Prevalence and infection levels of helminths in goats at machanga Field station over a period of one year

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Abstract

Helminthiasis in livestock is of considerable significance in a wide range of agroclimatic zones in Africa. It constitutes one of the most important constraints to small ruminant production. The widespread occurrence of infections at sub-clinical levels with internal parasites in grazing animals, the associated loss of production, the cost of anthelmintics and death of infected animals are some of the major concerns'. There is seasonal variation in the rate of infection by endoparasites depending on whether eggs passed in faeces develop into infective stages. Most reports indicate high rates of transmission in the wet seasons". The level of pasture contamination can indicate to what degree animals are exposed to parasitic infections in different seasons". This study was undertaken to assess the prevalence and seasonal variations in infection levels of helminths in a flock of goats over a period of one year. The study was carried out at the University of Nairobi's Machanga field station adjacent to Kamburu dam, in the arid to semi-arid areas of Kenya. The annual rainfall was 680mm in 1993 and 783mm in 1994 with most of it falling during the short rains period (October to December). The area's vegetation consists of several varieties of browse plants and grasses. The study involved forty Small East African goats aged between 2 and 3 years which were bought from the surrounding farms and brought to the station in October 1993. They were ear tagged for identification. They were faecal sampled in January and February (during the dry period), May and June (during the wet season - long rains) and October and November (during the wet season short rains) in 1994. Individual rectal faecal samples were analysed for nematode eggs per gram (EPG) using the modified McMaster technique". Magnesium Sulfate (Sp.Gr. 1.14) was used as the floatation fluid. Pooled fecal cultures were made and infective larva were identified using standard methods already described