

THE INFLUENCE OF INTERNAL PARASITES UPON GROWTH
AND PRODUCTIVITY OF WEANER SHEEP

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Internal parasites are considered to contribute to the poor growth and productivity commonly found in young sheep in western Victoria. Whilst the problem is easily recognized in untreated animals, the extent of losses due to parasitism in flocks receiving recommended anthelmintic treatment is not known. A project at Hamilton is measuring these losses and evaluating alternative treatment programmes.

Flocks of Merino lambs born in spring 1974 and 1975 were drenched at weaning (Dec) and in late summer (Feb) and allocated in groups of 12, to five treatments, in a randomised block design with three replicates (Table 1). All groups had initial live weights of approximately 21 kg and were set stocked at 15 ha⁻¹.

TABLE 1: Treatments, liveweight gain and wool production (March-Dec)

Year and anthelmintic treatment	Clean fleece wt. (kg)	Mean fibre diam (μ)	Livewt. gain (kg)
1975 No drenches (0D)	1.84	17.2	5.8
March drench (1D)	1.91	18.0	6.5
July, Oct. drenches (2D)	2.27	18.4	10.4
Weekly drenches (WD)	2.50	19.0	13.2
Anthelmintic block	2.09	18.2	7.3
L.S.D. (P = 0.05)	0.23	1.0	1.6
1976 No drenches (0D)	2.23	17.9	9.3
July, Oct. drenches (2D)	2.20	17.6	11.7
Apr, May, June, July, Aug (5D)	2.51	18.9	14.7
Monthly drenches (MD)	2.61	19.3	14.9
Weekly drenches (WD)	2.64	19.0	15.2
L.S.D. (P = 0.05)	0.10	0.9	3.8

Deaths attributable to parasitism occurred in treatments 0D-1975 (4 sheep), 1D-75 (3), 0D-76 (2) and 2D-76 (1).

Sheep drenched weekly were assumed to be essentially worm-free wherein production was determined by genetic and nutritional factors. By comparison, groups drenched according to recommendations (2D) gained 21-23% less live weight and grew 10-16% less wool. Molasses blocks containing phenothiazine were less effective than treatment (2D). The productivity of sheep drenched monthly (MD) or five times (5D) was similar to sheep drenched weekly.

The results demonstrate that internal parasites continue to be an important source of loss, despite recommended treatment. Further research is required to develop more effective control measures for this region.

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