

EFFECTS OF WORMING FEEDLOT HEIFERS WITH THIABENDAZOLE

Beef cattle are host to worms of three species Cooperia, Ostertagia, and Haemonchus. These can, when conditions are right, do serious damage to the beef animal. However, their influence under feedlot conditions in the western Dakota area is not clearly understood. If the number of worms per animal is high, then their removal should result in better feed efficiency and faster rate of gain. Number of worms per animal can be estimated by making fecal worm-egg counts using microscopic techniques. Several commercial products are available that will effectively reduce worm numbers when used as directed.

A trial was started in May, 1968 to evaluate the practice of worming feedlot cattle in western North Dakota. In this trial, Hereford heifers were purchased from an area believed to be infested with cattle worms. These heifers, averaging about 520 pounds, were randomly allotted by weight into two lots. Both lots were fed a high roughage ration based on corn silage, dry rolled barley, alfalfa hay, and minerals. The heifers were checked for worms by making worm-egg counts of fecal material which indicated the heifers were carrying worms.

The first two years of the trial, the heifers to be wormed were treated by feeding two pounds per head of a commercial cattle wormer containing thiabendazole. The treatment was given according to manufacturer's directions at a cost of \$0.75 per head. In 1971, the thiabendazole was administered to the treated heifers as a bolus.

Table 13 shows the 3 year results, however the 1971 trial results are not complete since the trial is still in progress at this time.

Table 13. Summary of Data From the Worming Trial with Heifers

	Wormed Lot			
Data on:	1969	1970	1971 to Nov. 1	3 Yr. Avg.
Number of head per lot	10	10	7	27
Avg. initial weight per head	526.0	521.5	522.9	523.5
Avg. final weight per head	898.0	911.0	835.7	881.6
Avg. gain per head	372.0	389.5	312.8	358.1
Days fed	213	239	189	214
Avg. daily gain per head	1.75	1.63	1.66	1.68
Cost per hundred pounds gain	\$17.88	\$18.44	\$15.94	\$17.42
Feed per hundred pounds gain	2479	2160	2024	2221
Hot carcass weight per head	527.1	522.9	----	525.0 ^{2/}
Avg. dressing percent	58.7	57.4	----	58.05 ^{2/}
Avg. grade	10.1	9.2	<u>1/</u>	9.6 ^{2/}
Avg. carcass value	\$208.63	\$239.91	----	\$224.27 ^{2/}
Avg. worm-egg count before treatment	4200	130	----	----
After treatment	20	----	----	----
	Control Lot			
Number of head per lot	10	10	7	27
Avg. initial weight per head	521.5	521.0	524.3	522.3
Avg. final weight per head	915.5	922.5	827.9	888.6
Avg. gain per head	394.0	401.5	303.6	366.4
Days fed	213	239	189	214
Avg. daily gain per head	1.85	1.68	1.61	1.71
Cost per hundred pounds gain	\$16.99	\$17.90	\$16.48	\$17.12
Feed per hundred pounds gain	2367	2099	2008	2158
Hot carcass weight per head	545.4	531.3	----	538.4 ^{2/}
Avg. dressing percent	59.6	57.6	----	58.6 ^{2/}
Avg. grade	9.5	9.8	<u>1/</u>	9.6 ^{2/}
Avg. carcass value	\$214.08	\$247.46	----	\$230.77 ^{2/}
Avg. worm-egg count before treatment	4100	140	----	----
After treatment	3200	----	----	----

1/ No data available.

2/ 2-Yr. averages.

Table 14. Rations Fed in the Worming Trial with Heifers

	Wormed Lot					Control Lot			
	1969	1970	1971 to Nov. 1	3-Yr. Avg.		1969	1970	1971 to Nov. 1	3-Yr. Avg.
Ration lbs. per head per day:									
Alfalfa	1.5	2.0	1.9	1.8		1.5	2.0	1.9	1.8
Corn silage	32.7	24.8	21.4	26.3		33.2	24.9	21.2	26.4
Barley	8.9	8.8	8.7	8.8		8.9	8.8	8.7	8.8
Minerals	0.2	0.2	0.2	0.2		0.2	0.2	0.2	0.2

Summary

Although the third year's trial is not complete, it appears that little if any advantage from worming feedlot cattle has been gained. (See Appendix I).