



**THE ROLE OF MEDICINAL PLANTS IN TREATMENT OF CATTLE DISEASES IN  
SERERE DISTRICT**

**BY**

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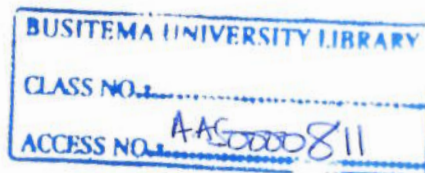
**A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF AGRICULTURE  
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## DECLARATION

I, **Atagal Gabriel**, declare that this dissertation is original and has never been submitted or presented to any other University or Academic Institution for purposes of getting an academic award. All the information in this dissertation is based on my observations or findings.

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**APPROVAL**

This dissertation has been supervised and submitted with the approval of my supervisor

**Dr. Okwany Patric.**

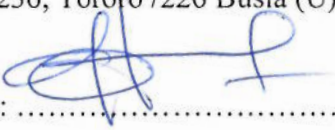
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## DEDICATION

This work is dedicated to my family members, Parents Mr. Atagal Gabriel and Mrs. A. Jannet and my friends Hellen, Julius, Kevin, Sharon and Florence for always being there for me and finally to my beloved brother Agenya David for his guidance and encouragement he gave to me upon taking this program.

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## TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background	1
1.2 Problem statement	2
1.3 General Objective	2
1.4 Specific Objectives	2
1.5 Research questions	3
1.6 Significance of the study	3
1.7 Justification	3
1.8 Scope of the study	3
CHAPTER TWO	4
LITERATURE REVIEW	4
2.0 Introduction	4
2.1 The values of Medicinal Plants	4
2.2 The nature of medicinal plants	5
2.3 Present state and trends of medicinal plants:	5
2.4 Global Medicinal plants use	6
2.5 Use of medicinal plants in Africa	6
2.6 Use of medicinal plants in East Africa	7
2.7 Medicinal plants use in Uganda	7
2.8 Proportion of parts of medicinal plants used in the treatment of various ailments	8
2.9 Preparation of plant extracts and mode of administration.	8

2.10 The major common cattle diseases treated by the medicinal plants.	9
2.11 Ethno-diagnosis, disease prevalence, determination of causes and naming of cattle diseases.	10
2.12 Challenges in using medicinal plants for treatment of cattle disease	11
<b>CHAPTER THREE</b>	<b>13</b>
<b>METHODS AND MATERIALS</b>	<b>13</b>
3.1 Study area	13
3.2 Sampling design	13
3.3 Research Instruments	13
3.4 Operational design	14
3.5 Observational design	14
3.6 Statistical design	14
3.7 Data presentation	15
3.8 Ethical considerations	15
3.9 Environmental considerations	15
<b>CHAPTER FOUR</b>	<b>16</b>
<b>PRESENTATION OF RESULTS</b>	<b>16</b>
4.1. Demographic characteristics of the respondents	16
4.2. Mode of acquisition of knowledge	17
4.3. Medicinal plants used in treatment of cattle diseases in Serere district	17
4.4. Methods of preparation of medicinal plants remedies.	27
4.5. Routes of administration medicinal preparations.	27
4.7. Challenges faced by farmers in using medicinal plants	29
4.8. Sources of medical plants	30
<b>CHAPTER FIVE</b>	<b>31</b>
<b>DISCUSSION OF RESULTS</b>	<b>31</b>
<b>CHAPTER SIX</b>	<b>36</b>
<b>CONCLUSION AND RECOMMENDATIONS</b>	<b>36</b>
6.1 Conclusion	36
6.2 Recommendations	36
<b>REFERENCES</b>	<b>38</b>

<b>LIST OF APPENDICES</b>	<b>45</b>
Appendix I Questionnaire	45
Appendix II Observation check list for medicinal plants use in treatment of cattle diseases.	48
Appendix III Key informant Interview Guide.	48
Appendix IV: Photos of medicinal plants used by farmers in Serere district	49
Appendix V: Map of Serere district	52



## LIST OF TABLES

Table 1 Identification of medicinal plants used in treatment of cattle diseases in Serere	18
Table 2 Summary of medicinal plant parts used	19
Table 3. Methods used in the preparation and administration routes of medicinal plants	21
Table 4 Summary of the routes of administration	27
Table 5 Common cattle diseases treated by the medicinal plants in Serere district	28

## LIST OF FIGURES

Figure 1 Demographic characteristics of the respondents	16
Figure 2 Mode of acquisition of knowledge	17
Figure 3 Parts of medicinal plants used in the preparation of remedies	20
Figure 4 Routes of application of remedies used for cattle disease treatment	27
Figure 5 Challenges of medicinal plants use	29
Figure 6 Source of medicinal plants used in the treatment of cattle diseases	30

## LIST OF ABBREVIATIONS

CAM	Complementary Alternative Medicine
ECF	East Coast Fever
EVM	Ethno Veterinary Medicine
FGD	Focussed Group Discussion
FMD	Foot and Mouth Disease
IIR	International Institute of Rural Reconstruction
IK	Indigenous Knowledge
ITDG	Intermediate Technology Development Group
KIMD	Key Informant Meeting Discussions
LSD	Lumpy Skin Disease
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
WHO	World Health Organisation.
PHC	Primary Health Care

## ABSTRACT

This study was undertaken to document the role of medicinal plants in the treatment of cattle diseases in Serere district, with the general objective of identifying and documenting the medicinal plants used in treatment of cattle diseases. A total of 80 cattle keepers were purposively selected for the study in the Sub Counties of Kateta, Kyere, Pingire and Bugondo and the data was collected using a semi-structured questionnaires, observation guides, key informant interviews and field guided walk from March to April 2015. Specimens of plants that were used for treatment of cattle diseases were collected, coded and botanically identified. The common medicinal plants' families of the 25 families identified were Euphorbiaceae (97.3%), Poaceae (7.3%), Meliaceae (7.3%), Fabaceae (4.8%), Solanaceae (4.8%), Combretaceae (4.8%) and Cucurbitaceae (4.8%). The main medicinal plant parts used were the root (70%). The oral route (68.5%) was commonly used in administration of medicinal plants remedies which were prepared mainly as cold extracts (86.4%). A total of 28 cattle diseases/conditions were reported by the farmers to be treated using medicinal plants. The challenges faced by the farmers in the use of medicinal plants were mainly difficulty in preparation of the remedies/extracts (30.3%) and seasonal unavailability of plants (16.7%), climatic change and deforestation (9.1%) and lower efficacy (9.1%). The plants were sourced from wild (76.2%), cultivated sources (15%) and Agricultural gardens (8.85%). There are a large number of medicinal plants which have not been documented in Serere district. Therefore, documentation of these plants together with their indigenous knowledge before they become extinct is highly needed. Further scientific research should be contacted to test the efficacy of these plants.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

The term of medicinal plants include a various types of plants used in herbalism and some of these plants have a medicinal activities. These medicinal plants are considered as rich resources of ingredients which can be used in drug development and synthesis (Tibi, 2012). Medicinal plants form the backbone of the traditional medicine system in the whole world (Bukuluki *et al.*, 2014). Unfortunately, these medicinal plants and the supported traditional medicinal system are at risk of dwindling not only due to current trends in population growth and land use but also compromised harvesting and conservation practices. This is particularly distressful considering an estimated 75-95 percent of the world's rural population relying on herbal traditional medicine for their primary health care (Bukuluki *et al.*, 2014). For developing countries, regardless of being in rural or urban areas, an estimated 70-80 percent of population use traditional medicines to support health care (WHO, 2008), as Ramero-Daza, (2002) also states the use of medicinal plants all over the globe has supported PHC and the number of plants existing ranges from 250 to 500 thousand plant species and around 1-10% are used as food for human and animals, and Curative properties of plants for livestock diseases have been recorded in several different parts of the world.

Despite the wide spread practices on medicinal plant use, very little of their usage has been documented in Serere district in the treatment of cattle diseases. Knowledge on use of medicinal plants is slowly disappearing due to modernization, urbanization and use of Orthodox medicine and drugs (Yesilada & Sezik, 2003). To-date, specific ethno pharmacological studies carried out in pastoral areas of Uganda have been limited, yet ethno veterinary medicine could be used to a great advantage in the treatment of many cattle diseases in the face of drug resistance in the socio-cultural context of resource poor farmers for sustainable livestock production (Nalule *et al.*, 2011) since the majority of cattle keepers in rural areas of Uganda are far from veterinary stations and those having access may not be able to afford their services (Sori, 2004). Therefore, documentation of the medicinal plants used in treatment of cattle diseases from this research would contribute to the promotion of livestock industry in Uganda as the main objective of this

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