

# Assessment of use of anthelmintic drugs in livestock in Bureti sub county, Kericho County in Kenya

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## Abstract

This study was undertaken to assess farmer's knowledge, attitudes and practices in regards to anthelmintic use in livestock in Bureti sub county. The study was conducted in Tebesonik and Cheboin wards in Bureti sub county, Kericho County, Kenya. Structured questionnaires were administered to a total of 80 farmers through face to face interviews. Information on the farmers' sources of knowledge, types of anthelmintics in use, alternative control strategies, frequencies of deworming, dosing strategies and types of farming systems was gathered through these questionnaires. The demography of the target population was composed of 53% males and 47% females. Majority, 48%, had attained secondary level of education. Access to veterinary services was at 82%. This comprised the main source of information for them amongst other sources including family members and social media. Synthetic (chemical) anthelmintics, was used by 90% of the population compared to 3% that used herbal drugs. Extensive, paddock / free range system is still dominantly practiced compared to semi intensive and intensive systems.

## Introduction

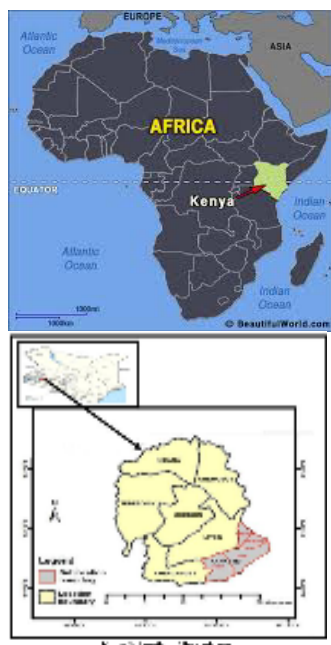
Kenya is the leading producer of milk in East Africa with a production estimated at 5.2 billion liters annually (FAO, 2011). Approximately 2.6 smallholder farmers benefit from this industry. However, Helminths cause significant losses through either a negative impact on production or increased mortality associated more with small ruminants and calves (Enejoh & Suleiman, 2017). Common gastrointestinal tract helminths include; Haemonchus, Trichuris, Trichostrongylus, "Nodular worms", Strongylus, and Cooperia (Waruiru, et al., 2000) (Waruiru, et al., 2001). Helminths also pose a zoonotic risk to humans e.g. Echinococcosis (Mavrot & Fabien, 2016)

## Objectives

1. Assess farmer's knowledge on different anthelmintics available, sources of knowledge and how it has impacted helminth control.
2. Document different helminthic control strategies used by farmers in Bureti sub-county.
3. Document farmer's attitudes regarding withdrawal periods and waste management.

## Materials and methods

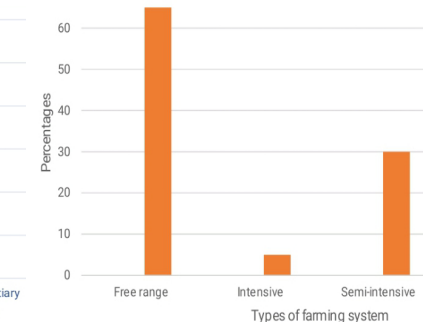
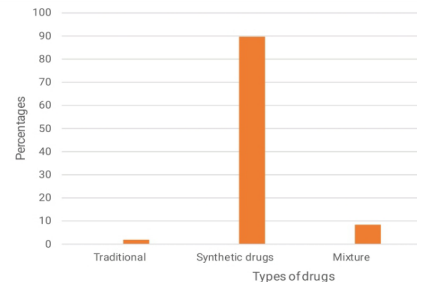
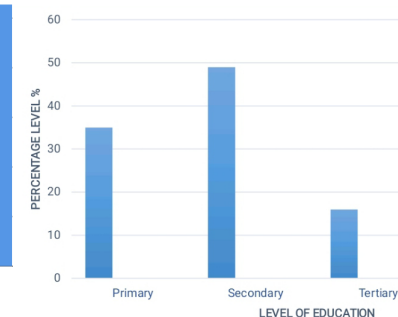
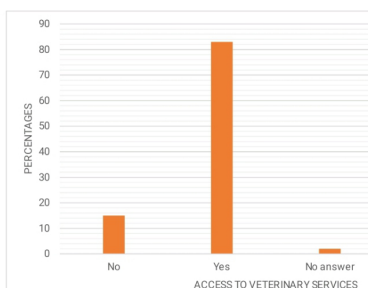
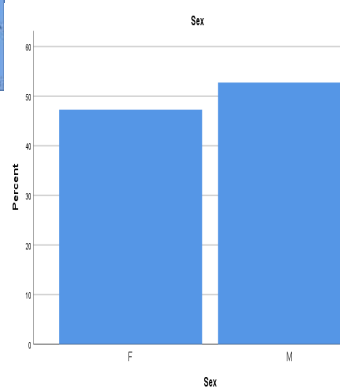
Data was collected from 2 wards; Cheboin and Tebesonik wards. Structured questionnaires with both closed and open-ended questions were administered using face to face interview method to 80 farmers randomly selected from the 2 wards. The questionnaire had four modules. The first module comprised general questions with information on age, sex, type of livestock, access to veterinary services and years of experience. The second module was the knowledge section with questions about education level and sources of knowledge. The third module was the attitudes section designed to assess farmers thinking and opinions regarding parasite control, misuse of dewormers, mitigation of resistance and seriousness of resistance. The practices section assessed what's being done by farmers to control parasites. This included; farming systems, frequency of deworming, who performs it, source of dewormers, alternative strategies other than synthetic anthelmintics and waste management. Data collected was imported to MS Excel software and analyzed using a Statistical Package for Social Sciences (SPSS) and excel.



## Results

Gender	Male	Female
Total No.	42	38
Percentage	53 %	47 %

Table 1 Total percentage of Male and Female practicing livestock farming



## Conclusion and recommendation

- Majority of farmers in this study had access to veterinary services in accordance with the hypothesis.
- Synthetic/chemical based anthelmintics, was the popular choice for helminth control which proved the study hypothesis.
- Incorporation of herbal plants as control measures for helminths was only practiced by a small percentage of the study population.
- The population awareness on anthelmintic drug resistance and climate change is commendable

## Acknowledgment



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