

## **Ethnoknowledge of Bukusu community on livestock tick prevention and control in Bungoma district, western Kenya.**

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**ETHNOPHARMACOLOGICAL RELEVANCE:** To date, nomadic communities in Africa have been the primary focus of ethnoveterinary research. The Bukusu of western Kenya have an interesting history, with nomadic lifestyle in the past before settling down to either arable or mixed arable/pastoral farming systems. Their collective and accumulative ethnoveterinary knowledge is likely to be just as rich and worth documenting.

**AIM OF THE STUDY:** The aim of the present study was to document indigenous knowledge of the Bukusu on the effect of livestock ticks and ethnopractices associated with their management. It was envisaged that this would provide a basis for further research on the efficacy of these practices that could also lead to the discovery of useful tick-control agents.

**MATERIALS AND METHODS:** Non-alienating, dialogic, participatory action research (PAR) and participatory rural appraisal (PRA) approaches involving 272 women and men aged between 18 and 118 years from the Bukusu community were used.

**RESULTS:** Ticks are traditionally classified and identified by colour, size, host range, on-host feeding sites, and habitat preference. Tick-associated problems recognised include kamabumba (local reference to East Coast fever, Anaplasmosis nor Heartwater diseases transmitted by different species of livestock ticks) and general poor performance of livestock. Traditional methods of controlling ticks include handpicking, on-host use of ethnobotanical suspensions (prepared from one or more of over 150 documented plants) to kill the ticks and prevent re-infestation, fumigation of infested cattle with smoke derived from burning ethnobotanical products, burning pastures, rotational grazing ethnopractices, and livestock quarantine.

**CONCLUSIONS:** The study confirms that the Bukusu have preserved rich ethnoveterinary knowledge and practices. It provides some groundwork for elucidating the efficacy of some of these ethnopractices in

protecting livestock from tick disease vectors, particularly those involving the use of ethnobotanicals, which may lead to the discovery of useful ant-tick agents.

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