



Houseflies can transmit intestinal worms, or their eggs, and are potential vectors of diseases such as dysentery, gastroenteritis, typhoid, cholera and tuberculosis. They will frequent and feed indiscriminately on any liquefiable solid food, which may equally be moist, putrefying material or food stored for human consumption.

Flies liquefy food by regurgitating digestive juices and their stomach contents on to the food substance. This 'liquid' is then drawn up by the suctorial mouthparts and in so doing the insects pick up pathogenic organisms, which may collect on their bodies to be transferred on contact with other surfaces or survive passage through the gut to be deposited as fly spots. Fly spotting, produced when the insect feeds or defecates, results in rejection of contaminated farm produce, for example eggs, at point of sale. Furthermore, flies are frequently the subject of complaints to environmental health authorities, causing major problems where infestations over-spill from breeding sites such as rubbish tips and animal houses.

The Lesser housefly makes longer flights and spends less time resting than the Common housefly. Females of the species tend to remain near the breeding sites and only the males migrate. For these reasons *F. canicularis* is less prone to transmit disease than *M. domestica*, but large populations and similar feeding habits mean that this insect, too, has a considerable potential to act as a vector of disease. It has occasionally been implicated as a vector of intestinal or urinary myiasis.

Forty-eight hours after emergence as an adult, the female commences egg laying. During her adult life of 1-3 months she is capable of producing 4-5 batches of 100-150 eggs. The

pearly-white cylindrical eggs, 1 mm in length, are laid in moist decaying matter such as household refuse, compost or dung. The eggs hatch in 8-48 hours, giving the smooth, white, legless maggot larvae. These burrow away from light, seeking an optimal temperature of 21-32°C, and after 3 moults reach maturity at a length of 10-12mm.

in the summer larval development may be completed within a few days, but in winter this process may take more than a month. When mature, the larvae leave the breeding site for the cooler surrounding areas; e.g. soil. Here they develop as yellow, brown or black pupae 6mm long. Depending upon conditions, adults emerge 3 days to 4 weeks later. The full cycle is generally completed between one and 4 weeks, depending upon temperature.

It is clear that there is considerable potential for the development of huge populations. Under temperate conditions as many as 12 generations of flies may breed in one season whilst under tropical conditions even this rate of reproduction will be exceeded.

Lesser houseflies are prolific breeders in poultry manure, but will also breed in other moist decaying matter. Egg laying commences when the female is 10 days old. The eggs are banana-shaped, 1mm in length and bear a pair of longitudinal ridges which assist flotation in a liquid medium. The flattened, legless, grey-brown maggots hatch within 24-48 hours. Hairy protuberances on their dorsal surface are thought to aid progression and floating in a semi-liquid medium. The newly hatched larvae frequently wander for a time before burrowing into a suitable food. Larval development requires a minimum period of 8 days, during which time the larva passes through 3 stages, eventually attaining a length of 6mm. Pupation requires a drier location and lasts for at least 10 days. Development from egg to adult emergence takes 3 weeks, although cooler conditions prolong this period.