

**INDUSTRIAL TRAINING REPORT CARRIED OYT AT NATIONAL SEMI ARID
RESOURCES RESEARCH INSTITUTE [NaSARRI], SERERE UNDER DIFFERENT
PROGRAMSON CROP PRODUCTION AND MANAGEMENT.**

From 28th.feb to 06th.may 2022

COMPILED BY

NAME: OPOLOT PAUL.

REG NUMBER: BU/UG/2019/2946

STUDENTS' NUMBER: 1900402946.

EMAIL ADDRESS: opolotp6@gail.com.

COURSE CODE: DCP.1208

YEAR TWO

TELEPHONE NUMBER: 0788598835/0702343583

**TO BE SUBMITTED TO THE DEPARTMENT OF AGRI-BUSINESS AND EXTENTION
OF BUSITEMA UNIVERSITY -ARAPAICAMPUS FOR THE AWARD OF A DIPLOMA
IN CROP PRODUCTION AND MANAGEMENT BUSITEMA UNIVERSITY.**




SUBMISSION DATE: 17/m/2022

OP

DECLARATION

I **OPOLOT PAUL** declares to the best of my knowledge that this work is of my own and has never been submitted to any university or institution for the award of diploma. I therefore submit it for the partial fulfillment of a ward of DCP at BUAC.

Student name: OPOLOT PAUL

Signature: 

Date: 11/05/2022

07

APPROVAL

FIELD SUPERVISOR:

Name: Dr. Okezie Okonkwo - Anuosi
Signature: [Signature]
Date: 11/05/2022

ACADEMIC SUPERVISOR.

Name.....
Signature.....
Date.....

INTERNSHIP COORDINATOR

Name: Dr. Okezie Okonkwo - Anuosi
Signature: [Signature]
Date: 11/05/2022



for DIRECTOR OF RESEARCH:

Name: OBUS JOHN EMMODIATU
Signature: [Signature]
Date: 11/5/2022



DEDICATION

I dedicate this report my beloved Mr. father Ojota Joseph and mother Mrs. Among Hellen for having given me all what I wanted to be at school .May the almighty God bless them abundantly

0/

ACKNOWLEDGEMENT

I would like to express my thanks and gratitude to the almighty God for his merciful hand upon me for giving me strength, and wisdom, my academic supervisors and field supervisors for their tireless effort that they gave to me during field work practical.

I would like to express my thank s and gratitude to all those who assisted and co-operated with me by one way or another till this work has been accomplished.

Special and deep thanks are due to my supervisor Mr. Okwang Dodah who gave me much of his valuable time and effort to supervise, guide me I deeply appreciated and gratefully acknowledge his valuable help, good advice and his endless support.

07

TABLE OF CONTENT

DECLARATION	i
APPROVAL.....	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENT	v
LIST OF ABBREVIATIONS	viii
LIST OF TABLES AND FIGURES	ix
Figure 1 Organisation structure of NaSARRI	ix
ABSTRACT.....	x
CHAPTER ONE	1
1.0:INTRODUCTION	1
1.1BACKGROUND OF NaSARRI.....	1
1.2 LOCATION OF NaSARRI.....	1
1.3 THE VISSION OF NaSARRI.....	1
1.4 THE MISSION	1
1.5 WHY WAS NaSARRI STARTED.....	1
1.6.THE MANDATE OF NaSARRI.	2
1.7 . OBJECTIVES OF NaSARRI.....	2
1.8.ACHIEVEMENTS OF NaSARRI.	2
1.9. RELIEF.	2
2.11 Objectives of industrial training.....	2
1.13 ORGANISATION OF NaSARRI.....	3
Figure 1; organisation structure of NaSARRI	3
CHAPTER TWO	4
DESCRIPTION OF ACTIVITIES DURING THE ATTACHMENT	4
2.0. DRY LAND LEGUME PROGRAMME.....	4
2.1. GREEN GRAMS (Vignaradiata).....	4
2.1.0 ACTIVITIES CARRIED OUT IN GREEN GRAMS RESEARCH PROGRAM.....	4
2.1.1 GERMINATION TEST:.....	4
2.1.2PROCEDURE OF GERMINATION TEST.	4
2.2 COW PEA (Vignaauiculata)	4
2.2.1 ACTIVITIES CARRIED OUT IN THE COW PEA RESEACH PROGRAM.	5

2.2.2 SEED COUNTING.....	5
2.2.3 EMASCULATION.....	5
2.2.4 SEED BULKING.....	5
2.3.5 Identification of pests of green grams.....	5
2.3.6 DESEASE IDENTIFICATION OF GREEN GRAMS.....	6
2.3.7 Seed treatment.....	6
2:2:FIBRE PROGRAM.....	6
2:2:0: COTTON (Gossypium spp).....	6
2.2 ACTIVITIES CARRIED OUT IN COTYON.....	6
2.2.1 Breeding.....	6
2.2.2 Selfing.....	7
2.2.3 Crossing.....	7
2.2.4 INDENTIFICATION OF PESTS.....	7
2.2.5 Identification of cotton diseases.....	8
2.2.7 SITE SELECTION.....	8
2.2.8 Rotation.....	8
2.2.9 SOIL SAMPLING.....	8
2:3: OIL CROPS RESEARCH PROGRAM.....	9
2:3:1 GROUND NUTS(Arachis hypogea).....	9
2:3 ACTIVITIES CAARRIED OUT IN GROUND NUT RESEARCH PROGRAM.....	9
2.3.2Scouting of flower.....	9
2.3.3 Emasculation.....	9
2.3.4 Crossing.....	10
2.3.5Counting of the karnels.....	10
2.3.6 Weighing.....	10
2.3.7 Naming of the groundnut botanicals.....	10
2.3.8 Tagging of the flower.....	10
2.3.9 Identification of plots, replicate number for bulking.....	10
2.3.10 Packaging of the seeds for African co-collection.....	10
2.3.11 Data capture using the field book app.....	10
2:4. SESAME (sesamum indicum).....	10
2.4.1 Variety identification.....	10
2.4.2 Pests of sesame and their control measures.....	11
2.4.3 Common diseases of sim-sim and their control measures.....	11

2.5 FARM MANEAGEMENT PROGRAM.....	11
2.5.1 Field marking.....	11
2.5.2: Identification of weather instruments.....	12
2.5.3: Weeding of pastures.....	12
2.5.4: Trimming of pastures.....	12
2.5.5: Identification of different types of pasture.....	12
2.5.6: Hay making.....	12
2.5.7: Silage making.....	12
2.5.8. Budding.....	12
2.5.9. Grafting.....	13
2.5.10: Establishment of nursery bed.....	13
2.5.11 Watering of nursery beds.....	13
2.5.12: Weeding of sorghum using oxen and a weeder.....	13
2.5.13 : Mushroom production.....	13
2.5.14 Pests of mushroom.....	14
2.5.15. Disease of mushroom.....	14
CHAPTER THREE.....	15
IMPACT OF THE ATTACHMENT.....	15
3:1 SKILLS GAINED IN THE TRAINING.....	15
3.2 RESPONSIBILITIES UNDERTAKEN DURING THE ATTACHMENT.....	15
3.3 INFLUENCE OF THE ATTACHMENT.....	16
3.4 CORRELATION OF THE ATTACHMENT WITH CLASSROOM WORK.....	16
CHAPTER FOUR.....	17
4.1 CONCLUSION.....	17
4.2 RECOMMENDATIONS.....	17
APPENDICES.....	18
APPENDIX 1. Showing the Work plan for the activities carried out at NaSARRI from 28th Feb to 22nd April 2022.	18
APPENDIX 2.....	20
Appendix 3: A MAP OF NaSARRI.....	21
REFERENCES.....	22

LIST OF ABBREVIATIONS

NARO.....National agricultural research organization

NaSARRI.....National semi arid resources research institute

Eg.....for example

BU.....Busitema university

PYT.....preminary yield trail

IYT.....intermediate yield trial

DYT.....advanced yield trial

IT.....industrial training

IE.....That is to say

REG NO.....Registration number

07

LIST OF TABLES AND FIGURES

Tables

- Table 1** Showing pests that attack green grams.
- Table 2** Showing diseases of green grams.
- Table 3** Showing pests of cotton.
- Table 4** Showing diseases that attack cotton.
- Table 5** Showing varieties of sesame.
- Table 6** Showing the pests that attack sesame.
- Table 7** Showing the diseases that attack sesame.
- Table 8** Showing the pests that attack mushroom.
- Table 9** Showing the diseases that attack mushroom.

Figures

- Figure 1** Organisation structure of NaSARRI
- Figure 2** Showing hay making
- Figure 3** Showing field marking.
- Figure 4** Showing weeding of sorghum using ox.

ABSTRACT

Industrial training aims at equipping students with practical skills of what they have been fought theoretically. This report contains various activities carried out during internship. NaSARRI was started as an experimental station in 1920, later in 1992 SARRI took and and in 2005 NARO took over up to date. It is mandated to undertake research in crop production for semi-arid systems. NaSARRI conducts research on finger millet, pearl millet, sorghum, sun flower, groundnuts, cottob, cow peas, peginon pea, animal traction, soil economic and marketing, emerging semi arid issues. This report covers five programs eg Dry land legumes, oil crops, fibre crops, farm management, cereals program. The following activities were carried out, breeding which is the purposefullmanupulation of plant species to create plant phenotypes with desired characteristics. Emasculation This is the removal of the male part of the flower. Selfing is the breeding practice where by a farmer can tend to protect the plant from being contaminated. Crossing is the process of transferring pollen grains from the anther of one flower to the stigma of another flower but of the same species. Seed bulking, pest and disease identification, seed counting and field marking. In conclusion, the training was done successfully and I learnt how to carry out field marking, crossing, selfing and pest and disease identification. I recommend the management of NaSARRI to recruit more techniansatleast two per program to avoid missing being attended because of the absence of the technician.

58

CHAPTER ONE

1.0:INTRODUCTION

The National Semi Arid Resources Research Institute is one of the sixteen public Agricultural Research institutes established by the National Agricultural Research Organisation (NARO).it falls under the category of the National Agricultural Research Institute (NARIS)which carry and manage the agricultural research of strategic nature and national importance. NaSARRI conducts applied and adaptive research in agriculture in the experimental stations for ox cultivation technology that was designed to support and uplift cotton production in Teso and for training the staff from the department of agriculture by then NaSARRI has made a fundamental and a considerable progress since its creation but all these progress could not have happened if it was not because of support from the government of Uganda and several donors.

1.1BACKGROUND OF NaSARRI.

NaSARRI was started as an experimental station in 1920 by the colonial government .later in 1992 it was converted to Serere Agricultural and \Animal production Research Institute (SAARI) and in 2005 National Semi Arid Resources Research Institute took over

1.2 LOCATION OF NaSARRI.

The National Semi- arid Resources Research institute (NaSARRI) P.O BOX 56 Soroti Uganda on email director @NaSARRI.of.Ug/WWW.nasarri.of.ug is located 27km South West of Soroti city in Serered istrict , Serere town council, Okulonyo ward, Igola village .

1.3 THE VISSION OF NaSARRI.

To be a market leader in generation and dissemination of appropriate crop technologies for sustainable development in Semi arid regions of Uganda.

1.4 THE MISSION .

To generate, package appropriate agricultural production technologies and information for improved management and sustained integrated crop and natural resource management in semi arid areas with partnership with another stakeholders .

1.5 WHY WAS NaSARRI STARTED.

To increase on the quality, quantity and availability of technologies , methods and policy advice for efficient and profitable agriculture while increasing food security , equality and natural resource sustainability.