Insecticide-Impregnated Ear Tags – One Option For Pasture Fly Control

DR. LEE TOWNSEND

LEXINGTON, KY.

Insecticide impregnated cattle ear tags release small amounts of insecticide which are distributed over the animal by skin oils and rubbing. In general, ear tags provide excellent, long term control of horn flies and some reduction in face flies. Here are some things to consider:

• Read the label before you buy. All tags are labeled for beef cattle while only those with certain active ingredients are approved for use on lactating dairy cattle. Also, check for any limitations for use; in general, animals less than 3 months old should not be tagged.

• Look for the common name of the active ingredient (for example, permethrin). In some cases, different brands of tags contain the same active ingredient. You can save money by comparison shopping, or avoid inadvertently using the same active ingredient if resistance is a potential problem.

• Consider the recommended number of tags per head. Some brands are used at the rate of one per animal and provide good horn fly control. Systems which use two tags per animal seem to provide better face fly control than those which rely on a single tag.

• It is best to tag animals after horn fly numbers reach 100 or more per side. This reduces the chances of the flies developing resistance to the active ingredients that are being used. Normally, tags provide 12 to 15 weeks of fly control. Tagging too early can mean that the tags are not providing good control late in the season when fly numbers are highest.

• With insecticidal ear tags, the control system moves with the animals. This may be an advantage if animals are moved at intervals and dust bags or back rubbers are not in place in every pasture or grazing area.

There are five groups of tags based on the active ingredient(s) that they contain:

1. Organophosphate (OP) insecticides such as diazinon, fenthion, pirimofos methyl, or a diazinon + chlorpyrifos combination. These tags provide good horn fly control and moderate face fly control.

2. Synthetic pyrethroid (SP) insecticides Python Magnum z-cypermethrin (beef and lactating dairy cattle) 1 per head for horn fly control and aid in control of face flies. Saber Extra – l-cyhalothrin (beef and non-lactating dairy cattle – 2 tags per head. Cylence Ultra b-cyfluthrin (beef and lactating dairy cattle) 2 per head

3. Combination tags. These couple an organophosphate (OP) and pyrethroid (SP) in the same tag. Current examples pair l-cyhalothrin and pirimiphos methyl; or cypermethrin and chlorpyrifos. The assumption is that the OP insecticide in the tag would control P resistant horn flies.

4. Avenger tag (beef and lactating dairy cattle) contains 30 percent endosulfan, a chlorinated hydrocarbon insecticide. Provides horn fly control and reduction of face flies. 1 or 2 tags (recommended) may be used.

5. XP820 tag (beef and non-lactating dairy cattle) contains abamectin. 1 tag per animal controls horn flies for up to 3 months. 2 tags per animal provide up to 5 months of control and reduces numbers of face flies.

Rotation of tags containing active ingredients from different classes of insecticides is an effective strategy to prevent development of insecticide resistance, especially in horn fly populations.

Safety precautions associated with insecticide ear tags

Nonpermeable gloves should be worn when tagging animals. This is clearly shown in the application pictures on the containers of some tag brands. The hands shown applying the tags clearly have gloves. Comparable pictures with other brands do not obviously show gloves, although label statements indicate that they should be worn.

Insecticidal ear tags should not be handled barehanded. The concentration of insecticide in the tags varies from 8 percent to 36 percent. The tags are manufactured so that the insecticide is rubbed off the surface and onto the animal. Any handling of the tags leaves some insecticide on the hands. The insecticide then can 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.

Signal words on the label range from CAUTION to WARNING. Several products carry statements about the potential for allergic reaction following exposure. Many are easily absorbed through the skin or eyes, some have irritation vapors. Wear protective gloves and wash hands thoroughly with soap and water after tagging or when taking a break. Δ

DR. LEE TOWNSEND: Extension Entomologist, University of Kentucky