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Information for Today's Agri-business Professional

Flies impact calves and heifers, too

The onset of spring also marks the start of fly season on dairy farms. Left uncontrolled, flies quickly can become an annoying and dangerous menace to cattle at all production stages. Calves and heifers need fly control management just as much as adult cows. In fact, it could be argued that these younger cattle are the *most* important animals to attend to, because they represent the future of the herd.

Biting flies cause stress to calves and heifers and interfere with optimal feed consumption. This lower nutritional intake directly impacts structural growth and weight gain, as well as immunity and disease resistance. The result can be replacement heifers that do not meet the herd's breeding-size targets, and/or may not fulfill their milk-production potential as adults. Although calves and heifers are not lactating yet, the presence of flies can affect their future production potential long before they enter the milking string.

Flies also serve as vectors for spreading diseases caused by bacteria and viruses. Pinkeye, bacterial scours, clostridial diseases and BVD are major dairy-herd challenges that often are spread by flies. Herds with high fly populations also can have increased incidence of mastitis and lower milk quality.

Delicate teat skin that is bitten by flies becomes scabbed and irritated, creating a haven for mastitis-causing bacteria that can enter the teat canal and internal mammary system. Flies also carry and transmit *Staph. aureus*, a major mastitis-causing pathogen. The result: heifers that freshen with mastitis infections that already are firmly established.

Because *Staph. aureus* is a stubborn organism to treat, some heifers may need to be culled before they even finish their first lactations. Others may have chronic subclinical infections with high somatic cell counts (SCCs), which affect both production levels and milk-quality premiums.

Calf hutches and other outdoor heifer facilities are popular breeding grounds for flies. An integrated pest management (IPM) program is the best way to comprehensively control fly populations. That means using cultural, physical, biological and chemical methods to keep fly populations low:

Cultural – Keep calf and heifer housing dry and well-bedded; mow around hutches; remove feed refusals regularly to prevent spoiled feed from accumulating.

Physical – Locate hutches away from water sources and manure storage sites; use screens in calf-barn windows.

Biological – Utilize predators such a predatory wasps.

Chemical – Apply contact chemicals via sprays, traps, foggers and scatter baits. Use pour-on anthelmintic treatments in older heifers, and incorporate insect growth regulators (IGR) in calf- and heifer-feeding programs.

A highly effective, feed-through larvicide is an example of an IGR that can be added to both heifer rations and milk or milk replacer for preweaned calves. Products containing diflubenzuron can be fed at low levels. The compound travels through the animal intact, and is dispersed via manure. Female flies lay eggs in fresh manure, and the product breaks the life cycle of flies by disrupting the formation of the insects' exoskeleton. The larva then die, reducing the population of adult flies engaged in the next breeding cycle. Because fly life cycles can be as long as 28 days, feed-through larvicide treatment should begin 30 days before flies are expected to appear, and continue until cold weather sets in.