

# HOUSE FLY EPIDEMIC

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**Ward 2 Forum**  
SERVING THE COMMUNITY TOGETHER

**Ward 2 Forum Team**  
27 April 2017

## HOUSE FLY EPIDEMIC

### SUMMARY

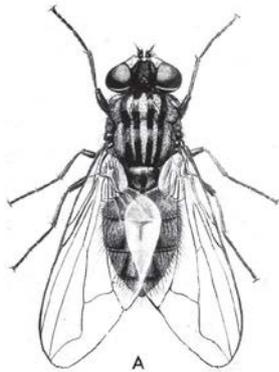
The Ward 2 Forum has been inundated with calls in respect of the marked increase of flies in the area over the last few weeks. In a bid to assist with the numerous questions received, herewith some facts collated about the vectors that we hope will answer some of those questions.

Whilst there are numerous species of flies, only a few are commonly found to be a problem in the Greyton/Genadendal area.

Flies are classified under the Order Diptera which includes all small insects such as midges, mosquitoes and gnats and make up about 1600 different species in all.

As mentioned for the purposes of this document we will only be dealing with the housefly as the problem vector.

The common housefly (*Musca domestica*), lives in close association with humans all over the world feeding on human foodstuffs and wastes where they can pick up and transport various disease agents.



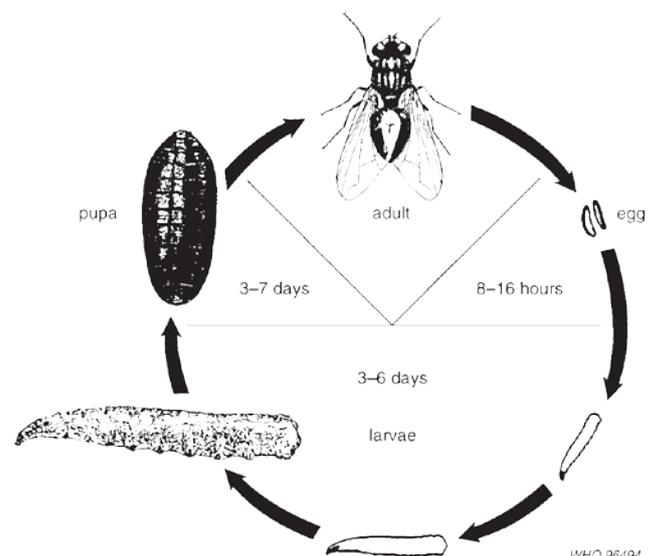
### Life Cycle

There are four distinct stages in the life of a fly: egg, larva or maggot, pupa and adult. Depending on the temperature, it takes from 6 to 42 days for the egg to develop into the adult fly. The length of life is usually 2–3 weeks but in cooler conditions it may be as long as three months.

Eggs are usually laid in masses on organic material such as manure and household refuse. Hatching occurs within a few hours. The young larvae burrow into the breeding material; they must obtain oxygen from the atmosphere and therefore can survive only where sufficient fresh air is available. When the breeding medium is very wet, they can

live on its surface only, whereas in drier materials they may penetrate to a depth of several centimetres.

The larvae of most species are slender, white, legless maggots that develop rapidly, passing through three instars. The time required for development varies from a minimum of three days to several weeks, depending on the species as well as the temperature and type and quantity of food available. After the feeding stage is completed, the larvae migrate to a drier place and burrow into the soil or hide under objects offering protection. They form a capsule-like case, the puparium, within which the transformation from larva to adult takes place. This usually takes 2–10 days, at the end of which the fly pushes open the top of the case and works its way out and up to the surface. Soon after emergence, the fly spreads its wings and the body dries and hardens. A few days elapse before the adult is capable of reproduction. Under natural conditions an adult female rarely lays eggs more than five times, and seldom lays more than 120–130 eggs on each occasion.



### Fluctuations in Numbers

Fly numbers in a given locality vary with the availability of breeding places, sunshine hours, temperature and humidity. Fly densities are highest at mean temperatures of 20–25 °C; they decrease at temperatures above and below this range and become undetectable at temperatures above 45 °C and below 10 °C. At very low temperatures, the species can stay alive in a dormant state in the adult or pupal stage.

### Behaviour & Distribution

During the day, flies are mainly gathered on or around feeding and breeding places, where

mating and resting take place. Their distribution is greatly influenced by their reactions to light, temperature, humidity, and surface colour and texture. The preferred temperature for resting is between 35°C and 40°C.

Oviposition, mating, feeding and flying all stop at temperatures below 15°C.

Flies are most active at low air humidity's. At high temperatures (above 20°C), most houseflies spend the time outdoors or in covered areas near the open air.

### **Why the sudden increase in the population**

With the decrease in temperatures into the optimum range of 20–25°C and the low humidity and infrequent precipitation we have been experiencing in the area has largely contributed to the ideal condition for the population explosion witnessed.

The perfect climatic conditions are further enhanced by animal dung mainly as a result of roaming and domestic animals (if not managed), close proximity of the solid waste and sewage plants to the residential areas have all greatly contributed to the ideal habitat for the prolific breeding of the problem insect.

### **Control Measures**

Flies can be controlled directly by insecticides or physical means such as traps, sticky tapes, fly swats and electrocuting grids. However, they should preferably be controlled by improving environmental sanitation and hygiene. This approach provides longer-lasting results, and is far more cost-effective yielding better results and usually has other benefits as well.



On behalf of Ward 2 Forum  
27 April 2017