

Insect Control on Beef Cattle
Jeffery K. Tomberlin, Ph.D.
Assistant Professor & Extension Specialist
Texas Cooperative Extension
Texas A&M University

Flies, although small, pack a big financial punch costing the U.S. beef industry hundreds of millions of dollars annually. These flies, specifically the horn fly and stable fly, are known to not only feed on the animal's blood, but are considerably annoying to the livestock as well as people present. Thresholds accepted for these flies are 200 horn flies/cow and 4 stable flies/cow. Numbers greater than these will result in economic loss.

Because of the flies' impact, many methods have been developed for suppressing fly populations associated with beef cattle. Methods range from those requiring substantial amounts of time to implement, such as perimeter sprays, to those requiring little time at all, such as ear tags or back rubs. Regardless of the technique employed though it is important that the user follow the directions listed on the product label. This rule is not only for the safety of the animal and those administering the treatment but to also capture the greatest benefit offered. Presented below is a review of a few methods for suppressing fly pests associated with beef cattle.

The most common methods for suppressing fly pests associated with cattle are sprays, larvacides, dusts, pour-ons, and ear tags. Each of these methods is easily applied and provides substantial control for a set period of time. Because their effectiveness to kill flies will decrease over time, a producer may have to re-administer the insecticide more than once during the course of a year.

Larvicides are insect growth regulators that prevent the immature fly from developing into an adult. These insecticides can be administered through the feed, mineral block, or a bolus. Regardless of the technique, these insecticides enter the cow and are eventually found in its

manure. The resulting manure contains the insecticide and any larvae that attempt to develop in it will die. These insecticides offer very little, if any, danger to persons handling them.

Various liquid insecticides are also available for fly control. Systemics are available as pour-ons and are similar to larvicides. However, these insecticides focus on the adult flies and are more hazardous to handle. Once applied the product is absorbed through the skin of the animal and circulates through the animal's blood. Any insect that feeds on the blood of these treated animals will also ingest the insecticide and die. Other liquid insecticides and dusts can be administered through self-application devices, such as back rubs. These devices are often located where cows are forced to pass through them (i.e. feed barn or near a water source) to insure proper treatment and are generally suitable for herds with ≤ 50 head. Producers employing self-application devices must remember to not allow them to run out of insecticide.

An ear tag is a piece of plastic impregnated with an insecticide that is attached to the ear of an animal and can offer up to five months control. This method offers very little danger to those handling them other than contact with their hands. Therefore, rubber or latex gloves should be worn when attaching tags to cattle. Tags come in a multitude of colors, shapes, and names and this can become overwhelming when trying to buy the "right" tag for your cattle. However, the important information is not in the appearance or name but in the label.

This summary is a basic review of some basic chemical methods for suppressing pest fly populations associated with cattle. There are many other techniques, as well as chemicals, available for the suppression of these pests that were not reviewed here. However, the techniques covered above have been shown to work effectively. For more information on this subject please refer to Extension Publication B-1306.

Always remember that these insecticides can be harmful to individuals, as well as the animals, if used incorrectly or without care. Here are three basic rules that will help when working with insecticides: 1) read the label for the protection of the animal and the individual applying it; 2) wear protective clothing as required 3) consult your County Extension Agent for suggestions about which product to use.

Table 1. Examples of various pesticides and application techniques used for suppressing insect pests on cattle.

		Ear tags	
Trade name	Compound	Insecticide class	Target insect
Co-Ral Plus™	Coumaphos 20% + Diazinon 20%	Organophosphates	Horn fly, face fly, Gulf Coast & spinose ear ticks
Gardstar Plus™	Permethrin 10%	Pyrethroid	Horn fly, face fly, Gulf Coast & spinose ear ticks
Patriot™	Diazinon 40%	Organophosphate	Horn fly, face fly, stable fly, Gulf Coast & spinose ear ticks, and lice
Warrior™	Diazinon 30% + Chlorpyrifos 10%	Organophosphates	Horn fly, lice, Gulf Coast & spinose ear ticks
Python™	Zeta-Cypermethrin 10% + Piperonyl Butoxide 20%	Pyrethroid & synergist	Horn fly, face fly, lice, Gulf Coast & spinose ear ticks
		Dusts	
Beef Cattle dust with Rabon™	Rabon/Tetrachlorvinphos	Organophosphate	Horn fly, face fly, & ticks
Gordon's Dairy & Livestock Dust™	0.25% Permethrin	Pyrethroid	Horn fly, face fly, & lice
Python Dust™	Zeta-cypermethrin	Pyrethroid	Face and horn flies
Residual sprays for facilities and premises only			
Tempo 1% Dust™	1% Cyfluthrin	Pyrethroid	Ticks
Permethrin-10™	10% Permethrin	Pyrethroid	Flies, mites, & ticks,
Demon WP™	Cypermethrin	Pyrethroid	Flies & ticks
Tempo 2 EC™	24% Cyfluthrin	Pyrethroid	Flying insects
Pounce 3.2 EC™	38% Permethrin	Pyrethroid	Flying insects
Pounce 25 WP™	25% Permethrin	Pyrethroid	Flying insects

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