A TECHNICAL REPORT ON STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME

(SIWES)

HELD AT

MR. ABDULAZEEZ AGRICULTURAL CENTRE

AKUO, MORO

WRITTEN BY

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ND/23/ABE/PT/0022

SUBMITTED TO

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IN PARTIAL FULFILLMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN AGRICULTURAL ENGINEERING

HELD BETWEEN AUGUST – DECEMBER, 2024

DEDICATION

This report is dedicated to Almighty Allah who is the beginning and the end of my existence, the reason I breathe, but for his grace and mercies I would not be writing this report this day. Also to my lovely and wonderful parents Mr. and Mrs. Abdulsalam for your labour of love and support through these years, to my brothers, sisters and friends a big thank you for your support.

ACKNOWLEDGEMENT

My profound appreciation goes to Almighty Allah, whom with His grace gave me the opportunity to complete my industrial training exercise safely.

I would also like to express my deepest appreciation to **MR. ABDULAZEEZ OLAITAN**, the of Manager of Agricultural Centre Akuo, Moro, who approved my application letter to do Industrial training and the entire workers, who treated me as one of their own, may Allah continue to bless you all abundantly.

Also, I would like to express my sincere appreciation to Head of Department of Agricultural and Bio-Environmental Engineering Technology (I.O.T), the Almighty Allah will reward your heart of kindness and bless the fruit of your worm.

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CHAPTER ONE

1.0 INTRODUCTION

The Student's Industrial Work Experience Scheme (SIWES) is a program designed for student of tertiary institutions with the aim of exposing students that have acquired theoretical knowledge in the classrooms to the practical exposure and experience.

The scheme is a Program involving the students, the university and the industry. Participation in SIWES has become a necessary precondition for the award of diploma and degree certificate in specific discipline in most institution of higher learning in the country in accordance with the educational policy of the government.

The bodies involved are the federal Government, the industrial training fund (ITF). Other supervisory agency is the National council for college of education (NCCE). The success of, or otherwise; the SIWES, depends on these bodies and the general public involved in articulation and management of the program.

1.1 AIMS AND OBJECTIVES OF SIWES

- To provide students with the opportunity to apply their theoretical knowledge in real work situation, thereby bridging the gap between university work and actual work
- To provide an avenue for students in Nigeria universities to acquire industrial skills and experience in their course of study.
- To enlist and strengthen employers in the entire educational process of preparing university graduates for employment in industries.
- To help students prepare for the corporate world and enhance their curriculum vitae.
- To improve interpersonal relationship skills of the students.
- To make the transition from university world of work easier; and enhance contact for job placement.

- ❖ To expose students to work methods and techniques in handling equipment and machinery that may not be available in their institutions.

1.2 NAME OF THE COMPANY

Mr. Abdulazeez Agricultural Centre Akuo, Moro

1.3 LOCATION OF THE COMPANY

Mr. Abdulazeez Agricultural Centre Akuo, Moro is located at Itawo Village, along Okin-apa road, SurulereLG (Piggery section) and Temidire Idi-ogun, Iwofinroad SurulereLG (Poultry section)

1.4 BRIEF SUMMARY OF COMPANIES ACTIVITIES

Mr. Abdulazeez Agricultural Centre Akuo, Moro is an enterprises established for the rearing of farm animal. It comprises of two arms which are Poultry production and Piggery production. In poultry production raising of layers for egg production and sales. In piggery production swine of different breeds are reared for consumption.

1.5 ORGANIZATION CHART

DIRECTOR

|

MANAGER

|

STAFFS

|

I.T/SIWESSTUDENTS

CHAPTER TWO

2.0 DETAILED REPORT OF ACTIVITIES CARRIED OUT ON THE FARM FARMING UNIT (CROP FARMING)

Farming is the act or process of working the ground, planting seeds and growing edible plants. Farming play major roles in our societies; it serves as main sources of raw materials, sources of food supply, provision of shelters and lot more. Farming, however, focuses more on the on-ground activities and practices involved in crop cultivation and livestock rearing.

Crop farming is the production of crops either on small scale or large scale. It involves the use of pesticide, herbicide, and other chemicals. In Mr. Abdul-azeez Olaitan farm, compost manures are mainly used in crop production.

2.1 COMPOST MANURE

Compost Manure is an excellent form of organic fertilizer that significantly enhances soil fertility and crop growth. It is 100% more effective and longer-lasting than chemical fertilizers.

BENEFITS OF COMPOST MANURE

- Nutrient rich: It provides essential macro and micro nutrients to the soil.
- It is more sustainable than inorganic fertilizers which offer limited nutrients.
- It improves soil structure
- It reduces waste

METHOD OF APPLYING COMPOSTING

- Pit Compost: Ideal for dry seasons to conserve moisture. Dig a pit 2-3 feet deep and cover it with sand.
- Heap Compost: Suitable for wet seasons. Prepare a square compost heap.

Preparing the Heap Compost

1. **Select the Site:**

- Choose a location sheltered from wind, rain, and direct sunlight. It should be near where the compost will be used.

2. **Prepare the Land:**

- Clear an area measuring 1.5m x 1.5m x 1.5m (150cm x 150cm x 150cm). Remove all grasses and non-decomposable materials.
- Mark the four corners using sticks and twine.

3. **Activate Microbes:**

- Use a hoe to loosen the ground, promoting microbial activity.

4. **Layering Materials:**

- Each material layer should be 10cm thick, except for ash, cow, or goat dung which should be 2cm thick. You lay each material on top of the other, you do not mix.
- Twigs: 10cm layer.
- Dry Corn Stalks: 10cm layer.
- Chopped Fresh Grass: 10cm layer.
- Dry Grass: 10cm layer.
- Rotten Grass: 10cm layer.
- Kitchen Waste/Rotten Fruits: 10cm layer.
- Poultry Manure: 10cm layer.
- Cow Dung or Goat Dung: 2cm layer.
- Urine: Pour evenly (no specific measurement).
- Wood Ash: 2cm layer.
- Cover with Sand: Cover the heap properly.
- Sprinkle Water: Ensure the heap is moist.

- Cover with Tarpaulin: Secure with twine.

5. **Initial Mixing:**

- Do not mix the materials initially. Allow them to sit for a few days or weeks before mixing.

•Monitoring and Maintenance

A. Temperature and Moisture Check:

- Every two weeks, insert a stick into the heap to check for moisture and temperature. The stick should be moist and warm if composting is progressing well.
- If dry, sprinkle water; if too hot, allow hot air to escape; if too cold, adjust the cover for sunlight exposure.

B. Turning the Compost:

- Turn the compost after three weeks, adding water if necessary.

Composting Stages

- Mesophilic Stage: Initial stage with moderate temperatures.
- Thermophilic Stage: High-temperature stage for rapid decomposition.
- Cooling Stage: Temperature decreases, and compost matures.
- Maturity Stage: Compost is ready when it has a sweet smell and uniform texture.

Final Steps

- Completion:
- The compost should be ready in 6-8 weeks. Once ready, transfer it to another area and mix thoroughly.
- The compost is now ready for use in your garden

2.2 CONSERVATION FARMING

Conservation Farming is a system of farming that promotes minimum soil disturbance (i.e no tillage), maintenance of a permanent soil cover, and diversification of plant species. It enhance biodiversity and natural biological processes above and below the ground surface, which contribute to increased water and nutrient use efficiency and to improved and sustained crop production.

THREE PRINCIPLES OF CONSERVATION FARMING

- Minimum mechanical soil disturbance
- Permanent soil organic cover
- Species diversification.

BENEFITS OF CONSERVATION FARMING

- It improved soil health
- It reduced costs
- Biodiversity increase
- Improved air quality
- Improved water quality
- It reduce erosion
- Carbon sequentration
- It improve yield
- It increase organic matter

2.3 DRIP IRRIGATION

Drip Irrigation involves placing tubing with emitters on the ground along side the plants. The emitters slowly drip water into the soil at the root zone. Because moisture levels are kept at an optimal range in other to improve productivity and quality.

Drip Irrigation prevents disease by minimizing water contact with the leaves, stems and fruit of plant. It also improves access and reducing weed growth, save time and decreases labour.

Procedure for drip irrigation using plastic bottle:

1. Supple bottles
2. Take the label off the empty bottle
3. With the box cutter put a small slit in the bottom half of the bottle. Put another slit on the opposite side of the first slit.
4. Turn the bottle upside down and put 3 medium or 5 small slit in the bottom.
5. Fill the bottle with water and see how the water drips out. It needs to be a slow drip.
6. Dig a wide, deep hole and bury the bottom 2/3rds of the bottle next to a plant.
7. Fill the bottle ¾ 's full of water.

2.4 POULTRY UNIT

Poultry is referring to group of birds that are reared for consumption by human and other essential purposes. It includes domestic fowls, Turkey, goose, ducks, quail and guinea fowl. They are reared mainly for meat production, eggs and manure. They are monogastric animals.

Poultry farming is an integral part of Nigeria agricultural sector and play a vital role in national economy and it is contributing about 49% to agricultural sector. It also helps the rate of employment among the youths. In poultry sector, there are two categories of poultry which are meat production and egg production.

I. **MEAT PRODUCTION** - These are birds that are reared for production of meat e.g broilers, cockerels. These birds are only for meat production especially during any festival period like Christmas, New Year, Wedding ceremony etc.

II. **EGG PRODUCTION** - Bird that is mainly reared for egg production is layer. There are two types of eggs, hatchable eggs and table eggs. Hatchable eggs are the one used in producing a day old chicks while table eggs are for consumption.

This unit in Agricultural Centre Akuo Moro raised layers. Birds raised mainly for egg production.

ROUTINE MANAGEMENT

- Cleaning of pen
- Cleaning of the pen surroundings
- Serving of quality feeds and water to the poultry birds.
- Cutting of grasses around the premises
- Removal of Poultry droppings

IMPORTANCE OF POULTRY

- They serve as source of food
- They also serve as source of income/revenue
- Source of employment
- Production of manure via their droppings
- Poultry is used for sports (cock fighting)
- Poultry birds are as well used as sacrifices to gods

MATERIALS NEEDED IN POULTRY MANAGEMENT

- Feeds
- Water
- Water troughs
- Water tanks
- Feed trays

- Wood shavings
- Brooms and Packers
- Buckets
- Egg crates

TERMILOGIES IN POULTRY

Breed: 1) a group of birds having similar body shape and weight characteristics and when mated together produce offspring with those same characteristics. A breed may contain one or more varieties that are distinguished by different comb, color or other specific trait. 2) To mate and produce offspring.

Breeder: 1) a sexually mature bird used for breeding purposes to produce eggs for hatching. 2) Also, a person, company, or organization that breeds poultry.

Broiler: a young meat type bird that can be cooked in a variety of ways, including frying, baking, and broiling. The most common type of chicken meat marketed as whole, cut-up, further processed entrees, and by fast food restaurants. Most commercial strains are primarily derived from Cornish and Plymouth Rock breeds.

Broiler breeder: breeders that produce hatching eggs for commercial broiler production.

Brooder: a heating unit that provides supplemental heat in a draft-free house for young birds.

Brooding: providing heat, shelter, food and protection for a flock of birds. A brooding hen is one that is caring for her young chicks.

Chick: the young of chickens, pheasants, quail and other birds.

Chicken: the domestic fowl, *Gallus domesticus*, used for meat, eggs, feathers and showing. There are several hundred recognized breeds of various sizes, only a few of which are important for meat and eggs. There are four known species of wild chickens: Red Junglefowl (*Gallus gallus* or *G. bankiva*), Grey Junglefowl (*Gallus sonnerati*), Ceylon Junglefowl (*Gallus lafayettei*), and Green Junglefowl (*Gallus varius*). The Red Junglefowl has more in common with the domestic chicken than do the other types.

Cock: a male chicken or fowl more than one-year-old. Sometimes applied to males from the time of full sexual maturity. Also called Rooster.

Cockerel: a male chicken or fowl less than one-year-old. Sometimes applied to males up to full sexual maturity.

Day-old: short, industry jargon for one-day-old chick or poult,

Feed: "to feed" is to provide food for the bird. However, it is just as commonly used to mean the food provided. Also referred to as diet or ration.

Flock: a group of birds that feed or move together. In domestication they will normally be of the same type and age, housed together, and managed the same.

Hatch: 1) the emergence of young from an egg; 2) young that have emerged from the same group of eggs.

Hatchery: a place where chicks or other young fowl are hatched. Modern hatcheries usually include areas for egg traying, egg storage, egg warming, setter incubators, hatcher incubators, chick processing (removal from trays, vaccination, sexing, counting, boxing, loading for transport), and cleaning. A high standard of sanitation is essential.

Incubator: the cabinet or machine in which eggs are placed for development and hatching. The setter accommodates the eggs during the major portion of incubation (the first 18 days in chickens), whereas the hatcher accommodates the eggs during the hatching process (the last 3 days of incubation). Incubators may be Single stage or Multistage and forced draft or still air.

Layer: a sexually mature female producing eggs. In common usage, the type of bird producing eggs for consumption.

Poult: a young bird, especially turkey or pheasant.

Poultry: domestic fowl such as chickens, turkeys, guineas, geese and ducks that are raised for meat, eggs, feathers, or other products.

CHAPTER THREE

3.0 SPECIAL OPERATION AND PROCEDURES CARRIED OUT AT MR. ABDUL-AZEEZ AGRICULTURAL CENTRE.

3.1 FEED FORMULATION POULTRY

Layer feed is a specialized diet for chickens that are laying eggs. It is low in protein and high in calcium to meet the nutritional needs of egg-laying hens. Layer feed should also contain other nutrients that are important for egg production, including vitamins, minerals and essential amino acids.

Layer feed is a specialized diet designed to meet the nutritional needs of egg-laying hens. Layer chickens need high-quality layer feed in order to produce healthy eggs. As earlier mentioned, the formulation of layer feed must be adjusted regularly to ensure that the hens are getting the right nutrients for optimal health and egg production.

A variety of ingredients can be used in a layer feed formulation, including grains, protein supplements, vitamins, and minerals. The proportions of each ingredient must be carefully balanced to create a diet that meets the hens' nutritional needs.

The Ingredients for Layer Feed

The ingredients in layer feed vary depending on the specific needs of the chickens. However, some common ingredients include:

- Maize or corn
- Wheat
- Wheat offal or bran
- Rice offal or bran
- Soybean meal
- Groundnut meal
- Bone meal
- Vitamins & Minerals Premix

A simple blended feed for broiler consists of:

- 50% maize or wheat,
- 21% soybeans
- 14% bran
- 8% oil press cake (e.g., groundnut, palm, sunflower)
- 2% fish and bone meal
- 1.5% fortified “premix” (poultry supplement)
- 1% limestone and 0.5% salt.

CHAPTER FOUR

4.0` OBSERVATIONS, CONCLUSION AND RECOMMENDATION

4.1 OBSERVATION

The SIWES programme undergone at FEMSTRIDE NIGERIA ENTERPRISES afforded me an in-depth exposure to some of the practical industrial aspects of Agricultural branches. I was opportune to have known the feed formulation. Experience was also garnered in the handling of layer birds especially when they started laying eggs.

Besides, knowledge and skills were acquired in both section of the farm (piggery and poultry section). The programme has been highly enlightening, beneficial, interesting and successful. The objective of which the scheme was undergone was however achieved.

4.2 CONCLUSION

The SIWES programme for me is educative and has empowered me with various opportunities to be self-employed and in fact to be able to establish a farm based on many of all that have been practicalized. With the help of Allah, the programme has enable a kind of workable opportunity to perform theories in a practical way, to see many of the equipment/tools used in the farm (birds, battery cage, deep litters etc.)

4.3 RECOMMENDATION

Although SIWES undergone did achieve quite a lot of its stated objectives, nevertheless, the following recommendations are suggested to improve the qualitative context of the programme:

i. SIWES Students should endeavour to participate actively and positively during the SIWES programme (i.e try to be hardworking) and see the industry where the programme is taking place as a research place where all that he/she has been taught in the class can be practicalized.

ii. The Industry should not see SIWES students as casual workers but as professionals in the making.

iii. Participation of private corporate organization to minimize the problem of low funding as recently complained by the director of ITF.

iv. Sending students specifically to establishment where the stipulated aims and objectives of SIWES would be achieved.

v. Payment of befitting student allowance to assist in student's finances during the period of training.