

CALVING EASE

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Sam Leadley (Attica Veterinary Associates) and Pam Sojda (Offhaus Farms)

Mastitis and Flies

Good reasons for controlling flies at our heifer facilities? More pleasant working conditions for us. More pleasant conditions for the heifers. More consistent feed intake because less time is spent avoiding flies. Less wasted feed because heifers spend less time throwing feed onto their backs to combat flies. Fewer pinkeye problems are associated with lower mid- and late-summer fly populations.

An even better reason for controlling flies at our heifer facilities? Reducing mastitis in heifers when they freshen.

How are flies related to mastitis in fresh heifers?

“Research has shown that horn flies transmit mastitis-causing bacteria as they feed on teat ends, causing lacerations of the tissue. Such lesions become an ideal place for bacteria to colonize, which eventually enter into the developing udder.” (Nickerson, 2001).

Other studies have documented that “heifers with teat skin scabs and abrasions induced by flies have a higher frequency of [mastitis] infections (70%) than heifers with normal teats (40%). (Nickerson, 2001) This same research demonstrated that herds with some kind of fly control have fewer cases of Strep and Staph infections than herds without fly control.

What can I do in May?

In calf hutches, consider using sand, sawdust or wood shavings as bedding. Compared to straw, all three of these forms of bedding are much less hospitable to fly pupae.

Paul Dursam reminds us, “First and foremost, no fly control program will be successful without good sanitation. This good housekeeping works by removing the fly breeding habitat, thus breaking the life cycle of the fly.” (Hoard’s, 2001)

Consider scheduling cleanup activities to suppress fly multiplication. In our June 1999 issue Beth Claypoole noted, “The life cycle of the fly takes about two weeks. Cleaning once a week or every four to six weeks will break the [reproductive] cycle. Cleaning once every two weeks will

NOT break the cycle. You need to either keep the area clean and moisture free or develop a bedded pack and suffocate the pupae.”

On the same subject of scheduling cleanup, Dursam observed, “Flies reproduce in organic matter and hatch by the millions in four days. So, during fly breeding season you must clean manure from all areas on your farm and field spread at least every four days to prevent fly eggs from hatching.

He reminds us that care taken in field spreading is important, too. “During fly season, manure should be spread thinly enough so that the sun will dry it out. That way flies will not be able to breed in it out in the field and migrate back to the cattle housing areas. Fly eggs need moisture in order to hatch and reproduce.”

What can I do over the summer?

Claypoole advises us to consider using parasitic wasps. “A couple of years ago I participated in a summer fly control study using parasitic wasps to control larvae growth. Results indicated that a combination of fly control (either chemical or parasitic wasps) and scouting for fly pupae were the best control for increasing fly populations throughout the summer.”

“The wasps in these trials were the non-stinging smaller sized wasps unique to the Northeast, *Muscidifurax raptor*. These wasps are about the size of a fruit fly, and live only to search out, kill and lay their eggs in fly pupae. It is recommended that the farm release 250 wasps per animal each week during the fly season for May through September.” Wasp larvae may be purchased through an insectary. If you don’t know how to contact an insectary, check with your Cooperative Extension Agent or an Integrated Pest Management person.

Also, take time to look for fly maggots. They occur in clusters. The pupae are white and about 1/4 to 1/2” long. Look in places where there is spilled feed. Feed loading and mixing areas are logical places especially if damp feed is spilled. Areas around and under grain and hay feeders often breed flies if the spilled feed is moist.

Other areas might be inside-feeding areas in calf hutches. Also, suspect places where there is semi-moist manure. Look in areas that are dirty, warm and moist. But, don’t bother to look in liquid manure; flies don’t breed there.

Claypoole, Beth “Flies, Fly Control for Your Calves and Heifers” Calving Ease June 1999.

Dursam, Paul “Start Now to Get Ahead of Fly Problems” Hoard’s Dairyman Vol. 146 No. 7 pg. 266 (April 10, 2001).

Nickerson, Stephen C. “Effective Strategies for Controlling Mastitis in Heifers” in Proceedings of Manitoba Dairy/Beef Opportunities Conference, March 2001, pp. 61-75.

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