REPORT OF STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES) KWARA STATE POLYTECHNIC, ILORIN

DEPARTMENT OF AGRICULTURAL TECHNOLOGY

A TECHNICAL REPORT OF THE STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

Presented By

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ND/23/AGT/PT/0071

UNDERTAKEN AT

ORILOWO POULTRY FARM

KM5,ALONG IWO ROAD OSUN STATE.

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CERTIFCATION

I hereby certified that OLANIYI RODIAT ASABI with matriculation number ND/23/AGT/PT/0071 in the department of agricultural technology, institute of applied sciences, Kwara state polytechnic, completed the stipulated period for the attachment at ORILOWO POULTRY FARM and wrote this SIWES report.

…… ……..
SIWES COORDINATOR DATE

…… …….
SIWES SUPERVISOR DATE

ACKNOWLEDGEMENT

I am thankful to Almighty God for His gift of life, inspiration, guidance and strength throughout the SIWES period.

I appreciate my parents for their love, support and encouragement throughout the attachment period. From the bottom of my heart is say thank you for the support.

To the institution based supervisor, I thank you for painstakingly taking your time to visit me and assess my activities at the farm.

I also express my profound gratitude to the manager and all members of **ORILOWO POULTRY FARM** for their support, practical exposure, field studies and guidance provided during the attachment.

Many thanks to all SIWES students from various institution that we met at **ORILOWO POULTRY FARM,** we shall meet in high places in the future.

Finally, thanks to Almighty God the creator of heaven and earth.

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CHAPTER ONE

INTRODUCTION

1.1 Background of SIWES

The student's work experience scheme is a training programme Nigeria institutions. It serve to bridge the existing gap between the theoretical work and actual practices of the various educational programmes in tertiary institutions. It exposes students to industrial based skills necessary for a smooth transition from classroom to the programmes approved as minimum academic standard in the various world of work. It allows students of tertiary institutions the opportunities of being familiarized and exposed to the needed experience in handling machines and equipment which are not usually available in some educational institutions, it also helps them to understand professional work areas and workers in the industry and other organizations.

SIWES is one of the industrial training funds (ITF) programs. It is design for the students in their 2 years national diploma program or students in their 4 or 5 years B.Sc. courses. The students are to undergo 4 to 6 months training respectively, in any industry or establishment relevant to their area of study to acquire practical experience and complement theory which has been learnt in the school.

SIWES was establist to solve the problem of lack of inadequate practical skills needed for employment in industries by Nigeria graduates form tertiary institutions.

1.2. **History of SIWES**

SIWES was founded in 1973 by ITF (Industrial Training Fund) to address the problem of tertiary institution graduates' lack of appropriate skills for employment in Nigeria industries. SIWES was founded to be a skill training programmes to help and exposed prepared students of universities, polytechnics and colleges of education for industrial work after graduation. This system facilitate the transfer from classroom to the workplace and aid the use of knowledge. The programme helps students to become acquainted with and exposed to the experience needed in handling and operating equipment and machinery that are typically not available in their school.

The industrial training found ITF organization decided to aid all interested Nigerian students and create SIWES program. The federal government officially approved and presented it in 1974. During it early years, the scheme was entirely supported by ITF, but as the financial commitment became too much for the fund, it withdraw in 1978. The national university commission NUC and National board for technical education NBTE were given control of the scheme by the federal government in 1979. The federal government handed over the supervision and implementation of the scheme to ITF in November 1984, it was taken over by the industrial training fund in 1985, with the federal government bearing the entire responsibility for funding.

1.3. Objectives of SIWES

The following are the objectives of the scheme according to the ITF's policy December No, 1 of 1973 which established SIWES outlined the objectives of the scheme as;

- As a means that provide an avenue for students in institution of higher learning to acquire industrial skills and experience in their respective course of study.
- Prepare students for industrial work situation they likely to experience after graduation.
- To enlist and strengthen employer involvement in the entire education process of preparing graduates for employment in industries.
- Enlist students to be conversant with their field.

- Ease the transition from school to world of work and enhance student contact for later job placement.
- It provides an opportunity for student to apply their theoretical knowledge in real work situation thereby bringing the gap between academic field of study and the actual work experience or practice.
- The scheme afford students the opportunity of familiarizing and esposing themselves to the needed experience in handling equipment and machinery that may not be available in their institution.

1.4. Mission and Vision of SIWES

Is majorly to equip students with necessary practical knowledge and technical skills for self-employment and effective involvement in Nigeria's industrial growth.

CHAPTER TWO

2.1. ORILOWO POULTRY FARM

2.1 HISTORICAL BACKGROUND OF THE ORGANIZATION

ORILOWO POULTRY FARM is a distinguished poultry farming and Crop Production enterprise that has grown into a symbol of excellence in poultry amd Crop production. Established as an extension of the institution's agricultural initiatives, the poultry division was founded with the vision of providing high-quality poultry products, promoting food security, and advancing modern poultry farming techniques.

As demand for poultry products grew, the farm expanded its operations, incorporating improved breeds, better feeding techniques, and advanced poultry management systems.

Over the years, ORILOWO POULTRY FARM has diversified its production, specializing in layers for egg production, broilers for meat, and hatchery services for chick production. By integrating modern innovations such as automated feeding systems, biosecurity measures, and disease control strategies, the farm has maintained high standards in poultry health and productivity. Beyond production, ORILOWO POULTRY FARM has also contributed to capacity building in the agricultural sector by training aspiring poultry farmers, offering mentorship programs, and supporting local agribusiness initiatives. Its commitment to quality, sustainability, and innovation has positioned it as a leading poultry farm in the region.

Today, ORILOWO POULTRY FARM continues to thrive, supplying fresh poultry products to households, businesses, and markets while remaining dedicated to its mission of enhancing food security and agricultural development.

The Director.

He is the trustee, he is charged with the duty of overseeing the farm activities and effective management of farm finance and other funds wired to him. He collect daily report from the farm supervisor, hence, makes and takes decisions based on the gathered reports.

The Farm Manager / Supervisor

The farm manager oversees the daily activities and management of the farm operations. His responsibilities includes ensuring timely attendance of staff to their duties, investigating any abnormal behaviour in birds and other aspects, conducting post-mortem to ascertain the causes for mortality, and proactive requisitioning medications such as antibiotics, vaccines and anti-stress to prevent any discomfort that may impede their production. He prioritize the wellbeing of the birds, particularly in term of feeding, access to quality water, at the he compile comprehensive report and submit to the Director.

Other Staff

The other members of staff include: the secretary, the attendants (who feed and pick eggs, monitor the birds' activities), the cleaners (who clean both in and out of the pen) and the security guard (who ensure the security of the pen house). All staff ensure they uphold and do their duties diligently.

2.2. Objectives of the farm

- To boost Nigeria agricultural sector as a form diversification of the economy.
- To livestock production in Nigeria
- To provide raw material for processing companies.
- To provide employment
- Contribute to protein availability to Nigeria populace
- To provide basic practical knowledge for people in the field of agriculture.

2.3. Organizational structure (Organogram)

Division/Units ➜ Crop Production, Poultry Unit

Division/Unit

|

| |

Crop Production Poultry Unit

ORGANOGRAM

Director (Owner)

|

MANAGER

|

|----------|

| |

Supervisor Crop Section Supervisor Poultry Section

| |

Workers Workers

CHAPTER THREE

3.1. Nature of Work, Activities, Skills and Experience Gained

Farm operations is divided into:

1. Poultry unit operation
2. Piggery unit operation
3. Sheepishly Unit operation

3.2. **BROODER UNIT OPERATION**

- The brooding section of the farm specialized on management procedure for rearing chicks to grower.
- Brooder unit cater for chicks from day old to about 8 weeks of age as chicks with proper management.
- This unit is the most sensitive of the farm that command great deal of management because of the fragility and susceptibility of the birds to disease-infection and environmental condition.
- Birds are also taken care of beyond 8 weeks to point of lay as grower (8-16 weeks) of age.
- This section is located a little distance away from the laying pen where the battery cages are arranged.

The outline of the routine management operation includes;

1. Daily observation of birds for comfort, activities, activeness, feeding and other operations.
2. Attentiveness to the noise from the chicks and reactions from the chicks which may a reaction to environmental, disease and/or change in physiological conditions.
3. Cleaning of the feeders and the drinkers in the morning before supply of fresh feed and water.
4. Adequate supply of feed and cool clean water routinely.
5. Removal and replacement of litters

6. Daily supply and regulation of supplemental heat.
7. Adding of antibiotics, multivitamins and anti-stress in the water.
8. Ensuring sanitary procedures; cleaning, washing and disinfecting.
9. Prevention of overcrowding, disturbance and pollution.
10. Restriction of movement into the brooder house to the staff in charge alone.
11. Ensuring all bio security measures before entering the brooder pen.

Occasionally, the following management practices are carried out;

1. Removal of heaters
2. Replacement of feeders and drinkers
3. Debeaking
4. Deworming
5. Delousing
6. Medication and vaccination
7. Transferring of grower birds to grower pen
8. Transferring of point of lay to battery cages

Observation

We recorded less mortality this was due to the proper management structure put in place and strict adherence to the management practices.

The followings could cause high mortality, as taught during the attachment

1. Poor quality chicks
2. Inadequate feeding and watering, feeding poor quality and contaminated feed and water
3. Inadequate housing facilities and poor hygiene of the facilities and equipment
4. Overcrowding and stampeding.
5. Poor ventilation, high humidity, unregulated temperature and pollution

6. Poor management of climatic/weather/seasonal factors such as humidity, light, temperature and wind effect
7. Brooder troubles such as; smoke, fire outbreak, water spillage, insufficient feeder, drinkers and heat
8. Poor sanitation and hygiene
9. Disease and infection

Deep Litter system for broiler

3.4 LAYERS DEPARTMENT/UNIT

This is the largest unit of the farm, it consists of 2 large pens housing two thousand birds (2000) layer stocks. The raising methods used are battery cages and deep litter system for point of lay up to 16 weeks. Each compartment of the cage accommodates 4 birds. Attached to the cage "cell" is a drinker and feeder, these are through feeder for feed and nipple drinker line for water.

Layer Facilities and Operations:

Battery cages

Chicken coops

Bucket, bowl, knife, scoops

Broom and sponges

Disinfectant

Wheel barrow, shovel and rakes

Egg trays and crates

Vaccination kits, first aid box and other appliances

Layers rearing management is a more tedious operation of the farm being one of daily productive units. Therefore, management of layers is considered important and demand careful handling and supervision.

3.3 LAYERS OCCASSINAL MANAGEMENT PRACTICES

Daily layers routine management are:

- Watering: fresh water is supplied to the birds regularly to availability daily. This is done by adding to the volume (toping) whenever dry or low in volume. For deep litter system of management where automatic drinkers are used, the drinkers were cleaned regularly to ensure birds has access to clean and fresh water always. The drinkers are said to be automatic because water flows into the drinking alley unattended but due to the raising of poultry dust and defecation into the drinking alley, the water becomes not too good for consumption of the birds. The birds would not either take the water which will eventually tells on their productivity, and hence predisposed the birds to diseases and become sick, the management will incur additional expenses on treating the birds and keeping them healthy. The drinking system implore in battery cage system is the nipple line system, occasionally checked if the nipples are in normal working condition.
- Feeding: the birds were fed "*adlibitum*", made available in adequate quantity and sufficiently. Ration were given to the birds two times daily, in the morning around 7-8am and in the evening around 4-5pm.
- Sanitary practices: as important for every poultry management practices, layers attendant first assignment in the day is look out for mortality and remove them. Removal of sick birds to prevent transmission of infection. While other sanitary

measures includes sweeping, disinfecting, cleaning of feeders and drinkers, and environmental sanitation.

- Egg Collection: eggs are collected continuously and as soon as laid to avoid pecking and egg eating a trait developed by layers on deep litter system. Egg pecking habit may be developed due to the following:

    Access to egg which is characteristics of deep litter system

    Lack of some ingredient like salt in feed

Hence eggs are collected five times daily at 8:30am, 10:00am, 12noon, 2:00pm and 4:00pm, all collected eggs are arranged in crates for sales. Transferring of eggs were done by each attendants allocated to to respective pen, they are expected to carry the total production from their pen to the office.

- Daily record keeping: daily records such as:

    Bags of feed fed

    Mortality rate

    Numbers of egg collected per day

    Numbers of birds

    Sales record

    Staff attendance

IBD Vaccine

3.4. FEED STORE UNIT

There were different types of feed available in the farm, they include; **Starter mash**: fed to broiler chick, **Finisher mash**: fed to adult broiler preparing for meat. **Chick mash**: fed to pullet chicks from day old to 8 weeks, **Grower mash**: fed to pullets from 9 weeks of age to point of lay while **Layer mash**: is fed to laying birds.

Incoming feed are usually kept in the feed store, arranged on pallets to prevent contact with the floor and avoid moist and mould growth.

Bags of feed needed to feed bird at a time are brought out with proper recording. Unused feed are returned to the store with return record.

Tips to Achieving a High Feed Efficiency

1. Adequate feeding space should be provided at all times, ensuring that about 75% of the birds can feed at the same time.
2. Feeders should be well designed with lips to prevent feed wastage.
3. Feeders should be filled to not more than ½ full capacity.
4. Feeders should be properly hung, ensuring that the level of feeders correspond to the back of the chicken and activate the feed in the feeders regularly with the hands.

5. To avoid feed contamination and wastage, rat population should be constantly kept low.

6. Attendants should minimize feed spillage during the process of serving feed to reduce wastage.

7. Do not store feeds for too long or in damp places, otherwise they can become mouldy.

3.5. LIVESTOCK UNIT I

At the livestock production unit, we were exposed to various technical aspects focused on improving cattle and goat management, boosting productivity, and enhancing farming techniques for meat, milk, and fiber production, as follows:

Livestock Types and Breeds

Housing and Land Management

Feeding Techniques and Nutrition

Watering Systems and Management

Breeding and Reproduction

Disease and Pest Control

Growth and Development Stages

Milking and Meat Processing

Storage and Preservation Techniques

Livestock: Refers to animals raised for food, fiber, labor, or other agricultural purposes, such as cows and goats.

Animal Husbandry: The science and practice of breeding, raising, and caring for livestock to ensure optimal health, productivity, and sustainability. It involves understanding animal physiology, nutrition, and environmental factors affecting livestock growth and well-being.

At my SIWES farm, we were introduced to various livestock types, including dairy and meat breeds of cows and goats. We learned how to care for and manage these animals, from housing and feeding to breeding and product harvesting.

Housing and Land Management:

We studied different housing systems (e.g., free-range, semi-intensive, intensive) and learned how to prepare land for grazing, build shelters, and create suitable environments for healthy animal growth.

Animal Nutrition Management:

We explored how to balance animal diets using grasses, forages, concentrates, and supplements to promote healthy development and maximize milk and meat yields.

Breeding and Reproduction:

We practiced breeding techniques, including natural mating and artificial insemination, and learned how to manage reproduction cycles to enhance herd productivity.

Growth and Development Stages:

Understanding the stages of livestock development helped us manage cows and goats more effectively:

Calving/Kidding → Juvenile Stage → Growing Phase → Maturity → Milking/Meat Production → Culling/Retirement

Vaccination and Disease Prevention:

We learned the importance of vaccination in preventing diseases and promoting herd health. Vaccines help build immunity against deadly and contagious diseases, reducing livestock mortality and boosting productivity.

Common Vaccines for Cows:

Blackleg Vaccine: Protects against Clostridium chauvoei, which causes fatal muscle infections.

Anthrax Vaccine: Prevents anthrax, a deadly bacterial disease that spreads through contaminated soil or feed.

Brucellosis Vaccine: Protects against brucellosis, which causes reproductive issues and can spread to humans.

Foot-and-Mouth Disease (FMD) Vaccine: Prevents a highly contagious viral disease that causes blisters and lameness.

Rabies Vaccine: Protects against rabies, which is fatal and can spread to humans through bites or saliva.

Common Vaccines for Goats:

Enterotoxemia (Pulpy Kidney) Vaccine: Prevents fatal clostridial infections, especially after sudden diet changes.

Tetanus Vaccine: Protects against Clostridium tetani, which causes muscle stiffness and can be fatal.

Peste des Petits Ruminants (PPR) Vaccine: Prevents PPR, a highly contagious viral disease with high mortality rates.

Caseous Lymphadenitis Vaccine: Protects against bacterial infections that cause abscesses in lymph nodes.

Contagious Caprine Pleuropneumonia (CCPP) Vaccine: Prevents a severe respiratory disease affecting goats.

Vaccination Schedule:

We also learned how to follow proper vaccination schedules, starting from the early stages of life and continuing with booster shots as needed. Regular vaccination protects livestock from outbreaks and ensures long-term herd health.

CHAPTER FOUR

4.1 LIVESTOCK UNIT II: PIGGERY AND SHEEP FARMING

At the livestock production unit, we were exposed to various technical aspects focused on boosting productivity and improving farming techniques for pigs and sheep, as follows:

- Livestock Types and Breeds
- Housing and Land Management
- Feeding Techniques and Nutrition
- Watering Systems and Management
- Breeding and Reproduction
- Disease and Parasite Control
- Growth and Development Stages
- Meat and Wool Production

Storage and Preservation Techniques

Pig: A domesticated animal raised for meat (pork) production, known for rapid growth and high reproduction rates.

Sheep: A ruminant animal raised for wool, meat (mutton/lamb), and sometimes milk.

Animal Husbandry: The science and practice of breeding, raising, and caring for pigs and sheep to ensure optimal health, productivity, and sustainability. It involves understanding animal behavior, nutrition, reproduction, and environmental factors affecting growth.

At my SIWES farm, we were introduced to various pig and sheep breeds. We learned how to manage these animals, from housing and feeding to breeding and product harvesting.

Housing and Land Management:

We studied different housing systems, like intensive and free-range setups, and learned how to prepare land for grazing (for sheep) and build pens with proper drainage (for pigs) to promote animal health and prevent disease spread.

Animal Nutrition Management:

We explored how to balance animal diets using concentrates, roughages, and supplements. For pigs, we focused on high-protein feeds for fast growth, while for sheep, we learned about forage-based diets rich in fiber.

Breeding and Reproduction.

We practiced breeding techniques, such as natural mating and artificial insemination, and learned how to manage reproduction cycles for both species. For pigs, we focused on managing farrowing, while for sheep, we learned about lambing and seasonal breeding practices.

Common Vaccines and Disease Control:

- We were taught the importance of vaccination and disease control to prevent outbreaks and maintain healthy herds.

- Pig Vaccines: Swine fever, Foot and Mouth Disease (FMD), Erysipelas, and Leptospirosis.

- Sheep Vaccines: PPR (Peste des Petits Ruminants), Enterotoxemia, Footrot, and Blue Tongue.

- We also learned about regular deworming, hoof trimming (for sheep), and maintaining proper hygiene to reduce disease risk.

Growth and Development Stages:

- Understanding the growth stages helped us manage pigs and sheep more effectively:

- Pig Growth Stages: Piglet → Weaner → Grower → Finisher → Slaughter/Market

- Sheep Growth Stages: Lamb → Weaner → Hogget → Adult → Shearing/Slaughter

When and How to Manage Livestock

We were introduced to livestock management techniques and practiced proper scheduling based on species, age, season, and environmental factors.

Morning Care (7:30 – 8:30 am): Ideal for feeding and cleaning pens, as pigs and sheep are more active in cooler temperatures. Early feeding helps maintain healthy growth and reduces stress.

Evening Care (4:30 – 5:30 pm): Useful for health checks, vaccinations, and monitoring animal behavior before they settle for the night. This timing helps catch early signs of illness.

Daily activities included feeding, watering, cleaning, and observing livestock behavior to ensure overall well-being.

Housing and Water Management for Livestock

Proper housing and reliable water sources are essential for successful pig and sheep production. We learned the importance of ventilation, drainage, and maintaining clean water access.

Reliable Water Sources for Livestock:

Rainwater: Ideal for sheep grazing in open pastures, providing natural hydration and nutrient cycling through fresh vegetation.

Well Water (85–75% efficiency): Suitable for consistent watering, especially in intensive pig farming systems.

Borehole Water (50–45% efficiency): Useful for drought-prone areas but may require treatment to ensure proper mineral balance for livestock health.

> **Note:** Stagnant water is not advisable, as it may harbor parasites and bacteria that cause diseases like leptospirosis or footrot.

Land and Housing Preparation

We learned that different livestock thrive in specific housing conditions, and proper land preparation enhances productivity and health.

Pig Pens: Built with concrete floors and proper drainage to prevent disease spread. Divided into farrowing, weaning, and grower sections to manage pigs by age and growth stage.

Sheep Shelters: Open-sided structures with ample ventilation and shaded areas. Grazing paddocks were divided to allow pasture rotation and prevent overgrazing.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION
SUMMARY

CONCLUSION

The industrial training was really a channel and a stepping stone that exposed me to how poultry production is been done and it has broadened my knowledge and expanded my practical scope especially in the rearing and management of laying birds.
The training was quite educative, interesting, but not without a little challenges of having to wake up early in the morning, cope and adapt to the smell around the pen and cost of transportation.

RECOMMENDATION

To ORILOWO POULTRY FARM

- There should be clear specialization of duties amongst staff
- Putting more biosecurity measures in place to prevent disease transmission

To Industrial Training Fund

- To make a little stipend available within or at the end of attachment for all students
- Proper and timely visitation of students on attachment

To Kwara Polytechnic and students

- Students should put in more efforts and be sincere as this a means of practical skill
- School should give more orientation on the need for the programme.