

FLY INFORMATION

During the warm months of the year, each person likely has at least one encounter with a fly every day, even if it is as simple as noticing one flying by. In extreme cases, a homeowner or business experiences a serious fly invasion; one where the services of a pest professional may be needed.



Flies belong to the order Diptera with more than 150,000 species described thus far worldwide. Within structures, flies are considered a nuisance first and serve as a health concern when found in food production or health-care environments.

Some of our most frustrating days will involve flies, and attempting to discover the locations or breeding sites and other conditions conducive to the infestation. Other fly issues are more easily answered. But the solutions always come back to the type of fly involved. Hopefully this handout will provide a few tips for key pest flies and how to try and prevent them coming into your home or business.

In most situations, flies seen inside buildings are entering from outdoors and the steps taken by your pest management technician to eradicate them may not immediately cease fly activity in your premises, however flies that come into contact with treated surfaces will continue to be exterminated.

For the following reasons:

HYGIENE AND HOUSEKEEPING

Hygiene is the key in eliminating fly infestations - pure and simple. Hygiene removes the food supply (breeding source) for the larval stage and eliminates odours that attract the adult flies. These efforts should be increased during warm weather when fly activity is generally highest. It is helpful to develop deep cleaning schedules and periodic movement of equipment to facilitate removal of built-up food sources that become the breeding site for flies.

GARBAGE (FOOD REFUSE) DISPOSAL

Garbage cans without lids or with loose-fitting lids can be a major fly breeding source.

WASTE DISPOSAL SYSTEM

Skip Bin/Dumpsters should be placed as far away from the door as is practical otherwise flies may gain entrance to the establishment "en masse" when the back door is opened.

ANIMAL MANURE

Dog manure in yards is a common source for house flies around homes.

ADJACENT PROPERTIES

Whenever possible and permissible, adjacent properties should be examined for fly breeding sources. Even though it is known that some flies are capable of flying a long distance, typically most, if not all, of the flies found in and around a restaurant or other building originate from fly breeding sources on or near that property.

Where a house or building is located also may play a role in the numbers of house flies seen around/entering a building. Structures near farms where livestock are present are more prone to house flies, face flies, little house flies and even stable flies — all of which breed in fresh animal manure. The building doesn't even need to be adjacent to the farm as house flies are capable of flying three to five kilometres, attracted by odours or other factors.

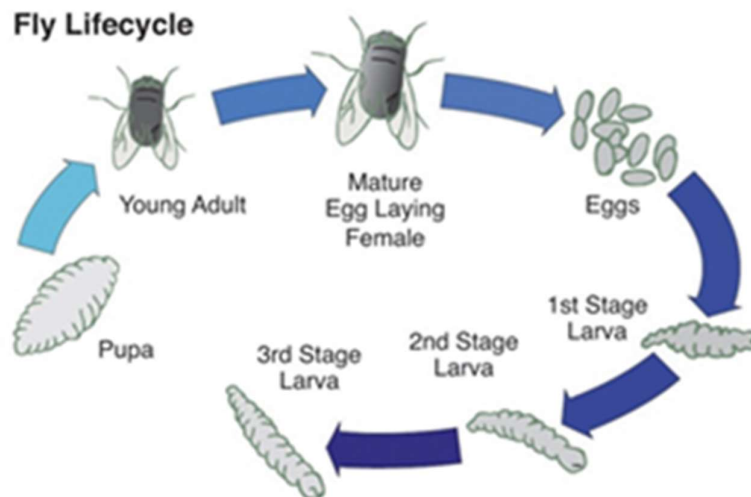
EXCLUSION

Doors should not be propped open and when opened, should close within a few seconds. If ventilation is needed, such as seen with overhead doors in warehouses during summer, doors should be equipped with tight-fitting screens. Use of plastic curtains on overhead doors can help exclude flies where the doors are used frequently.

Alfresco dining at cafes and restaurants during the day will lead to a continued influx of flies, attracted by the cooking in the kitchen, whilst the doors are open.

LIKE CYCLE

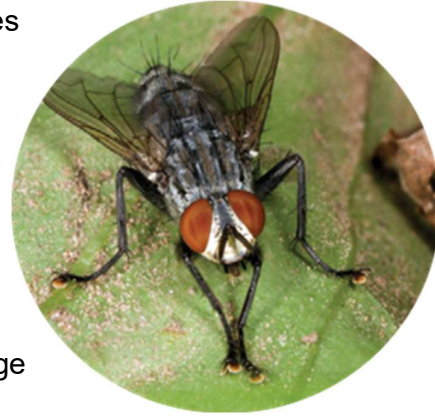
All flies have legless larvae and pass through four stages of development; egg, larva, pupa and adult. Given the right environment many species breed throughout the year, and the larvae of many flies develop within food.



FILTH FLIES

In most situations, blow flies, bottle flies, and flesh flies seen inside buildings are entering from outdoors and steps carried out by your technician and outlined above should be employed to control these invasions.

A sudden appearance of a large number of these flies or their larvae inside a building is an indication of a breeding site within the structure, usually a dead animal of some kind or possibly the inside of a garbage container.



In one case it was found a mouse carcass in which blow fly larvae, produced upon pupation and subsequent emergence, 123 adult blowflies had developed in that single mouse.

Finding and removing the breeding medium is paramount to success in controlling the flies. Removal of the animal/breeding source, however, will not necessarily result in the flies being eliminated.

Blow fly larvae crawl out of the breeding site to pupate and may be located a number of feet away in voids, under carpets, etc. It is not uncommon during an inspection to find a number of fly pupae in the corners of a room. After the breeding source is removed, new adult flies may emerge from these pupae. It is important to attempt to find these pupae and remove them by vacuuming.

FRUIT FLIES

Freshly Decaying Materials

A number of different fruit fly species (family Drosophilidae) may be found infesting homes, restaurants and other buildings. Fruit fly larvae feed on yeasts that develop in freshly decaying organic materials, usually those containing sugars. The first place to look is where fresh fruits and vegetables are stored outside of coolers. Experience has shown that a single onion, potato, lemon or banana can serve as a breeding site for fruit flies. From there, check trash cans, recycling bins and for pieces of fruit or vegetables kicked under tables or appliances. Don't be surprised to find restaurant employees tossing half-eaten bananas or other fruit behind appliances, into false ceilings or onto the top of walk-in coolers.



Bacterial Cleaning Products

Obviously, the key to minimizing fruit fly infestations is through good sanitation practices. The varying levels of cleaning and maintenance in kitchens complicates the efforts for effective fruit fly management. Converting cleaning materials to the use of a bacteria-based cleaning product, which can be highly beneficial for fruit fly control.

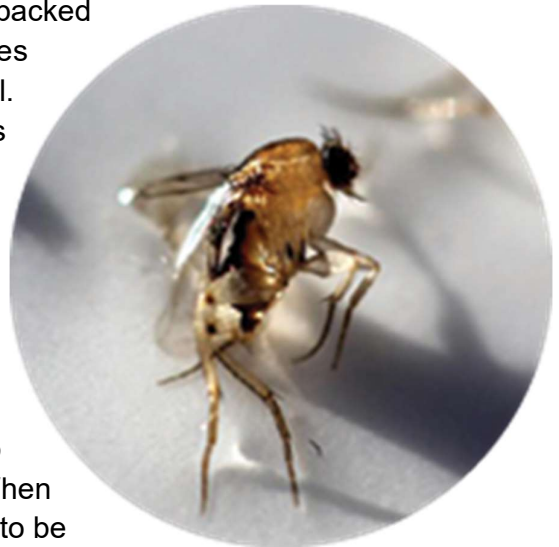
The types and numbers of bacteria vary by product but all are designed to attack and consume sugars, greases and proteins present in the organic build-ups in drains and on floors that support fruit, phorid and moth flies.

Properly used, bacterial cleaning products deny fly larvae the foods they need to thrive and so, over time, fly populations plummet. Elimination of flies may not occur just with the use of such products alone if fruit flies are breeding in trash cans, recycle bins or other sites where bacterial products are not contacting.

For the bacteria to perform their job, the customer must refrain from using standard cleaning products, drain cleaners or bleach on floors and drains. Such chemicals will kill the bacteria. Additionally, customers should be advised that results may take a week or two. Consult the manufacturer of the bacterial cleaning product of choice for specific information on gaining the best results with each product.

PHORID FLIES

1. Breeding Sites Highly Varied. Phorid, or humpbacked flies, (family Phoridae) are a large group of small flies known to exploit a large variety of breeding material. Although they can be found living in the same types of decaying organic matter as fruit flies, phorid flies can breed in materials in a high degree of decay, particularly in drains and drain lines, contaminated soil, rotting vegetation and dead animals. I once traced a phorid fly infestation back to an open pail of organic glue used in a bookbinding factory. In another case, the flies were found breeding in wet flour that had washed up into cracks beneath the equipment in a small bakery. When dealing with phorid flies, your inspections will need to be more far-ranging than those involving fruit flies.



HOW TO PREVENT FLIES AROUND THE HOME

- Always clean up any food and don't leave any sitting out. Store food in sealed containers. Tie your garbage bags tightly and remove garbage from your house frequently.
- Flies will lay their eggs in your pet's food as well, so make sure you change their food fully and don't just top it up. Keep the dish covered when not in use.
- Clean out garbage cans thoroughly. Using bleach is probably your best bet. Make sure their lids are always sealed tight.
- If you compost, be sure to keep it completely sealed.
- If you have a dog, be sure to keep your yard free of dog poop.
- Seal any holes in your screens and doors to help keep them out. They always find a way to sneak in though, don't they?

HOW TO GET RID OF MAGGOTS AROUND THE HOME

This can depend on your personal preference, as you can use chemical products or do it naturally.

- Remove all food sources, and the flies will lay their eggs elsewhere.
- Pour boiling water over maggots to kill them instantly. If you want, you can add a cup of bleach and 1 1/2 cups of hydrogen peroxide to a gallon of boiling water.
- Dish soap works great as an insect repellent and/or insecticide. Most dish soaps contain a little borax, which is the active ingredient.
- Natural fly repellents include vodka, aromatic herbs like lavender, basil, and bay leaf, lemongrass oil, cloves, witch hazel, apple cider vinegar, and camphor or citronella smoke.
- You can make a trap to catch the flies, hopefully before they lay eggs. Fill the bottom of a container with a couple inches of water, then add some smelly bait and a couple drops of liquid dish soap.
- There are certain plants you can plant around your home like marigold, chrysanthemum, lavender, and tansy, which will help keep flies away. (Don't forget the venus flytrap, a carnivorous plant that loves to eat flies, which is a spectacular—if not exactly effective—way to do it!)
- Use an electronic fly traps that plug into your outlets or a fly zapper. These emit a white UV light that attracts flying insects, then zaps them with

electricity. Be careful to use these indoors, and only when needed, because they kill all kinds of flying insects, even ones that we really need.

- If you choose to get rid of them chemically, use a product which contains permethrin, a chemical that is used as an insecticide. For example Raid, which we're all probably familiar with, is a popular insecticide that is used in households, or call your NZ Pest Technician.

SUMMARY

Flies are adaptable creatures and nothing should ever surprise you. Just remember that the flies we deal with all require moist, decaying organic materials of some kind to breed.

Finding where these exist in and around a building and confirming which spots are being exploited by your pest fly is always a challenge. The customer and their maintenance staff can help identify plumbing and maintenance issues and become involved in cleaning up and making necessary repairs. Otherwise, flies will persist and your customers may be unhappy with the problem.