



**BUSITEMA
UNIVERSITY**
Pursuing Excellence

P.O.Box 236, Tororo
Gen: +256-454440042
Dir: +256-454440064
Mob: +256-782009474
Fax: +256-454436517
Email: ar@acadreg.busitema.ac.ug
Website: www.busitema.ac.ug

47
60

BUSITEMA UNIVERSITY, ARAPAI CAMPUS

**AN INDUSTRIAL TRAINING REPORT FOR THE ACTIVITIES CARRIED OUT AT
NATIONAL SEMI ARID RESOURCES RESEARCH INSTITUTE (NaSARRI)**

COMPILED BY:

AKITENG JUDITH

REG No.:

BU/UP/2019/2356

PROGRAMME:

**DIPLOMA IN CROP PRODUCTION
AND MANAGEMENT**

COURSE NAME:

INDUSTRIAL TRAINING

COURSE CODE:

DCP 1208

EMAIL ADDRESS:

akitengjudith19@gmail.com

YEAR OF STUDY;

YEAR 2

CONTACT:

0773165829

**TO BE SUBMITTED TO THE DEPARTMENT OF AGRIBUSINESS AND EXTENSION
OF BUSITEMA UNIVERSITY, ARAPAI CAMPUS, FACULTY OF AGRICULTURE
AND ANIMAL SCIENCES IN PARTIAL FULLFILMENT TO THE AWARD OF A
DIPLOMA IN CROP PRODUCTION AND MANAGEMENT.**

DATE OF SUBMISSION.....18/05/2022.....

Judith

DECLARATION

I AKITENG JUDITH do declare that this report is entirely an original document of my industrial training experience on the activities I did at NaSARRI in Serere district and has never been submitted to any institution of higher learning/ University for the award of a diploma in crop production and management

SIGNATURE..........

DATE.....05/5/2022.....

BUSITEMA UNIVERSITY LIBRARY
CLASS NO.....
ACCESS NO..... FAA 2025

07

APPROVAL

This report has been approved by:

FIELD SUPERVISOR

Name..... Edoan So.....

Signature..... [Signature].....

Date..... 5/05/2022.....

INTERNSHIP CORDINATOR

Name..... [Signature].....

Signature..... [Signature].....

Date..... 05/05/2022.....



DIRECTOR OF RESEARCH (NaSARRI)

Name..... ORUO JOHN ERIDIANIS.....

Signature..... [Signature].....

Date..... 5/5/2022.....

ACADEMIC SUPERVISOR

Name.....

Signature.....

Date.....

DEDICATION

I dedicate this report to the almighty God for his grace to make me complete my internship, not forgetting my parents, siblings, grandmother, and my husband for their support during my internship and to all my friends, the staff of NaSARRI and the staff of Busitena University Arapai campus, for their guidance and the knowledge they gave me that has imparted my life with good skills hands on.

ACKNOWLEDGEMENT

My sincere thanks go to the administration and the staff(lecturers) of BUAC for the training, advice and guidance during the course of study, I also want to acknowledge the staff of NaSARRI especially the field technicians of different research Programmes who deliberately shared with the students their skills and the knowledge during the internship and my supervisor Mr. Ocan James Rohland for his guidance during the training. May the almighty God richly bless you all, Amen.

TABLE OF CONTENTS

Declaration.....	i
Approval	ii
Dedication	iii
Acknowledgement	iv
Table of contents	v – viii
List of tables and figures.....	vi
Abstract.....	vii
1.0. CHAPTER ONE	
1.1: INTRODUCTION TO NaSARRI.....	1
1.2. OBJECTIVES OF NaSARRI.....	1
1.3. NaSARRI RESEARCH PROGRAMMES.....	1
1.4. VISION OF NaSARRI	1
1.5. THE MISSION OF NaSARRI.....	2
1.6 MANDATE	2
1.7 COLLABORATIONS	2
1.8. ORGANIZATION STRUCTURE.....	2 - 3
2.0. CHAPTER TWO:	
2.1. DESCRIPTION OF THE ACTIVITIES CARRIED OUT DURING THE ATTACHMEN.....	4
2.1.1 COTTON PROGRAM	4
2.1.2: USES OF COTTON	4

2.1.3: AGRONOMIC PRINCIPLES IN COTTON	4 – 5
2.1.4: ACTIVITIES I CARRIED OUT IN COTTON	5 – 6
2.2: OIL CROPS RESEARCH PROGRAM:.....	6
2.2.1 ECOLOGICAL REQUIREMENTS OF GROUNDNUTS	6
2.2.2: AGRONOMIC PRATICES IN GROUNDNUTS	6
2.2.3: BREEDING IN GROUNDNUTS	7
2.3: SUNFLOWER USES AND THE TYPES	7
2.3.1: AGRONOMY OF SUNFLOWER	7 – 8
2.3.2 PESTS OF SUNFLOWER	8
2.3.3: DISEASES OF SUNFLOWER	9
2.4: HORTICULTURE: Varieties of tomatoes and their descriptions.....	9 - 10
2.4.1: AGRONOMY OF TOMATOES AND ECOLOGICAL REQUIREMENTS	11
2.4.2 PESTS AND DISEASES OF TOMATOES AND THEIR CONTROL MEASURES	11 - 15
2.5: PASTURE DIVISIONS	16
2.5.1: AGRONOMY OF PASTURES	16
2.5.2: PRACTICLES ON HEY AND SILAGE MAKING	16 – 17
2.6: MUSHROOM PRODUCTION: REQUIREMENTS	17
2.6.1: TYPES OF MUSHROOM	17
2.6.2: BENEFITS OFMUSHROOM	18
2.6.3:PESTS AND DISEASES OF MUSHROOM	18 - 19

2.7: CEREAL PROGRAMM: SORGHUM VARIETIES	19
2.7.1: FACILITIES IN CEREALS AND THEIR USES	19
2.7.2: PESTS AND DISEASES OF SORGHUM	19 - 20
3.0 CHAPTER THREE: IMPACTS OF THE FIELD ATTACHMENT / INDUSTRIAL TRAINING	
3.1.: skills and knowledge gained during the training	21
3.2.: Responsibilities I undertook during the industrial training	21
3.3.: How the industrial training will influence my future career	21
3.4: Correlation of the attachment activities with classroom knowledge	21
3.5: Challenges faced during the industrial training	22
CHAPTER FOUR	
4.0.: CONCLUSION AND RECOMMENDATIONS	
4.1. Conclusion.....	23
4.2: Recommendations.....	23
APPENDICES	
Appendix one: work plan.....	24 - 25
Appendix two: Pictures	26
Map of NaSARRI:	27
References:	28

LIST OF TABLES AND FIGURES

Figure 1: showing organization structure of NaSARRI.....	3
Table 1: showing pests of sunflower and their control measures	8
Table 2: showing diseases of sunflower type and management of the disease	8 -9
Table 3: Showing pests of tomatoes, identity damage and control measures.....	11 -13
Table 4: showing diseases of mushroom, symptoms and control	18 – 19
Table 5: showing sorghum varieties'	19

LIST OF ABBREVIATIONS

NaSARRI: National Semi-Arid Resource Research Institute

NARO: National Agricultural Research Institute

SAARI: Serere Agricultural and Animal Research Institute

NALIRI: National Livestock Research Institute

BUAC: Busitema University Arapai Campus

Reg no: Registration number

I.e.: That is say

ABSTRACT

This reflects my industrial training in National Semi-Arid Resource Research Institute (NaSARRI) in Serere district 27km South of Soroti city starting on 28th February to 22nd April 2022. Chapter one describes the introductory part to my industrial training, objectives of the internship, duration of the programs, background of NaSARRI, the research programs, Organizational Structure of NaSARRI. Chapter two contains the description of the activities that I carried out during my industrial training under different Research Programs I.e. Dryland cereals, Dryland legumes, farm management, Cotton and Oil crops programs. The activities include breeding (emasculatation, crossing, selfing, germplasm,), identification of pests and diseases, experimental design (field marking), Data collection in a Cotton field, agronomic practices, Post-harvest handling and thinning of sorghum. chapter three describes the impacts of the attachment to the students in terms of knowledge and skills gained during industrial training. it also highlights some challenges I faced and responsibilities undertake, correlation of the attachment with class work and the influence of the attachment. Chapter four describes the conclusion, the recommendations and the appendices.



1.0 CHAPTER ONE

1.1 INTRODUCTION TO NaSARRI

National Semi Arid Resources Research Institute (NaSARRI) formally called SAARI is one of the 17 public Agricultural Research Institutes under NARO. NARO is responsible for conducting and coordinating agricultural research in Uganda. NaSARRI is located in the Eastern agro-ecological zone in Serere district, Olio sub- county, Igola parish, 21 km south of Soroti City. Agricultural research in NaSARRI was started in 1920 by the colonial government and it was initially called Serere Agricultural and Animal Research Institute after which it was changed to NaSARRI. The institute has made considerable progress since its creation a new strategy has been developed that is the medium Term plan (MPT) through a highly participatory country plan for Modernization of agriculture (PMA). NaSARRI is one of the agricultural Institutes which is publically founded to carry out demand driven research and promoting agricultural research.

1.2 Objectives of NaSARRI

- To develop improved crop Varieties which are high yielding, early maturing, tolerant to drought, pests and diseases and have high market demand.
- To generate appropriate crop, soil fertility, disease and pest management options that increase crop yields.
- To disseminate appropriate technologies and information to uptake pathways (stakeholders) and limited number of farmer groups.

1.3 NaSARRI Research Programmes

To achieve its Objectives NaSARRI is organized in to four research Programmes and they include;

- 1) Dryland cereals research programe which undertakes research in the following crops: Sorghum, finger millet and pearl millet.
- 2) Dryland legumes research programe which undertakes research in cowpea, pigeon pea and green gram.
- 3) Oil crops research program which undertakes research in Groundnuts, Sesame and Sunflower.
- 4) Fiber crops (Cotton research programe), which undertakes research in only Cotton.

Note: Cross cutting units include Animal traction, soil fertility and socio- economics.

1.4 Vision of NaSARRI

A market leader in generating and dissemination of appropriate crop technologies for sustainable development in Semi- Arid areas.