

Dietary protein influences on regulation of *Haemonchus contortus* populations in Dorsimal lambs

ABSTRACT

The influence of dietary protein supplementation upon resistance to haemonchosis was examined in Dorsimal (Polled Dorset x Malin) lambs offered two levels of protein. Lambs were offered either a complete basal ruminant diet (15% crude protein (CP)) or the same diet supplemented with fish meal as a source of rumen bypass protein (19% CP). Lambs from each dietary treatment group were given either a 7-week trickle infection with *Haemonchus contortus* infective larvae (L3) or remained uninfected. All lambs were drenched with anthelmintic at week 8 post-infection (PI), challenged with a single dose of 5000 *H. contortus* L3 one week later, and killed 14 days post-challenge (PC). Lambs on the supplemented diet that were trickle infected showed a significant reduction in egg output. Supplementation and previous infection did not affect either growth rate, worm burden, worm development or haematological parameters. There was a trend for enhanced growth among supplemented non-infected lambs in comparison to lambs which received the basal ration.

Keyword: Dietary protein; Dorsimal lambs; *Haemonchus contortus*