

The Cow-Calf Manager: Fly Control to Keep the Flies From Winning

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Production losses to the US beef industry have been estimated in the \$700 million dollar range from horn flies alone. The flies seem especially bad this year. Perhaps it's the weather this spring or maybe it is the increased resistance of the flies to our common control methods. Whatever the reason, fly control for the cow-calf operation can appear more difficult and confusing each year. However, there are always new options (and some old ones) that give us lots of possibility for control. Let's try to break it down to some manageable pieces.

The flies. The 5 flies that affect cattle the most are horn flies, face flies, heel flies, deer flies and horse flies. Horn flies are the flies we see on the backs, side, and poll areas. They are bloodsucking flies that feed 20 to 40 times per day, and their major economic damage is from blood loss. Face flies feed on secretions of the eyes and nose, and are the major contributor to pinkeye. Heel flies lay the eggs that produce cattle grubs so their damage comes later. However, heel flies cause cattle to be nervous and spend less time grazing when the flies lay their eggs on the lower legs of cattle in late summer. Deer flies and horse flies are biting flies, but they don't feed as regularly on one animal like horn flies. Deer and horse flies are more nuisance flies that disrupt the grazing patterns of cattle and cause them to spend energy to get away from the flies. Deer and horse flies are hard to control in pasture situations. In the summer, the two flies we should work on controlling are horn flies and face flies.

Resistance develops when flies are exposed to insecticides too early, at too low a dose, or for too many years in a row. There are, naturally, a few flies in the population that are hard to kill with a particular type of insecticide. If these flies are exposed to insecticide early in the season, they continue to breed and all the flies by the end of the summer are resistant. If flies are exposed to the same insecticide year after year or at a low level, some of the flies "develop" resistance.

The products and methods. There are a dizzying number of insecticides on the market for fly control. However, they all fall into 5 basic categories -- pyrethroids, organophosphates, combinations, oral larvacides and avermectins. The five categories are applied as follows:

Pyrethroids: ear tags, spray, pour-on

Organophosphates: dusts, spray,

ear tags, pour-on

Combinations: ear tags

Oral Larvacies: bolusd or feed

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Avermectins:pour-on

Ear tags are the most convenient method for fly control. They give good control of horn and face flies. However, fly tag use has resulted in the most resistance. Ear tags should not be applied until June and must be removed 4 - 5 months later. This put the tags in when it will kill the most flies and creates less resistance. Too often you can see fly tags in cows in the winter because they weren't taken out in the fall. All these winter tags do is create resistance. Flies in Virginia are resistant to most of the "original" tags or first generation pyrethroids. New second generation pyrethroids, organophosphates, and combinations of the two offer some good options for ear tags to use against resistant flies.

Sprays, dust bags and rubbers are good ways to apply insecticides, but they are less convenient. They provide good control of horn flies but are slightly less effective for face flies. Most of these products are organophosphates although some are pyrethroids. Dust bags and rubbers (oilers) must be located where cattle will be forced to use them. The best locations are near mineral feeders or water troughs, but they should not be placed over the mineral or water as accidental poisonings could occur. Dust bags and cattle rubs must be recharged regularly so there is a constant supply of insecticide.

Pour-ons are easy to apply, but their duration of control is limited (usually 28 days). In addition, they only control horn flies. Most of the pour-on products are organophosphates or avermectins. For these products, the fly control is usually an added benefit of using them for deworming or lice control. They may not be the most economical way to control flies alone.

Oral larvicides are of limited use in pasture situations because flies can travel a great distance to find cattle. Entomologists have documented that horn flies regularly travel up to 3 miles to find cattle. So even though, the oral larvicide is reducing fly populations on your farm, flies could be coming from other locations. Oral larvicides were designed for feedlot or drylot situations and provide a good option in those environments.

Strategies for using fly control. The following simple steps can help make your fly control program more effective and create less resistance in the flies.

- Use fly control products only during the peak fly season (June - October).
- Use a combination of methods (such as tags and occasional spray), but use the same product during the same years.
- DO NOT "double up" on organophosphates, they can be toxic.
- Rotate types of insecticide yearly.
- Note any product that is not working on your farm and eliminate its use for several years.
- Keep dust bags and rubbers well charged
- Remove fly tags when recommended by manufacturer.