



Awakening the sleeping
genius in each of us

A Report of Field Attachment Two Conducted at URDT Demonstration Farm
From 5th June -4th July 2025

Alinaitwe Jacklyne

Reg Number

22/ARU/BSSA/001

Mentored by:

1. Mrs. Akot Jane
2. Abigaba Robinah
3. Twikirize Oliver

Report submitted to the Faculty of Technologies for Rural Transformation in partial fulfillment of the requirements for the award of the Bachelor of Science in Sustainable Agriculture degree from African Rural University.

July 2025

DECLARATION

I, Alinaitwe Jacklyne, hereby declare that the URDT Demonstration Farm field attachment two report is my original work and has not been submitted to any other university or institution for an academic award.

Signed.....Alinaitwe Jacklyne..... Date.....22/7/2025.....

APPROVAL

We certify that this field attachment report was prepared under our supervision and is submitted with our approval as the students' supervisors.

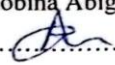
(i) Faculty supervisor.

Madam Akot Jane

Sign.....  Date..... 22/7/2025

(ii) Field supervisor

Madam Robina Abigaba

Sign.....  Date..... 22/07/2025

DEDICATION

This field attachment report is dedicated with heartfelt gratitude to my mother, Mrs. Katusabe Annet, and my grandmother, Ms. Nyamahnge Beatrice. They have been my sources of inspiration and have given me the strength to persevere when I felt like giving up. Their unwavering moral, spiritual, emotional, and financial support has been invaluable. My love for you both is beyond measure. God bless you.

ACKNOWLEDGEMENTS

I am deeply grateful to the staff of African Rural University, especially Vice Chancellor Dr. Mwalimu Musheshe, Dean of Faculty Dr. Ssengonzi Bagenda, the community engagement office, and all others involved in integrating field attachment into the academic assessment. This opportunity has been instrumental in enhancing my understanding of sustainable agricultural practices, and I appreciate the many insights I gained during this period.

I would like to extend my heartfelt thanks to my supervisor, Madam Akot Jane, for her patience, insightful feedback, and constant encouragement throughout my field attachment. Her guidance and support have been crucial in helping me complete this experience. Her knowledge and experience in agricultural development have significantly contributed to my learning.

I am also profoundly thankful to my field supervisor, Madam Abigaba Robina, and Madam Philo Serem, for their on-site guidance and support during my time at the URDT demonstration farm. Their practical advice, mentorship, and leadership in sustainable farming practices have provided me with invaluable hands-on learning opportunities.

Finally, I would like to acknowledge the help and support of the URDT staff, especially those in the Sustainability Office.

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	viii
LIST OF FIGURES	ix
LIST OF APPENDICES	x
ABBREVIATIONS	xi
CHAPTER ONE: INTRODUCTION	1
1.0. General Introduction	1
1.1. Background of Field Attachment	1
1.2. Objectives of Field Attachment	2
1.3. Background of URDT Demo farm	2
1.3.2 URDT Mission	3
1.3.3 Objectives of URDT Demo Farm	3
1.3.4. Targeted Population by URDT Demonstration Farm	4
1.3.5 Core activities at URDT demo farm	4
1.3.6 URDT demo farm organization structure	6
1.4. Roles of URDT Demonstration Farm	7
1.5 Roles of the Student	7
1.6 Roles of the University	8
CHAPTER TWO: ACTIVITIES DONE	9
2.0 Introduction	9
2.1 in line with objective 1: To develop practical skills in assessing local farm needs the following activities where done	9
2.1.1 Revisiting the URDT farm vision	9
2.1.2 URDT farm meetings attended	10
2.1.3 Understanding the ARU methodology	10
2.1.4 Attended and facilitated FC	11
2.1.5 At community level,	11

2.1.5.1 Hosted Kagadi Junior School Pupils for Agricultural Demonstration	11
2.5.1.2 Two field study trips.....	11
2.2 In line with objective 2: To learn and apply sustainable livestock management practices, the following activities were done	12
2.2.1 Cattle unit	12
2.2.1.1 The Kraal was Cleaned and Disinfected.....	12
2.2.1.2 Milking Process	12
2.2.1.3 Feeding the cows	13
2.2.2 Poultry unit	13
2.2.2.2 Making an organic remedy for Newcastle disease in poultry	14
2.2.3 Fish farming.....	14
2.2.4 Cleaning and renovating the pigsty	15
2.3. In line with objective 3: To learn and apply sustainable crop agronomic techniques the following activities were done.	15
2.3.1 Biomass composting.....	16
2.3.2 Horticulture.....	17
2.3.2.1 Tomato management	17
2.3.2.1.1 Pruning tomatoes	17
2.3.2.1.2 Spraying tomatoes	17
2.3.2.1.3 Staking tomatoes.....	18
2.3.4 Greenhouse Management (GHM)	18
2.3.5 Nursery bed preparation for Anna F1 tomatoes	19
2.3.6 Corn garden making	19
2.3.7 Tree Nursery bed management.....	19
2.3.7.1 Hardening Off Caliantra Seedlings.....	20
2.3.7.2 Pot filling.....	20
2.3.8 Banana agronomy	20
2.3.9. Harvesting of beans	21
2.3.10 Mushroom production	21
2.3.10.1 Making mushroom gardens	21
2.3.10.2 Watering the mushrooms.....	21
2.3.10.3 Renovation of the mushroom house	22
2.3.11 Coffee plantation	22

2.3.12 Making bio pesticide	22
2.3.13 Vermiculture	23
CHAPTER THREE: ANALYSIS AND EVALUATION	24
3.1 Evaluation of the URDT farm	24
3.2 Lessons learnt/insight.....	24
3.3 Challenges	24
CHAPTER FOUR: CONCLUSIONS AND RECOMMENDATIONS	26
4.1 Conclusions	26
4.2. Recommendations to URDT Farm and ARU	26
REFERENCES	27
APPENDICES: ATTACHMENTS TO THE REPORT	28
Appendix i: Structural tension chart for my field attachment.....	28
Appendix ii: Introduction Letter	30
Appendix iii: Master STC for URDT Demo farm vision	31
Appendix iv: Photo gallery of activities done	33
Appendix v: Payment receipt of Kagadi junior school after being hosted.....	39
Appendix vi: Attendance list of people who attended the farm meeting	40
Appendix vii: Map of Kagadi district showing URDT location	41

ABSTRACT

The field attachment, conducted from 5th June 2024 to 4th July 2025, at the Uganda Rural Development and Training (URDT) demonstration farm, aimed to develop practical skills in assessing local farm needs, learn and apply sustainable livestock management practices, and learn and apply sustainable crop agronomic techniques. The apprentice worked closely with the farm manager, farm workers, Epicenter Manager, and community members, utilizing methods such as the visionary approach and Participatory Action Research (PAR) to foster collaborative learning and community involvement. Key activities aligned with objectives 1, 2, and 3 included revisiting the farm vision, mixing poultry feed, and composting biomass among others. Observations indicated that the farm lacked essential livestock management structures like a cattle dip, and that the diversity of animals could be improved by adding goats to enhance skills such as castration, dehorning, and hoofing. The location of poultry houses near the administration block caused discomfort due to odor. It is recommended that URDT farms address these issues by constructing additional farm structures, relocating the poultry houses and logbooks should be provided by the University at the time of deployment.

LIST OF FIGURES

Figure 1.Revisiting farm vision	Figure 2.Attended farm meeting	33
Figure 3.learning URDT methodology	Figure 4.facilitating fc	33
Figure 5.Kagadi junior pupils		34
Figure 6.At Busesa Demo farm	Figure 7.At the farm of DVO.....	34
Figure 8.Kraal before cleaning	Figure 9.During cleaning	34
Figure 10.Apprentice milking	Figure 11.Apprentice sieving milk	35
Figure 12.Apprentice pruning	tomatoes Figure 13.Apprentice spraying tomatoes	35
Figure 14.Pruning of tomatoes	Figure 15.At the green house	35
Figure 16.ANNA F1 tomato nursery bed	Figure 17.making corn garden	36
Figure 18.Corn garden made	Figure 19.Hardening off of Caliandra	36
Figure 20.Pot filling	Figure 21.banana pruning.....	36
Figure 22.Bean harvesting	Figure 23.Preparing mushroom substrates.....	37
Figure 24.Mushroom production	Figure 25.Renovating the mushroom house	37
Figure 26.Watering mushroom gardens	Figure 27.Application of poultry manure.....	37
Figure 28.Making biopesticide	Figure 29.Filling the vermi box with decomposed cow dung.....	38

LIST OF APPENDICES

Appendix i: Structural tension chart for my field attachment.....	28
Appendix ii: Introduction Letter	30
Appendix iii: Master STC for URDT Demo farm vision	31
Appendix iv: Photo gallery of activities done	33
Appendix v: Payment receipt of Kagadi junior school after being hosted.....	39
Appendix vi: Attendance list of people who attended the farm meeting.....	40
Appendix vii: Map of Kagadi district showing URDT location	41

ABBREVIATIONS

ARU	-African Rural University
Ems	-Epicenter managers
BCDO	-Busesa Community Development Organization
BUDEFA	-Busesa Demonstration Farm
Cm	-Centimeter
DVO	-District Veterinary Officer
IPM	-Integrated Pest Management
Kg	-Kilogram
NGO	-Non-Governmental Organization
STC	-Structural Tension Chart
URDT	-Uganda Rural Development and Training
GHM	-Greenhouse Management

CHAPTER ONE: INTRODUCTION

1.0. General Introduction

This chapter offers an overview of the African Rural University, detailing the field attachment program, its purpose, objectives, and the background of the Uganda Rural Development and Training (URDT) demonstration farm, where the field attachment took place.

It explains the background of the field attachment, outlines its objectives, and provides information about the URDT demonstration farm.

1.1. Background of Field Attachment

The African Rural University (ARU) curriculum of BSSA Programme combines 60% theoretical learning with 40% practical experience. In this regard, students are required to participate in field attachment programs. These programs therefore bridge the gap between theoretical knowledge and real-world application, which is essential for equipping students to tackle the challenges of modern agriculture and rural development.

In the second semester of their third year, students are attached to farms to learn and apply their theoretical knowledge to real world projects. This exposes them to develop essential skills in modern agricultural technologies, extension services, program development, and farm management.

During the field attachment, learners are fully immersed in the daily operations of the farms or organizations they are assigned to. They are expected to participate in all farm activities, which include crop production, livestock management, resource allocation, and community engagement. This comprehensive approach helps students develop a strong understanding of both the technical aspects of farm operations and the social dynamics of working within rural communities. Moreover, this outreach allows students to become familiar with interpersonal relationships in farming communities while exploring principles of rural sociology and participatory development approaches.

During my apprenticeship, I completed 40% of my practical experience at the Uganda Rural Development and Training (URDT) organization, which is located in Kigangaizi Cell, Kagadi

District, along Kagadi-Hoima Road. This four-week placement took place during the second semester of my third year. It provided an excellent opportunity to strengthen the collaboration between ARU and URDT while allowing me to gain hands-on experience in farm management, sustainable agricultural practices, and community outreach initiatives.

To consolidate my learning, I was required to produce a report detailing the practical skills and knowledge I acquired during the attachment. This report was reviewed and approved by my university supervisor, ensuring that the learning objectives of the attachment were successfully met.

1.2. Objectives of Field Attachment

- 1.To develop practical skills in assessing local farm needs
- 2.To learn and apply sustainable livestock management practices, and
- 3.To learn and apply sustainable crop agronomic techniques.

1.3. Background of URDT Demo farm

The Uganda Rural Development and Training (URDT) Demonstration Farm, located in Kagadi, Uganda, serves as a practical learning and innovation hub for sustainable agriculture and rural development. Since its establishment in 1993, the URDT Demonstration Farm has been actively involved as a training center for both young men and women. The farm plays a crucial role in demonstrating how rural communities can effectively utilize local resources and adopt modern, environmentally friendly technologies to enhance food security, improve livelihoods, and build economic resilience.

As a key part of URDT's mission to empower individuals and communities, the demonstration farm provides hands-on training in sustainable farming practices. These practices include organic agriculture, crop production, livestock management, agroforestry, soil and water conservation, and post-harvest technologies. The farm serves as a practical learning environment for students, farmers, and community members, enabling them to acquire the skills and knowledge necessary to transition from subsistence farming to commercial agriculture.

By integrating education, training, and practical demonstrations, the URDT demonstration farm showcases the benefits of a holistic approach to rural development. It emphasizes the vital

connections between agriculture, health, nutrition, and environmental sustainability, offering a model for integrated rural development that can be replicated throughout the region.

The farm continues to inspire rural communities by promoting sustainable agricultural practices and fostering self-reliance, thereby contributing to the overall goal of rural development in Uganda.

1.3.1. URDT Vision.

URDT is a center for reflection and development that has participatory and interactive professional management that also enhances support from communities, volunteers, professionals, donors, government, and other partners. It has creative, committed, and technically competent staff. It delivers quality training in humanities, social sciences, development -studies ‘and artisanship for community members, leaders of voluntary organizations, government stuff and other development practitioners. It creates and offers extension services, modern rural communication facilities, intermediation, and operates resource centers for information exchange and learning. It has a firm support/resource base both within and outside the organization.

1.3.2 URDT Mission

To enable the people of Uganda, recognize and embody common values and work together to create for themselves peace, prosperity, freedom, health, and happiness as they discover that they are key to their development and have innate power and wisdom to create an environment that fosters personal and communal growth and expresses the highest in them. To activate the spirit of self-reliance to build integrated, self -generating development in rural communities and economies by integrating training, education, and information sharing in development activities and using local and available resources and technologies as an example of what is possible for national development. To enable the people, recognize and utilize the inter-relationship between development concerns in health, nutrition, sanitation, agriculture, water management, rural technologies, income generation, and the environment so that they have a holistic approach to the development.

1.3.3 Objectives of URDT Demo Farm

- Demonstrate Sustainable Practices
- Training and capacity building

- Promote food security
- Income generation and entrepreneurship
- Research and Innovation
- Community Empowerment

1.3.4. Targeted Population by URDT Demonstration Farm

The URDT Demonstration Farm aims to reach a diverse population to maximize its impact on rural transformation and agricultural development. Its primary beneficiaries are local farmers, who receive practical knowledge and skills to enhance their farming practices. The farm also engages broader rural communities, acknowledging their vital role in adopting and disseminating sustainable development approaches. Special emphasis is placed on empowering women and youth by providing them with leadership opportunities and hands-on training to boost their involvement in agriculture and community development.

In addition, the farm serves as a learning hub for students from African Rural University (ARU), offering them a practical platform to apply their theoretical knowledge in real-world scenarios. Agricultural extension workers benefit from the farm's demonstrations and training, which equip them to transfer proven technologies and techniques to other communities. Finally, policymakers and development organizations are invited to observe and learn from the farm's integrated and sustainable model, which can inform broader policy and program interventions across the country.

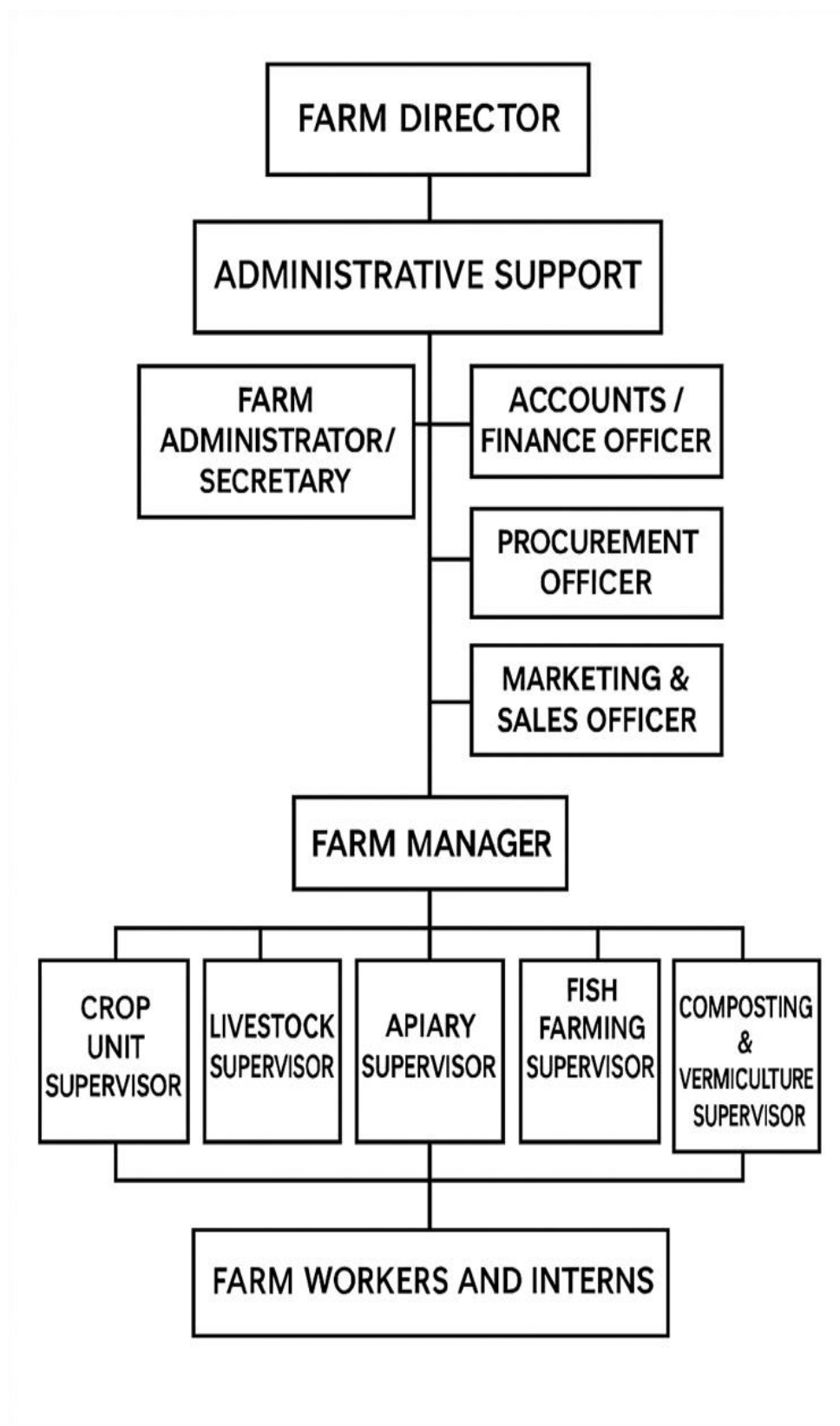
1.3.5 Core activities at URDT demo farm

The URDT Demonstration Farm engages in a variety of practical activities across its main agricultural enterprises. In the animal enterprise, which includes poultry, piggery, and cattle management, key tasks involve feed formulation, preparing organic remedies such as the Newcastle concoction, milking, cleaning the kraal, and feeding the animals.

In the crop enterprises, activities include applying manure in the coffee plantation, pruning and intercropping in the banana field, and managing seedlings in the tree nursery. In the greenhouses, the soil is prepared through deep plowing, mixing, and establishing nursery beds. Horticultural practices on the farm consist of staking tomatoes, pruning plants, spraying for pests, and creating corn gardens.

Additionally, the farm promotes vermiculture by feeding worms decomposed cow dung and utilizes biomass composting to enhance soil fertility.

1.3.6 URDT demo farm organization structure



1.4. Roles of URDT Demonstration Farm

The URDT Demonstration Farm plays a crucial role in equipping rural communities with hands-on agricultural skills and knowledge that enhance livelihoods, food security, and income generation. It serves as a learning ground for farmers, students, and community members to adopt best farming practices.

The farm supports the African Rural University and other educational institutions by providing a practical platform where learners can apply theoretical knowledge in real-world agricultural settings, including crop production, livestock rearing, agroforestry, and agribusiness.

The demonstration farm actively encourages the participation of women and youth in agriculture by providing equal access to training, leadership opportunities, and agribusiness skills. This empowers them to take leadership roles in rural development and farm enterprise management.

Additionally, the farm promotes sustainable agricultural practices such as organic farming, integrated pest management, composting, and water conservation techniques. It also showcases renewable energy solutions, including biogas and solar-powered irrigation, to encourage eco-friendly farming.

Through its integrated farming system, the farm contributes to improved household nutrition by producing a variety of food crops, vegetables, fruits, and livestock products. It further supports health awareness by promoting the production of organic, chemical-free food and advocating for proper hygiene practices within farm environments.

1.5 Roles of the Student

During the field attachment, the student assumes several important responsibilities that foster both personal and professional growth. One key role is participating in training sessions organized by the host institution.

The student is also expected to adhere to the rules and regulations set by the field mentor, demonstrating discipline, respect for authority, and a commitment to the learning environment.

Additionally, the student must diligently and responsibly carry out all duties assigned by the mentor or farm supervisor.

Another critical responsibility is to gather relevant data and prepare a detailed report at the end of the field attachment.

1.6 Roles of the University

- Conduct the selection of farms for field attachment placement
- Orient apprentice, host farms, and mentors/supervisors on field attachment
- Prepare the terms of reference
- Develop tools for monitoring and supervision
- Provide reporting guidelines
- Ensure the Ems and the apprentice remain in line with systems thinking and the visionary approach
- Ensure the information generated is disseminated at the local and national levels
- Strengthen research and networking
- Meet the students' living expenses, and provide items required to implement the field attachment
- Provide regular back-up support and training of ARU field attachment supervisors
- Regularly monitor the progress of the field attachment
- Collect and share feedback with the students on the progress of their performance
- Inform other stakeholders in case of any new developments regarding placement and field attachment
- Inform the apprentice of the assessment criteria of the field attachment Programme

CHAPTER TWO: ACTIVITIES DONE

2.0 Introduction

This chapter details the practical activities conducted during the field attachment at the URDT Demonstration Farm. These activities were designed to enhance hands-on skills in sustainable agriculture, livestock management, and enterprise development. Each activity was carried out under close supervision and aligned with objectives 1, 2, and 3 to ensure the application of best practices.

The chapter highlights key roles performed in managing poultry, cattle, apiculture, greenhouse operations, coffee cultivation, banana production, tree nursery management, and vermiculture. These activities significantly contributed to the learning objectives and provided valuable exposure to integrated farm management approaches that are suitable for rural transformation.

2.1 in line with objective 1: To develop practical skills in assessing local farm needs the following activities where done

This objective focused on developing my practical skills in assessing the needs of local farms. To achieve this, I actively participated in farm meetings where farmers shared their challenges and goals. I also revisited farm visions with farmers to help them reflect on their long-term objectives and evaluate their progress. Additionally, I facilitated Foundation Course (FC) sessions, which allowed farmers to gain knowledge and skills relevant to their farm development. Through farm visits, I observed farming practices, assessed farm conditions, and interacted with farmers directly in their working environments. These combined activities enabled me to identify resource gaps, existing challenges, and potential areas for improvement. Overall, the experience helped me build skills in needs assessment, analysis, and planning, which are essential for supporting farmers in achieving sustainable farm development. The student was engaged in accouple of activies as seen below,

2.1.1 Revisiting the URDT farm vision

During my internship, I took part in a strategic planning meeting where interns and staff came together to review the vision for the URDT farm and established a definitive objective to evolve it into a sustainable and diversified model farm by 2027. The consensus on targets included raising

30 Friesian cows, 3,000 broilers, 2,000 layers, cultivating 20 acres of maize, planting 5 million tree seedlings, maintaining 100 Scarborough pigs, constructing 5 greenhouses, stocking 16,000 fish, creating 3 mushroom houses, developing 5.5 acres of coffee, growing 4 acres of bananas, establishing 3 acres of pasture gardens, setting up 100 Langstroth beehives, and having 10 traditional beehives.

2.1.2 URDT farm meetings attended

The intern attended Farm meetings alongside the two farm managers, other interns, and workers. During these meetings, I was assigned the task of taking minutes and creating work plans for each week. I applied the knowledge I gained from my creative processes and communication skills to successfully complete this task, which was well appreciated.

2.1.3 Understanding the ARU methodology

During my field attachment, I had the opportunity to attend a learning session on the African Rural University (ARU) Methodology, facilitated by Madam Teopista, one of the core trainers. The session introduced the foundational approaches used at ARU to promote transformative learning, rural development, and leadership.

The key concepts discussed included the Visionary Approach, which highlights the importance of establishing a clear vision, evaluating the current situation, and identifying actionable steps to achieve desired outcomes. We also examined Systems Thinking, which enabled us to understand how various elements within a community or farm interact and influence one another.

During our session, we explored the Creative Process, which promotes innovative problem-solving and the ability to create new realities through imagination and action. We also examined the Masteries of a Learning Organization, concentrating on key skills: personal mastery, mental models, shared vision, team learning, and systems thinking—essential traits for effective change agents.

Additionally, we highlighted the importance of Community Engagement, emphasizing the need to involve local people in planning and decision-making to ensure that initiatives are relevant and sustainable. Lastly, we were introduced to Appreciative Inquiry, a strengths-based approach that focuses on identifying and building upon what works well in a community rather than concentrating solely on its problems.

2.1.4 Attended and facilitated FC

During my field attachment, I actively attended and facilitated sessions of the Foundation Course (FC), which are an essential part of the organization's culture. The FC is a structured daily gathering that takes place from Monday to Friday, between 7:45 AM and 9:00 AM. It brings together interns, staff, and other team members for reflection, learning, and sharing experiences. The purpose of these sessions is to foster unity, enhance communication, and promote a culture of openness and continuous learning within the organization. During the sessions, I had the opportunity to share and reflect on the activities we accomplished, including biopesticide preparation, compost making, mushroom production, and nursery bed management. Facilitating the FC sessions improved my public speaking, planning, and leadership skills. Attending regularly also deepened my understanding of the values and work ethic promoted by the organization.

2.1.5 At community level,

2.1.5.1 Hosted Kagadi Junior School Pupils for Agricultural Demonstration

During my field attachment, I had the opportunity to host students from Kagadi Junior School for an educational tour of the farm. During their visit, we explained and demonstrated various agricultural practices, including the vegetable demonstration garden, corn gardening, banana cultivation techniques, fish farming, compost making, poultry farming, and the elements of a weather station.

The aim of this activity was to raise awareness among the students about sustainable farming practices and to inspire an early interest in agriculture. We engaged them in interactive sessions, where we showcased practical techniques and answered their questions. This experience not only enhanced my communication and facilitation skills but also deepened my understanding of how agricultural knowledge can be effectively shared with learners.

Additionally, it highlighted the importance of school-community partnerships in promoting agricultural education and ensuring future food security.

2.5.1.2 Two field study trips

As part of our hands-on learning during our field attachment, we participated in two field study excursions: the first to Busesa Demonstration Farm (BUDEFA), where we observed integrated, climate-smart practices and a variety of livestock-crop systems; and the second to the farm of the

Kagadi District Veterinary Officer, where we witnessed modern advancements such as an automated poultry watering system. Both experiences enhanced our understanding of sustainable agriculture, the integration of enterprises, and the significance of suitable technologies in contemporary farming.

2.2 In line with objective 2: To learn and apply sustainable livestock management practices, the following activities were done

This objective focused on building my skills and knowledge in sustainable livestock management at the farm. During my field attachment, I participated in daily livestock activities such as milking, feeding, watering, cleaning animal houses, disease prevention, and general animal care. Through these practical tasks, I learned how to manage livestock in ways that support animal health, improve productivity, and promote environmental sustainability.

The student engaged in accouple of activities as explained below,

2.2.1 Cattle unit

The URDT farm has nine cows and four calves. As an apprentice student, I participated in several activities such as milking the cows, cleaning the kraal, and feeding them. The URDT farm has nine cows and four calves. As an apprentice student, I participated in several activities such as milking the cows, cleaning the kraal, and feeding them.

2.2.1.1The Kraal was Cleaned and Disinfected.

I was assigned to coordinate and participate in the cleaning and disinfecting of the kraal. We used an organic disinfectant known as wood ash to kill germs and eliminate the unpleasant smell of ammonia gas that had accumulated in the area. The work was completed successfully, and the bad odor was significantly reduced.

2.2.1.2 Milking Process

During the field attachment, the intern participated in the milking process, which involved several key steps to ensure hygiene and maintain milk quality. Before milking, the intern first cleaned the udder thoroughly using clean water and a soft cloth to avoid contamination. The milking was done manually, applying gentle and consistent pressure to efficiently extract the milk while ensuring the

cows' comfort. We milked a total of four cows, collecting approximately 13 liters of milk per day, with the highest-yielding cow producing up to 6 liters. After milking, the intern and the herdsman promptly sieved the milk, cooled it, measured the quantity, and stored it in clean containers for further distribution.

2.2.1.3 Feeding the cows

During the field attachment, we provided cows with a balanced diet consisting of silage, fresh vegetation, clean water, and a mineral lick to ensure their nutritional needs were met and to maintain productivity.

The silage was produced from Guatemala grass, which was harvested, chopped, compacted, and stored under airtight conditions to ferment. This process results in a high-energy, easily digestible feed, particularly beneficial during dry seasons.

The fresh vegetation was accessed through a free-range system, allowing the cows to graze in paddocks and browse on naturally available pastures. This system enabled the animals to choose a variety of fresh grasses and legumes, contributing to their intake of fiber, protein, and essential vitamins, which support digestion, immunity, and overall health.

We ensured that clean water was available at all times, as it is crucial for digestion, temperature regulation, and milk production, given that milk is predominantly composed of water. Additionally, a mineral lick was provided to supply essential minerals to the cows such as calcium, phosphorus, and magnesium, which are important for strong bones, reproductive health, and preventing deficiencies. This feeding approach supported the cows' well-being, improved milk yield, and ensured overall animal performance.

2.2.2 Poultry unit

In the poultry unit, Madam Kaputolina and I engaged in several activities, such as formulating feeds and processing herbs for chickens to prevent diseases, as explained below.

2.2.2.1 Formulation of poultry feeds

The intern and the farm worker, Madam Kaputolina, formulated a feed mixture for the broiler chickens using 100 kg of broken maize, 50 kg of concentrates, 2 kg of meat booster, 2 kg of salt, and 1 kg of lime. This formulation provided enough feed to sustain the birds for one week. The goal was to create a nutrient-rich feed containing carbohydrates, proteins, and minerals, which

would promote fast growth and strong bones in the birds to meet market demand. Feeding took place every morning and evening, with 40 kg of feed provided each day.

2.2.2.2 Making an organic remedy for Newcastle disease in poultry

One farm manager, Philo, collaborated with six apprentices from three institutions: Makerere University (three interns), Mountains of the Moon University (two interns), and African Rural University (one intern). Together, they gained practical knowledge on preparing and using organic vaccines for chickens, specifically designed to control Newcastle disease.

The vaccine was made using locally available materials. To prepare it, 1 kg of Christmas melon was peeled and cut, then combined with a handful of chili, four aloe Vera leaves, and four cloves of garlic. These ingredients were pounded together and mixed with alkaline water from wood ash. A dosage of 10 ml of this organic remedy was diluted with one liter of water and administered to chickens as a preventive measure against Newcastle disease. In cases where chickens were already showing signs of illness, I recommended increasing the dosage to 20 ml per liter of water to enhance its effectiveness.

The Christmas melon provides vitamins and antioxidants that strengthen the chickens' immune system, while chili contains capsaicin, which acts as an antiviral and helps clear respiratory passages. Aloe Vera contributes natural antibiotics and promotes healing, and garlic contains allicin, a powerful antiviral and antibacterial compound. The alkaline ash water helps preserve the mixture and provides minerals that support immunity. Together, these ingredients boost natural immunity, reduce the severity and spread of Newcastle disease, and promote overall poultry health without relying on synthetic drugs.

2.2.3 Fish farming

Fish farming, also known as aquaculture, is a vital practice that provides a sustainable method for food production, generates income, and promotes environmental stewardship. This report highlights key aspects of fish farming at the URDT DEMO farm, specifically focusing on the man-made lake that houses 3,000 tilapias, as well as a pond with details on its dimensions, stocking density, water management, fertilization, and monitoring.

As an apprentice at the URDT farm, I collaborated with the pond attendant and the fisheries officer, gaining hands-on experience in pond management and fish health monitoring. We discussed best

practices for maintaining fish health and optimal pond conditions. The fisheries officer informed me that the depth of the pond varies, with the shallow end measuring 1.5 meters and the deep end at 2.0 meters, facilitating efficient drainage. The pond has a surface area of 50 m², an inlet pipe installed to ensure a regular inflow of clean water, and an outlet pipe positioned at the deep end to enable drainage and manage water quality.

With the assistance of fisheries officer Jason Jasper, I learned about the stocking density for a 50m² fish pond. He explained that each square meter should accommodate four fish. Based on this information,

The fisheries officer also told me that the 50m² pond is supposed to be fertilized by 2 kg of cow dung. this is done to help in the growth of phytoplankton and zooplankton, which serve as natural food for the fish. This enhances the pond's ecological balance, reduces feed costs, and promotes fish growth. The fisheries officer also shared about the water quality management of the pond, turbidity in particular, which he defined as the cloudiness of the water, which can impact fish health and feeding. He said that this can be checked visually by dipping hands into the water to observe at what depth the fingers become invisible or by the use of the Secchi Disk method for more accurate monitoring, where the disk is lowered into the water to determine the water's clarity

2.2.4 Cleaning and renovating the pigsty

This activity was essential for enhancing the hygiene, comfort, and overall health of the pigs. It started with the removal of old bedding materials, manure, and any accumulated waste to minimize the risk of disease and pest infestations. Following this, the floors and walls were scrubbed and disinfected to eliminate harmful pathogens and odors. The renovation process also included repairing broken structures, such as feeders, waterers, and damaged wooden or concrete partitions, to ensure the pigs' safety.

2.3. In line with objective 3: To learn and apply sustainable crop agronomic techniques the following activities were done.

The aim of this objective was to help me acquire practical skills and knowledge in sustainable crop agronomic techniques. During my field attachment, the student engaged in activities such as land preparation in two green houses, biomass composting, pruning, pest and disease control, and application of organic fertilizers like compost and chicken droppings. These practices enabled me

to understand how to manage crops using environmentally friendly and cost-effective methods that promote soil health and long-term productivity. Below are the explained activities under this objective,

2.3.1 Biomass composting

During my field attachment, I took part in compost making as a method of sustainable waste management and improving soil fertility. The composting process involved the collection and careful mixing of various biodegradable farm materials, following the scientific principles of composting.

We started by collecting dry grass, which acts as the carbon-rich "brown" material in our compost. According to Cornell University (n.d.) and the University of Georgia Extension (2007), dry grass helps balance the high nitrogen content found in green materials and enhances aeration and structure within the compost heap. This improved structure supports microbial activity, which is essential for breaking down organic matter effectively.

We then added green organic matter, including fresh leaves, soft weeds, and vegetable residues. These materials supplied nitrogen, calcium, and magnesium, which enhanced decomposition and promoted healthy plant growth, especially in the development of leaves and stems. This approach aligns with the recommendations from the U.S. Environmental Protection Agency (EPA, 2021) regarding compost inputs.

We incorporated poultry droppings collected from the chicken house into our project because they are rich in nitrogen, phosphorus, potassium, and calcium. According to research by the University of Georgia Extension (2008) and UF/IFAS (2016), poultry manure provides both fast-acting and slow-releasing nutrients, which are essential for root growth, flowering, and overall plant health. To enhance nutrient diversity, we added wood ash in moderate quantities. The ash contributed potassium, calcium, and magnesium, and helped to neutralize acidity in the compost pile. This supports better nutrient uptake by plants and improves soil pH, as noted by Wikipedia (2024).

To maintain microbial activity, we regularly sprinkled water over the compost, ensuring it remained moist but not soggy. One important method we used to monitor the composting progress involved inserting a stick into the middle of the pile and checking it after a few hours. If the tip was warm or moist, it indicated that microbial decomposition was active—a method described by Homes & Gardens (2024).

This hands-on activity taught me how to sustainably manage farm waste and highlighted the importance of balancing organic inputs to produce quality compost for soil enrichment. S

2.3.2 Horticulture

2.3.2.1 Tomato management

2.3.2.1.1 Pruning tomatoes

As part of our farm activities, we engaged in pruning tomatoes. This important practice in tomato cultivation helps manage plant growth, improves airflow, and allows the plant to focus its energy on producing quality fruit. We used a razor blade during this process as it was essential for making clean cuts without damaging the plant. The task was carried out manually, and we paid careful attention to removing excess leaves and side shoots, commonly referred to as "suckers," to direct more resources toward fruit development. We also pruned damaged or diseased leaves to prevent the spread of infections. This pruning process improved sunlight penetration to the plant, which reduced the risk of fungal diseases and promoted healthier growth.

2.3.2.1.2 Spraying tomatoes

I participated in spraying tomatoes to control late blight using Mancozeb, a fungicide known for its effectiveness against fungal diseases. We mixed 5 grams of Mancozeb with 20 liters of water and applied it with a knapsack sprayer, ensuring that we covered the tomato plants thoroughly. Although we encountered challenges with accurately measuring the ingredients due to the use of kitchen-like tools, we made sure the mixture was as close to the recommended concentration as possible. The spraying was done early in the morning to minimize the risk of leaf burn and to allow the plants to absorb the fungicide before the temperatures rose.

2.3.2.1.3 Staking tomatoes

During my field attachment experience, I participated in staking tomatoes, which is an essential agronomic practice in tomato production that supports plant growth and fruit development. We used strong wooden stakes, firmly inserting them into the soil beside each tomato plant. We then gently tied the stems to the stakes with nylon strings to avoid causing any damage.

Staking helps keep the plants upright, preventing the leaves and developing fruits from coming into contact with the soil. This practice reduces the risk of soil-borne diseases, such as blight and fruit rot. Additionally, it improves air circulation within the plant canopy, making it easier to monitor for pests and diseases while also promoting better fruit quality.

Through this activity, I gained practical experience in managing tomato crops and came to understand the critical role that staking plays in maintaining plant health and improving potential yield.

2.3.4 Greenhouse Management (GHM)

During my field attachment, I participated in preparing the growing area inside two greenhouses, which is a foundational step in creating optimal soil conditions for healthy crop growth. The process began with deep tillage, where we thoroughly loosened the soil to break up hard layers, enhance aeration, and promote deeper root development. This was followed by leveling the land to create a smooth and even surface, ensuring uniform water distribution and preventing both waterlogging and dry spots.

Once the soil was well-prepared, we enriched it by incorporating biochar—fine charcoal particles left from partially burned organic material—and well-composted poultry manure. The addition of biochar improved soil texture, increased water-holding capacity, and supported beneficial soil microorganisms by neutralizing soil acidity. Biochar also helps retain essential nutrients, such as nitrogen, phosphorus, and potassium, and releases them gradually, making them more available to plants over time. The poultry manure contributed vital nutrients, particularly nitrogen, phosphorus, and potassium, which are essential for plant growth and early crop establishment.

This experience significantly enhanced my understanding of greenhouse soil management and highlighted the importance of using organic inputs to promote sustainable and productive farming.

2.3.5 Nursery bed preparation for Anna F1 tomatoes

The apprentice also participated in preparing and managing a nursery bed for Anna F1 tomato seedlings, a hybrid variety known for its early maturity and disease resistance. We chose a well-drained location, cleared and tilled the soil, and then raised the bed to a height of about 15–20 cm. To enhance soil fertility and moisture retention, we added biochar and poultry manure. We made shallow drills and evenly sowed the seeds, lightly covering them with soil and mulching with dry grass. The bed was watered gently and shaded with sticks and a net to protect the seedlings during germination.

2.3.6 Corn garden making

The apprentice participated in the construction of a corn-shaped garden, which is a circular, cone-like structure made from organic materials arranged in four layers. This method enhances soil fertility, retains moisture, supports urban farming, and promotes sustainable food production by recycling farm waste into a productive growing area. We began by lining the base with a sheet of HDPE (High-Density Polyethylene) to prevent soil loss and maintain the integrity of the structure. The first and largest layer, measuring 90 cm in diameter, consisted of well-decomposed compost that was rich in essential nutrients such as nitrogen, phosphorus, and potassium. The second layer, with a diameter of 60 cm, was comprised of dry grass, which helped retain moisture and improve aeration. The third layer, measuring 40 cm in diameter, included partially decomposed organic matter, such as farm waste, which served as a slow-releasing nutrient source. Finally, the top layer, with a diameter of 25 cm, consisted of a fine layer of sieved compost, creating a fertile seedbed for planting. Each layer was approximately 15–20 cm high, resulting in a total structure height ranging from 60 to 80 cm. This method of garden construction illustrates how layered organic systems can enhance soil structure and nutrient cycling in small spaces.

2.3.7 Tree Nursery bed management

Tree nursery management involves cultivating healthy seedlings in a controlled environment before they are transplanted to their permanent locations. This process is crucial for agroforestry, reforestation, and environmental conservation, as it ensures the availability of strong, disease-free planting materials. Proper nursery management includes activities such as seed selection, sowing, watering, weeding, potting, pest and disease control, and hardening off seedlings. These practices

contribute to the production of vigorous seedlings with well-developed root systems, thereby increasing their chances of survival and success in the field. Effective nursery management is essential for sustainable land use and the successful establishment of tree plantations.

2.3.7.1 Hardening Off Caliandra Seedlings.

This is a critical process aimed at preparing young trees for survival in field conditions. During my field attachment, I participated in this activity by gradually exposing seedlings, which had previously been raised in shaded and well-watered environments, to more direct sunlight, wind, and reduced watering. This process toughens the seedlings, helping them adjust to the environmental stresses they will encounter after transplanting. We gradually reduced the shade cover over several days and limited irrigation to promote root strength and drought tolerance. Caliandra, a multipurpose tree valued for its use in fodder, firewood, and improving soil fertility, requires an effective hardening phase to reduce transplant shock and enhance survival rates.

2.3.7.2 Pot filling

The activity started with the preparation of a balanced potting mix made from composted soil and sand to ensure proper aeration and drainage. Each pot was filled carefully, ensuring that the mix was firm enough to support the seedling without being overly compacted. Potting helps prevent overcrowding, reduces competition for nutrients, and provides each seedling with adequate space to grow.

2.3.8 Banana agronomy

I had the opportunity to participate in various banana agronomy practices aimed at enhancing productivity, improving crop health, and strengthening overall farm management. The main objective of these activities was to apply sustainable agricultural techniques that support long-term yields while conserving soil fertility and minimizing environmental degradation.

One of the key practices we implemented was pruning, which involved the removal of old, diseased, or excess suckers and leaves. This process helped reduce pest and disease pressure, improved aeration and light penetration within the banana plant, and redirected nutrients to the main plant for better growth and fruit development.

2.3.9. Harvesting of beans

We engaged in harvesting dry beans that were intercropped with the banana plantation. Once the beans matured and dried on the plants, we manually collected the dry pods from the field. This practice contributed to food and income diversification and showcased the benefits of intercropping as a climate-smart strategy. It maximized land use while maintaining soil cover and reducing post-harvest losses. Through these activities, I gained practical skills in maintaining banana fields and learned how intercropping can enhance farm productivity sustainably

2.3.10 Mushroom production

2.3.10.1 Making mushroom gardens

During my field attachment, I participated in the production of oyster mushrooms, using simple, locally available materials and techniques. The process began with the preparation of the substrate; we used bean husks as the growing medium. First, the husks were soaked and then boiled to partially sterilize them. After boiling, we drained the husks to achieve the appropriate moisture content. To maintain hygiene and reduce the risk of contamination, we cleaned the working area and our hands using spirit.

We filled black polythene bags, commonly referred to as mushroom gardens, with alternating layers of bean husks and oyster mushroom spawn. After filling the bags, we neatly arranged them on shelves in a dark and humid room to promote mycelium colonization and fruiting. We used a sterilized needle to pierce small holes around the bags, allowing for air exchange and creating outlets through which the mushrooms could sprout.

2.3.10.2 Watering the mushrooms

During mushroom production, we watered the mushroom gardens by gently spraying them with a hand sprayer. This was done twice daily, in the morning and evening, to maintain adequate moisture for mycelial growth and fruiting.

2.3.10.3 Renovation of the mushroom house

We renovated the mushroom house by removing the old mushroom gardens, repairing the roof and walls, and sealing openings to prevent pest entry. We also adjusted the hanging structures for better spacing.

2.3.11 Coffee plantation

In our coffee management practices, we utilized poultry manure for the coffee plants. This manure is rich in essential nutrients like nitrogen, phosphorus, and potassium, which significantly improve soil fertility and support healthy coffee growth. Before applying the manure, it was well-decomposed to prevent burning the plant roots. We spread it around the base of each coffee plant, ensuring it did not come into direct contact with the stem to avoid rotting. This organic amendment contributed to enhancing soil structure, increasing microbial activity, and improving moisture retention in the root zone.

2.3.12 Making bio pesticide

The apprentice engaged in an activity that utilized locally available organic materials to promote sustainable and eco-friendly pest management. The process involved combining several ingredients, each with specific properties that contribute to pest control and enhance plant health. We used ash, which acts as a natural repellent by creating an unfavorable surface for soft-bodied insects and deterring crawling pests. Neem leaves were included for their bioactive compounds, such as azadirachtin, which are known to interfere with insect growth and feeding, making neem a powerful natural insecticide.

Chili was added for its capsaicin content, a pungent compound that serves as a natural insect repellent by irritating pests and discouraging them from feeding on plants. Additionally, we incorporated banana peels, which act as a fermentation agent, releasing natural enzymes and beneficial microbes that enhance the effectiveness of the mixture. Water was used as a carrier, helping to dissolve and evenly distribute all the ingredients, making the solution easy to apply through spraying.

The resulting bio pesticide was allowed to ferment for one week before application. We recommend diluting one liter of the bio pesticide in ten liters of water for application.

2.3.13 Vermiculture

I started a vermiculture unit, which involves using worms, primarily earthworms, to convert organic waste into nutrient-rich compost. This process included setting up a vermiculture system by preparing beds of organic matter. For each box, I added one wheelbarrow of decomposed cow dung to serve as food for the worms. The cow dung was left to decompose for a month before being applied to ensure it was adequately broken down.

I avoided using fresh cow dung because it contains high levels of ammonia and other harmful gases that can be toxic to earthworms. These gases can damage the worms' sensitive skin, which can lead to their death. Additionally, fresh cow dung generates heat as it decomposes, raising the temperature in the worm beds to levels that could be harmful to the worms.

The worms break down the organic waste, producing vermicast, a high-quality organic fertilizer that enhances soil structure and promotes plant growth.

CHAPTER THREE: ANALYSIS AND EVALUATION

3.1 Evaluation of the URDT farm

The URDT Farm is a well-structured, diversified, and sustainable learning environment that combines practical training with agricultural production. It incorporates various enterprises, including poultry, coffee, bananas, mushrooms, and vermiculture, to ensure year-round productivity and income. The farm employs appropriate technologies, such as organic biopesticides and biochar, while promoting environmental sustainability through composting, intercropping, and agroforestry. It also provides a robust learning platform supported by ARU's visionary and participatory methodologies. Although the farm is generally well-managed, improvements in infrastructure, irrigation, and record-keeping could further enhance its performance.

3.2 Lessons learnt/insight

Flexibility is essential on a working farm. Plans often change due to weather conditions, livestock needs, or unexpected events like equipment breakdowns. I learned to adapt quickly without becoming frustrated, which helped me build resilience and problem-solving skills.

Practical farm work enhances understanding beyond theoretical knowledge; in other words, hands-on experience demonstrates how things actually happen in real life.

3.3 Challenges

One of the main challenges we faced during the field attachment was the lack of lunch provision. As a result, we had to leave the farm to prepare our meals, which took a significant amount of time and energy. This often-caused delays in returning for afternoon activities, resulting in late starts and sometimes finishing work in the evening when we were already exhausted. This situation negatively impacted both our productivity and our ability to learn during the second half of the day.

Limited access to essential materials. Some practical activities were hindered by the unavailability of key resources. For example, we had planned to make Indigenous Microorganisms (IMO) for soil enrichment, but lacked crucial ingredients such as IMO powder

and other necessary components. As a result, we were unable to complete the demonstration or fully understand the process.

CHAPTER FOUR: CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

My field attachment at the URDT Farm was both valuable and enriching. It offered a practical platform to apply theoretical knowledge and develop hands-on skills in key areas such as poultry feed formulation, biomass composting, pest and disease control in vegetable gardens, and fish farming. These experiences significantly enhanced my personal growth and professional development in sustainable agriculture.

However, the experience had challenges. A major issue was the lack of lunch provision, which forced us to leave the farm to prepare our meals. This consumed a significant amount of time and energy, often causing delays in afternoon activities and reducing overall productivity. Additionally, limited access to essential materials affected the success of some practical sessions. For instance, our attempt to make Indigenous Microorganisms (IMO) for soil enrichment was hindered by the unavailability of key ingredients.

Despite these setbacks, the attachment broadened my perspective and deepened my understanding of real-world agricultural practices. It reaffirmed my commitment to making a meaningful contribution to the field of agriculture.

4.2. Recommendations to URDT Farm and ARU

To improve the standards of the animal farm, URDT should consider constructing additional facilities, such as a cattle dip, to support better livestock management. Introducing a wider range of animal species such as goats would enhance the diversity of hands-on learning experiences, allowing interns to gain practical skills in areas like castration, dehorning, and hoof trimming. Additionally, relocating poultry houses farther from the administration blocks is recommended to minimize odor-related discomfort for staff and visitors.

To strengthen field attachment supervision and documentation, African Rural University (ARU) should provide logbooks to interns at the time of deployment. This would promote timely and accurate recording of daily activities, reflections, and progress throughout the attachment period.

REFERENCES

- African Rural University. (2024). *Bachelor of Science in Sustainable Agriculture curriculum guide*. <https://www.aru.ac.ug/>
- Cornell University. (n.d.). *Composting fundamentals*.
<https://cwmi.css.cornell.edu/composting.htm>
- Food and Agriculture Organization of the United Nations. (2024). *Agroecology and sustainable farming practices*. <https://www.fao.org/agroecology/en/>
- Homes & Gardens. (2024). *How to make compost*.
<https://www.homesandgardens.com/advice/how-to-make-compost>
- Ministry of Agriculture, Animal Industry and Fisheries. (2024). *National agriculture extension strategy*. <https://www.agriculture.go.ug/national-agriculture-extension-strategy/>
- U.S. Environmental Protection Agency. (2021). *Composting at home*.
<https://www.epa.gov/recycle/composting-home>
- Uganda Rural Development and Training Institute. (2024). *Agriculture programmes overview*.
<https://urdtinstitute.ac.ug/>
- Uganda Rural Development and Training Programme. (2024). *Training in farming as a business*.
<https://urdt.net/training-in-farming-as-a-business/>
- Uganda Rural Development and Training Programme. (2024). *URDT model for sustainable development*. <https://urdt.net/wp-content/uploads/2024/08/URDT-model-final-2.pdf>
- University of Florida Institute of Food and Agricultural Sciences. (2016). *Composting animal manure*. <https://edis.ifas.ufl.edu/publication/AN140>

APPENDICES: ATTACHMENTS TO THE REPORT

Appendix i: Structural tension chart for my field attachment

VISION: contributed to and learned from innovative, sustainable farming practices, integrating my academic insights with real-world applications to support agricultural development and

Resilience by 5th July 13 2025.

ACCOUNTABLES	ACTION STEPS	DUE DATE
Alinaitwe Jacklyne	Writing and presenting the report	15 th July, 2025
Faculty supervisor	Return to campus	4 th July, 2025
Manager Philo	Mushroom production	3rd July 2025
Fisheries officer	Working at the fish pond site	25 th June 2025
Manager Robinah	working on a banana plantation	22nd June 2025
Manager Robinah	working in the tree nursery, vermiculture	20 th June 2025
Manager Robinah	working on a coffee plantation	18 th June 2025
Manager Robinah	Working in the vegetable and greenhouse	16 th June 2025
Manager Philo	Working in a cattle unit	10 th June 2025
Poultry worker Kaputolina	Working on the poultry unit	09th June 2025
Alinaitwe Jacklyne	Revisiting the farm vision	7 th June 2025

Field mentor	Orientation and introduction on different projects around the farm.	06 th June 2025
Faculty mentor	Arrival at the farm	5 th June 2025

CURRENT REALITY

- i. Workers on the farm are available
- ii. I have information about the farm.
- iii. Practical knowledge and skill available
- iv. I have the field mentor and field supervisor,
- V. Practical knowledge and skill available
- vi. Flip charts, markers, sell-tape, overall, gumboots, gloves are available

Appendix ii: Introduction Letter

AFRICAN RURAL UNIVERSITY (ARU)

.....

5/6/2025

Dear Sir/Madam

RE: REQUEST TO HOST OUR STUDENT FOR FIELD ATTACHMENT FOR ONE MONTH ON YOUR FARM/ORGANIZATION.

I hereby request your firm/ organization to host our student by the name of **Alinaitwe Jacklyne**, registration number 22/ARU/BSSA/001, who is currently in year three of study.

She is offering a Bachelor of Science in Sustainable Agriculture (BSSA) at African Rural University.

The field attachment will enable our students to learn practical skills in the modern agricultural technologies, extension work, program development and farm management at different levels

thus, enabling ARU to graduate rural transformation specialists with the necessary knowledge and skills to meet the demands of both rural and urban farmers.

Thank you in advance for accepting my request. Together, we can transform our communities from subsistence agriculture to sustainable market-oriented agriculture.

Yours faithfully,

.....

Ssengonzi Bagenda Jerome (Dr. Eng.).

Faculty Dean

Appendix iii: Master STC for URDT Demo farm vision

OUTCOME; 400 million in sales, 20% profit, 20 freshian dairy cow introduced, 3000 broilers introduced, three acres of pasture established, 20 acres of maize established, 200,000 tree seedlings established on bed, 100 beehives 50 tradition and 50 Langstroth, 100 comb rough pigs introduced, 4 greenhouse technologies introduced for vegetable production, 4-acre coffee plantation well managed, 3-acre banana plantation well managed, 800kgs of mushroom produced by 30/12/2027		
ACCOUNTABLE	ACTION STEP	DEUDATE
Documentation officer	Submit report	20 th /11/2025
Farm manager	Establish the projects	20 th /10/2025
Procurement officer	Procure items	20 th 09/2025
Sustainability manager	Solicit funds	20 th /08/2025
Farm manager	Prepare STC, budget, business plan and submit	20 th /07/2025
CURRENT REALITY <ul style="list-style-type: none"> ➤ 9 freshian animals 5 female and 4 males ➤ 100 broiler chicken available ➤ 1-acre pasture garden established ➤ Five acres of planted maize available and 15-acre land for expansion available ➤ 2500 seedlings and ornamentals available on the nursery site and land for expansion available ➤ 25 bee hives available and space for expansion available ➤ 6 pigs available 3 local and 3 Bambrough ➤ 2 green houses available ➤ 4-acre coffee available 		

- 3-acre banana available
- 1 mushroom house available and space for expansion more house available

FARM TEAM

Appendix iv: Photo gallery of activities done



Figure 1.Revisiting farm vision



Figure 2.Attended farm meeting



Figure 3.learning URDT methodology



Figure 4.facilitating fc



Figure 5. Kagadi junior pupils



Figure 6. At Busesa Demo farm



Figure 7. At the farm of DVO



Figure 8. Kraal before cleaning



Figure 9. During cleaning



Figure 10.Apprentice milking



Figure 11.Apprentice sieving milk



Figure 12.Apprentice pruning tomatoes



Figure 13.Apprentice spraying tomatoes



Figure 14.Pruning of tomatoes



Figure 15.At the green house



Figure 16. ANNA F1 tomato nursery bed



Figure 17. making corn garden



Figure 18. Corn garden made



Figure 19. Hardening off of Caliantra



Figure 20. Pot filling



Figure 21. banana pruning



Figure 22.Bean harvesting



Figure 23.Preparing mushroom substrates



Figure 24.Mushroom production



Figure 25.Renovating the mushroom house



Figure 26.Watering mushroom gardens



Figure 27.Application of poultry manure



Figure 28. Making biopesticide



Figure 29. Filling the vermi box with decomposed cow dung

Appendix v: Payment receipt of Kagadi junior school after being hosted

UGANDA RURAL DEVELOPMENT AND TRAINING PROGRAMME
MAIN OFFICE KAGADI
P. O. Box 24 Kagadi, Tel: +256 483 22820/1
P. O. Box 16253
Kampala, Uganda
Tel: 256 41 256704
Fax: 256 41 342270

RECEIPT

Awakening the Sleeping
genius in each of us

Date: 17/6/2025

No. 63732

Department: Farm

Received with thanks from: Kagadi Junior School.

The sum of shillings (or Item) Thirty five thousand
shillings only

Being payment of: Farm bus

Cash / Cheque No. Balance

Shs. 35000=

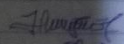
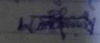
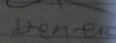
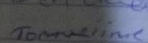
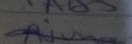
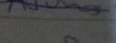
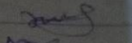
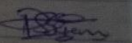
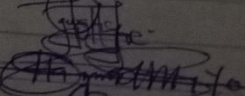
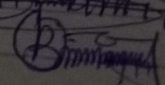
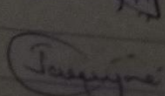
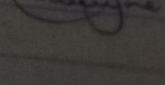
Signature: [Signature]

FOR URDT

With thanks

Note: RECEIPTS FROM ACCOUNTS DEPARTMENT MUST BE RECEIVED BY OFFICERS WHEN FUNDS ARE FINALLY PASSED ON ACCOUNTS DEPARTMENT

Appendix vi: Attendance list of people who attended the farm meeting

Attendance List 28 June 2025			
No.	Name	Contact	Signature
1.	Mwajuma Nasru	078239920	
2.	TUBENANGI AMON	0760172281	
3.	WAMANI BRIAN	0787799360	
4.	Abigabe Robinson	078159384	
5.	Masoa Venerado		
6.	Tomaso EMMANUEL		
7.	Byamukama TADEO	0771394499	
8.	Auna Samuel	0773344058	
9.	Abigaba Julius	0768403225	
10.	NYAKATO RUTH	0777759074	
11.	SEREM PHILIP	0780904941	
12.	Kyambishi Enoch	0782333601	
13.	Byabosaija K. George		
14.	Muhumira Shadia	0783715485	
15.	Abigaba MUGISA	0774608761	
16.	Ogwang Jolly Joe	0774721613	
17.	ASIMWE HERBERT	0786357351	
18.	BAHEJUKA COSTANT	0769171341	
19.	BIAR JENNIFER	0783982880	
20.	Alindoo Jacklynne	0789	

Appendix vii: Map of Kagadi district showing URDT location

