



Control Measures

- ✓ Employing good sanitation practices is important in ensuring adequate fly control. Garbage bins must be securely covered and their contents emptied regularly. Garbage must be delivered to the local municipal authorities, burned or buried. A critical point in any fly control programme is the identification and destruction of breeding sites.
- ✓ Wash-water or liquid food must not be channeled into or deposited in the soil. Restaurants or kitchens in the hospitality industry must be free of food scraps and grease.
- ✓ The use of physical barriers may be necessary to prevent flies from entering food areas. Screens of 18 and 12 openings per linear inch are adequate barriers for small and large flies respectively. An air stream, no less than 1,600 ft./min., will exclude flies from entering food establishments.
- ✓ Only insecticide active ingredients approved by the Food Storage and Prevention of Infestation Division may be used in food and food-related areas to control flies. In addition to this, only the approved control practices should be employed.

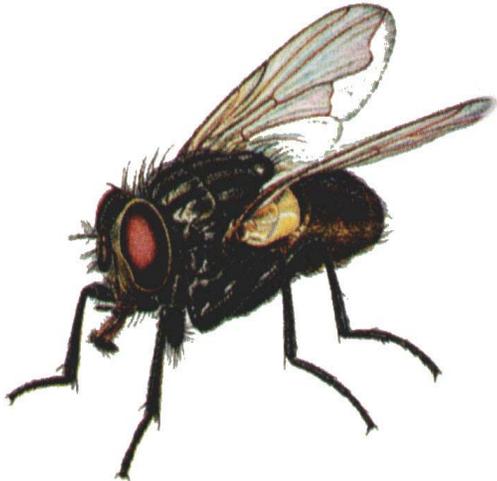


**Ministry of Industry,
Investment and
Commerce**

**Food Storage and Prevention
of Infestation Division**

Ensuring Safety and Wholesomeness

FACTS ABOUT FLIES



For further information please contact:

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Overview

- Flies are insects having one pair of wings, which are used for flying.
- They require warm, moist areas to lay their eggs.
- Adult flies have mouthparts which are adapted for feeding on liquid meals whereas their maggots (larvae) can feed on solid food.
- About 50,000 species of flies have been described but only a few are of domestic importance. Among these are:
 1. The house fly, *Musca domestica*;
 2. The blow and blue bottle flies e.g., *Phormia* & *Calliphora* spp.;
 3. The stable fly, *Stomoxys calcitrans*;
 4. The flesh flies e.g., *Sarcophaga* spp.;
 5. The lesser house fly and the latrine fly, *Fannia* spp.;
 6. The fruit fly, *Drosophila melanogaster*.

Distribution and Public Health Importance

Flies have a nasty habit of feeding in filthy places such as garbage, sewers and on faeces.

While feeding they pick up disease causing organisms on their mouthparts and hairy bodies. These are then transferred to food, utensils and food preparation surfaces through their vomit, excreta or shed from the body as they rest.

Flies therefore, can pass on illnesses such as typhoid, dysentery, “summer diarrhoea”, gastroenteritis, tuberculosis and cholera. Disease organisms, which may be transmitted, include tapeworm, pinworm, roundworm, hookworm and whipworm.

Fly spotting, produced when the insects feed or defaecate, will cause food to be rejected by the consumer.

Habits

Common house flies are 6-8 mm (1/4 – 1/3 inches) long and dull gray. They are extremely active in home environs and are often nuisances. Indoors they will rest on floors, ceilings and walls.

Lesser house flies frequent poultry houses but will also occupy cool areas of the home. They are erratic fliers and will often be found around light fixtures. Common house flies and lesser house flies both settle on foodstuffs and thus can spread disease.

Stable flies are commonly found around stables and houses. They will use their mouthparts to pierce the skin of persons and animals and suck blood. Their bite is painful and will serve to limit outdoor human activity.

Flesh flies are often numerous in populated areas but rarely enter houses or food establishments in large numbers. Females will lay living larvae (not eggs) on meat scraps.

Fruit flies are 2½ - 4 mm (1/16 – 1/8 inch) long with prominent red eyes. They are nuisances to householders, often occurring in large numbers and are most active at dusk. These flies pass on fungal spores to commodities, which will cause them to rot.

Life Cycle of Flies

- Flies have four life stages: egg, larva, pupa and adult.
- Flies lay their eggs in faeces as well as on dead or decaying vegetable or animal matter.
- Larvae will occupy and feed in a different environment from the adults.
- Female flies have the capacity of producing between 400-900 eggs over a period of 4 - 12 days. These will hatch between 8 hours and 3 days, and the adult flies can mature fully within 7 - 9 days. The fruit fly will live for 4 weeks while the house fly lives up to 12 weeks.