



ENTFACT-506

HOW FAR CAN HOUSE FLIES FLY?

Lee Townsend, Extension Entomologist

House flies are annoying nuisances. Even a few can make people miserable by their determined attempts to land on virtually any surface. More importantly, house flies pose a serious public health threat. They can carry a wide range of germs from filthy breeding sites to the dinner table or spread some diseases within herds or flocks. Serious conflicts can arise when significant numbers of house flies begin to disperse to nearby areas. Law suits or potential public health problems can result.

“How far can house flies fly?” becomes an important question. There is no absolute answer but house flies can easily move one to two miles. Longer distances are possible but require unique circumstances and generally will involve a small number of the insects.

Random Movement But ...

For the most part, movement of an individual house fly seems to be random. It will move relatively aimlessly from one spot to another with no indication that it is trying to reach a specific destination. However, research on house fly dispersal has identified some factors that affect movement. A general understanding of them can help to make some changes that will reduce fly movement or help to improve fly control programs.

Fly numbers. If large numbers of flies develop at a site, competition among them for larval breeding sites will force a portion of them to move. The need for effective fly management at major or potential breeding sites is obvious. This can be accomplished in large part by sanitation and water management to keep breeding sites dry. The more flies produced in an area, the more likely they are to move. It is unreasonable, however, to expect that house flies can be eliminated from an area.

Attractive sites. Moisture and food, including manure, wet feed, garbage or most any decaying organic matter provides a place for flies to feed and lay eggs. Flies moving randomly around a breeding site will tend to linger where their basic needs are met. Few will stay in dry, clean areas. A continued sanitation effort is

needed in neighboring areas to keep flies from having a reason to “hang around.”

Tendency to disperse. House flies seem to have an innate tendency to wander. Some will leave a breeding site even though resources that they need are plentiful. Therefore, some dispersal will occur even when fly numbers are low. The more flies produced at a site, the more that will move away and become a problem.

Environmental conditions. Optimum temperature and moisture will allow high fly production from even a minimal amount of breeding material. Winds will help with fly dispersal by allowing more flies to move longer distances than normal.

How far will they go? Studies using marked house flies, showed that 60% to 80% were captured within a mile of their release point. Most of the rest, 85% to 95% of the total, were caught within about 2 miles of the release site within the first 4 days after they were turned loose. A few flies have been shown to travel 5 to 20 miles but these tend to be “record” individuals. In general, fly control efforts for a community problem are focused within one mile of the source.

Nuisance fly control at neighboring sites

Applications of residual insecticides to fly resting places, the use of fly baits, or the use of aerosol space sprays or fogs can temporarily knockdown fly numbers. Typically, these tactics provide limited results and will not maintain flies at acceptable levels. An aggressive effort must be made to eliminate breeding sites and food or water sources that would allow fly populations to develop there, too.

Other nuisance flies

Identification of the problem flies is important. During the spring and fall, cluster flies can accumulate in windows or on the sides of buildings. Cluster flies are a group that includes several different species that move to overwintering sites in the fall and disperse again in the spring. See ENTFACT 624 for more information.