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P.O. Box 236, Tororo, Uganda  
Gen: +256 - 45 444 8838  
Fax: +256 - 45 4436517  
Email: info@adm.busitema.ac.ug

www.busitema.ac.ug

**THE EFFECTS OF POST-HARVEST LOSSES ON THE MARKETABILITY OF CHILI:  
A CASE STUDY ON SMALLHOLDER FARMERS IN BARR SUBCOUNTY, LIRA  
DISTRICT**

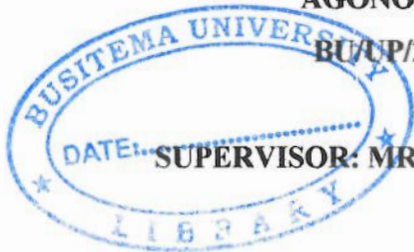
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**AGONO FLAVIA**

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**SUPERVISOR: MR. AMAYO ROBERT**

**FACULTY OF AGRICULTURE AND ANIMAL SCIENCE  
DEPARTMENT OF AGRIBUSINESS AND EXTENSION**

**A RESEARCH REPORT SUBMITTED TO THE DEPARTMENT OF AGRIBUSINESS  
AND EXTENSION IN PARTIAL FULFILLMENT OF THE REQUIREMENT  
OF THE AWARD OF A BACHELOR OF AGRIBUSINESS  
OF BUSITEMA UNIVERSITY**

**JANUARY, 2021**

**DECLARATION**

I AGONO FLAVIA hereby declare that the content of this research report is all mine, except where stated, and has never been submitted to Busitema University or any other institution of learning as a study piece for any award

Signature.....*Agono Flavia*.....

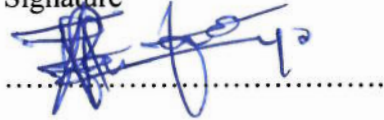
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**APPROVAL**

This is to certify that **AGONO FLAVIA** has written and submitted this research report under my supervision.

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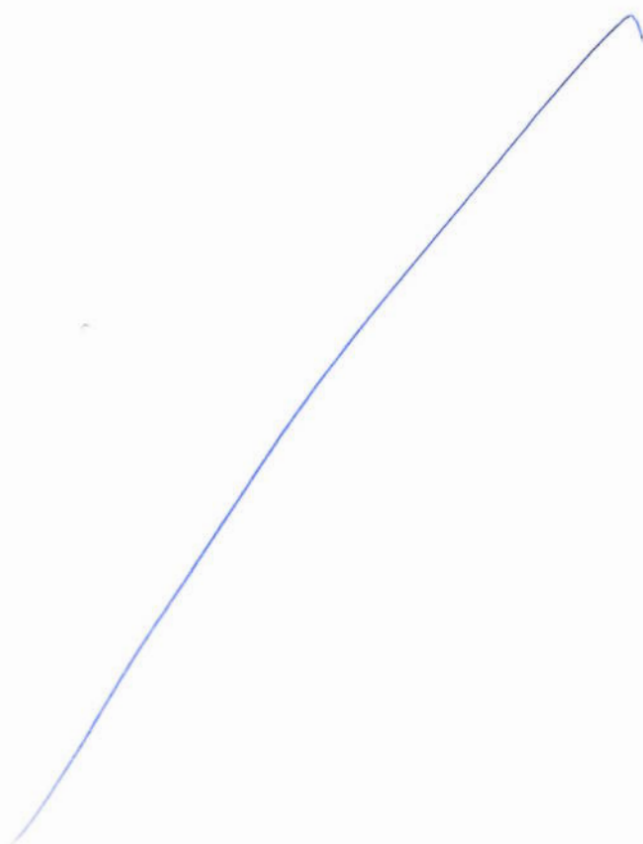


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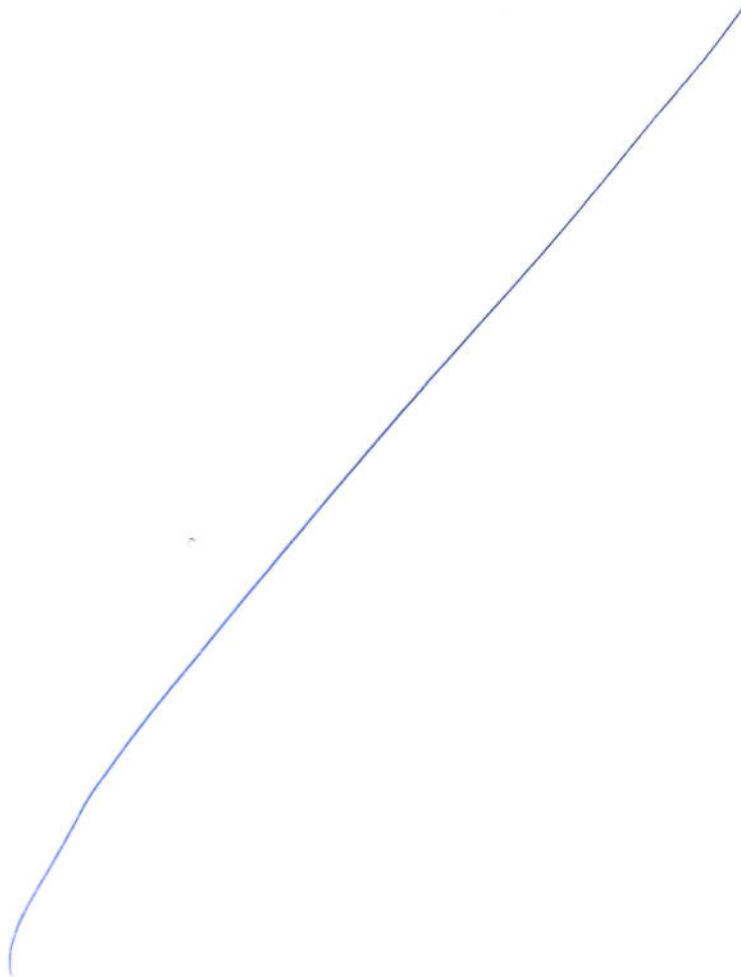
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**MR. AMAYO ROBERT**  
**(SUPERVISOR)**



## DEDICATION

I dedicate this research report to my beloved parents Eligu John and Isina Damalie as well as my aunt Abuo Catherine for the support and encouragement in making this study a success.



## ACKNOWLEDGEMENT

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## LIST OF ABBREVIATIONS

APHLIS	African Post-Harvest Loss Information System
EAC	East African Community
EAS	East African Standards
FAO	Food and Agriculture Organization
PHH	Post-Harvest Handling
PHL	Post-Harvest Loss
UBOS	Uganda Bureau Of statistics
WFP	World Food Program
WL	Weight Loss
WHO	World Health Organization
NGO	Non-Government Organization
USAID	United States AID
PMA	Plan for Modernization Agriculture
NECPA	North East Chilli Producers Association

## ABSTRACT

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The main purpose of the study was to understand post-harvest losses of chili and its impact on the profitability of chili production among smallholder farmers in Lira district. The specific objectives were to validate the different causes of post-harvest losses in chili among smallholder farmers in Barr sub county Lira district and to analyze the effects of the post-harvest losses on the profit margins. The study employed a ~~descriptive~~ <sup>Cross-sectional</sup> survey design where of both qualitative and quantitative research data were obtained with the help of questionnaire and interview guide as instruments for data collection. Purposive and simple random sampling techniques were used in selection of study sites and respondents, respectively. The study findings showed that the causes of post-harvest losses included moldings and the major cause of post-harvest losses was placing the sacks direct on the ground as one major cause of post-harvest losses and the percentage of chili pods loss during drying at 10-29%, and this affects the profit margins of smallholder farmers because it decreases the quantity of chili harvested. The study concluded that the smallholder farmers make losses especially after harvesting their products. The losses they make hinder the process of improving the efficiency in marketing through the reduction of production and marketing costs and appropriate use of appropriate inputs and on the issue of post-harvest losses on the profit margins of smallholder farmers producing chili, Smallholder farmers should be provided with a variety of seeds and capital as a way of helping them grow chili on large scale in order to increase on their profit margin. The study recommended that the farmers should invest on infrastructural projects that are key in supporting the chili business, reduce the input costs for chili farming, stabilize chili prices especially from the farm level, provide support services to farms to increase productivity, the use of improved chili varieties, use of proper fertilizer, use of credit -provides resources for acquisition of inputs and increasing level of technical know-how in the dynamic chili farming industry

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# CHAPTER ONE

## INTRODUCTION

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### 1.0 Introduction

This chapter focuses on the background, problem statement, objectives, research questions, conceptual framework, justification and significance of the study

### 1.1 Background of the study

Chili, botanically known as *Capsicum annum* L.; *Capsicum frutescence* L. also called red pepper belongs to the genus capsicum. Chili is grown mainly in the tropical region and it grows well in humid and warm climate where the soil has to be moist all the time (scientist at Kawanda growing chili in green house by Lominda Afedraru). The crop can be grown in the field or green house. Chili is grown in Uganda in the Northern, Eastern and some parts of the western region. But the Northern region dominates in the production of chili. Chili is considered as one of the most important commercial spice crops and is widely used universal spice, named as wonder spice. Different varieties are cultivated for varied uses like vegetables, pickles, spice, condiments and value added processed products (Kumar and Rai, 2005; El-Ghoroba et al. 2013). Chili powder is a world renowned spice that is used in many cuisines and recipes of various cultures to add a tangy taste to them (Huq & Arshad, 2010). Currently, chilies are also being used throughout the world in the making of beverages and medicines.

Nutritionally, chilies are rich in vitamins especially vitamin A and C, potassium, magnesium and iron. In addition, they have long been used for pain relief as they are known to inhibit pain messengers, extracts of chili peppers are used for alleviating the pain of arthritis, headaches, burns and neuralgia. It is also claimed that they have power to boost immune system and lower cholesterol. They are also helpful in getting rid of parasites of gut. Red pepper on the other hand consists lycopene which is believed to possess cancer-related properties (Simmone *et al.*, 1997). It is also used by security agencies in the preparation of tear gas for crowd control. However, there are a number of constraints which chili farmers face in both the production and post-harvest handling of the crop. Some of these challenges include; high labor charges, low market prices of chili, lack of training regarding recommended chili practices, high cost of agricultural inputs, lack of knowledge about insects, pests and diseases, and challenges related to marketing