

Tacoma Equine Hospital

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Protect Your Horse From Flies

Strategies to Safeguard Against Health Risks Posed By House and Stable Flies

With spring and summer upon us, you may want to enjoy the longer days and warm weather with just you and your horse – but there are hundreds of flies waiting to spend the day with you as well. Flies are more than just a nuisance; they harbor dangerous bacteria and disease organisms. While many different types of flies plague horses, house and stable flies are especially common around barns and stables.

House and stable flies commonly infest areas near horses due to their preference for horses and manure as food sources and breeding locations. These insects typically begin appearing and breeding once temperatures rise above 50°F. In more temperate climates, house and stable flies may breed all year round, with peak populations occurring during humid months.

Both house and stable flies have similar life cycles with four stages of development – egg, larva (maggot), pupa and adult. Adult flies lay eggs in moist, decaying organic material, such as manure. Each female fly can lay up to five hundred eggs in her three to four week lifespan. Once the eggs hatch, the larvae feed on the material in which the eggs were laid.

Mature larvae transform into pupae, where the immature fly is encased in an outer shell. During the pupal state, the larva develops into an adult fly. Larvae use a material called chitin to create both the pupal case, which protects the developing fly, and the exoskeleton of the adult fly. The stable fly develops from egg to adult in about three weeks. The house fly needs even less time, reaching the adult stage in less than two weeks in warm weather.

Though the housefly is a non-biting fly, it is known to be a carrier of at least 100 pathogenic organisms. Houseflies use a sponge-like mouthpart to feed on semi-liquid material by regurgitating saliva onto food, which dissolves it, and then sucking the material back into the stomach. They belong to a group of flies known as filth flies, due to their preference to breed in either manure or garbage.

Stable flies, on the other hand, cause painful bites, especially on the legs of both horses and people. These flies use a piercing mouthpart to obtain blood meals. Though allergic reactions are rare, bite wounds may become sites for infection if not properly treated, and in severe infestations, horses may exhibit signs of weakness due to blood loss and constant attempts to dislodge the flies.

Both types of flies have been implicated in the spread of various diseases, such as conjunctivitis, diarrhea, dysentery, pigeon fever (also known as dry land distemper), Habronema (stomach worms), anthrax, equine infectious anemia and strangles.

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Ways of Eradication

A comprehensive fly control program should focus on not only killing or repelling adult flies, but also destroying fly breeding materials or locations.

Fly strips and traps may be used to repel and kill flies, but they have many limitations – primarily that they are only effective against adult flies.

Removing manure from stalls and around stall areas daily is very important to get rid of fly breeding areas. They not only breed in manure piles, but also areas where damp earth has mixed with manure, saturated stall/paddock areas or feeding areas where grain has spilled.

Since houseflies will lay eggs in fresh manure, fields and pastures also need to be maintained as part of the fly control program. Try and remove all damp, decaying organic materials at least twice a week. Manure may be spread thinly to speed drying, or placed in a pile covered with black plastic, which will heat the material, thus hampering fly development.

Biological fly control is another popular idea. There are two types of insects that will feed on the developing flies and never allow development into adults. One is a microscopic soil nematode worm placed around fly breeding grounds. These worms kill the maggots within 24 to 48 hours.

The second is a gnat-sized nocturnal burrowing insect that feeds on the fly pupae and then lays its eggs inside the empty shell. This not only kills the fly before maturation into an adult, but also ensures the parasite will survive and reinforce the beneficial insect population.

The addition of a feed-through insect growth regulator (IGR) is an excellent addition to any fly control program and can result in significant reductions in fly populations. IGRs inhibit insect growth at specific life stages, preventing larvae from reaching the adult stage. Solitude IGR is a new example of this technology.

The IGRs work by preventing house and stable fly larvae from developing into adult flies. Top-dressed onto a horse's feed daily, Solitude IGR passes safely through the horse's digestive system into manure. Flies lay their eggs in the manure, but cyromazine – the active ingredient in Solitude IGR – inhibits the production of chitin in house and stable fly larvae, causing the immature stage of the fly to die without reaching adulthood.

Solitude IGR is virtually nontoxic to humans, other mammals and sensitive pollution indicator species, such as fish. Cyromazine breaks down into a slow-release fertilizer and will not harm horses grazing in pastures with treated manure.

In summary, no fly control program can completely eradicate flies, but by focusing on breaking the house and stable fly life cycle you may be able to significantly reduce the health risks these insects pose to your horse's health. Careful management of house and stable fly breeding grounds, biological control, and feed-through fly preventatives help to keep populations in check – and away from your horse.