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 Thiabendazole.

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 (Thenovis, 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.