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EAR TICK AND FLY CONTROL WITH PESTICIDE IMPREGNATED CATTLE EAR TAGS

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Introduction

Pesticide impregnated cattle ear tags are a revolutionary new method of external parasite control on cattle. Of the many Oklahoma cattle parasites, ear tags will effectively control only ear ticks and horn flies. A composite listing of control suggestions for some of the more important beef cattle insect parasites is found in OSU Extension Facts No. 7000.

There are currently two commercially available ear tags on the market; they are the "Tick Tag"¹ and Rabon[®] Cattle Ear Tag². Cattle ear tags containing synthetic pyrethroids, which are longer lasting, are expected on the market in the future.

Field studies in Oklahoma and Texas have indicated some problems with the

¹Manufactured by Y-Tex Corporation, Cody, Wyoming; active ingredient is Dursban[®] (chlorpyrifos).

²Manufactured by Diamond Shamrock, Cleveland, Ohio; active ingredient is Rabon[®] (tetrachlorvinphos).

"Tick Tag" and the Rabon ear tag. The main problem with the "Tick Tag" is that an unacceptable percentage of the tags are commonly lost from the ear. We understand new tag design should be available in the near future. The Rabon Cattle Ear Tag originally had a problem with necrosis of the tagged cattle ear. The current ear tag is much lighter and has a longer button which has alleviated most of this problem.

Ear Tick Control with Rabon Cattle Ear Tags

Spinose and Gulf Coast ear ticks are the only ticks that are effectively controlled by the Rabon ear tag. This is due to the habit of these ticks of attaching only to cattle's ears. The lone star tick, the major tick problem on Eastern and Southeastern Oklahoma cattle, is not controlled by Rabon ear tags, as its preferred attachment sites are under the body, around the legs, the brisket, and on the tail-head area of cattle. However, lone star ticks, especially larvae and nymphs, attaching on or near the head may be controlled.

Spinose ear ticks are considered a year-round problem. Cattle must be tagged throughout the year as problems arise in order to control this pest.

Gulf Coast ear ticks are considered a problem mainly during the adult stage, and cattle would need to be tagged at the start of their activity. Adult ticks are present from April through July, with their first activity depending on seasonal weather conditions and location south to north within the state.

Ear tags must be used in both ears for tick control. Young calves' ears must be mature enough to support the weight of ear tags, or they will cause a permanent droop.

Life history summaries and other methods for control of summer ticks on beef cattle are discussed in OSU Extension Facts No. 7006.

Fly Control with Rabon Cattle Ear Tags

Several fly pests (horn fly, face fly, house fly, horse fly and stable fly) are of concern to cattle producers depending on the type of operation and geographic location within the state. Of these pests, only horn flies have been controlled consistently with ear tags.

Horn flies are the small biting flies found on cattle from early spring until frost. They have a statewide distribution and peak populations occur in mid-to-late summer with numbers commonly reaching 1,000/head on untreated animals. Their frequent bites to obtain a blood meal cause much irritation as indicated by tail switching, head throwing, stomping, kicking, standing in ponds, etc.

The use of either one or two ear tags per head has been demonstrated to give satisfactory control for 9-10 weeks (Figure 1). Season-long control requires two taggings with the first tagging generally about May 1.

Although calves do not normally have

many horn flies until a few months of age, one tag per cow will provide horn fly protection for calves at side. Bulls normally carry heavier horn fly populations and have a more limited neck movement; therefore, it would be beneficial to tag them in both ears.

Face fly control with Rabon ear tags at the two/head rate has been inconsistent from one state or geographic region to another and a 60% suppression rate is probably the best figure being quoted. Limited tests in Oklahoma have shown the Rabon ear tag to have little effect against this pest. Face fly biology and control are discussed in OSU Extension Facts No. 7007.

In southeast Oklahoma a small horse fly, *Hybomitra nigricans*, is present on the faces of cattle from mid-April to the end of May. It is commonly called the face fly, but it is not, nor are the tags effective against it.

General Information about Rabon Cattle Ear Tags

Effective Length

Rabon Cattle Ear Tags are generally effective about 9-10 weeks depending on climatic conditions. Horn fly populations increase dramatically when the ear tags are no longer effective.

Mode of Action

In simple terms, Rabon Cattle Ear Tags are like miniature dust bags. Small portions of insecticide dust flake out of the tag and are dispersed on the animal's body when grooming, throwing the head to get flies off, rubbing together, etc.

Ear Tag Placement

Ear tags should be placed at mid-ear between the second and third ribs of cattle's ears, although the directions on the label indicate placement between the 3rd and 4th ribs. This printing of

the box is in error. Care should be taken to avoid penetration of the ear's rib or blood vessels.

Application of Ear Tags

Instructions for applying the Rabon ear tags come with product lableing. An Allflex® ear tag applicator is used to attach these ear tags. The applicator should be disinfected before each animal is tagged. This is to prevent the pos-

sible spread of blood-borne diseases such as brucellosis and to promote healing of the ear attachment site.

Tattoos in Cattle Ears

Brucellosis (Bangs) vaccine tattoos and purebred association ID tattoos are important for identification purposes and should not be destroyed during tagging. The bangs tattoo can generally be found in the right ear.

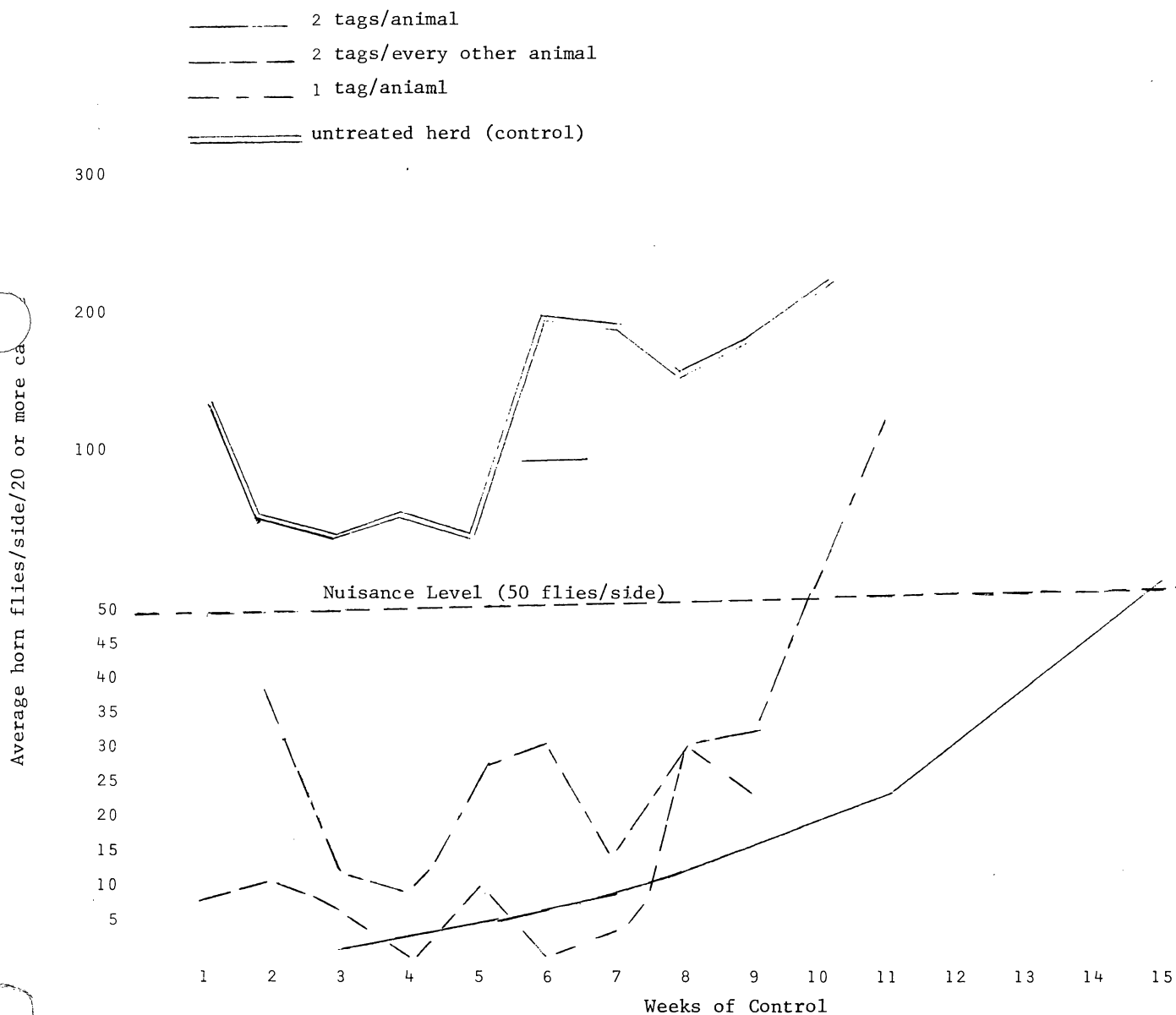


Figure 1. Effectiveness of 13% Rabon Cattle Ear Tags for horn fly control, Stillwater, Oklahoma, 1979.

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