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**BUSITEMA UNIVERSITY ARAPAI COMPUS.**

**FACULTY OF AGRICULTURE AND ANIMAL SCIENCES**

**A COMPREHENSIVE REPORT ON INDUSTRIAL TRAINING CARRIED OUT AT  
NABUIN ZONAL SEMI-ARID AGRICULTURAL RESEARCH AND DEVELOPMENT  
INSTITUTE (ZARDI), LORENGEDWAT SUB-COUNTY, NABILATUK DISTRICT.**

**FROM 28<sup>th</sup> FEB TO 6<sup>th</sup> MAY 2022**

**COMPILED**

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30

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**TO BE SUBMITTED TO THE DEPARTMENT OF AGRI-BUSINESS AND  
EXTENSION, FACUALITY OF AGRICULTURE AND ANIMAL SCIENCES,  
BUSITEMA UNIVERSITY ARAPAI CAMPUS FOR PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE AWARD OF A DIPLOMA IN ANIMAL PRODUCTION**

**DATE OF SUBMISSION.....** <sup>50</sup> 20 MAY 2022

**DECLARATION**

I MORU AUGUSTINE, hereby declare that this industrial training report is my original work and it has never been presented to any university or institution of higher learning for any academic award.

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Sign:  ..... Date: 20<sup>th</sup> MAY 2022 .....

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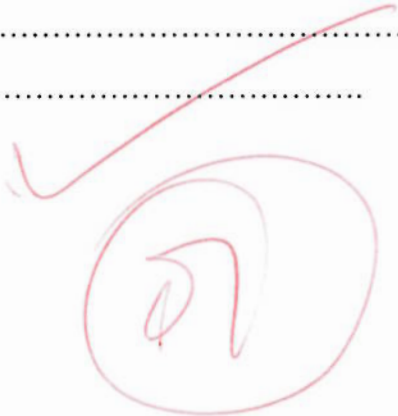
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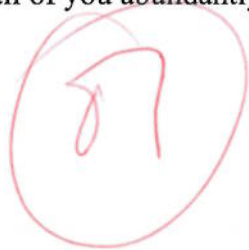


## DEDICATION

I dedicate this industrial training report to my beloved sister Prof. Nakiru Betty Flora for her endless effort in financial support throughout my education and industrial training and my Mother Ms. Namulen Clorinda for her prayers and encouragement.

Special thanks also go to Nabuin ZARDI and all BUSITEMA UNIVERSITY ARAPAI CAMPUS staffs for their immeasurable guidance and support has enabled my success up to date in all academic endeavors. It is my pleasure to dedicate this report to all of you with all my HEART.

May GOD favor and bless all of you abundantly.



## ACKNOWLEDGEMENT

Above all, I extend my acknowledgment to the almighty for the love, help, guidance and care in terms of good health for carrying industrial training successfully.

I salute the very valuable and extraordinary expert guidance of my research internship supervisors Mr. Kayongo Samuel and Mr. Oju David who have supervised my trial efforts with undiminished tolerance, patience and above all incredible talent and love? Thank you.

Finally, I would also love to extend my gratefulness to Nabuin ZARDI through the leadership of the Director Dr. Paul Okullo, the Training Department, all my supervisors, all staffs of Nabuin ZARDI in their different capacities for granting me an opportunity to learn in all various aspect of the core competency areas of Nabuin ZARDI, Not forgetting the support staffs, technicians' administrators, drivers, gateman and fellow interns' students.



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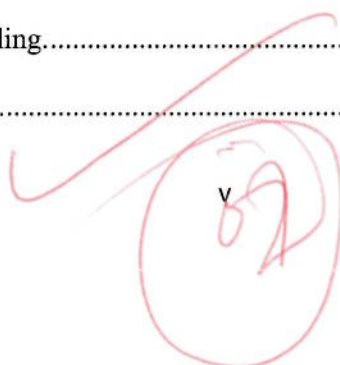
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## LIST OF ABBREVIATIONS

NARO	National Agricultural Research Organization.
ZARDI	Zonal Agricultural Research and Development Institute.
FAO	Food Agricultural Organization.
NAADS	National Agricultural Advisory Development Services
ATAAS	Agricultural Technology and Agribusiness Advisory Service.
NGO's	Non-Government Organization.
CBO's	Community Based Organizations.
PARI's	Public Agricultural Research Institutes.
IPM	Integrated Pest Management.
PIP's	Plant Incorporated Protectants.
PPP's	Plant Protection Products.
CBPP	Caprine Bovine Pleura Pneumonia.
TB	Tuberculosis.
IM	Intra Muscular.
IV	Intra venous.
SB	Sub Cutaneous.
D.O	Dissolved oxygen.
PH	Potassium Hydrogen.
DBH	Diameter at Brest Height.
KTB	Kenyan Top Bar Hive.
ML	Milliliters.
MG	Milligrams.

CM Centimeters.

KG Kilograms.

NB Note very well.

ETC And so on.

I.E For example.



## LIST OF FIGURES AND TABLES

Table 1: showing data collected from three species of ticks during tick profiling.

Table 2: showing diseases the ticks above Couse with their signs and symptoms and their respective treatments.

Table 3: showing the feed formulation for African catfish.

Table 4: showing the feed formulation for tilapia carp (monocarp).

Figure 1: showing the processing of plant materials for making Biopesticide.

Figure 2: showing the packaging of Biopesticide.

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Figure 5: showing disease diagnosis in cattle.

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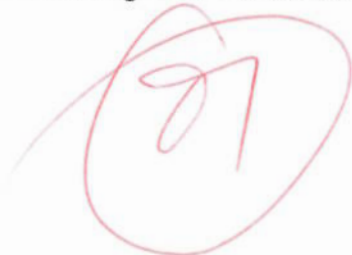
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## **ABSTRACT**

Nabuin ZARDI is one of the research institutes under NARO located at Nabilatuk District, Lorengedwat subcounty Nabuin village in Karamoja sub region. Research is conducted both at the institute and through community outreaches. The Nabuin ZARDI station operates under three major research programs i.e., technology promotion, fish, animal and crop resources.

This contains a detailed and précised over view of my industrial training which took place from 28<sup>th</sup> February,2022 to 6<sup>th</sup> May to 2022 at Nabuin ZARDI in various departments like crop department, livestock department and Natural resources under supervision. This report also includes a brief back ground of Nabuin ZARDI, all the activities carried out, my experiences during the attachment, conclusions and recommendations, all presented on different chapters.

## **CHAPTER ONE:**

### **1.0 INTRODUCTION**

#### **1.1 Background**

NABUIN is one of the nine zonal Agricultural Research and Development Institutes (ZARDI) established under the National Agricultural Research Organization (NARO) which coordinates, oversees and guides agricultural research in Uganda. Nabuin ZARDI was established by the NARO Act (2005). And it covers fifteen Districts of Karamoja and Teso agro-ecological zones i.e., Bukedea, Amuria, Katakwi, Napak, Moroto, Serere, Soroti, Kaberamaido, Ngora, Kumi, Nakapiripirit, Kotido, Abim, Kaabong, Kapelebiyong, Amudat and the recent Nabilatuk.

The research institute had been re-established after its structures were all put down during insurgency in 1979 and was later re-established at the former District farm institute in Serere due to insecurity and absence of infrastructure at the Nabuin station at Nabilatuk District.

In 2010, Nabuin ZARDI opened a head office in Moroto town and started its operational plan closer to its initial planned site of infrastructural establishment i.e., Nabuin station in Lorengedwat.

Currently, its fully instituted in Nabilatuk District, Lorengedwat sub-county, Pian county, Nabuin village;

#### **1.2 VISION**

“To transformed agriculture for increased incomes, food security and sustainable development in Teso and Karamoja.”

#### **1.3 MISSION**

“To generate, promote and disseminate appropriate agricultural technologies for improved production and productivity in the Teso and Karamoja farming systems.”

#### **1.4 Mandate area and function**

Nabuin ZARDI carries out zonal applied and adaptive research of importance and relevance in the Karamoja Teso zone currently made of 16 districts. Research areas focus on improvement of