It is common knowledge that the parasite with the most negative impact on economic sheep farming in Brazil is Haemonchus contortus. In some of the traditional sheep farming areas of Brazil this parasite has developed multiple drug resistance, rendering sheep farming non-viable. A vaccine against H. contortus would be of massive benefit to the sheep industry. The aim of this work is to present data from experiment designed to study the use of live, native antigen sub-unit vaccine in a sheep farm in the semi-arid climate in Brazil. The vaccine was used strategically to prevent Haemonchus producing eggs during the period of highest incidence of worms on local conditions. About 90 ewes (>12 months) grazing native pasture (Caatinga) were separated in two groups (n=45) vaccinated or not. The vaccine was administered subcutaneously to sheep according to the following schedule: three priming doses before the rainy season on days 0, 21 and 42 post vaccination; booster dose every six weeks for all ewes and a extra dose for pregnant ewes. Clinical (Famacha score), parasitological (faecal egg counts) and haematological parameters (packed cell volume and eosinophils) were assessed each 15 days and performance (weight gains and score correction) monthly. The vaccination of sheep was able to reduce faecal egg counts significantly after 2 days. Subsequent EPG counts reduced in the vaccinated group but not significantly, probably because Haemonchus challenge was mild. A slightly eosinophilia was observed in vaccinated sheep after third dose of vaccine but no differences was observed in the packed cell volume counts. Performance parameters (score correction and weight gains) were not significantly affected by the vaccination. However, Famacha scores were slightly reduced in vaccinated sheep and during the first four months of experiment no sheep needed a salvage treatment. These are preliminary data from a long-term experiment.

References:


