

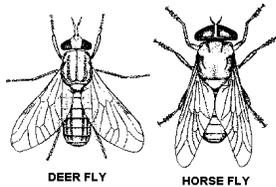


ENTFACT - 511

HORSE FLIES AND DEER FLIES

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Horse flies and deer flies are bloodsucking insects that can be serious pests of cattle, horses, and humans. Horse flies range in size from 3/4 to 1-1/4 inches long and usually have clear or solidly colored wings and brightly colored eyes.



Deer flies, which commonly bite humans, are smaller with dark bands across the wings and colored eyes similar to those of horse flies. Attack by a few of these persistent flies can make outdoor work and recreation miserable. The numbers of flies and the intensity of their attack vary from year to year.

Numerous painful bites from large populations of these flies can reduce milk production from dairy and beef cattle and interfere with grazing of cattle and horses because animals under attack will bunch together. Animals may even injure themselves as they run to escape these flies. Blood loss can be significant. In a USDA Bulletin 1218, Webb and Wells estimated that horse flies would consume 1 cc of blood for their meal, and they calculated that 20 to 30 flies feeding for 6 hours would take 20 teaspoons. This would amount to one quart of blood in 10 days.

Female horse flies and deer flies are active during the day. These flies apparently are attracted to such things as movement, shiny surfaces, carbon dioxide, and warmth. Once on a host, they use their knife-like mouthparts to slice the skin and feed on the blood pool that is created. Bites can be very painful and there may be an allergic reaction to the salivary secretions released by the insects as they feed. The irritation and swelling from bites usually disappears in a day or so.

However, secondary infections may occur when bites are scratched. General first aid-type skin creams may help to relieve the pain from bites. In rare instances, there may be allergic reactions involving hives and wheezing. Male flies feed on nectar and are of no consequence as animal pests.

Horse flies and deer flies are intermittent feeders. Their painful bites generally elicit a response from the victim so the fly is forced to move to another host. Consequently, they may be mechanical vectors of some animal and human diseases.

LIFE CYCLE

The larvae of horse fly and deer fly species develop in the mud along pond edges or stream banks, wetlands, or seepage areas. Some are aquatic and a few develop in relatively dry soil. Females lay batches of 25 to 1,000 eggs on vegetation that stand over water or wet sites. The larvae that hatch from these eggs fall to the ground and feed upon decaying organic matter or small organisms in the soil or water. The larvae stage usually lasts from one to three years, depending on the species. Mature larvae crawl to drier areas to pupate and ultimately emerge as adults.

PROTECTING YOURSELF

Deer flies are usually active for specific periods of time during the summer. When outside, repellents such as Deet and Off (N-diethyl-meta-toluamide) can provide several hours of protection. Follow label instructions because some people can develop allergies with repeated use, look for age restrictions.

Permethrin-based repellents are for application to clothing only but typically provide a longer period of protection. Repellents can prevent flies from landing or cause them to leave before feeding but the factors that attract them (movement, carbon dioxide, etc.) are still present. These flies will continue to swarm around even after a treatment is applied.

Light colored clothing and protective mesh outdoor wear may be of some value in reducing annoyance from biting flies. In extreme cases, hats with mesh face and neck veils and neckerchiefs may add some protection.

PROTECTING ANIMALS

Horse flies and deer flies can be serious nuisances around swimming pools. They may be attracted by the shiny surface of the water or by movement of the swimmers. There are no effective recommendations to reduce this problem.

Permethrin-based sprays are labeled for application to livestock and horses. These insecticides are very irritating to the flies and cause them to leave almost immediately after landing. Often, the flies are not in contact with the insecticide long enough to be killed so they continue to be an annoyance. These flies will swarm persistently around animals and feed where the spray coverage was not complete (underbelly or legs) or where it has worn off. Repeated applications may be needed. Check the label about minimum retreatment intervals. Pyrethrin sprays also are effective but do not last as long as permethrin.

Horse flies and deer flies like sunny areas and usually will not enter barns or deep shade. If animals have access to protection during the day, they can escape the constant attack of these annoying pests. They can graze at night when the flies are not active.

CONTROL

It is difficult to impossible to locate and / or eliminate breeding site of horse flies and deer flies. They breed in environmentally sensitive wetlands so effects of drainage or insecticide application on non-target organisms or water supplies is a concern. Also, these insects are strong fliers that can move in from some distance away. Breeding sites may be very extensive or some distance away from where problems are occurring.

Fortunately, horse flies and deer flies are sporadic problems for specific times of the year. Some adaptation in behavior or use of repellents can allow enjoyment of the outdoors.