



Dairy News

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Control the Flies, Protect the Herd

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Every farm that has production animals has a fly problem: dairy operations and calf ranches are no different. Many producers have the misconception that it takes a large number of flies to cause extensive financial losses in cattle. Most of us just think that a cow shakes them off or swats them away with her tail and the issue is over. In dairies, as few as five stable flies per front leg¹ causes animals to bunch together and use energy for tail switching, stomping and head throwing in an effort to “shake off” flies. There is little doubt that adult flies can negatively impact cow comfort which impacts milk production.

To develop an effective fly management program, you need a good understanding of the fly lifecycle. Flies have a four-stage development process that includes the egg, larva (maggot), pupa, and adult. The rate of development of a new fly depends on the species of the fly.

Houseflies (*Musca domestica*) are usually the predominant species of fly around livestock. These flies have a gray color with four broad, dark strips on the top of the thorax. Non-biting houseflies are a nuisance to animals, as they take time to throw their heads to try to get rid of the pests. This takes time away from eating and chewing. Houseflies are not selective in eating habits and feed on everything from human or animal food, to animal carcasses, garbage and manure. For breeding, houseflies favor organic matter with moisture content in the 40 to 70 percent range. Therefore, fresh manure, spilled liquids, spilled feeds, bedding or decaying vegetation make excellent areas for eggs to be laid. Under the best of circumstances, houseflies can reproduce in seven days. On the farm, most generations of flies require closer to two weeks to develop. Each female can produce 120 to 150 eggs, which are laid in at least six batches at 3-4 day intervals. Eggs hatch in 8 to 24 hours and maggots feed for 4 to 7 days. These flies, on average, live 3 to 4 weeks.

Stable flies (*Stomoxys calcitrans*) look like houseflies, except they are very vicious biters and they suck blood. They have an easily recognized checkerboard pattern on the top of their abdomen. These flies tend to feed several times a day, ingesting one to two drops of blood at each meal. Stable flies tend to feed on the lower part of cattle legs. When not feeding, these flies rest in the shade on posts, trees, and buildings. These flies primarily breed in wet straw, spilled feeds, spilled silage and decaying vegetation. Stable flies take approximately three weeks to fully mature and complete their reproduction cycle. Each stable fly female will lay 200 to 400 eggs during her lifetime.

Temperature and moisture levels within the breeding area are the two major components of the environment that drive the rate at which new flies develop. As a generalization, fly populations tend to peak in August. Earlier fly control interventions result in fewer fly eggs produced early in the season and therefore fewer future hatch numbers. In dairy operations, calf pens/hutches and maternity stalls/sick cow pens are the primary areas that flies can lay eggs and multiply. Pens should be thoroughly cleaned every seven days in order to attempt to break the cycle. Areas under pen fences where manure is out of reach are an excellent breeding site for some flies. In freestall barns, the area on top of the stem wall holding the headlocks is a place where feed can accumulate and with the addition of sprinkler water, this area can be a major source of flies for the entire operation. If the excess feed under headlocks can be pushed off into the cow side of the feed alley at least once every seven days, this can significantly reduce the number of flies on a dairy. Areas around water tanks, under and directly behind where cow manure can build up, are also excellent areas for flies to breed.

An important point to understand is the adult flies that are such a nuisance to you and your herd represent only 15 to 20 percent of the overall fly population. Eighty percent of flies are a silent army of larvae and pupae that will soon grow into adult flies, so it is essential to prevent as many flies as possible from ever becoming adults. That's why it is important to incorporate a larvicide as well as an adulticide in your management program.

Three Steps to Effective Fly Control

1. **SANITIZE** — Cleaning and removing fly breeding sites should be the first step in your fly control program. Operations that can control the environment and limit the number of fly breeding sites will have the best success with an integrated pest management system.
2. **PREVENT** — Stop fly larvae from becoming adult flies. By using a larvicide like Neporex® by Elanco, you can target fly breeding areas early, which can lead to a dramatic reduction in the number of adult flies that are such a nuisance.
3. **CONTROL** — No matter how hard you try, outbreaks of adult flies can still happen. Using an adulticide like Agita®10WG by Elanco quickly kills these flies, which helps to prevent them from laying more eggs and prevents an explosion of fly populations. Killing or capturing one fly early in the season can help prevent 1,000 other flies late in the season.

Think proactively about your fly control strategy. By controlling flies you can improve cow comfort, cut disease transmission, and minimize production losses.

References

1. Gerry, Alec C. *Predicting and controlling stable flies on California dairies*. UCANR Publications, 2007.

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Join us Weds. April 17, 2019 @ Kewaunee County fairgrounds Exhibit Hall
625 3rd Street Luxemburg Conference Room 142
For a lunch and learn more about Fly Control

Lunch @ 12:00 presentation to follow
Presented by Meghan Zimmer – Elanco Territory Rep

Enter for a chance to defeat the flies..... Neoporex & Agita products

RSVP by April 12 – 920-837-7766 or dvs@centurytel.net

Talk to your veterinarian if you have any additional questions

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