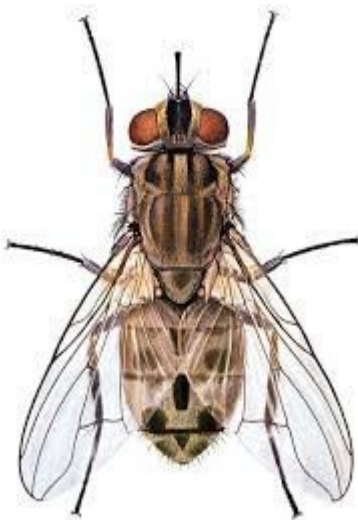


Frequently Asked Questions - Stable fly and its management in Western Australia

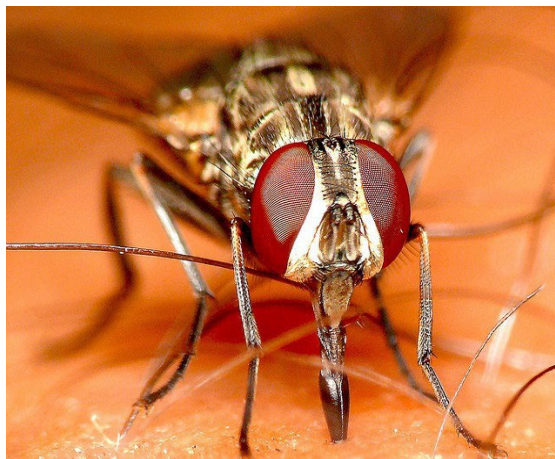
May 2025

What is a stable fly?

- Stable fly (*Stomoxys calcitrans*) is a blood feeding parasitic nuisance fly.
- It is also known as biting house fly, dog fly, power mower fly, and barn fly.
- Its only food source is fresh blood from mammals. To draw blood, this fly shreds the skin of its host with its proboscis.



The view of stable fly from above - note its distinctive proboscis



Stable fly mouthpart penetrating human skin

What animals do stable fly feed on?

- grazing animals such as cattle, sheep and horses
- dogs and humans.

Why is stable fly a problem?

- It bites livestock, pets, and humans, causing pain, and stress. In large stable fly infestations, they present serious harm to livestock and pets.
- Stable fly has the potential to transmit a range of diseases.
- It may lead to production losses in commercial livestock, and significant economic cost to agriculture enterprises.



A solitary bull unable to dislodge the biting stable flies.

What makes stable fly a significant issue in Western Australia?

- The Swan Coastal Plain in Western Australia provides perfect conditions (sandy soils, temperate climate, rotting organic matter and nearby hosts) for stable fly to breed.
- Market gardens on the Swan Coastal Plain can provide an ideal environment for stable fly to breed in large numbers.
- The multi-land use arrangements on the Swan Coastal Plain can result in market gardens being in close proximity to residential housing and/or commercial or lifestyle livestock. Non-mitigation of stable fly breeding on market gardens can lead to direct conflict with the neighbouring community.

What are the impacts of stable fly in our community?

- Outbreaks of stable fly have forced cattle and horse owners to relocate their animals away from affected areas.
- Affected animals will try to avoid the swarming flies by stamping their feet, vigorously swishing their tail, throwing their heads and kicking sand up onto their legs and body. The constant movement of animals due to the agitation of the flies can lead to stress, dehydration, and weight loss. Additionally, the bites often cause allergic reaction.
- Specifically, if an animal has more than 20 stable flies biting it at once, the animal's ability to feed and care for itself are impacted with measurable reductions in weight and condition. If the animal has more than 50 flies, its weight can be reduced by 25% and milk production reduced by 40%–60% (for example, a dairy cow or a mother feeding its offspring).

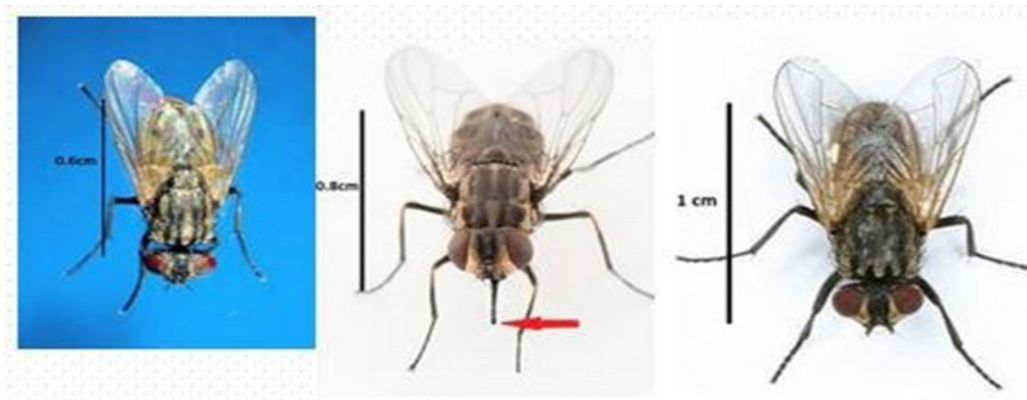
Stable fly is a declared pest – what does this mean for you?

- Stable fly is a declared pest under the *Biosecurity and Agriculture Management Act 2007* (BAM Act) and is assigned to control category C3 (management) for the following 14 designated local government areas:

- Cities of Armadale, Cockburn, Joondalup, Kwinana, Rockingham, Swan, Kalamunda and Wanneroo.
- Shires of Capel, Chittering, Gingin, Harvey and Serpentine–Jarrahdale.
- The portion of the Shire of Murray described as the Peel-Harvey Coastal Plain Catchment - State Planning Policy No. 2.1.
- The Stable Fly Management Plan (SFMP) provides control measures that the land owner or occupier must meet in the declared areas to effectively manage and reduce stable fly population.
- under the BAM Act, as the landowner or occupier it is your responsibility to manage stable fly using the prescribed control measures given in SFMP.

How do I identify a stable fly?

- Stable fly is often confused with the common housefly (*Musca domestica*) and bush fly (*Musca vetustissima*). However, the stable fly has a broader abdomen, a grey body and can be identified by 4 characteristic longitudinal stripes across the thorax, as well as several dark spots on top.
- The main difference from house flies is that stable flies have a biting mouthpart (proboscis) that sticks out.



From left, bushfly, stable fly and house fly note the biting mouth part of the stable fly (red arrow) and the differences in the eyes

When does stable fly occur?

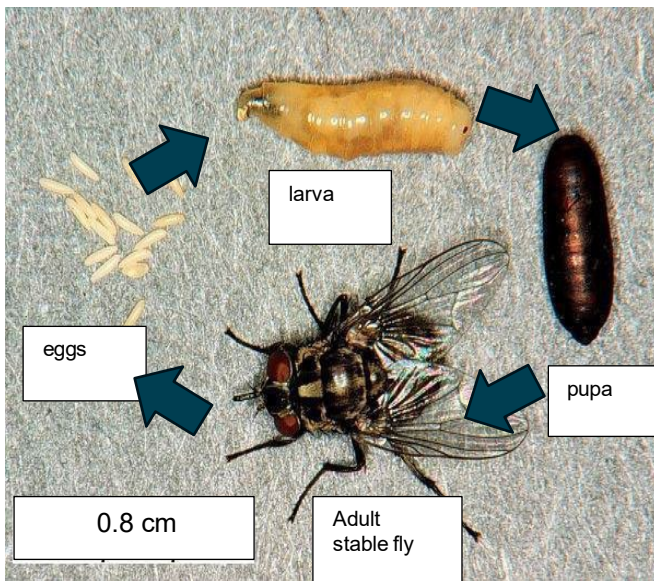
- Stable flies typically occur from late spring through to late autumn.

Where does stable fly breed and how do I know if it is breeding on my property?

- Stable fly lay their eggs in soil containing rotting organic matter such as piled lawn clippings, olive pomace, decomposing hay, remnant or waste vegetable produce and aged manure.
- You can check for stable fly breeding on your property by looking in moist, decaying organic matter.

What do the eggs, larvae and pupae look like and where in the soil are they?

- Stable fly eggs are small, white, and sausage-shaped, while larvae are maggot-shaped and pale yellow to creamy white. The pupae are reddish-brown and capsule-like, developing in decaying organic matter in soil.
- The female lays up to 90 eggs in aging organic matter, or on the soil where the organic material is rotting.



**Four stages of stable fly development
eggs, larva, pupa and adult fly**



The final wandering phase of fly larvae (top left), progressing to the first light coloured pupal phase. As the pupa continues to mature, the pupal case hardens and darkens

How do I search for stable fly larvae and pupae?

- Expose material to sunlight wherever possible and look for larvae moving away from the light.
- Expose material in successive layers/partings and wait 5 to 10 seconds before looking for larval movement.
- If you hold a larva in your hand, it will feign death for up to 30 seconds.
- Stable fly larvae are often on the interface between the rotting vegetable matter and the soil.
- Look down and inside rotting vegetable root stumps (stem base) such as celery for larvae.
- Search the soil directly beneath rotting organic matter for pupae (note the colour change as the pupa ages).
- Repeat successive shallow scrapings of the soil with a trowel/knife to find pupae.
- Only scrape through the soil down to a depth of 5 to 10cm and sideways to the same distance.



Stable fly larvae can be found under rotting organic matter such as hay if left to decay on the soil



Bales of hay exposed to the weather causes them to rot and harbour moisture



Stable fly larvae found in waste celery



Large accumulations of cattle manure in pens attract flies. The white items in the middle are stable fly larvae

How does reducing decaying organic matter help control stable flies?

- Stable flies breed in the rotting organic material. By reducing decaying organic matter in and on the soil, you are reducing the number of breeding sites available to stable flies.

Should I turn off irrigation after the crop has been harvested or reached maturity?

- Yes, the water creates a moist environment, which provides an ideal breeding ground for stable flies.

How long can I delay harvesting my crop once it matures?

- All crops must be harvested as required by the SFMP even if the crop is considered as waste.
- Once harvested, refer to the SFMP for the prescribed control measures.

Does plant waste left after harvesting contribute to stable fly breeding?

- Yes, the waste will decay into the soil and create breeding environment for stable fly.

What should I do with fruit and vegetables left behind after harvesting?

- Practice good hygiene and refer to the SFMP for the prescribed control measures.

What should I do if stable fly breeding on my property?

- Refer to the SFMP for the prescribed control measures and contact your Local Government Area for advice.

More information



dpird.wa.gov.au/stablefly

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