

Evaluation of Repellent Properties of Some Plants Used in Venda and Tsonga Ethnoveterinary Medicine

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ABSTRACT Tick infestations are second to worm infestation among ethnoveterinary indications and plants constitute the majority of remedies used in their management in Vhembe District, South Africa. The aim of the study was to investigate the effects of some plants used in the control of tick infestation by farmers in the study area. Leaves of *Euphorbia ingens*, *Leonotis leonorus* and *Lippia javanica* root bark of *Terminalia sericea* and stem bark of *Cissus quadrangularis* were collected under the guidance of farmers who identified them as remedies they use to control ticks. The plants were dried in the laboratory, ground into powder and thereafter extracted with methanol, acetone and dichloromethane. Crude extracts were evaluated for their repellence activities against the tick *Rhipicephalus sanguineus* using the climbing bioassay. Acetone extract of *L. javanica* afforded a sustained activity over time (90%). Similarly, acetone extracts of *L. leonurus* (15 min) afforded limited biological activity as were methanol extract of *C. quadrangularis* and DCM extract of *T. sericea*. At least one extract of each plant except for *E. ingens* had an initial (after 15 minutes) repellent activity. In general, methanol extracts had no noticeable repellent activities as compared to acetone extracts. Aromatic plants are thought to act through their essential oils and irritant plants could be considered as tick toxicants.