Seasonal patterns of gastrointestinal nematode infections in sheep in a semi-arid Kajiado District of Kenya

Abstract:

The seasonal patterns of trichostrongylid nematode infections in Dorper yearlings in a semi-arid area of Kajiado District, Kenya were investigated by analysis faecal egg output, herbage infectivity and post-mortem worm recovery. Rectal faecal samples from 60 animals as well as herbage samples from their grazing fields were collected at three weeks intervals between May 1999 and December 2001. Fecal egg counts and herbage larval counts closely followed the rainfall distribution pattern. Major peaks in egg output occurred between December and August as a result of increased pasture infectivity and minor peaks between September and November following maturation of hypobiotic larvae of Haemonchus. Self-cure occurred in August/ September and November/ December. From September 2000 to July 2001, post-mortem worm counts conducted on 24 yearlings permanently on pastures during the dry and wet seasons showed mixed infections where Trichostrongylus, Haemonchus and Oesophagostomum occurred in 91.7%, Cooperia in 83.3%, Trichuris and Strongyloides in 4.1% of the animals. Adult and immature worms co-existed in proportions that varied with seasons, where Haemonchus survived the dry season mainly as hypobiotic larvae and Trichostrongylus species as an adult worm population. The mean wet season worm counts in both seasons were considered moderate, usually associated with sub-clinical helminthosis and decreased productivity. There is need, therefore, to control such infections in sheep within the study area in order to achieve higher productivity.