

16. **A PRELIMINARY STUDY ON WORM BURDEN IN THE GASTROINTESTINAL TRACT OF GOATS AND ITS ASSOCIATION WITH THE PACKED CELL VOLUME HEMOGLOBIN CONCENTRATION, TOTAL PROTEIN AND EGGS PER GRAM OF FAECES**

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Parasitic gastro-enteritis has been recognized as one of the major constraints to the development of the goat industry in Sri Lanka. Although some of the parasites responsible for the disease have been identified, the purpose of this study was to quantify relative numbers of each species in order to determine their significance in the usefulness of eggs per gram (EPG) of faeces and packed cell volume (PCV) and haemoglobin (Hb) percentage in the blood as indicators of the worm burden particularly blood sucking nematodes.

Young goats (age < 18 months) brought mainly from dry zone to the Colombo municipal abattoir between January to July of 1996 were selected for this study. Samples of blood were collected into EDTA for the estimation of PCV and Hb% and faeces were obtained directly from the rectum for determination of EPG. The gastrointestinal tracts were collected at the time of slaughter and the parasites in the contents of the abomasum, small and large intestines were identified and counted separately. The abomasum and small intestines were subjected to pepsin digestion in order to determine the presence of histrophic larvae.

Nine species of helminths were identified in 124 of the 125 animals examined. One animal was parasite free. The nematodes present included *Trichostrongylus colubriformis* (78.72%), *Oesophagostomum columbianum* and *Venulosum* (89.36%), *Haemonchus contortus* (65.0%), *Strongyloides papillosus* (5.21%) *Trichostrongylus axei* (40.0%), *Trichuris ovis* (50.0%) and *Bunostomum phlebotomum* (2%). *Moniezia benedine*, a cestode was revealed in eleven animals (11.7%). The pepsin digested contents of the abomasum revealed larvae only in 11 animals (11.7%) and small intestines did not reveal any larvae.

There was no association between the EPG, PCV and Hb% and the total worm burden. Conversely, the PCV and Hb% appeared to have a close relationship with the number of adult *Haemonchus contortus* present in the abomasum. This research is an on going project and further the results would be evaluated in the near future.

