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**A COMPREHENSIVE REPORT ON INDUSTRIAL TRAINING CARRIED OUT AT
NATIONAL SEMI-ARID RESOURCES RESEARCH INSTITUTE (NaSARRI)**

FROM: Monday 28th FEB TO 6th MAY 2022

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TO BE SUBMITTED TO THE DEPARTMENT OF AGRIBUSINES AND EXTENSION,

BUSITEMA UNIVERSITY, - ARAPAI CAMPUS.

DATE OF SUBMISSION: 19th/5/2022

Declaration.

I ISAAC OKELLO ATIGO, declare that the Work enclosed in this report is personally mine, and thus has never been submitted at any Institution of Learning. Therefore, I accepted that the Report has been Submitted Personally after being Approved by My Field, and Academic Supervisors to be used for the Purpose of awards of a Bachelor Degree in Agri-business.

Signature: o mmm af Date: 12 May 2022

APPROVAL

This is to confirm that the work presented herein was done under our supervision and it is original piece from the student.

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DEDICATION

I dedicate this report to my beloved Parents Mr. James Angelo Latigo and Ms. Rosina Latigo, not forgetting my Sisters Doreen Apio, Mildren, Caro alongside Brothers Geoffrey Anok and Jimmy Orech whom They Supported and uplifted me not only Financially but also Spiritually.

Furthermore, I dedicate This Report to My Field Supervisor Mr. Elobu Pious,

My beloved Friends Caesar Okello, Ariko Bosco, Kagwa Jonathan.

ACKNOWLEDGEMENT

Special thanks goes to the Almighty Father for his Peace, Love and Protection upon us all,

Therefore I would like to appreciate the **Director** of the Institute- **NaSARRI Dr.Ugen Michael** for granting me that opportunity to conduct my internship from the institute, My field supervisor **Mr. Elobo Pius** .The Coordinator at **NaSARRI**, **Mrs. Sadina Beatrice**, **Mr. Obua Peter**, the entire staff, program leaders, scientists, technician and field assistant for their maximum cooperation towards my being in **NaSARRI**.

Sincere appreciation also goes to the staff of Busitema University Arapai Campus for the implementation of industrial training which help me learn and understand people's way of life, their interest and needs. Socializing with different communities during the training and how extension services can be delivered to the local farmers outside there to solve their production problems in agriculture.

However, the cooperation offered by my fellow colleagues during internship i.e. Kagwa Jonathan, Apiny Esther, Ocen Emmanuel, among others was so much relevant to the success of this industrial training at **NaSARRI**, I Congratulate you for being good friends to me from the start to the end.

TABLE OF CONTENTS

Declaration.....	i
Approval	ii
Dedication	iii
Acknowledgement	iv
Table of contents	v – viii
List of tables and figures.....	ix
List of Abbreviations	x – xi
Abstract.....	xii
1.0 CHAPTER ONE	
1.1: INTRODUCTION	1
1.2 VISION OF NaSARRI	1
1.3 MISSION OF NaSARRI	1
1.4 THE MANDATE OF NaSARRI	1
1.5 OBJECTIVES OF NaSARRI	1
1.6 NaSARRI RESEARCH PROGRAMME	2
1.7 THE ORGANIZATION STRUCTURE OF NaSARRI	3
2.1.0 CHAPTER TWO:	
2.0 DESCRIPTION OF THE ATTACHMENT	4
2.1.FARM MANAGEMENT	4

2.2 METERELOGY	4
2.3 HORTICULTURE	5
2.4 ONION PRODUCTION	5
2.5 VARIETIES OF ONIONS	6
2.6 ECOLOGICAL REQUIREMENTS	6
2.7 TECHNOLOGY AND ANIMAL PRODUCTION	6
2.8 THE AGRONOMIC PRACTICES IN ONION PRODUCTION	7
2.9 PESTS AND DISEASES OF ONIONS	7
2.1.0 FACTORS TO CONSIDER BEFORE ESTABLISHING ONIONS	8
2.1.1 NURSERY BED PREPARATION FOR ONION PRODUCTION	8
2.1.2 PASTURE ESTABLISHMENT AND MANAGEMENT	9
2.1.3 IMPORTANCE OF PASTURE	9
2.1.4 PROCEDURE FOR PASTURE ESTABLISHMENT	10
2.1.5 MANAGEMENT PRACTICES IN PASTURE	10
2.2.0 HAY MAKING	11
2.2.1 PROCEDURES IN MAKING HAY	11
2.2.2 SILAGE MAKING	11
2.2.3 PROCEDURES IN SILAGE MAKING	11
2.2.4 AGROFORESTRY	12
2.2.5 NURSERY BED ESTABLISHMENT	12

2.2.6 CARE AND MAINTANANCE OF NURSERY SEEDLINGS	13
2.2.7 THE NURSERY BED OPERATION TECHNOLOGY	13
2.3.0 MECHANIZATION	14
2.3.1 PRECAUTIONARY MEASURES WHILE AT THE WORKSHOP	14
2.3.2 WORKSHOP TOOLS AND EQUIPMENT.....	14
2.4.0 ANIMAL TRACTION	17
2.4.1 ANIMAL SELECTION FOR TRACTION	17
2.5 OIL CROP RESEACH PROGRAMME.....	18
2.5.1 INTRODUCTION TO GROUNDNUTS	18
2.5.2 VARIETIES OF GROUNDNUTS	18
2.5.3 ACITIVITIES UNDR E GROUNDNUT BREEDING	18
2.5.4 IMPORTANCE OF GROUNDNUTS	19
2.5.5 SIMSIM	20
2.5.6 VARIETIES OF SIMSIM	20
2.5.7 SITE SELECTION FOR SIMSIM PRODUCTION	20
2.6 SOCIO ECONOMICS	20
2.6.1 FARMING AS A BUSINESS	21
2.6.2 FACTORS TO CONSIDER WHEN FARMING AS A BUSINESS	21
2.6.3 THE BUSINESS CYCLE	22
2.6.4 FARM RECORDS	23

2.6.5 ADVANTAGES OF FARM RECORDS	23
2.6.6 TYPES OF RECORDS	23
2.7 THE BUSINESS ENTERPRISE BUDGET	24
2.7.1 DATA COLLECTION	25
2.7.2 TYPES OF DATA	26
2.7.3 QUALITIVE AND QUNATITATIVE DATA	26
2.8.0 DRYLAND CEREAL RESEARCH PROGRAMME	26
2.8.1 SORGHUM PRODUCTION	26
2.9.0 DRYLAND LEGUME PROGRAMME	27
2.9.1 BREEDING IN DRYLAND LEGUME	27
2.9.2 THE GOALS OF BREEDING	27
 CHAPTER THREE	
3.0 IMPACTS OF THE ATTACHMENT	28
3.1 SKILLS AND KNOWLEDGE GAINED	28
3.2 RESPONSIBILITIES UNDERTAKEN	29
3.3 INFLUENCE OF THE ATTACHMENT TO THE FUTURE CAREER	29
3.4 CORRELATION OF THE ATTACHMENT WITH CLASSROOM KNOWLEDGE	30
3.5 CHALLENGES FACED DURING THE TRAINING	30
 4.0 CHAPTER FOUR:	
4.0: CONCLUSION	31

4.1: RECOMMENDATIONS.....31

APPENDICES

Appendix one: work plan.....32 – 35

Appendix two: pictures.....36

REFERENCES.....37



LIST OF ABBREVIATION

PARIS	Public agricultural research institute
NARO	National agricultural research organization
SIGN	Signature
IT	Industrial training
e.g.	Example
BU	Busitema University
UP	Under private
BPA	Bukalasa pedigree Alba
SATU	Serere Alba type Uganda
NaSARRI	National Semi-Arid Resources Research Institute
CRD	Complete Random design
CRBD	Complete Random Block Design
SBD	Split Block Design

LIST OF TABLES AND FIGURES

Figure one: showing organizational structure of NaSARRI

Table 1: showing onion pests and diseases showing diseases attacking groundnuts, symptom and control measures

Table 2: diseases in groundnuts

Table 3: showing enterprise budget for simsim production

Table 4: showing sorghum varieties

Table 5: showing the work plan

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Abstract:

This Internship was conducted for a period of 10 week, starting 28th Feb 2022 to 7th of May 2022, at National Semi-arid Resource Research Institutes, located in the Eastern agro-ecological Zone in Serere district, 27km south of Soroti city.

NaSARRI is one of the 17 Public Research Institutes under the National Agricultural Research Organization in Uganda.

Industrial Training is therefore an important mechanism which is always conducted to expose learners to Skill acquisitions, implying that they would be equipped with among others - The Communication skills, Administrative skills, Operational skills. It's Objectives are to enables learners acquire Practical knowledge, Skills, Methodology, Monitoring, Evaluation, among others in the field of Agricultural operation and other related fields.

Therefore, as an Agribusiness student, the Training was conducted under Seven section i.e. Farm management, Oil Crop Program, Socio economic, Dry land Cereal, Dry land Legumes, Cotton, and Livestock production, of which some were subdivided in to Subsections e.g. Farm management (Agroforestry, Animals traction, Meteorology studies, Principles of Horticulture, Pasture Establishment and Management).

However, the Orientation was conducted on Monday the Seventh day of March 2022 from 8:25am to 12:48pm, and was led by Mr. Obua Peter (The Research officer in charge of Crop Agronomy), alongside Mr. Opokwal Dodah. This was attended together with few students from Nagongera Campus.

Thus as the Training commence, various activities were physically, experimentally and Practically performed , Case in point; **Pest and diseases** identification on pasture land ,**Grafting** and **Budding** in mangoes and Oranges respectively, **Emasculation** in Ground nut, **Data entrance, coding and analysis** under Socio-economics, **Nursery bed Establishment** under Horticulture, **Observing (selecting) of good animals for traction** under animals traction, **Seed laying** and **planting** under Cereal and legumes, **Seed counting** and **Bulking** under Groundnuts, **Telling wind direction** under Meteorology,...

1.0 CHAPTER ONE

1.1: THE INTRODUCTION (BACKGROUND)

NaSARRI in full means National Semi-Arid Resource Research Institute. It is one of the 17 Public agricultural Research Institutes under National Agricultural Research Organization (**NARO**) - which is responsible for conducting and coordinating agricultural Research in Uganda.

It was established in the early 1922 during the British regime and was initially established as Experimental station ^{mainly} manually for Ox- Cultivation technologies, purposely to support cotton production in Teso sub regions. As time goes on it was re-named as Serere Agricultural and Animals Production Research Institutes (SAARI) in 1992., Thereafter in 2005, the institute was re-named as National Semi-Arid Resource Research Institutes (**NaSARRI**).

1.2: NaSARRI Vision.

The institutional vision is to be a market leader in generation and disseminating of appropriate agricultural technologies for sustainable development in Semi-arid areas.

1.3: NaSARRI Mission.

Their mission is to generate, Package, and disseminates appropriately improved Agricultural products, as well as production technologies, and information for improved and sustained integrated crops and Natural Resource management in partnership with other Stakeholders.

1.4: The NaSARRI Mandate.

Their mandate is to undertake research on crop production for Semi-arid system. The operation areas cover the cattle corridor, and the five other agro-ecological Zones, comprising of the Eastern savanna (Teso region), Karamoja Dry land, Lango, Acholi, and the West Nile sub region

1.5: Objectives of the Institute (NaSARRI)

Basically among others, the institution has the following attainable Objectives;

- Developing improved Crop varieties of which are high yielding, early maturity, tolerant to drought, pest and diseases, and thus are highly demanded at both local, National and International Markets.