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PREVALENCE OF GASTROINTESTINAL NEMATODES IN GOATS IN ARAPAI SUB-COUNTY

BY

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BU/UP/2019/2687

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A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF AGRICULTURE AND

ANIMAL SCIENCE IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THEAWARD OF

THE BACHELOR 'S DEGREE IN ANIMAL PRODUCTION AND MANAGEMENT OF BUSITEMA UNIVERSITY

DECLARATION

I Oonyu Ben, do declare that this research report was done by me and its original and has not been published and or submitted for any other supervision.

Signature ..... Date .....

27th/Oct/2023.

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APPROVAL

This research report was carried out and compiled under my full supervision and is ready for submission.

Name of academic supervisor:

PROF. DEO OLILA

Signature ..... Date 27.4.23

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ACKNOWLEDGEMENT

Thank goes to the God Almighty for having brought me from far as academic is concern. I also extend my sincere gratitude to my parents for their support toward my academic journey.

I wish to acknowledge and appreciate my supervisor Prof. Deogracious Olila for his continuous guidance, support and encouragement throughout my study.

LIST OF ABBREVIATIONS

GIN. Gastrointestinal Nematodes.

SPP. Species.

EPG. Egg per gram.

MS. Microsoft.

X^2. Chi square.

S/C. Sub County.

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ABSTRACT

Goats were the first wild herbivores to be domesticated in the Near East around 11 000 years ago at the beginning of the revolutionary transition from hunter-gatherer to agriculture-based societies. Ever since that time, goats have fulfilled a vital economic, cultural and religious role in many human civilizations. Parasites of livestock cause diseases of major socioeconomic importance worldwide. The current financial and agriculture losses caused by parasites have a substantial impact on farm profitability. Gastro-intestinal nematode (GIN) infections are the leading cause of manufacture losses in profitable goat farms. Nematode infections suppress weight gain, reduce reproductive efficiency and cause high mortality, especially of kids.

This cross sectional study was carried out. Samples were collected from farm homesteads and analyzed from Busitema Arapai laboratory. Data on age, management practices of the animals were recorded.

Examination of fecal samples revealed the prevalence of GIN infection in goats in Arapai Sub County. Of the 150 goats examined, all 150 goats had nematode eggs hence 100% prevalence of gastrointestinal nematode. This finding indicates that nematodes are significant problem of goats, strongly affecting their wellbeing.The study revealed that young goats (59%) were more infected than adult goats (41%) with GIN eggs. Young goats during their first grazing season and the infective larvae on pasture infect kids when ingested.

From this study it can be concluded that the prevalence of GIN is very high in Arapai Sub county, therefore, anthelmintic treatment on three monthly basis should be implemented to control and reduce the risk of regular infection as well as proper grazing practice can be adopted for all the goats in Arapai Sub county. Farmers needs to be trained on good management practices to improve on their knowledge since the number of goats that were dewormed was indicates that farmer still need more knowledge on deworming and management practices.

CHAPTER ONE: INTRODUCTION

1.1 Background.

Goats were the first wild herbivores to be domesticated in the Near East around 11 000 years ago at the beginning of the revolutionary transition from hunter-gatherer to agriculture-based societies. Ever since that time, goats have fulfilled a vital economic, cultural and religious role in many human civilizations(Pereira & Amorim, 2010).

Indigenous goats are kept by subsistence small holder farmers, pastoralists and subsidiary enterprises on large commercial cattle ranches(Resources, n.d.). Goats are vital in resource-poor societies because they provide tangible profits such as cash income from animal sales, meat for home consumption, manure, skins, and fiber, benefits, e.g. savings, insurance, and for socio-cultural purposes (Byaruhanga *et al.*, 2015).

Parasites of livestock cause diseases of major socioeconomic importance worldwide. The current financial and agriculture losses caused by parasites have a substantial impact on farm profitability(Roeber*etal* 2013). Gastro-intestinal nematode (GIN) infections are the leading cause of manufacture losses in profitable goat farms. Nematode infections suppress weight gain, reduce reproductive efficiency and cause high mortality, especially of kids(Nserekо*et al* .,2015).

In attempts to control this condition, farmers, use albendazole, levamisole. In the research was carried out in Arapai sub-county, the prevalence of worms in goat dung. Worms also predispose goats to other infections, therefore, the study is aimed at determining the prevalence of worms.

1.2 Problem statement.

Gastrointestinal nematode (GIN) infections are a common limitation in pasture-based goats and cause a reduction in animal health, productivity and farm profitability. All grazing livestock are unprotected to GIN infections, which can cause parasitic gastroenteritis. This disease typically affects young animals during their first grazing season and provokes clinical signs, such as diarrhea, reduced growth and weight loss. In severe cases it can cause mortality(Roeber*et al*., 2013).

Despite the enormous contribution of goats to the livelihoods of the farming communities, present information indicates that gastrointestinal parasite infection is a major hindrance to the development of goat production in many parts of the world. The prevalence of gastrointestinal

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