ABSTRACTS

17TH INTERNATIONAL CONFERENCE OF THE WORLD ASSOCIATION FOR THE ADVANCEMENT OF VETERINARY PARASITOLOGY

15 - 19 AUGUST 1999

"Parasites, Production and Environment"

g.6.23-33 Epidemiology and control of ruminant helminths in the subtropics and tropics

g.6.29 MODELS OF CHEMOTHERAPEUTIC CONTROL AGAINST *Fasciola hepatica* IN CATTLE

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Background: It is very important to develop control models for fasciolosis in Mexico. The aim of the study was to evaluate three models of treatment against *F. hepatica* using triclabendazole (tbz) at 12 mg/kg/body weight.
Method: three groups each of 23 cattle, were used. Treatments were given as follows: Group 1 was treated in january, Group 2 in january and june and 3 in january, june and october. Coprological examinations were carried out during one year at 45 day intervals. **Results:** At the beginning the percentage of positive samples were 100% for all groups. Group 1, the average of eggs per gram (epg) at the beginning was of 13.2 $\pm$ 3.14 was reduced in 5 samplings from 0.56 $\pm$ 0.26 to 12.1 $\pm$ 2.02 while in 4 samplings it was increased from 14.6 $\pm$ 3.87 to 21.1 $\pm$ 3.06 ($p \leq 0.01$) between the first sampling and the others. In Group 2, the average epg recorded at the beginning of the study was of 15.04 $\pm$ 3.62 being reduced in the following 8 samplings from 0.17 $\pm$ 0.13 to 14.10 $\pm$ 2.13, except in sampling 5 showing statistical differences between samplings ($p \leq 0.01$). In Group 3, the average of epg at the beginning of the study was 13.13 $\pm$ 2.24 decreasing in the following samplings from 0.27 + 0.13 to 11.55 $\pm$ 4.56, being different the first sampling to all others ($p \leq 0.01$).
Conclusion: The percentage of improvement in egg reduction for group 1 was of 0%, for group 2 of 8.19% and for group 3 of 59.15% suggesting that group 3 was the best.
Acknowdledgements: Study supported by PAPIIT, IN2118996 DGAPA, UNAM and NOVARTIS de México, S.A.

g.6.30 SUPPRESSIVE TREATMENT EFFECTS ON NEMATODE INFECTION IN FATTENING CATTLE

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Background: The effect of previous suppressive anthelmintic treatments after weaning on parasitological parameters and weight gain of cattle was studied in the Pampeana region of Argentina. The study was carried out in two grazing fattening periods, GFP: GFP1: 1995/96 and GFP2 1997/98
Method: During both GFP, 60 weaned calves that grazed contaminated pastures, were divided into 3 groups during the first part of the GFP: GY1 group was treated every 2 weeks with avermectins while GY2 and GY3 groups remained untreated. During the second part of the GFP, GY1 and GY2 remained untreated and GY3 were treated every 2 weeks. Groups of yearlings grazed together with a new group (GNC) of 20 weaning naive untreated calves. Egg counts epg, coprocultures, herbage larvae L_3, serum pepsinogen Pep, eosinophils Eo and live weight gain LWG were recorded monthly.
Results: *Ostertagia, Trichostrongylus, Haemonchus* and *Cooperia* were the predominant species. In GFP1, in spite of the low levels of previous infection during the first part of GFP, slight differences of epg and Eo ($P<0.05$) between GY1 and GY2 were detected in the second part of the GFP. In GFP2 moderate infection levels during the first part of GFP was observed. During the second part of GFP2, GY1 and GNC showed higher ($P<0.01$) epg than GY2 and only GY3 and GNC had ($P<0.05$) lower Pep and Eo levels. Also during the second part of 2FGP, LWG responses of GY3 were greater ($P<0.01$) than those of GY1 and GY2 groups and LWG advantage of GY2 over GY1 was 19 kg.
Conclusion: Higher epg and lower LWG of GY1 suggest that suppressive treatments affect the level of the immune response of yearlings, but these effects were influenced by previous levels of nematode infection.

g.6.31 CAPRINE GASTROINTESTINAL PARASITISM OF SMALLHOLDER FARMS IN ZIMBABWE

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Background: Gastrointestinal parasitism (GIP) in goats is considered to be a problem of considerable magnitude to smallholder farmers. A survey in order to study the prevalence and geographical pattern of the occurrence of GIP in goats was carried out in three Zimbabwean provinces.
Method: Faecal samples from three age groups of goats from 237 flocks were collected during May and June and examined for nematode, cestode and trematode eggs and coccidial oocysts. Strongyle larvae were identified following the culture of pooled faeces.
Results: The flock infection rates determined from presence of eggs/oocysts in faeces were as follows: nematodes (85%), paramphistomes (34%), *Fasciola* (9%), *Schistosoma* (1%), cestodes (18%) and *Eimeria* (28%). The mean prevalence of trichostrongylid infection was 68%. From 100 to 400 eggs per gram were found in 20% of the positive samples, the rest being less than 100. *Haemonchus* and *Oesophagostomum* prevailed in kids, whereas *Trichostrongylus* predominated in older groups. The faecal oocyst counts were significantly higher in young animals.
Conclusion: Gastrointestinal parasitism is a real threat to the health of the young goats in the wet regions and needs systematic prophylaxis. The low rate of GIP in old animals is not a major constraint to goat production and a special prophylactic programme is unnecessary.

g.6.32 WIREWORM IN GOATS ON A SMALL-SCALE FARM: INCIDENCE AND CLINICAL EVALUATION

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Background: The FAMACHA© method of clinical evaluation of wireworm (*Haemonchus* spp.) infection in sheep was developed in South Africa; the colour of the mucous membranes of the eyes is classified into 5 categories: 1 (healthy) to 5 (severely anaemic).
Purpose: To determine the predominant worm species and investigate the importance of wireworm as a cause of anaemia and poor body condition in goats on a resource-limited farm in Gauteng Province, South Africa.
Method: During summer, the period of heaviest wireworm infection, the colour of the conjunctivae was compared with haematocrit determination, faecal nematode egg count (FEC) and body condition scoring as means of appraising the degree and effect of wireworm infection. Only those animals that were considered to be in FAMACHA© categories 4 and 5 were treated with anthelmintics.
Preliminary results: Differential larval counts indicated that wireworm predominated on the farm in question. FECs rose during spring and early summer, the period covered by these initial observations. Mean haematocrit remained relatively constant. The body condition scores steadily increased into the summer.
Conclusion: The increase in body condition scores may be related to an increased availability of forage following summer rain. Correlations between FAMACHA© score and haematocrit and the effect of selective treatment in maintaining haematocrit require further investigation.