



25-29 August 2013

Perth Convention Exhibition Centre Western Australia

24th International Conference of the World Association for the Advancement of Veterinary Parasitology
Hosted by The Australian Society for Parasitology Inc.

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Session Details:	8/29/2013 All about sheep 1130 - 1240 Meeting Room 2
Poster with 2 minute Oral Presentation Details:	Immunization of Sheep With Integral Gut Membrane Glycoprotein of <i>Haemonchus Contortus</i> in Northeastern Brazil
Authors:	Marcel Teixeira ¹ , David Smith ^{2*} , Jomar P. Monteiro ¹ , Fernando M. A. Albuquerque ¹
Poster Number:	¹ Brazilian Agricultural Research Corporation, Sobral, BRAZIL ² Moredeun Research Institute, Midlothian, UNITED KINGDOM 234

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 low dose, 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 peri parturient ewes. Clinical (F-amacha score), parasitological (fecal egg counts) and haematological parameters (packet cell volume and eosinophil) were accessed each 15days and performance (weight gains and score corporation) monthly. The vaccination of sheep was able to reduce fecal egg counts significantly after 21days. 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 packet cell volume counts. Performance parameters (score corporation and weight gains) were not significantly affected by the vaccination. However, F-amacha 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.

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