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**PREVALENCE OF GROSS PATHOLOGICAL LIVER LESIONS IN CATTLE  
SLAUGHTERED AT SOROTI ABATTOIR, SOROTI DISTRICT**

**BY**

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**A DISSERTATION SUBMITTED TO THE FACULTY OF AGRICULTURE AND  
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THE A WARD OF THE DEGREE OF BACHELOR OF ANIMAL PRODUCTION AND  
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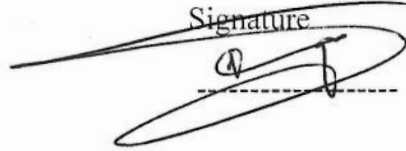
**MAY 2015**

## DECLARATION

This research is a product of my own effort and its findings are solely of my own, and have never been submitted to any institution of learning for any award.

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## **DEDICATION**

I dedicate this report to my parents; Mr. Okaso Vigilio and Mrs. Aconyo Florence in Gweri Sub county; Soroti district, for considering my education as a priority. Special thanks are also extended to my brothers and sisters for their efforts in ensuring that I complete whatever stage of my education with minimum stress. Your team spirit, combined with my tireless efforts has made the trail to be smooth and will soon bear the fruit.

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## LIST OF ABBREVIATIONS & ACRONYMS

|                   |  |
|-------------------|--|
| <b>D.V.O</b>      | District Veterinary Officer                                |
| <b>SPSS</b>       | Statistical Package for Social Sciences                    |
| <b>SNPMC</b>      | Serial Number for Post Mortem Case animal sample           |
| <b>REG.No</b>     | Registration Number  |
| <b>FIG</b>        | Figure   |
| <b>Dr.</b>        | Doctor   |
| <b>Mr.</b>        | Mister   |
| <b>Mrs.</b>       | Misses   |
| <b>PM</b>         | Post mortem  |
| <b>P- Value</b>   | Probability value based on statistical analysis            |
| <b>Asymp. Sig</b> | Asymptotic significance based on Chi-square test statistic |
| <b>n</b>          | Sample size  |
| <b>d.f</b>        | Degree of freedom  |

## ABSTRACT

The study was carried out in Soroti slaughter abattoir, located in Soroti municipality, Soroti district for a period of two month (March to April 2015). The overall objective of the study was to determine the prevalence of gross pathological liver lesions in cattle slaughtered at Soroti abattoir. Identification of the lesions at the abattoir was by gross observation. The case samples were randomly selected for examination from cattle slaughtered during the study period and using the principle of meat inspection, they were observed, palpated and where necessary incised for different liver lesions. Observation was done inside a controlled room environment with the help of a paid government meat inspector.

Gross pathological findings and their respective prevalence were: *Fascioliasis* 57.1%, liver cirrhosis 10.7% and Abscesses 9.3% were the major lesions that were found during the study. Based on Chi- test statistic, there was a significant relationship between these lesions and different levels of condemnation that were undertaken at the abattoir.

In conclusion, the study revealed high prevalence of liver lesions in cattle slaughtered at Soroti abattoir with 84 (84.8%) of the livers affected by condemnation rule (n=99). This therefore means that only 15 (15.2%) livers were passed free of any liver lesions. It's an insight on the field condition of the animals and a lot is to be done. Further research, installation of an incinerator for burning the condemned organs, sensitization of farmers on the impact of watering points on the epidemiology of veterinary diseases and establishment of a well equipped laboratory in Soroti district were highly recommended.

## CHAPTER ONE: INTRODUCTION

### 1.1 Back ground

The liver is the largest internal organ in the body and accounts for 2.5% of the total body weight (Ross & Pawlina, 2007). It performs a number of vital functions; the most important being the conversion of carbohydrates to glycogen, storage of vitamins (A, D, B12) and minerals. It also carries out synthesis of plasma proteins like albumin, fibrinogen and globulin (McGavin & Zachary, 2007); (J. Anderson, 1982).

The liver is the first organ of the body to undergo microscopic changes when the animal suffers from an acute infectious disease and it's the last to assume normality should the animal survives (H. Smith, Jones, & Hunt, 1972)

The liver is normally affected with a number of conditions that warrants its condemnation in slaughter places (abattoirs; slaughter slabs, among others) and these includes; *Fascioliasis*, *Hydatidosis*, telangiectasis, abscesses, "Sawdust" and many others. Liver cirrhosis, *Fascioliasis*, abscesses and *Hydatidosis* are the major conditions that results in partial or total condemnations of the livers in the abattoir, among other conditions. This therefore implies that liver lesions can lead to considerable losses due to condemnation as well as financial losses to cattle traders, butchers and farmers (Libby, 1975).

The fact liver lesion manifestations are in apparent which makes diagnosis difficult during ante mortem inspection, and that the liver is considered the most important organ for animal health production and reproduction; it's important to evaluate the state of health of the liver since this organ is involved in many disease processes either primarily or secondarily. Any liver damage disturbs metabolic processes that are vital for normal health and optimum productivity (Sohair & Eman, 2009).

### 1.2 Problem statement

The shortage of veterinary services in the livestock rearing areas in Soroti district and surrounding areas in Teso sub region has led to widespread occurrence of diseases in traditional cattle herds. Cattle brought for slaughter in Soroti abattoir therefore harbor chronic or sub

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