



**BUSITEMA
UNIVERSITY**
Pursuing Excellence

**RISK FACTORS OF CCPP OCCURRENCE IN WERA AND AMOLO SUB-COUNTIES,
AMURIA DISTRICT**

BY

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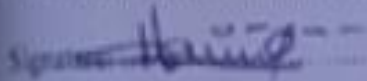
DECEMBER, 2024

DECLARATION

DECLARATION

This dissertation contains my own work and has never been submitted to any institution for any assistance or award of academic credit or qualification.

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DEDICATION

I dedicate this research dissertation to my beloved parents MAJOR ENGORU PATRICK and AJULO MELDA not forgetting my supervisor Ms. AKURUT IMMACULATE for their tireless support to me during the research process. There is nothing worthy I can pay you with but only pray that the almighty GOD can rewards you abundantly Amen.

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Abstract

Introduction Contagious Caprine Pleuropneumonia (CCPP) is a devastating disease of goats caused by *Mycoplasma capricolum* subsp. *Capripneumoniae* (Mccp). A cross sectional study was conducted in the district of Amuria neighboring Karamoja in Northern Uganda, during the months of October and December 2021 to explore for the status of the disease.

Methods A total of 96 semi-structured questionnaires were administered to selected farmers to obtain information on their understanding of the disease and the risk factors they associated with CCPP. The study used integrated approaches of questionnaire on a focus group discussion which –included local leaders from Amolo sub-county and wera sub-county.

Conclusion In the study, the following were the observed risk factors responsible for the occurrence of CCPP in the study areas; housing, marketing, large flock size, co-existing viral infection, abrupt climate change

CHAPTER ONE; INTRODUCTION

1.1 Background

Contagious caprine pleuropneumonia (CCPP) is a highly fatal caprine disease firstly reported in Algeria in 1873 (Lignereux et al., 2018) . It is a devastating disease of goats (Bascunana et al. 1994) included in the list of notifiable diseases of the Office International des Epizooties (OIE) (Manso- Silvan et al. 2011). CCPP is a major threat to the goat farming industry in developing countries (Lorenzon et al. 2002) and is endemic in Africa, the Middle East and Asia (Manso-Silvan et al. 2011; Nicholas and Churchward 2012). Previously, only 20 countries have reported the isolation of the *Mccp* organism due to scarcity of laboratory expertise (Nicholas 2002a) but it has now been isolated in China (Chu et al. 2011), Mauritius (Srivastava et al. 2010), and Tajikistan (FAO 2012), by applying advanced “microorganism-detecting protocols” such as PCR. In Pakistan the causative agent of CCPP has only been isolated from sick goats in the Pashin District of Balochistan (Awan et al. 2010). CCPP is a major cause of economic losses in the goat industry globally as these intracellular bacteria can infect domestic as well as wild breeds of goat with 100% morbidity and 60–80% mortality rates (Jores et al., 2020) . This disease is characterised by fibrinous pleuropneumonia with increased straw coloured pleural fluid in the infected lung (Rurangirwa and McGuire 2012). *Mccp* has been reported to affect only goat species (Thiaucourt and Bolske 1996) and does not infect sheep (McMartin et al. 1980). However, in contrast to these findings, F38 has been isolated from healthy sheep that were in contact with CCPP-positive goats in Africa (Litamoi et al. 1990; Bolske et al. 1996). The presence of a distinct Asian cluster strongly indicates that CCPP was not recently imported to continental Asia but has been endemic in the area for a long time (Manso-Silvan et al. 2011).

Contagious Caprine Pleuropneumonia (CCPP) is a disease of major economic importance in Asia and Africa, causing major constraint to goat production because of high mortalities but the extent of the disease in Amuria district is not well documented. In Amuria CCPP was previously confirmed in kabelebyong district. These sub counties are outside but close to kapelebyengo district where CCPP had been previously confirmed and yet no documentation of CCPP status in the surrounding areas has been done. Therefore the aim of this study is to identify the risk factors associated with the occurrence of CCPP in wera and Amolo sub-county, Amuria district.

CHAPTER SIX

6.1. Conclusions

In the study, the following were the observed risk factors responsible for the occurrence of CCPP in the study areas; housing, marketing, large flock size, co-existing viral infection, abrupt climate change

Recommendations

- i. More studies need to be conducted to explore other disease control methods and animal husbandry management practices not covered in this study.
- ii. There is need to enhance farmers knowledge in the study areas on the uptake of standard recommended animal husbandry practices on disease prevention and control especially using local herbs.

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APPENDIX I

<http://www.ncbi.nlm.nih.gov/pubmed/8748175>

Year	Area	Species of animal	No. of samples tested	% positive	Reference
2013	Karamoja region (Kotido, Kabong, Abim and Amudat)	goats	220	33.18	Emmanuel, 2013
2011	Agago and Otuke districts	Goats	Agago: 181 Otuke: 223	Agago: 17.7 Otuke: 23.3	Atim, 2013