

## **Abstract:**

The effects of intraruminal sustained-release capsules (IRSRCs) on parasitism in grazing Corriedale ewes were investigated over a period of 119 days (4 June-30 September 1993) using 40 ewes aged approximately 2 years and randomly divided into two groups of 20 ewes each. Each of the ewes in the treatment group received an IRSRC while the controls were left untreated. The groups were placed on adjacent 2.5-acre paddocks obtained by subdividing a 5.0-acre permanent pasture which had previously been grazed by young untreated sheep, so exposing both groups of ewes to a similar challenge from a contaminated paddock. The faecal egg counts, herbage larval counts and worm burdens of the major gastrointestinal parasites of sheep were significantly reduced by the use of the IRSRC. These parasitological effects were reflected in the increased live weight gains and heavier fleeces of the IRSRC-treated ewes. The control ewes required occasional salvage treatments during the trial period and the herbage on their paddock was heavily contaminated with infected larvae, reflected in the high worm burdens in the control ewes necropsied at the end of the trial and in tracer sheep introduced into the paddocks during the initial (day 30), interim (day 58) and final (day 89) stages of the experiment. Most capsules were exhausted within 95 days of administration, leading to a rise in the count of eggs per gram in the faeces in the treated group towards the end of the study.