

MESSENGER-INQUIRER



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Fly Control in Cattle

Horn and face flies are two important insect pests to manage in pastures. Without proper management, they can reduce cattle weight gain. In addition to being very annoying to cattle, face flies play a role in the transmission of *Moraxella bovis*, the principal causal agent of bovine pinkeye. This disease is a highly contagious inflammation of eye parts in cattle.

The incidence of pinkeye in a herd can vary greatly from year to year and usually is greatest during fly season. However, pinkeye also can occur during the winter and without a heavy fly population. English breeds with less pigment around the eyes such as Hereford, Holstein, and Shorthorn are more susceptible than those with completely pigmented eyes. Infections are much worse in young animals than old animals.

Pinkeye is associated with shipping stress, increased sunlight, eye irritants such as tall, rough pasture grass, and other bacteria and viruses. The eye and nose discharges of infected animals can carry the pathogens, so direct animal-to-animal contact, contaminated equipment, and animal handlers can transmit the disease. Fly control is only part of the comprehensive program needed to reduce pinkeye incidence. Proper mineral, vaccine, and pasture management are also required.

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Insecticide-impregnated cattle ear tags are practical, easy to apply, and can provide long-term control of horn flies and some reduction in face fly numbers when used properly. It is important to not apply the ear tags too early in the season as the insecticide levels provided by the tags will slowly decline during the summer. Tagging too early in the season can mean that the tags are not providing good control in the fall that will help to control the overwintering population. Poor fly control late in the season can increase the risk of resistance development to the insecticide group used in the tags. For fly control, it is best to tag animals after horn fly numbers reach 100 or more per side. This reduces the chances of developing resistance to the active ingredients being used. Normally, tags provide 12 to 15 weeks of fly control. Ear tags do not control face flies as well, but help to reduce their numbers.

Pasture flies will develop resistance to the active ingredient in ear tags if tags with the same mode of action are used year after year. Each insecticide belongs to a specific mode of action group that attacks at a specific site in the pest. Rotation among these groups is an important part of an insecticide resistance program, with rotation among three modes of action recommended. Remove insecticide ear tags as soon as horn fly numbers begin to decline in the fall. This reduces the amount of time that flies are exposed to a product and allows the number of susceptible flies to increase late in the season.

Besides ear tags, there are several other systems that can be put in place so that cattle can treat themselves with insecticides for horn fly and face fly control, generally in an effective and economical manner. Dust bags and back rubbers can be made or purchased. In addition, there are spray systems that can be incorporated into mineral stations or triggered as animals pass through gaps in fences between pastures. One advantage of ear tags is that the control system moves with

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the animals. This may be an advantage with rotational grazing where dust bags or back rubbers are not in place in every pasture or grazing area.

Protect yourself by wearing nonpermeable gloves when tagging animals. The concentration of insecticide in the tags varies from 8% to 36%. The tags are designed so that the insecticide is rubbed off the surface and onto the animal. Any handling of the tags leaves some insecticide on the hands allowing it to be transferred easily to the mouth, eyes, face, or other areas of the body. Some individuals may be very sensitive to the active ingredients in the tags and several products carry statements about the potential for allergic reaction. Many are easily absorbed through the skin or eyes, and some have irritating vapors.

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