

## Pest Profile



**Photo credit:** (Left) Jim Baker, North Carolina State University, Bugwood.org; (Right) John C. French Sr., Retired, Universities:Auburn, GA, Clemson and U of MO, Bugwood.org

**Common Name:** Common House Fly

**Scientific Name:** *Musca domestica*

**Order and Family:** Diptera, Muscidae

**Size and Appearance:**

	Length (mm)	Appearance
<b>Egg</b>	1-1.2 mm	The eggs are creamy-white in color and have a banana-shaped appearance.
<b>Larva</b>	8-14 mm	The larva has a small head with an eleven-segmented cylindrical body. The head contains a pair of small, blackish, and curved mouthhooks, which can be seen beneath the integument (outer cover of the body). The posterior portion on the body contains a pair of external openings to the tracheal system (spiracles) that are shaped like the letter “D”. Each spiracle has a thick outer wall called the peritreme that encloses three spiracle slits.
<b>Adult</b>	6-9 mm	Both male and female house flies are a medium size, non-metallic fly that varies in color from light to dark gray with some dark markings. On the upper surface of the thorax are four broad black longitudinal strips. The antennae of the adults are concealed in a depression in front of the face. The antennae have 3 segments, with the farthest (distal) segment being cylindrical and the largest. This distal segment also contains a prominent hair know as the arista, which also has hairs on both sides. At the end of each leg, there are a pair of claws, a pair of pads under each claw (pulvilli), and a single bristle-like structure called an empodium at the center.
<b>Puparium</b>	6 mm	Pupation of the larva begins with the contraction and hardening of the skin into a structure known as the puparium. The puparium is dark brown and barrel shaped. Closely examining the puparium would reveal that it is segmented. The actual pupa is protected within the protective shell of the puparium.

**Type of feeder (Chewing, sucking, etc.):** Adults have sponging mouthparts. The larvae have mouth hooks.

**Host/s:** House flies are considered synanthropic due to their close association with humans and their homes. House fly larvae feed on the liquids of decomposing organic matter such as animal manure, carcasses, rubbish dumps, household garbage and waste food from the kitchen. The adults feed and lay eggs on decaying organic matter and regular food.

**Description of Damage (larvae and adults):** Adult house flies can transmit many pathogens to humans due to their habits of visiting feces and other unhygienic matter, then people's food. The house fly can transmit pathogens by their contaminated feet, body hairs, and mouth parts. House Flies can also transmit pathogens by vomiting on food during feeding or defecating on food. Most pathogens remain viable on the fly for less than 24 hours and usually there is insufficient number of the pathogen to cause infection, with the exception of *Shigella*. However, it is important to note that the pathogens can be first transferred to the food then multiply to a level high enough to cause infection. The house fly has been known to transmit 100 different pathogens, with at least 65 of those pathogens capable of being transmitted to humans.

#### **References:**

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