





# **INDUSTRIAL TRAINING REPORT ON GROUNDNUT**

## PRODUCTION

## **CARRIED OUT AT NATIONAL SEMI-ARID RESOURCES**

**RESEARCH INSTITUTE (NaSARRI) SERERE** 

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16<sup>TH</sup> MAY - 22<sup>TH</sup> JULY, 2016

## DECLARATION

I Opejo Deo, hereby declare with all honesty and to the best of my knowledge that this report is my work and has never been produced and submitted to any institute for award of any Diploma.

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### DEDICATION

I Opejo Deo dedicate this work to my lovely parent Ms. Okalang Margret, for her continuous support towards my academic career and not forgetting my brothers and sisters.

#### ACKNOWLEDGEMENT

I gratefully thank the director of NaSARRI Dr. Micheal Ugen and programme leader groundnuts Moses Biruma for allowing me to carry out the industrial training at the institute. Sincere thanks also go to all the lecturers of Busitema University Arapai Campus, for the good work they have done to monitor me. I extend my thanks to Mr. Kalule Okello David project leader /groundnuts breeder for being very resourceful to me in all aspects concerning my training. Special thanks go to a senior technician groundnuts Mr. Ereu Samuel, Miss. Namutosi Pamela afield technician, Mr. Osia Paul field technician, Miss. Apenyo Beatrice field assistant and Adongo Lucy field assistant for their guidance on several aspects on groundnuts and not forgetting my parents who have contributed a lot towards my success while at school and many others whose names are not mentioned here but contributed in my training they all deserve to be appreciated and may the lord bless you all.

Thank you.

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### LIST OF ACRONNYMS

NARO: National Agricultural Research Organization.

NaSARRI: National Semi- Arid Resources Research Institute.

MAAIF: Ministry of Agriculture Animal Industry and Fisheries.

D.V.T: District Variety Trial.

ICRISAT: International Crop Research Institute for Semi-Arid Tropics

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#### ABSTRACT

This report provides information on the activities that I participated during the course of training at NaSARRI. This include importance of groundnuts production, and aspects of crop improvement as applied to groundnut improvement program at NaSARRI this include scouting of flowers, emasculation, crossing, tagging, pests and disease identification was done. Diseases like early and late leaf spot, rust, witches broom, rosette and pests such as aphids, leaf miner, thrips, termites were visually identified in the field practically, varieties identification such as Serenut series (released varieties, advanced lines, crosses. And also aspects of Aflatoxin management, harvest and post harvest management in the field and in the store, germplasm maintenance of different genotypes assembled. This report also summarizes aspects on data collection at the store like dry pod yield in Kg per plot, a hundred seed yield in kg per plot and in the field i.e. rosette count, first flower appear, 50% and 75% flower, leaf spot data collection at 4 weeks.

It is essential because it has given me a chance to participate fully in various aspects being done in the field and makes one well acquainted with practical skills. This report also provides information on observations and achievements during the training.

#### CHAPTER ONE

#### 1.0 INTRODUCTION:

#### **1.1 GENERAL INTRODUCTION**

During the period of May to July 2016, I had the opportunity to conduct my industrial training at NaSARRI under Groundnut production and I explored practical opportunities. The training was conducted under the supervision of Mr. Kalule Okello David the researcher. The activities which I participated during my industrial training are well discussed in the next chapters.

#### **1.2 LOCATION AND BACKGROUND OF NaSARRI:**

NaSARRI is one of the research institutes of NARO. The institute is located in Eastern Uganda, 27 kilometers south west of Soroti town. It was established in 1919 using funds from tax levied on ginned cotton. Initially it was used as experimental station for ox cultivation technology that was designed to support cotton production in Teso and training staff of department of agriculture. In 1994 it was fully upgraded to a research institute following formation of NARO under MAAIF. It is located on 700 hectares of land ip which all the institute structures, equipments facilities lie.

### 1.2.1 NaSARRI's VISION:

A market leader institution in generation and dissemination of appropriate technologies for sustainable development in the semi arid regions of Uganda.

#### 1.2.2 NaSARRI's MISSION:

The mission is to generate package and dissemination of appropriate agricultural production technologies and information for improved and sustained crop and natural resource management in Semi-Arid regions in partnership with other stake-holders.

#### 1.2.3 MANDATED AREAS:

NaSARRI's mandate is to undertake research in crop production for Semi-Arid production system in the areas of seed research production, product, management,