management to locally improve the livestock industry, gives the impoverished rural livestock-dependent economy a fresh impetus, particularly following elucidation of their scientific rationale and deployment of some of them in integrated tick control and management.

PT 058 *METARHIZIUM ANISOPLIAE* COLONIZATION AND LESION OF ENGORGED FEMALE *RHIPICEPHALUS SANGUINEUS* TICKS

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Rhipicephalus sanguineus (Latreille, 1806) a cosmopolitan tick is probably the most prevalent among ixodid species. Such a widespread distribution is atributed to its preference for dogs as hosts. This tick species is known to transmit several pathogenic agents for dogs and, in a few regions of the world, also to man. For this reason control of *R. sanguineus* tick is desirable worldwide. Such a task is currently performed with the aid of acaricides but these chemicals select resistant tick generations and polute the environment. To overcome these drawbacks of acaricides, new control measures are needed and among these the use of enthomopathogenic fungae is a promissing alternative. *Metarhizium* is a fungus already used for the control of other agricultural pests and its efficacy against ticks is already being studied. The present work investigated colonization of and lesions induced by *Metarhizium anisopliae* fungus on engorged adult female *R. sanguineus* ticks after imersion in a conidal suspension. Lesions and colonization were analysed on histological sections of tick obtained at several post-infection periods. Sections were prepared according to routine histological techniques. Each tick section was stained with Gomori Metanamine Stain (GMS) for fungus and Hematoxilin-eosin to observe tick lesions. It was observed that germination and penetration of fungus hifae occurred at around 48 hours post infection of ticks. Hifae crossed tick´s integument which seemed to be altered, less homogenous. After crossing fungae disseminated profusely to all body tissues withouth a clearcut preference..
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PT 059 ISOLATION OF *TRYPANOSOMA EVANSI* FROM GOATS USING THE MINI ANION EXCHANGE CENTRIFUGATION TECHNIQUE.

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Salivarian trypanosomes can be separated from blood cells and platelets by passing blood from infected mammals through a column with the anion exchanger, DEAE-cellulose (Lanham, 1968). The separation depends fundamentally on differences in surface charge; the DEAE-cellulose adsorbs the more negatively charged blood components while the less negatively charged flagellates are eluted (Lanham and Godfrey, 1970). Based on this technique, the mini Anion Exchange Centrifugation Technique (mAECT) has been developed for use in the field by Lumsden *et al.* (1979). This miniaturized technique allows to elute trypanosomes from venous blood and to concentrate them at the bottom of a sealed glass tube by low speed centrifugation (3000 rpm) for microscopic detection. However, the technique should be adapted to the species of salivarian trypanosome and to the mammalian host. With regard to goats, mAECT has been used earlier to isolate *Trypanosoma vivax*, *T. congolense* and *T. brucei brucei*. The purpose of this study was to assess the mAECT in goats infected with *T. evansi*. Thus, five adult female Canary goats were inoculated intravenously with at least 1 x 10^5 *T. evansi* isolated from a dromedary camel in the Canaries (Gran Canaria island). The goats were monitored for specific antibodies and parasite detection. For this latter, stained blood smears, buffy coat and lymph node aspirate examination, and mouse inoculation performed. Goats were also checked for other indirect parameters of the disease (PCV and serum total proteins). The inoculated goats showed a particularly subclinical course of the infection. Parasitemia remained very low but was persistent. The mAECT columns were provided the Institute of Tropical Medicine, Antwerpen, Belgium. For goat blood, the DEAE gel was equilibrated with phosphate-buffered saline glucose (Na_2HPO_4 (anhydrous): 8,088 g/l, $Na_2PO_4.2H_2O$: 0.468 g/l, NaCl: 2.55 g/l, glucose: 10 g/l). A volume of 300 L of fresh heparinized blood was eluted on a 2.5 ml DEAE gel bed volume. After centrifugation of the eluate, *T. evansi* was detected by its mobility under with a microscope at low magnification (10x10). As expected on the basis of blood volume examined, mAECT proved to be more sensitive than blood smear and buffy coat but less sensitive than mouse inoculation. We conclude that in cases of very low parasitemia in goats, mAECT can be performed when other parasite detection tests failed.