THE COMPARATIVE EFFECT OF PARASITES ON LIVESTOCK AND WOOL PRODUCTION IN MATURING MERINO WETHERS, IN TWO ENVIRONMENTS

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As sheep mature and are exposed to parasites they develop a resistance to some nematode parasites and tolerance to others. This results in reduced numbers becoming established in the sheep and the pasture contamination/sheep re-infection cycle settles down to a lower level. Two experiments, one in a summer and the other in a winter rainfall environment documented the comparative effect of parasites on liveweight and wool growth in merino wethers as they matured.

Two contrasting levels of parasite control were established. These were a "suppressive" level to reduce re-infection to a low level and "salvage" in which the only treatments were of a salvage nature in the weaner year to maintain numbers. The suppressive programme involved monthly treatments of thiabendazole in Experiment 2, while in Experiment 1, additional alternating treatments of rafoxanide were used between September and March to suppress Haemonchus contortus. Each programme at each site included 3 paddocks of the same size but with 15, 20 and 25 sheep in each case and these remained set stocked for three years from February/March 1973. The three stocking rates have been considered together.

Parasites depressed wool production in every year at both sites. The effect on liveweight gain however was substantial in the weaning year, but was absent in the second year. However, in the third year, when the wethers had developed a strong resistance compensatory liveweight gains occurred (Fig. I).

FIGURE I - Effect of Parasites on Liveweight Change and Wool Growth

Two or more explanations are possible. Parasitism in the weaner year may have produced permanent damage to wool producing ability, and evidence exists for this. A second more likely explanation is that the continuing exposure to larval intake of sheep which had already developed a resistance to parasites, leads to reduced wool production but with little effect on liveweight.

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