

Fly Control Strategies

Fred Hall, Iowa State University Extension and Outreach, NW IA
Dairy Field Specialist, fredhall@iastate.edu

The May 1-29 Moo University dairy webinar focused on using data to make decisions for fly management around your dairy animals. Dr. Rebecca Trout Fryxell, Entomologist from the University of Tennessee presented the program.



Take Home Messages -

1. Start fly control when you see flies on your animals - it's not always a calendar thing.

While horn flies and face flies are most commonly found on cattle in pastures, stable flies and house flies are more commonly found on cattle at the dairy. House flies are a nuisance for workers and cattle, often indicating a general sanitation problem. Stable flies, deer flies, and horse flies, feed on blood from the back and legs, with stable flies having a long, bayonet-like proboscis that causes a painful sting. Horn flies are most commonly found on the back of animals but will also attack the teats, leading to the development of mastitis, especially in heifers. Georgia researchers have identified a greater prevalence of mastitis caused by *Staph aureus* in dairy heifers that had teat ends covered in scabs caused by horn flies and the greatest reduction in mastitis among heifers raised with a good fly control program.

2. Sanitation is key

Sanitation is key to any successful fly control program since it removes fly breeding sites. Without proper sanitation, chemical control treatments will be of limited success. Manure should be removed from barns, loafing sheds and especially calf pens at least twice per week during the fly breeding season. In Iowa, the fly season can start in May and can run into September.

Area fly sprays should be applied to fly resting areas in barns and loafing sheds to control adult flies. Insecticides applied as space sprays, mists or fogs may be used to provide rapid knockdown of adult flies but have no residual activity and will only control flies present at the time of application.

Fly baits are also useful supplements to sprays and sanitation. Feed additives will aid in preventing fly breeding (primarily house flies) in the manure from animals being fed the larvicide. Feed additives should not be relied upon for total fly control. Larvicides can be applied directly to maggot-infested manure as a means of temporarily reducing fly numbers when sanitation and manure management cannot be used. Rabon 50WP or Ravap EC can be used according to label instructions. Treat only "hot spots" containing large numbers of maggots if possible. Do not spray manure where runoff to soil or water can occur. Do not spray animals with these concentrations.

Fly traps can capture large numbers of house flies but generally do not reduce their numbers significantly.

Ultraviolet light traps, bottle traps, and fly sticky strips can be useful, particularly in the milk room where pesticide applications are limited and fly numbers are low.

Again the solution to severe fly problems lies in finding and treating or eliminating breeding sites. Insecticides for animal sprays should be applied after milking according to label instruction with special care to not contaminate feed, water or equipment.

3. Monitor populations

Recognizing population changes can identify success or failure of a strategy. Tacking index cards up in strategic areas of the barn and noting the "fly specs" is an easy way to note changes and is easy to track at a glance.

Four Steps to a successful fly control program:

1. Keep manure and spoiled feed collected and managed
2. Monitor changes in fly populations
3. Find where they are breeding and maggots are visible
4. Implement chemical treatments as needed

Fly control requires a plan and the costs vary with each facility often reaching to \$3 per cow per month. Infestations can be evaluated with speck cards, fly counts and employee comments about kicking cows in the parlor or free stalls. Most operators will know just by observing the facilities and milk production.

Resources available:

- A resource that provides an updated list of licensed pesticides for control of insect pest called VetPestX:
<https://www.veterinaryentomology.org/vetpestx> (You pick your state, type of animal, type of pest and what type of chemical control you want to use, and it provides a list.)
- A publication for current insecticides for dairy cattle:
https://entomology.ca.uky.edu/files/recs_0/ent12-dairy.pdf
- Fly Management Webinar with Dr. Rebecca Trout Fryxell, Entomologist, University of Tennessee
https://youtu.be/oUZgC_OtfdY

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