

ABSTRACT

Young mixed type lambs from the University of the West Indies Field Station were used for the following investigations:

- (a) to assess the build up of internal parasites.
- (b) to assess if there was any difference in parasite level or live weight gain due to the system of grazing management i.e. rotational grazing vs. set stocking.
- (c) to determine the species and numbers of the major internal parasites.
- (d) comparison of anthelmintics for parasite control i.e. Phenothiazine, Phenothiazine and N.C.A. and Thia-bendazole.

To accomplish these objectives, faecal egg output, lungworm larvae, haemoglobins and, weight gains were measured with actual parasites isolated at post mortem.

The results and conclusions were as follows:-

- (i) the young lambs at the University Field Station had far too great a build up and level of helminth parasites using phenothiazine for treatment. There was a need for earlier initial treatment at 3/4 instead of 6 weeks of age, and more frequent treatment, 3 weeks maximum instead of the present 4 week interval.

- (ii) the effects of the high parasite infection and management on live weight gain were as follows:
 - (a) the untreated (anthelmintics) lambs had a greater parasite burden than the treated animals and, this was evident in inferior live weight gains.
 - (b) of the anthelmintic treated lambs the Set-stocking Group had superior live weight gains (0.31 lbs/day) on grass only, compared with the Rotational Grazing (0.24 lbs/day).

The total grazing time was less for the latter; the output of helminth eggs was similar for both groups.

- (iii) Superior live weight gains (0.35 - 0.4 lbs day) on grass alone, for some individual cross-bred lambs (Suffolk X 'local') suggested increased productivity from these types, if established.
- (iv) the major internal parasites were Moniezia expansa; Haemonchus contortus; Oesophagostomum columbianum and to a lesser extent Trichostrongylus spp.; Trichuris ovis and Dictycaulus filaria.
- (v) a small trial, confirmed the findings of other workers that Thiabendazole (MERCK, SHARP & DOHME) is superior to Phenothiazine (Phenovis, I.C.I) as a broad spectrum nematocide for the treatment of young lambs. Lead arsenate was effective in the treatment of Moniezia expansa, which was a problem that needed a separate treatment programme; N.C.A. (COOPER) might be even more effective and acceptable to young lambs.