

## **Prevalence of tick-borne infections in extensive cattle management system in West Pokot District, Kenya.**

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A study was conducted in West Pokot District, Kenya to obtain baseline data on the epidemiology of tick-borne diseases in cattle under extensive management. A total of 197 serum T. parva, A. marginale, and B. bigemina examined for hemo-parasites T. parva, A. marginale and B. bigemina, respectively. Prevalence of antibodies to A. marginale and B. begemina was significantly higher in animals in pastorals areas than those in agro-pastoral areas while to T. parva were higher in agro-pastoral than in pastorals. Animals grazing ion private paddocks had significantly lower prevalence of antibodies against A. marginale B. begimina than those grazing on communal land ( $p < 0.05$ ). Animal age, breed and grazing management were significantly associated with T. parva sero-prevalence while grazing and vetinary services providers were significantly associated with A. Age and production system were associated with B. bigemina sero-prevalence. Out of 176 blood smears, 37.6% were positive for Theileria piroplasms while 5.8% and onle 0.6% were positive for Anaplasma and Babesia piroplasms respectively. The most prevalent tick species was positive for R. appendiculatus, B. decoloratus, R. evertsi, Amblyoma spp, Hyalomma spp in that order. The findings indicate that tick-borne diseases and their vectors are prevalent and could be serious constraints to cattle production in the study area. Current efforts to treat affected animals are largely ineffective and there is a need to advise livestock keepers on their implications and control. The study provides a basis for detailed epidemiologic studies to provide further evidence on incidence and prevalence livestock keepers.