



# Vet Call

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## Fly control for beef cattle herds

*As we move into summer, fly control becomes a topic of interest to cattle producers around the country. Because flies and the distress they cause to cattle are easily visible, producers surveyed were more likely to consider external parasites a high-cost problem than any other health condition. This is probably not true as other, harder-to-recognize health problems are usually more costly, but the level of concern points to the need to control flies effectively and economically.*

### Horn flies, face flies

The two types of flies that cause the most problems to grazing cattle are horn flies and face flies. Horn flies can be present in high enough numbers to decrease feed intake, average daily gain (ADG) and milk production. Face flies are associated with pinkeye in cattle. If this disease is affecting profitability, control measures against this pest are warranted.

Horn flies are small flies that feed about 20 to 30 times a day, primarily on the shoulders and back and less frequently on the neck, around horns and on the belly of cattle. The flies feed by inserting their mouthparts into the host's skin and sucking blood. The resulting pain and annoyance interferes with cattle's feeding and resting habits. Weight loss and reduced milk production can result. Generally, horn flies feed in large numbers and "swarm" when disturbed.

Face flies feed mainly around the face of the animal, particularly around the eyes, nose and mouth. These flies don't pierce the skin, but their mouthparts are sharp and like a rasp, and they may injure the eye tissue of cattle. As opposed to horn flies, face flies spend most of their time away from cattle, and only a few of the face flies in the area are on the cattle at any one time. Because face flies spend a lot of time away from cattle, they don't have a lot of contact with insecticides applied to the cattle.

### Control methods

The main way that flies are controlled is sanitation in combination with chemicals and/or biological control. Because flies lay eggs in fresh manure or decaying plant material, efforts to prevent the buildup of manure or wet hay and feed around feeding areas is helpful to decrease the fly

population. Two main types of chemicals to kill and/or repel flies can be applied to cattle several ways.

**Ear tags.** Ear tags can be highly effective in the control of horn flies and are as effective as any other methods for suppression of face flies. There are two chemical categories of insecticide ear tags available: pyrethroid and organophosphate. Horn fly resistance to pyrethroid ear tags is starting to occur more commonly, but the problem is scattered. In fact, horn flies may be controlled very effectively using pyrethroid tags for one producer, while his neighbor may get very poor control with the same product. If pyrethroid tags failed to control horn flies on your herd last year, it is unlikely they will perform satisfactorily this year.



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Face flies are not as likely to be resistant to pyrethroid-containing ear tags and, therefore, this insecticide gives fair control (as good as any method) for face flies by acting as a repellent. If pinkeye is a problem in your herd, but pyrethroid tags are not effective against your horn fly population, consider tagging cattle with pyrethroid tags for face fly control and using an alternative strategy (backrubber, dust bag, sprays or bolus) with a different type of chemical (organophosphate) for horn flies.

Ear tags containing organophosphate insecticides can give good control of horn flies; however, some fly populations have been reported to be resistant.

Organophosphate tags provide generally poor control of face flies.

**Backrubbers.** Backrubbers can be used particularly for horn fly control by applying insecticide solution to a cable-type backrubber or filling the reservoir of oiler-type backrubbers every 10 days to two weeks or as needed. Both organophosphate and pyrethroid insecticides are available for use in backrubbers.

Dust bags to control horn flies and to aid in the control of face flies can be used by placing bags in gateways, loafing sheds or other areas where cattle congregate and the bags will be kept dry. Placing the bags so cattle are forced to use them daily will result in increased control. It is important to remember not to hang bags over feed, mineral or water troughs.

**Sprays.** Sprays can also be used to control horn flies and to help control face flies. Follow the label directions for the amount of spray to apply to each animal. You do not have to use a high-pressure sprayer, as 40 pounds per square inch (psi) is adequate.

For face fly control, apply spray to the face of each mature animal. Be sure to follow label directions, but, in general, do not apply insecticides to calves less than 3 months old, and use light applications on calves 3 to 6 months old. Do not spray animals in a confined non-ventilated area, and do not spray animals under stress. Depending on the insecticide used, spraying should not be repeated more frequently than once every one to two weeks.

**Feed additives and dewormers.** A feed

additive or bolus formation of an insect growth regulator can be used to interrupt the horn fly life cycle by inhibiting the development of larval stages in the manure pat. If additives are consumed by all the cattle at an even rate, they can provide control of horn flies on relatively isolated herds. If the cattle are exposed to horn fly populations from other herds, the effect on fly numbers on the herd is decreased.

Avermectin dewormers are primarily used to kill internal parasites, but they will kill horn flies on contact, therefore, the pour-on formulations of avermectins have a label claim for control. Avermectins are also

secreted into the digestive tract and passed into the manure and provide control against the larval stages of horn flies in the dung pat.

For the most economical control of horn flies, treatment should be delayed until fly numbers reach 200 per animal (midsummer), and then dust bags, backrubbers, pour-ons, sprays or ear tags can be considered. The method of insecticide application will depend on:

- ▶ the time of year when fly numbers reach economically critical levels (how many days until cooler weather decreases the fly population naturally);
- ▶ whether resistance to pyrethroids has

been evident in the past; and

- ▶ the management practices of the ranch (whether the cattle will be gathered for another purpose that would allow the convenient use of sprays or pour-ons).

Work closely with your veterinarian to develop a plan to use products in ways that decrease the chance that your cattle will develop resistance problems and that provide cost-effective control of summertime flies.



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