

Pest Profile



Photo credit: By Jim Kalisch, University of Nebraska-Lincoln

Common Name: Stable Fly

Scientific Name: *Stomoxys calcitrans* (Linnaeus)

Order and Family: Diptera: Muscidae

Size and Appearance: Adult stable flies are about 7-8 mm in length and dull gray in color with 4 black stripes on their thorax. They also feature a visible proboscis, 3-segmented antennae, and bristle-like hairs all over body. Maggots are cream colored with a greasy shine, 8-11 mm in length, leg and eyeless, and have a large rounded last segment. The maggots also have 2 dark hooks for feeding.

	Length (mm)	Appearance
Egg	1 mm	Oval, white, scattered over a food source. 200-600 laid at a time.
Larva/Nymph	8-11 mm in length depending on instar	Greasy, white, pair of hooks for feeding, rounded rear end, lacking eyes and legs. 3 Instars.
Adult	7-8 mm long	Gray coloration with 3 stripes on thorax, often on abdomen as well. Red eyes, visible proboscis, bristle-like hairs, 3-segmented antennae.
Pupa (if applicable)	8-20 mm long	Pupal case is hardened, reddish-brown, and consists of final larval skin. Pupation occurs in food source, often only for a 5 day duration.

Type of feeder (Chewing, sucking, etc.): Sponging

Host /s: Stable flies feed on materials soaked in animal urine or excrement. Fermenting grains, rotting fruits, and seaweed are also popular larval food sources. Adults feed on nectar sources as well as take blood meals from larger mammals.

Description of Damage (larvae and adults): Stable flies can be nuisance pests around barns and cause great discomfort to cows and horses. They are also capable of vectoring several livestock diseases and pathogens and are considered of medical importance.

References:

Smith, E.H. and Whitman, R.C. (2007). Blood Feeders- Stable Fly. In *NPMA Field Guide of Structural Pests*. (3.10.1-3). National Pest Management Association International.

Weeks, E.N.I., Kaufman, P.E. (December 2015). Stable Fly. University of Florida, Department of Entomology and Nematology. Retrieved on July 29th, 2016 from http://entnemdept.ufl.edu/creatures/URBAN/MEDICAL/Stomoxys_calcitrans.htm