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

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ND/23/AGT/PT/0064

DEPARTMENT OF AGRICULTURAL TECHNOLOGY

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

UNDERTAKEN AT
AJAAB FARMS
NO 15, ARA VILLAGE ALONG JEBBA ROAD ILORIN, KWARA STATE

PERIOD OF ATTACHMENT
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THE DEPARTMENT OF AGRICULTURAL TECHNOLOGY, INSTITUTE OF APPLIED SCIENCES, KWARA STATE POLYTECHNIC. IN PARTIAL FULFILMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN AGRICULTURE.

CERTIFCATION

I hereby certified that **ABDULAKEEM AWWAL OLUWADAMILOLA** with matriculation number ND/23/AGT/PT/0064 in the department of agricultural technology, institute of applied sciences, Kwara state polytechnic, completed the stipulated period for the attachment at AJAAB farms 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 AJAAB farms 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 AJAAB farms, we shall meet in high places in the future.

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

REPORT REVIEW

In summary, SIWES is an important program that equip students in different with practical skills in different theoretical aspect as they have been taught in the class. The student have been exposed to different types of agricultural techniques, tool, machineries and programmes which they may not be opportune to see while in school. However, during the period of my stay at AJAAB farms, I was able to acquire different knowledge and experiences in different unit of the farm.

So, this report serve a guide into some of the agricultural practices that I have learnt throughout my stay of attachment at the farm.

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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. Location and brief history of AJAAB farm

AJAAB farm location

AJAAB farm no 15, Ara village along Jebba road Ilorin, Kwara State in Ilorin Nigeria. The farm being a poultry farm majors on the rearing of laying birds for sole aim of egg production, and rearing of broiler for the aim of meat production and a little vegetable garden. It reside on one hectare of land situated in Ara village, it has the capacity of 2000 commercial layers with a special breed – ISA Brown layer. It staff strength of 5 members which include skilled and unskilled staff, all having specific areas of assignment.

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)

The AJAAB farms is headed by the director who gives order and instructions to the manager. The manager, manage the whole affairs of the farm and report therein back to the Director.

The manager makes sure that all activities is going on in the farm as expected.

2.4. Various Units/Activities in the Farm

THE POULTRRY UNIT

This unit is where the layers are reared and managed so as to produce eggs, this unit is the most important unit and activities which is so paramount in the farm, because this is the main revenue making point of the farm. Constant monitoring is geared to this unit to provide necessary management and needs for the birds. The second aspect of this unit is where broiler are reared, proper management and monitoring is also given as that of layers.

THE BROODING UNIT

- This is where day old chicks are brood and taken care of
- This unit produce healthy pullets which will later become layers and lay eggs
- The second unit under this brood day old broiler chicks for meat purpose

- In this unit, temperature, light, ventilation and humidity are monitored for optimum performance of the chicks.
- Feed, water, medication and vaccination are administered appropriately with caution.

CHAPTER THREE

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

Farm operations is divided into:

1. Brooder unit operation
2. Layer unit operation
3. Feed, feeding and feed store operation
4. Sales and Marketing

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

Debeaking

This involves partial removal of the beak to prevent vice habits such as pecking, feather-pulling, cannibalism and egg eating depending on the age these occur. While debeaking of birds can take place at 3-5 weeks, the birds should be debeaked latest between 15-17 weeks of age. Debeaking is done to control or solve these problems

because they are indices of management defects like inadequate feeding and drinking, inadequate floor spaces, imbalanced diet, stress. Debeaking should be performed in the morning in hot weather to minimize bleeding. A higher level of vitamin K may be fed before debeaking to accelerate clotting. Debeaking can be done using a pair of scissors or an electric debeaker. If the former is used to cut the beaks, the raw surface should be rubbed with caustic potash to minimize bleeding which normally is excessive. The electric debeaker on the other hand cuts the beak and simultaneously cauterizes the raw surface and thereby stops or minimizes bleeding.

Debeaking machine: - is used for the purpose of removing part of the beak, it is undertaken to reduce problem of pecking in the flock.

The brooding programme and activities in brooder pen can be summarized as bellow;

DAY	DESCRIPTION
1-2.	Upon chick arrival, they spayed with Intra Ocular Vaccine (IOV)
	Administration of Vitamin supplement as anti-stress
	Administration of antibiotics of choice and multivitamin
	Supply heat and monitoring of activities
3.	Administration of H120 vaccine
	Administration of antibiotics of choice and multivitamin
4	Administration of Coccidiostat Vaccine
	Administration of antibiotics of choice and multivitamin
7	Administration of First LaSota Vaccine
	Administration of antibiotics of choice and multivitamin
10	Administration of First Gumboro Vaccine
	Administration of antibiotics of choice and multivitamin
14	Administration of second Gumboro Vaccine
	Administration of antibiotics of choice and multivitamin
21	Administration of second LaSota Vaccine

Week 4	heat is completely removed
Week 5	Administration H120 Vaccine
	Administration of antibiotics of choice and multivitamin
Week 6	Administration Fowl pox Vaccine
	Administration of antibiotics of choice and multivitamin
Week 8	Administration of LaSota Vaccine
	Administration of antibiotics of choice and multivitamin
Week 9	Deworming
	Administration of antibiotics of choice and multivitamin
Week 10	Debeaking
	Administration of antibiotics of choice and multivitamin
Week 12	Administration of Egg Drop Syndrome (EDS) and Infectious Bursal Disease (IBD) vaccine

After the sixteenth week, the birds are transferred to the layers section, though I have left the farm after the completion of my 16 week attachment programme for SIWES.

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.

ISSA Brown Layer

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.

CHAPTER FOUR

4.1 Solution to the problems encountered on the farm

Incidence of Gumboro disease: the pullets were given Floxinor and Pollidine in order to treat the gumboro disease affecting the birds, biosecurity measures were also taken in that other workers were prevented from entering the pen other than the attendant in charge of the pen.

Prevention of rats: some rats were gaining access to the feed store destroying the feed. Holes and cracks in the store were blocked with cement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

SUMMARY

- Throughout the 4 months (16 weeks) stay at AJAAB Farms, I dedicated my effort to poultry unit, adhering to all rules and regulations laid down by the management of the farm. I engaged in all routine and occasional activities at the farm.
- The brooding unit was so tasking but one of the essential unit in poultry production where I enjoyed so much, all activities involved in brooding were critically looked into.
- I also participated in vegetable gardening where we planted amaranthus, okro and tomatoes.
- Feed the birds was so exiting, the birds seeing you with feed they become exited waiting to be fed.

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.

The management and staff of AJAAB Farms are so friendly and accommodating.

RECOMMENDATION

To AJAAB Farms

- 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.