



**BUSITEMA
UNIVERSITY**
Pursuing Excellence

AP/60

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

FACULTY OF AGRICULTURE AND ANIMAL SCIENCES

**BSA3209 INDUSTRIAL TRAINING REPORT CARRIED OUT AT MAKERERE
UNIVERSITY AGRICULTURAL RESEARCH INSTITUTE**

KABANYOLO



AMULEN PRISCA
REG NO BU/UP/2017/1798
Email. priscaamulen@gmail.com.

4


**Makerere University
Agricultural Research Institute
Kabanyolo**

**A REPORT SUBMITTED TO THE DEPARTMENT OF AGRIBUSINESS AND
EXTENSION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE BACHELOR OF SCIENCE DEGREE IN AGRICULTURE OF
BUSITEMA UNIVERSITY**

MAY, 2022


DECLARATION

I Prisca Amulen, declare to the best of my knowledge that i did this industrial training report, and it has never been submitted to any academic institution for award of any academic credential.

Sign:..... Date: 9/05/2022

APPROVAL

This is an original report of her INTERNSHIP, she did under my supervision and it's now ready for submission to the department of Agribusiness and extension of Busitema University with our due approval.

Sign:..... Date: 9th/05/22

Field supervisor

Ms. AWALO MERCY



DEDICATION

I dedicate this report to my beloved family and friends who supported me during the study, and to those who will be reading this report.

BUSITEMA UNIVERSITY LIBRARY	
CLASS NO.:	
ACCESS NO.:	FAA 1203

①

ACKNOWLEDGEMENT

I give thanks to my family, my uncles who supported me financially,

I also extend my sincere gratitude to my field supervisor for directing me during my internship.

May the God lord bless you abundantly.

A handwritten signature or set of initials, possibly 'C/D', enclosed in a large, loopy circle.

TABLE OF CONTENT

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENT	iii
LIST OF TABLES AND FIGURES	vii
CHAPTER ONE: INTRODUCTION	- 1 -
1.1 Background of Makerere university agricultural research institute kabanyolo (MUARIK).....	- 1 -
1.2 Location of MUARIK	- 1 -
1.3 OBJECTIVES OF MUARIK	- 1 -
1.4 ORGANISATION STRUCTURE	- 2 -
CHAPTER TWO: DESCRIPTION OF ATTACHMENT	- 3 -
ACTIVITIES CARRIED OUT	- 3 -
2.1 BANANA PRODUCTION	- 3 -
2.1.1 Banana production and management (<i>musa spp</i>).....	- 3 -
2.1.3 Growth requirements of banana include;.....	- 3 -
2.1.4 Classification of Banana	- 3 -
2.1.5 Propagation	- 3 -
2.1.6 Types of suckers.	- 3 -
2.1.7 Importance of banana production	- 4 -
2.1.8 Pests of Banana.....	- 4 -
2.1.9 Diseases of banana.....	- 4 -
2.1.10 Agronomic practices of banana	- 4 -
2.2.0 HORTICULTURE AND GREENHOUSE MANAGEMENT.	- 4 -
2.3.0 AQUACULTURE	- 5 -
2.3.1 Fish species kept at MUARIK.	- 5 -
2.3.2 Types of ponds.....	- 5 -
2.3.3 Feeding.....	- 5 -
2.3.4 Site selection	- 5 -
2.3.5 How to determine the real site for digging a pond.....	- 6 -
2.3.6 Diseases and predators	- 6 -
2.3.7 Treatment of diseases.....	- 7 -
2.3.8 Advantages of fish farming.....	- 7 -
2.4.0 PIGGERY PRODUCTION	- 7 -
2.4.1 Factors considered when managing pigs	- 7 -
2.4.2 Importance of rearing pigs compared to other animals	- 7 -
2.4.3 Housing of pigs	- 8 -
2.4.4 Practices carried out in Piggery	- 8 -
2.4.5 Piglet Management.	- 10 -
2.4.6 Indicators of ill health.	- 10 -

2.4.7	Organic piggery	- 11 -
2.4.20	Sources of microbes.....	- 13 -
2.5.0	VERMI-CULTURE.....	- 13 -
2.5.1	Breeds of Earth Worms.....	- 13 -
2.5.2	Characteristics;.....	- 14 -
2.5.3	Importance to the societies.....	- 14 -
2.5.4	Substrates used.....	- 14 -
2.5.5	How to rear earthworms.....	- 14 -
2.5.6	How to preserve them.....	- 15 -
2.6.0	POULTRY PRODUCTION.....	- 15 -
2.6.1	Methods of keeping birds used here is.....	- 15 -
2.6.2	Management of Layers	- 15 -
2.6.3	Management of Growers.....	- 16 -
2.6.4	Types of records kept in poultry.....	- 16 -
2.6.5	Diseases of poultry	- 16 -
2.6.6	Importance of poultry	- 17 -
2.7.0	COFFEE PRODUCTION AND MANAGEMENT.....	- 17 -
2.7.1	Varieties of coffee.....	- 17 -
2.7.2	Characteristics of coffee	- 17 -
2.7.3	Growth requirements of coffee.....	- 18 -
2.7.5	Field practices of coffee.....	- 18 -
2.8.0	PASTURE MANAGEMENT.....	- 19 -
2.8.2	Categories of pasture.....	- 19 -
2.8.3	Technologies of Pastures Improvement.....	- 19 -
2.8.4	Factors considered when establishing a pasture land	- 20 -
2.9.0	DAIRY PRODUCTION.....	- 21 -
2.9.1	Management practices carried out at dairy section.....	- 21 -
2.9.2	Management and care given to calves.....	- 22 -
2.9.3	Materials used in milking	- 22 -
2.9.4	Breeds of dairy cows at MUARIK.....	- 22 -
2.9.5	How to stimulate milk let down in a cow	- 23 -
2.9.6	Animal health.....	- 23 -
2.10	TISSUE CULTURE.....	- 23 -
CHAPTER THREE: IMPACT OF ATTACHMENT.....		- 26 -
CHAPTER FOUR: CONCLUSIONS AND RECOMMENDATIONS.....		- 27 -
4.1	Conclusion.....	- 27 -
4.2	Recommendations	- 27 -
REFERENCES		- 28 -
APPENDIX.....		- 29 -
The sketch map showing the location of MUARIK.....		- 29 -
Photos.....		- 30 -

ABBREVIATIONS

MUARIK..... Makerere University Agriculture Research Institute Kabanyolo.

IMOs..... Indigenous Micro Organisms.

NARS.National Agricultural Research System.

NARO.....National Agricultural Research Organization.

NAADS.National Agricultural Advisory Service.

FAO.Food and Agriculture Organization

KCCA.....Kampala capital city Authority

FICAFarm input care center



LIST OF TABLES AND FIGURES

Figure 1; layers in deep litter house- 16 -

LIST OF TABLES

Table 1; Common diseases of citrus- 5 -

Table 2; Diseases of pigs, signs and management- 10 -

Table 3; Common pastures- 19 -



ABSTRACT

Makerere University Agricultural Research Institute Kabanyolo (MUARIK) is part of Makerere University under the College of Agricultural and Environmental Sciences (CAES). It is located 19km North West of Kampala along Gayaza road (to Namulonge) in Kabanyolo village Nangabo sub county, Kyandondo East county Wakiso district. The major section comprises of Banana, coffee, horticulture, hydroponics, green house, tissue culturing, piggery dairy, poultry and pasture. And products produced are; Banana, poultry (broilers and layers) eggs, milk from dairy animals kept vermin-compost and earthworms coffee beans, soybean seeds among others. MUARIK offers services majorly extension services and also education for most students from different parts of the country it is a center for research for most students and researchers in the science field majorly agriculture. The general objective of this attachment is to ensure students acquire a hand on experience in the field of agriculture.

Skilling the students to be able to identify and solve challenges that farmers are most likely to face in their various settings

Basing on the daily activities, the most important practical learned includes

The major challenges faced includes limited time for carrying out practical activities, repeatedly doing the same activities, lack of adequate facilities to carryout practical.

In conclusion the study has been a great one, since the institute facilitators have been able to show away of hospitality to the student and were dedicated to giving their best to ensure the students were able to acquire the necessary knowledge that prepares them for the labor market.

CHAPTER ONE: INTRODUCTION

1.1 Background of Makerere university agricultural research institute kabanyolo (MUARIK)

Makerere University Agricultural Research Institute Kabanyolo (MUARIK) is part of Makerere University under the College of Agricultural and Environmental Sciences (CAES). The major products produced are banana, poultry (broilers and layers) eggs, milk from dairy animals kept vermin compost and earthworms coffee beans, soybean seeds among others. MUARIK offers services majorly extension services and also education for most students from different parts of the country it is a center for research for most students and researchers in the science field majorly agriculture.

It collaborates with many other organizations that aim at supporting education especially agriculture include National Agricultural Research System (NARS), NARO, NAADS, FAO, etc. offering both financial and technical support (James *et al.*, 2015).

It was established in 1953 and the area experiences a modified warm moist equatorial type of climate, with well-drained Soil, of low organic matter and the rainfall of the area is around 1000mm per annum (Huxley *et al.*, 1960). The p^H range of 5.0-5.8 9 (Okiror *et al.*, 2017).

1.2 Location of MUARIK

It is located 19km North West of Kampala along Gayaza road (to Namulonge) in Kabanyolo village Nangabo sub county, Kyandondo East county Wakiso district. MUARIK is adjacent to Gayaza High school and 6km from Namulonge Research Station (Kepher *et al.*, 2020).

1.3 OBJECTIVES OF MUARIK

- Provide a conducive research environment to the staff, students and partners.
- Provide a learning Centre of undergraduate and graduate students at national level of acquisition of hands on skills in agricultural sciences.
- Provide in service training as well as lifelong learning and state of the art demonstrations for partners and the community.