



Deutscher Tropentag, October 9-11, 2002, Witzenhausen  
“Challenges to Organic Farming and Sustainable Land Use  
in the Tropics and Subtropics”

## Influencing Factors of Infestation With Endo and Ectoparasites on Hair Sheep in Tropical Ecuador

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### Abstract

The Department of International Animal Husbandry's project funded by GTZ examined the parasite condition of hair sheep in Sucumbios, Ecuador. Parasites can impair the health of an animal causing high economic losses. As the problem has not yet been tackled by a government institution in Ecuador, the project carried out various parasite tests. According to the parasitologists factors like farming systems, source of water, salt additive as well as sex, age and breed of the animal play an important role. In this report the farming system, sex, breed and age are to be analysed.

120 hair sheep of the breeds Barbados Blackbelly, Pelibuey and the Ethiopian breed were tested for faecal, skin and blood parasites. For the faecal tests flotation, sediment and migration methods were used to test for gastro-intestinal, liver and lung parasites. The WOO and IFAT tests were used to test for blood parasites. Skin specimens were microscopied directly after removal to test for ectoparasites. The above mentioned factors were analysed statistically for significance of parasites.

The first season, July to September, was dry with relatively high humidity. The endoparasite infestation was classified as light. None of the parasites was significant as far as the influencing factors were concerned. In contrast two ectoparasites *Boophilus spp.* and *Chorioptes spp.* were classified as significant. Correlations and t-test were carried out at random in pairs. The farming system, sex and breed had no connection with the *Boophilus* infestation, the same for *Chorioptes*.

In the second season, October to December, temperature and humidity remained constant, rainfall increased later. Parasite infestation was classified as light. Apart from the ectoparasites *Boophilus spp.* and *Chorioptes spp.* the lung parasite *Dictyocaulus spp.* was classified as significant. The breed played an important role in the infestation of *Dictyocaulus*, *Boophilus* and *Chorioptes*.

In the third season parasite infestation with *Chabertia*, *Bunostomum*, *Ostertagia*, *Dictyocaulus* and *Boophilus* was significant with regard to the surveyed influencing factors. *Trichostrongylus* and *Psoroptes* parasite infestation was directly influenced by breed and age. Between February and April due to high rainfall the development and reproduction of parasites was high.

**Keywords:** Ectoparasite, Ecuador, Endoparasite, hair sheep