

1975

Response by Native Feedlot Lambs to Injectable Tramisol

L. B. Embry
South Dakota State University

W. S. Swan

Follow this and additional works at: http://openprairie.sdstate.edu/sd_sheepday_1975

Recommended Citation

Embry, L. B. and Swan, W. S., "Response by Native Feedlot Lambs to Injectable Tramisol" (1975). *South Dakota Sheep Field Day Research Reports, 1975*. Paper 3.
http://openprairie.sdstate.edu/sd_sheepday_1975/3

This Report is brought to you for free and open access by the Animal Science Reports at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in South Dakota Sheep Field Day Research Reports, 1975 by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

Response by Native Feedlot Lambs to Injectable Tramisol

L. B. Embry and W. S. Swan

Internal parasites are a major problem for the sheep industry. However, there has been much improvement in effectiveness of control methods in recent years. The problem of internal parasites in sheep in South Dakota has not appeared to be a major one over past years, and the economic value of control treatments has been questionable. However, frequent testing under a wide variety of conditions is needed as a basis for recommendations concerning the need for any control measures.

Drenching has been a common and effective means of controlling internal parasites in sheep. Several effective products are available for use by this method. The injection method offers some important advantages over drenching for effective and safe products. Tramisol has been cleared as an injectable product for internal parasite control in cattle and has been tested for this purpose for sheep.

The objective of this experiment was to further test Tramisol with feedlot lambs. Observations were made as to the apparent initial reaction of the lambs to the injection, evidence of swelling at site of injection and evidence of tissue damage at time of slaughter.

Procedures

Two hundred forty native ewe and wether feeder lambs from the northwestern part of the state were used for the experiment. They were offered a full feed of chopped alfalfa-brome hay and corn grain from arrival until put on the experiment 8 days later. The initial allotment was to 24 pens on basis of weight and sex with five ewes and five wethers per pen.

Rations fed during the experiment were composed of three parts high-moisture corn grain and one part corn silage on an as fed basis with 0.3 lb. per head daily of supplement. Six types of supplement were fed with each being offered to four pens of lambs. The ration was a high-concentrate one on a dry basis. The lambs were brought to a full feed of the rations over a period of about 12 days by gradual reductions in the corn silage and increases in the high-moisture corn grain.

Within each dietary treatment group of four pens, two served as controls for the test of Tramisol (12 pens) and two pens of lambs were injected with Tramisol (12 pens) at 2 cc per head. The injection was given subcutaneously in the mid-region of the neck.

At the beginning of the experiment, fecal samples were taken rectally from two lambs per pen (48 samples) for an initial egg count to determine initial level of infestation of internal parasites.

The lambs were fed for 95 days and slaughtered. The necks were examined by an official inspector at the packing plant for evidence of tissue damage at sight of the Tramisol injection.

Several losses occurred during the experiment as indicated by numbers finishing the experiment (table 1). Most of the losses were from overeating disease. The lambs were not vaccinated for prevention of overeating disease since it was desired to determine if any of the supplements might have been beneficial in preventing this condition. Results presented for feedlot performance and carcass data are for the lambs finishing the experiment. When a loss occurred, the initial weight was deducted from the pen and an average feed was deducted for the time each lamb was on the experiment.

Results

The initial infestation from internal parasites was low as indicated by examination of fecal samples taken from two lambs per pen (20% sample) at the beginning of the experiment. Number of eggs per gram with number of lambs were as follows: 0-24, 1-10, 2-4, 3-4, 4-0, 5-2, 6-2, 7-0, 8-2. In view of the low infestation, later examinations were not made.

Three of the 120 lambs showed a noticeable reaction to the 2 cc subcutaneous Tramisol injection. Mild muscular tremors were observed in two of these lambs. The tremors had subsided in about 15 minutes and the lambs appeared to be experiencing no discomforts from the injection. In the third lamb, muscular tremors and incoordination in gait were very pronounced for a period of about 10 minutes. The lamb remained on its feet and appeared normal after about 30 minutes.

Other than these three cases, the reaction of the lambs to the injectable Tramisol did not appear to differ from slight discomforts frequently observed from some common injections such as that used for prevention of overeating disease. The lambs were under almost constant observation during the first 2 hours following the injection and then checked at hourly intervals for the next 4 hours. There were no signs of any discomfort or toxic effects other than those described above.

All lambs injected with Tramisol were examined by palpation at the site of injection for evidence of swelling or abscesses at 7 and 14 days following the treatment. There were no signs of swelling or other evidence of tissue damage in any of the lambs at either 7 or 14 days posttreatment.

Feedlot performance data for this experiment are presented in table 1. Average daily gain for 105 lambs in the control group was 0.461 lb. for the 95-day experiment. The 101 head finishing the experiment and injected with 2 cc of Tramisol gained 0.021 lb. (6.1%) more daily ($P < .10$).

Lambs treated with Tramisol consumed slightly more feed than controls. There was a slight reduction in feed requirements, amounting to 2.4%.

Differences in carcass characteristics were small as might be expected with the small differences in weight gains and market weights. There was a high percentage of livers condemned because of infestation with fringed tapeworms. The number was 24 for lambs treated with Tramisol in comparison to 47 from the control group. This apparent difference would appear to warrant further testing of the product. Another group of lambs from the same source as those in this experiment and about equal numbers but not treated for internal parasite control also had about 50% condemned livers from fringed tapeworms.

While the weight gain and feed efficiency advantages for lambs injected with Tramisol were small, they were obtained with lambs having an apparent low infestation of internal parasites. The improvement was relatively uniform in direct comparisons between control and treated lambs and rather consistent throughout the experiment.

For 40 lb. of feedlot gain, the weight gain advantage could reduce time in the feedlot by 5 to 6 days at the rate of gain obtained in this experiment. The small improvement in feed efficiency could result in a saving of 8 to 10 lb. of feed per lamb. These values while small would indicate a possible benefit from treating feedlot lambs even with an apparent low level of infestation from internal parasites.

Summary

Feedlot lambs having an apparent low level of infestation from internal parasites appeared to show a small response in weight gain (6.1%, $P < .10$) when injected with 2 cc of Tramisol. Treated lambs consumed slightly more feed but with a slight improvement in feed efficiency (2.4%) over controls. Treated and control lambs had similar carcass characteristics. However, about 45% of livers from control lambs were condemned because of infestation with fringed tapeworms in comparison to about 24% of livers from lambs injected with Tramisol.

The small improvement in weight gain and feed efficiency could result in a saving of 5 to 6 days in feedlot time with 8 to 10 lb. less feed for a weight gain of 40 lb. on basis of gain and feed intake obtained in this experiment. Further testing would appear necessary to determine the consistency of beneficial effects obtained with lambs having apparent low levels of infestation from internal parasites.

Only 3 of 120 lambs appeared to show any reaction when Tramisol was injected at 2 cc subcutaneously to lambs averaging about 75 pounds. There was no evidence of any swelling or tissue damage when examined at 7 and 14 days after injection and when slaughtered 95 days later.

Table 1. Tramisol Injection for Feedlot Lambs
(November 29, 1973 to March 4, 1974--95 days)

	Control	Tramisol
No. of animals	105	101
Avg. initial wt., lb.	74.6	74.7
Final feedlot wt., lb.	118.5	121.1
Avg. daily gain, lb.	0.461	0.489
Avg. daily ration, lb.		
High-moisture corn grain	2.66	2.77
Corn silage	1.15	1.19
Protein suppl.	0.29	0.29
Total	4.10	4.25
Feed/100 lb. gain, lb.		
High-moisture corn grain	579	568
Corn silage	249	243
Protein suppl.	64	60
Total	892	871
Carcass wt., lb.	61.1	61.8
Conformation grade ^a	12.2	12.4
Maturity ^b	2.0	2.0
Flank streaking ^c	14.1	14.6
Feathering ^c	14.8	15.4
Grade ^a	11.9	12.0
Dressing percent	51.6	51.0
Condemned livers	47	24

^a Choice = 11, Prime = 14. Graded to one-third grade.

^b A- maturity = 1, A+ maturity = 3.

^c Slight = 11, Small = 14, Modest = 16.