
**KNOWLEDGE AND PERCEPTION OF LIVESTOCK FARMERS ON EASTCOAST
FEVER IN AGWINGIRI SUB-COUNTY-AMOLATAR DISTRICT**

BY

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BU/UP/2013/166

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**A DISSERTATION SUBMITTED TO THE FACULTY OF AGRICULTURE AND ANIMAL
SCIENCES IN PARTIAL FULLFILLMENT FOR THE AWARD OF THE DEGREE OF
BACHELOR OF ANIMAL PRODUCTION AND MANAGEMENT- BUSITEMA
UNIVERSITY**

-2018-

DECLARATION

I, ALOKA Andrew, hereby declare that the work herein is my own and has not been presented for any academic award in any institution of higher learning.

I therefore; present it in partial fulfillment for the award of a Bachelor of Animal Production and Management at Busitema University.

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APPROVAL

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DEDICATION

I dedicate this achievement to the entire Family of Amony Molly Omara, Ació Judith Aloka and my Supervisor (Dr. Ococh Alfred) for time, co-operation, financial support and indirect efforts made for a victorious completion of this research study.

God bless you all!!

ACKNOWLEDGEMENT

I would like to glorify the name of the almighty 'God', the giver and the provider of life and wisdom, appreciate my supervisor Dr. Ococh Alfred George for the tireless help and guidance accorded throughout this period which was of both parental and academic significance.

I would like to extend my greatest appreciation to my mother Mrs. Amomy Molly Omara for support both spiritually and financially.

My Special thanks goes to Busitema University, Arapai Campus Administrators for having permitted me to carry-out this study, this eased my work especially in the field.

I profoundly pay tribute for the assistance given by my mentors and course mates who have been helpful and encouraging while undertaking the project and the course, I appreciate their interest, encouragement, expertise, acknowledgement and tolerance when I was sometimes a little pre-occupied.

Above all; I thank the Almighty for having sustained my life.

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LIST OF ABBREVIATIONS

\$	US dollar
CTTBD	African Union Centre for Ticks and Tick-borne Diseases
DVO	District veterinary officer
E.g	For example
ECF	East Coast Fever
et al:	and many others
FAO	Food and Agricultural Organisation
GALVmed	Global Alliance for Livestock Veterinary Medicines
GDP	Gross Domestic Product
i.e	That is to say
mls	millilitres
OTC	Oxytetracycline
RBC	Red blood cell
Spp	Species
TBDs	Tick borne diseases
UBOS	Uganda Bureau of Statistics

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ABSTRACT

The main objective of the study was to assess the knowledge and perception of livestock farmers on East Coast Fever in Agwingiri Sub-county. This was conducted between February and July 2018, through individual interviews and group discussions. Multistage probability sampling technique was used to randomly select seventy-two (72) respondents.

Farmers identified various tick species though not aware that these ticks carry pathogens that transmit diseases to cattle. ECF was only a disease of importance to calves and once the animals were beyond nine months, the risk for being infected was greatly reduced. This resistance was supported by evidence provided by some respondents that there is usually no need to use veterinary drugs to treat calves when infected as they could recover without treatment. The general perception of livestock farmers in Agwingiri was that their local are resistant to ECF. Grazing areas were the major source of ticks.

ECF is locally known as "Odiding", associated with swollen parotid lymph nodes as reported by (86.1%). Majority of livestock farmers (86.1%) were not aware of the cause of ECF as they would not associate it to ticks but to excessive suckling of milk by calves from the dam. Farmers had knowledge on prevention of ECF where majority (100%) focused on acaricide application through hand spraying for tick control. This was applied at least once in a fortnight though some sprayed only when money was there to buy acaricide. They (95%) added that there is no need to spray calves since they are not exposed to ticks, which is not true. Most farmers when contacted knew animals have to be treated when sick though they had challenges in selecting drugs of choice as some would give wrong treatments and doses as evidenced with some few farmers during face-to-face interview. Other farmers (5%) used medicinal plants for treatment.

Majority of the farmers still lack knowledge on the ECF causative agent, proper use of acaricide and relevance of livestock vaccination against ECF. Therefore, Animal husbandry officers in the Sub-counties and other stakeholders should advocate for this through sensitization and training of the farmers on the importance of vaccinating animals against ECF.

CHAPTER ONE: INTRODUCTION

1.1 Background

East Coast Fever is caused by *Theileria parva* (*T. parva*) a protozoan parasite transmitted by a three-host brown-ear tick called *Rhipicephalus appendiculatus* (Lawrence, Perry, & Williamson, 2004). The parasite is transmitted cyclopropagatively and transstadially by ticks which have dropped from infected cattle during the preceding stage of the life cycle (Gachohi, Skilton, Hansen, Ngumi, & Kitula, 2012b)

In general, tick-borne diseases are one of the major constraining factors to the development of livestock industry in Uganda. East Coast Fever, a tick borne disease is the major disease constraint to cattle development and is well known to local farmers, stockmen and veterinarians in Amolatar district. *T. parva* infection, therefore poses a significant threat to the livestock sector not only in Amolatar district but also in Uganda and Africa in two ways; through high cattle morbidity and mortality leading to death, reduction in production and productivity in terms of milk and meat and high costs encountered to treat and control ticks(Gachohi et al., 2012b).

The occurrence and importance of East Coast Fever depends on interactions which involve the causative organisms (*T. parva*), the tick vectors (invertebrate), the vertebrate hosts and the environment. In a tropical area like Agwingiri Sub-county-Amolatar district, with very high tick population, natural exposure usually occurs at an early age and calves become immune to subsequent challenge as adults(Byaruhanga, 2017). Consequently, cattle become long-term asymptomatic carriers of *T. parva* following treatment or spontaneous recovery; therefore, with favorable condition for ticks, such as type of vegetation and cattle management system, cattle maintain the vector and parasite population. Face to face interaction with farmers in Agwingiri Sub-county showed that there is decrease in the amount of milk produced. This is directly attributed by ECF infection.

Control of the disease is feasible but requires careful planning and any tick control measures must consider other local tick-borne diseases(Chenyambuga et al., 2010a). The recommended method for controlling ticks involve the use of acaricide, mainly by dipping or spraying at weekly intervals. However, ticks have developed resistance to acaricide and this poses an increasing threat to livestock production because of heavy dependence on acaricide for tick control.

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