EFFECT OF GRAZING SYSTEM FOR SHEEP AND CATTLE ON FAECAL EGG COUNTS AND FECAL CULTURES

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The aim of this study was to compare the effect of grazing system on Faecal Egg Count (FEC) of cattle and sheep. Eight hectares of Panicum cv Tanzania was subdivided into paddocks of 0.25 ha and four management systems were studied:

1: Cattle alone;
2: Sheep alone;
3: Sheep and cattle in the same pasture simultaneously; and
4: Alternating, with sheep grazing after cattle left the pasture.

The experimental animals included 12 growing cattle (average weight 200kg) and 30 Santa Ines lambs (average weight 20 kg). The animals received water and mineral salt ad libitum and a daily allowance of 200 and 2245 grams/animal concentrate (sheep and cattle, respectively). The animals were dewormed prior to entering the experimental area. Faecal samples were taken weekly from sheep and fortnightly from cattle for FEC and fecal cultures. Statistical analyses were performed using the SAS program.

Throughout the experiment the FEC increased, reaching a peak around the 12th week in both species. FEC were higher in sheep, especially when grazing alone. This species showed differences between treatments (cattle did not). The animals on alternate pasture showed a higher degree of infection than those on simultaneous grazing. In fecal cultures there was a higher isolation of Haemonchus larvae in sheep feces and Trichostrongylus larvae in cattle feces, but the higher counts of Haemonchus larvae from bovine feces were observed in animals from isolated pasture. In sheep, the percentage of Haemonchus was lower in alternate treatment, opening the possibility for other infections more easily found in cattle. Despite this lower percentage, the FEC in this treatment was significantly higher than simultaneous grazing. In isolated grazing, the Trichostrongylus larvae had the lowest percentages; in the mixed grazing systems, the simultaneous grazing had the highest percentage of larvae of Trichostrongylus in cattle and the lowest percentage in sheep. For sheep, mixed grazing systems proved capable of reducing the degree of gastrointestinal parasite infection. Management system can be crucial in the control of helminths. The simultaneous grazing system showed lower levels of infection than the alternate system. For cattle, no statistical significant difference in FEC were found. Simultaneous grazing can be used to reduce the degree of infection of sheep without harming cattle.