Fly traps are commercially available as are household fly sprays. Sprays are typically employed as a last resort since they do not provide long term management and they should not be used around food or in areas where food is prepared. Do not use “zapper” traps outdoors as they kill mostly beneficial insects and often draw in other unwanted pests to your yard that may have never come to the area otherwise.

#### References

- Borror, D.J. and D.W. DeLong. An Introduction to the Study of Insects. 1964. Holt, Rhinehart and Winston. 81pp.
- Ebling, W. Urban Entomology. 1975. University of California Press. 695pp.