



Management Tip: Horn Fly Control
Dr. Greg Johnson, Professor of Veterinary Entomology

Today's question: Can you help me advise a rancher on the value of the use of fly control ear tags in calves?

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First the horn flies prefer the bigger animals - cows, steers, heifers, especially bulls – and don't spend much time on the calves. So the basic recommendation is to tag the mature animals not the calves. Calves are usually tagged at branding which is kind of a waste of tags, plus it's too early in the season. Generally, horn flies, at infestation levels of more than 250 flies per animal, cause loss in weaning weights due to lower milk production in the cows. I've done ear tag studies at Ft. Keogh and found fly levels over 1000 per animal in the control (untagged) while the tagged cattle were relatively free of flies. So the tags work pretty good in keeping flies off the cows.

There is a difference in the effectiveness of these tags. One problem is resistance to some of the pyrethroid-containing ear tags. It is strongly recommended that a rancher not use the same tag two years in a row but alternate tags. There are effective pyrethroid tags (Python, for example) that work well and these can be rotated the following year with tags containing

an organophosphate insecticide (Co-Ral Plus, Dominator) or a chlorinated hydrocarbon (Avenger). Usually two tags per animal are recommended and tag the animals as late as possible, say early to mid-June.

As for the economics, there have been studies at the University of Nebraska showing that weaning weights can be reduced by 8% at around 500 flies per cow. The higher the infestation levels the bigger the potential impact. It's difficult to predict what the fly levels will be like for any summer. Usually, hot, dry weather results in high fly numbers. If there's over 200 – 300 flies per cow, then it would likely pay to invest in fly control.

Another option would be the use of dust bags. They will provide 75 – 80% control of horn flies. Dust bags are most effective when placed in a forced-use situation and they do require weekly checking.

I've attached a summary of ear tags and some comments. Please get in touch if you have questions.

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Insecticide Ear Tags

Python Magnum	zeta cypermethrin. 1 tag/animal. Very effective against horn flies
Python	pyrethroid plus synergist. 2 tags/animal. Good for horn flies and has repellent activity against mosquitoes.
Patriot	diazinon. 2 tags/animal. Good against horn flies, especially ones that are resistant.
Super Deckem	permethrin. 2 tags/animal. Ok for horn flies, may not last all season.
Optimizer	diazinon. 2 tags/animal. Contains about half the insecticide as the Patriot tag.
Doominator	pirimophos methyl. 2 tags/animal. This is an organophosphate insecticide and works good where resistance to pyrethroid insecticides is a problem.
Warrior	diazinon + chlorpyrifos. 2 tags/animal. Good for horn flies. One of the tags recommended where resistance is a problem.
Avenger	endosulfan. 2 tags/animal. This insecticide hasn't been used in ear tags before. Should provide excellent control of horn flies.
GardStar Plus	peremthrin. 2 tags/animal. Won't control horn flies if there's any resistance to pyrethroids.
Co-Ral Plus	coumaphos + diazinon. 2 tags/animal. Worked very good for 8 weeks for horn flies in eastern Montana.

Dust bag insecticides

Python dust & Co-Ral dust. Both products will give decent horn fly control provided the bags are in a forced-use situation.