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**AN INDUSTRIAL TRAINING REPORT FOR ACTIVITIES CARRIED OUT AT THE
NATIONAL SEMI- ARID RESOURCES RESEARCH INSTITUTE (NaSARRI) IN
SERERE DISTRICT FROM 28th FEB 2022 TO 22nd MAY 2022**

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REGISTRATION NO: BU/UP/2020/1672

COURSE/PROGRAMME: DIPLOMA IN CROP PRODUCTION AND MANAGEMENT

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

DECLARATION

I BUSOULO JOSHUA do declare that this report is entirely an original documentation of my industrial training experience at NaSARRI, SERERE district and it has never been submitted to any institution of higher learning for the award of certificate in general agriculture.

NAME: BUSOULO JOSHUA.

SIGNATURE: 

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APPROVAL

This report has been submitted for examination with the approval of supervisors

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Name: ORUO JOHN EMILIATIS

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ACEDEMIC SUPERVISOR.

Name:

Signature:

Date:

DEDICATION

I dedicate this report to my family members most especially my father BUSOOLLO JOHN for the support that labored for me during hard times in raising my tuition ,also to the working staff of NaSARRI and my fellow friends that I did my internship with that hello to all brothers and sisters for supporting me with all your graceful hearts not forgetting the working staff of Busitema university Arapai campus in there different levels.

ACKNOWLEDGEMENT.

Thanks to the administration of BUAC for the training, advice and guidance during the course of study. Most gratitude goes to the leaders of Busitema university Arapai campus for the guidance that they levied to me.

My sincere thanks also goes to the staff and the management of NaSARRI especially to the Director for having allowed me to conduct my internship in NaSARRI and my supervisor ALEPO HARRIET BETTY and OKWANG DODAH a dry land legume expert at NaSARRI for their exhausting support during my internship and all those who are not mentioned that may the Almighty God bless you abundantly.

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LIST OF ABBREVIATION

BUAC	:	Busitema University Arapai Campus.
NaSARRI	:	National Semi-Arid Resource reseatch institute.
NARO	:	National agricultural research organization.
PARIS	:	Public Agricultural Research Institutes
SAARI	:	Serere Agricultural and Animal Research Institute
ICRISAT	:	international crop Research Institute for Semi Arid Tropics
SESO	:	Serere Sorghum
IARC	:	International Agricultural Research Centre

LIST OF TABLES AND FIGURES

Table 1 : Shows the weather instruments and their use

Table 2: shows sukuma wiki pests, damage, and their control

Table 3: shows sukuma wiki diseases, causal agent, symptoms and control

Table 4: shows the varieties of finger millet at NaSARRI

Table 5: showing released sorghum varieties, their colours, maturity periods, yield capacities, spacing and seed rates.

Table 6: shows the common pests of sorghum the damage they cause and the control measures.

Table 7: shows the common diseases of sorghum damage caused and control measures.

Table 8: showing the diseases of cow pea, their damage /symptoms and control measures

Table 9: showing common pests of legumes, the damage they cause and the control measures

LIST OF FIGURES

Figure 1: showing bulking in legumes

Figure 3: showing weeding in pigeon pea

ABSTRACT

The industrial training was carried out at NaSARRI as the area of field attachment for a period of two months that is from 28th Feb 2020 to 22nd April 2022. NaSARRI is located in the Eastern Agro-ecological zone in Serere District 27 km South of Soroti town. NaSARRI is one of the 16 research institutes of National Agricultural Research Organization (NARO) established by the National Agricultural Research Act 2005.

The Objective of this training, is to enable students acquire practical knowledge, skills in agricultural research and other related activities. It was carried in different programs in a rotation i.e. Cereals, Cotton, Legume, Oil crops and farm management, farm management was conducted for two weeks and the rest of the programmes one week each with various activities carried out in different sections.

As training went on, I was able to carry out various activities like field marking, emasculation, selfing, seed counting, seed bulking, nursery bed management and many others that are listed in this report.

There were several skills gained in the field, like diseases identification such as, groundnut rosette, powdery mildew in simsim, early and late leaf spot in ground nut, common pests that mostly attack crops like; spiny boll worm in cotton, *maruca spp* in cowpea, aphids, leaf miners etc.

However, few challenges were faced like; shortage of tools and equipment to be used in the field during breeding activities like emasculation.

CHAPTER ONE

1.0 Location and Description of NaSARRI:

The National Semi-Arid Research Institute is one of the 16 public Agricultural institutes (PARIs) Under the National Agricultural Research Organisation which is publically founded to carry out demand driven research and promoting agricultural Research.

Its located in the Eastern Agro-ecological zone in Serere District 27km south of Soroti ^{city} town.

Agricultural Research in NaSARRI started in 1920 by the colonial government .It was initially called Serere Agricultural Research and Animal production Research Institute after which it was changed to NaSARRI. The institute has made considerable progress since its creation .Anew strategy has been developed that is the Medium Term Plan (MTP) through a highly participatory country Plan for Modernisation of Agriculture (PMA)

1.1 Objectives of NaSARRI:

To generate, package and disseminate appropriate agricultural production technologies to improve sustainable development

NaSARRI conducts research on mandated crops like cereals i.e. finger millet, pearl millet, sorghum, rice e.t.c, oil crops e.g groundnuts, sun flower ,simsim and legumes like green gram, pigeon peas and cow peas

1.2 Mission of NaSARRI:

To generate package and disseminate appropriate Agricultural production of agricultural technology and information for improved sustained integrated crops and natural resource management and partnership with other stakeholders.

1.3 Vision of NaSARRI:

A market leader in generation and dissemination of appropriate technologies for sustainable development.