

Distribution Pattern of Faecal Egg output and Herbage Larval Populations of Gastrointestinal Nematodes in Naturally Infected Scottish Blackface Lambs in East Scotland

Authors : M. Benothman, M. Stear, S. Mitchel, O. Abuargob, R. Vijayan, Sateesh Kumar

Abstract : Parasitic gastroenteritis caused by gastrointestinal nematodes (GIN) is a serious pathological complication in lambs. The dispersion pattern of GIN influences their transmission dynamics. There is no proper study on this aspect in Scottish Blackface lambs in Scotland. This study undertaken on 758 naturally infected, weaned, straight bred Scottish Blackface lambs in high land pasture in East Scotland extending over three months (August, September and October) in a year, and for three successive years demonstrated that the distribution of faecal egg counts (FEC) followed negative binomial distribution, with the exception of a few samples. The inverse index of dispersion (k) ranged between 0.19 ± 0.51 and 1.09 ± 0.08 . Expression of low k values resulting from aggregation in a few individuals, suggested that a small proportion of animals with heavy parasitic influx significantly influenced the level of pasture contamination and parasite transmission. There was no discernible trend in the mean faecal egg count (FEC) and mean herbage larval population (HLP) in different months and in different years. *Teladorsagia* was the highest pasture contaminant (85.14 ± 14.30 L3/kdh) followed by *Nematodirus* (53.00 ± 13.96), *Ostertagia* (28.21 ± 10.18) and *Cooperia* (11.43 ± 5.55). The results of this study would be useful in instituting gastrointestinal nematode control strategies for sheep in cool temperate agro-ecological zones.

Keywords : blackface lamb, faecal egg count, Gastrointestinal nematodes, herbage larval population, Scotland

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