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ECTRIN EAR TAGS FOR HORN FLY CONTROL

ON RANGE BEEF CATTLE

P. H. Kohler¹ And L. Blome²

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Summary

Ectrin ear tags on range beef animals resulted in excellent horn fly reductions when used in various ways. One tag per cow, two tags per cow, two tags in 1/3 of the cows and one tag in every other cow resulted in horn fly reductions of 85-99% for at least four months.

Introduction

Ectrin ear tags are insecticide-impregnated with the active ingredient fenvalerate (8%).³ They are approved for use on lactating dairy cattle, beef cattle and calves. Each time an animal turns or tosses its head, a layer of Ectrin is rubbed or falls off onto the animal. As one insecticide layer is rubbed off, another forms. This action continues for the life of the tag. Advantages to this type of horn fly control are tagging is quick and easy using the All-Flex specially designed pliers, dampness or rain has little effect on efficacy, and the fly control reservoir is carried and used by each treated animal.

A random sample of 10 animals from each herd was counted using binoculars and looking out of a pickup window. Results are presented as an average number of horn flies/side of these 10 animals. An equal number of untreated or control animals was counted from a herd near the treated herd at nearly the same time. Problems of lost tags or infected ears due to the tags were minimal.

Results

The Ectrin tags were applied in various combinations to study their effectiveness. Tables 1 and 2 show the horn fly reduction results of one tag per animal. The results ranged from 90-99% control of horn flies for the 91-139 days of these studies.

As shown in table 3, excellent reductions occurred for 113 days using two tags per animal, one in each ear. Table 4 reports results of two tags in 1/3 of the cow herd. This saves 33% of the cost of tagging each animal with one tag. Eighty-five to 99% horn fly control resulted in the 124-day study period. However, at the last count, tagged cows had about 45 fewer flies than the untagged.

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TABLE 1. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON COTTONWOOD-FORT MEADE COWS¹ (1981)--ONE TAG PER COW

Count Date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
4-29	0	25	-- ²	--
6-15	47	<1	250 ² ₃	99
9-15	139	<1	20 ³	99

¹Cows treated at the Cottonwood Station and moved to Fort Meade on June 16, 107 head.

²Untreated herd 3 miles north of Cottonwood Station.

³Weather cool.

TABLE 2. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON YEARLING STEERS AT COTTONWOOD STATION¹ (1981)--ONE TAG PER ANIMAL

Count Date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
6-3	0	100	-- ²	--
6-23	20	3	250 ² ₃	99
8-3	61	3	255 ³	99
9-2	91	<10	110 ³	over 90

¹75 head.

²Three miles north of Cottonwood Station.

³Two miles south and 2 miles east of Cottonwood Station.

TABLE 3. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON RANGE COWS¹ (1981)--TWO TAGS PER COW

Count Date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
5-13	0	100	-- ²	--
6-24	42	.8	250 ² ₃	99
8-3	82	2.8	255 ³	99
9-3	113	3.7	110 ³	97

¹Bill Buls Ranch, 90 Angus and Angus Cross cows.

²Cows 3 miles north of Cottonwood Station.

³Cows 2 miles south and 2 miles east of Cottonwood Station.

TABLE 4. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON RANGE COWS¹ (1981)--TWO TAGS IN 1/3 OF COWS

Count date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
5-2	0	75	-- ³	--
6-23	52	6.1	150 ³	98
8-3	93	3.5 ⁴	255 ²	99
9-3	124	18.5 ⁴	110 ²	85

¹Garland Kampfe Ranch (1 mile south of Cottonwood Station), 90 crossbred cows.

²Cows 2 miles south and 2

³Three miles north of Cottonwood Station.

⁴<5 horn flies on treated and 50 on untreated.

Table 5 shows results of fly counts on a herd where every other cow was tagged. Ninety-one to 99% horn fly reductions were observed over a 117-day period. However, at the last count the tagged cows in the herd showed a reduction of 97% compared to 85% for the untagged cows.

TABLE 5. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON RANGE COWS¹ (1981)--ONE TAG IN EVERY OTHER COW

Count date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
5-9	0	50	-- ³	--
6-23	45	1.4 ²	150 ³	99
8-3	86	1.5 ²	255 ⁴	99
9-3	117	10 ⁵	110 ⁴	91

¹Greg and Tim Weber Ranch (6 miles west and 2 miles north of Philip, S.D.)² 115 Angus cows.

³No difference between treated and untreated within the herd.

⁴Three miles north of Cottonwood Station.

⁵Two miles south and 2 miles east of Cottonwood Station.

⁵Tagged cows averaged 3 (97%) and nontagged 17 (85%).

Table 6 shows results of only treating the calves of a 250-cow herd. Fly counts were made on the cows. Reductions of horn fly numbers over a 101-day summer fly period were observed to be 69-91%. This method cannot be recommended for efficacy against horn flies.

TABLE 6. EFFECT OF ECTRIN EAR TAGS ON HORN FLY COUNTS ON RANGE BEEF CATTLE¹
(1981)—CALVES ONLY TREATED, COUNTS ON COWS

Count date	Days post-treatment	Horn flies/side		Control (%)
		Treated	Untreated	
5-25	0	250	--	--
6-24	30	1.4	150 ²	91
8-3	70	--	--	--
9-3	101	34.5	110 ³	69

¹Bill Buls Ranch (6 miles east and 8 north of Philip, S.D.), calves treated, one ear tag each.

²Untreated cows 6 miles east and 4 north of Philip, S.D.

³Untreated cows 3 miles south and 1 east of Cottonwood, S.D.