KWARA STATE POLYTECHNIC, ILORIN

INSTITUTE OF APPLIED SCIENCE

AGRICULTURAL TECHNOLOGY DEPARTMENT

TECHNICAL REPORT ON STUDENTS' INDUSTRIAL WORK SCHEME (SIWES)

HELD AT

SATIN FARM AND AGRICULTURAL SERVICE

AIYEDOTO POULTRY ESTATE OJO OFF BADAGRY EXPRESSWAY WAY AGRIC BUSSTOP OJO LAGOS STATE

PREPARED BY

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ND/23/AGT/PT/0150

SUBMITTED IN PARTIAL FUFILMENT OF THE REQUIREMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN THE DEPARTMENT OF AGRICULTURAL TECNOLOGY

SEPTEMBER, 2024 – DECEMBER, 2024

CERTIFICATION

This is to certify that this is the detailed account of the Student Industrial Work Experience Scheme (SIWES) undertaken by RAHEEM MOSHOOD AYOMIDE with matriculation number ND/23/AGT/PT/0150 at Satin Farm and Agricultural Service, Aiyedoto poultry Estate Ojo off Badagry expressway way Agric Bus stop Ojo Lagos state for a period of four (4) months and has been prepared in accordance to regulations guiding the preparation of reports in the department of Agricultural Technology, Kwara State Polytechnic, Ilorin, Kwara State.

…… ……
SIWES SUPERVISOR DATE

…… ……
SIWES COORDINATOR DATE

…… ……
HEAD OF DEPARTMENT DATE

DEDICATION

This SIWES report is dedicated to GOD Almighty, **Mr. & Mrs. Raheem** for their spiritual and financial support during my SIWES program.

ACKNOWLEDGEMENTS

My appreciation first goes to Allah, the creator of Heaven and Earth for granting me the grace and privilege to be able to complete this SIWES program successfully and on schedule. I am also grateful to my industrial based supervisors **Mr. Kolawole Oyedeji** and my tutors for their thorough supervision and useful advice which helped and also contributed to the success of the SIWES program. May the Almighty God make their days on Earth longer to reap the fruit of their labour to the fullest by His Grace.

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CHAPTER ONE

INTRODUCTION

Students' Industrial Work Experience Scheme (SIWES) is set for the development by the federal government for student to facilitate them with basic practical knowledge to deviate from predominant dependence on foreign experience and be self-reliable and creative through the training rendered by the organization in question.

1.1 DEFINITION OF SIWES

SIWES can be defined as an organized body basically to equip student with basic knowledge through industrial training.

1.2 AIMS AND OBJECTIVES OF SIWES

The aims and objectives of industrial training are as follows:

I. It enables student to know their possible area of employment when graduated from school.
II. To access students' interest and their ability in the course they have chosen.
III. To expose students to modern equipment while they do not access to.
IV. To make student know the meaning and application of their course of study.
V. To give maximum experience to the student.
VI. To connect students professionally.

CHAPTER TWO

2.1 NAME OF ESTABLISHMENT

SATIN FARM AND AGRICULTURAL SERVICE

2.1.1 LOCATION

Aiyedoto Poultry Estate Ojo Off Badagry Expressway Way Agric Busstop Ojo Lagos State.

2.2 BRIEF INFORMATION OF THE ACTIVITIES OF THE ESTABLISHMENT

Satin Farm and Agricltural service was registered in 2009 with C.A.C. We offer extensive services in the agricultural sector. Our business ranges from arable farming to poultry, fishery, piggery etc.

Besides, we are into agro-commodity marketing, production and marketing of livestock feeds.

We intend to go into day old chick hatching as we are adding comfort into agri-business.

CHAPTER THREE

TECHNICAL TRAINING EXPERIENCE

3.1 POULTRY PRODUCTION OF DAY OLD CHICK

Poultry are domesticated birds kept by humans for the purpose of harvesting useful animal products such as meat, eggs or feathers.

LIFE CYCLE OF A POULTRY BIRD:

1. **Birth Stage:** (Incubation) The incubator is an enclosure in which temperature, relative humidity and other environmental condition can be controlled. Incubation can be done naturally be the hen sitting on the egg and artificially by the use of an incubator. The incubator helps in the hatching of poultry bird eggs. It takes 21 days to hatch an egg with the use of an incubator.
2. **Brooding Stage:** The brooding stage involves the care given to the chick from 1 day old to 7 weeks for the survival and rapid growth of the chick. The care given to chick includes; providing or heat, water, light and feed. A brooder or a brooding unit is designed to house chicks from 1 day old until they no longer need supplementary hear between 0-7 weeks.
3. **Growing Stage:** (Rearing) The growing stage involves the rearing of poultry of poultry birds between 7-24 weeks.
4. **Adult Stage:** (Management of adult) In the adult stage the adult bird is managed from 24 weeks-end of life of the bird.

3.2 LAYERS

Layers are special species of female chicken (hen) that are reared for an egg laying purpose. They are also called laying hens.

Pullets are female chicken (hen) that has not gotten to the point of lay. Mostly under one year of age.

An egg laying poultry is called egger or layer.

METHODS OF REARING LAYERS

* Battery cage system
* Deep litter system

It is more preferable to make use of the battery cage system for the rearing of layers. The battery cage system of rearing will be explained below.

3.3 BATTERY CAGE

In the battery cage system of rearing the birds are kept or housed in a cage within an enclosed structure (pen). The cages are designed with facilities that provide water and feed as well as easy egg dropping collector. It is constructed entirely with wire mesh. The floor of the cage is also made of wire mesh so as to allow easy passage of poultry droppings. The floor of the pen is made of concrete so as to allow easy washing of the droppings.

IMPORTANCE OF BATTERY CAGE SYSTEM

1. Eggs are collected easily
2. There is better control of parasites
3. Easy management
4. It is easy to cull unproductive and sick birds.

ROUTINE MANAGEMENT FOR LAYERS

1. Dead birds are removed to prevent contamination and spread of diseases.
2. Fresh feeds are added to the stale feed in the feeding trough.
3. Collection of eggs thrice daily around the hours of 8am-9am, 1pm-2pm and 4pm-5pm. This is because a bird lay an egg per day.
4. In the process of collecting the eggs, they are arranged in creates so as to prevent them from breaking.

OCCASIONAL MANAGEMENT FOR LAYERS

1. Debeaking: It is the removal, trimming or reduction of the beak to approximately one-quarter to one-third of the upper beak or both upper and lower beak. The beak is shortened permanently, in some casesregrowth can occur. Debeaking helps to reduce feather picking injuries and sucking of eggs.
2. Vaccine administration.
3. Washing the drainage twice in a week. The dropping that is been washed away from the drainage is channeled to the crop field which serves as a source of organic manure.
4. Added natural herb and water sanitizer to the water tank.

3.4 BROILERS

Broilers are fast growing birds which reach market weight of 1.6kg to 2kg in 8-10 weeks or 12 weeks at most. A broiler can be of either sex (cock or hen). Breed broiler is any chicken (Gallus gallusdomesticus) that is bred and raised specifically for meat production. Most commercial broilers reach slaughter weight between four (4) and six (6) weeks of age, although slower growing breeds reach slaughter weight at approximately 14 weeks of age. Typical broilers have white feathers and yellowish skin. Broiler or sometimes broiler-fryer is also used sometimes to refer specifically to younger chickens under 2.0 kilograms (4+1⁄2 lb), as compared with the larger roasters. Broilers are reared in a deep liter system. The boiler house should be located in such a way that;

1. It takes advantage of prevailing wind for ventilation and sun for light.
2. Its ground elevation is higher than the surrounding ground level to permit good water drainage away from building.
3. It is readily accessible to power and water supply.

A satisfactory broiler house must protect the birds against heat and cold, high winds and inclement weather (unsafe weather).

3.4 PREPARATION FOR THE ARRIVAL OF CHICKS

It is important step to prepare the brooding pen in arrival of the day-old chick (DOC). This will reduce the stress on the chicks and increase their survival rate during brooding periods. It is advisable to start the preparations for brooding chicks about three (3) weeks before the arrival of the chicks.

The following should be carried out in arrival of the chicks;

1. Remove old litter from the brooding pen if already in use. Sweep, dust wooded frame and remove cobwebs in the pen. Wash the implement that will be used for the supply of feed and water for the chicks (drinkers and feeders). The pen should be disinfected with a suitable disinfectant such as IZAR, DETTOL, SALT & WATER etc.
2. The Feeders and drinkers should be washed thoroughly and disinfected.
3. The house should then be sealed up and fumigated. Especially in buildings that are not open sided.
4. The needed equipment should be purchased and tested to be functional.
5. The pen should be left empty for about 2 weeks before the arrival of the day old to kill all surviving organisms that can be of harm to the chicks.
6. Two days to the arrival of the chicks, the house should be swept and the equipment cleaned.
7. Spread litter material up to a depth of 5cm on the floor and test run again the run again of the heating system for its efficacy in heating up the brooders.
8. A few hours before the arrival of chicks, put on the heater, fill the drinkers with clean water, put feed in the trough not more than a depth of one half and also sprinkle some on flat feeders which are adequate for the first week.
9. Apply Glucose (Anti-stress) to their water when they arrived at the at your poultry.

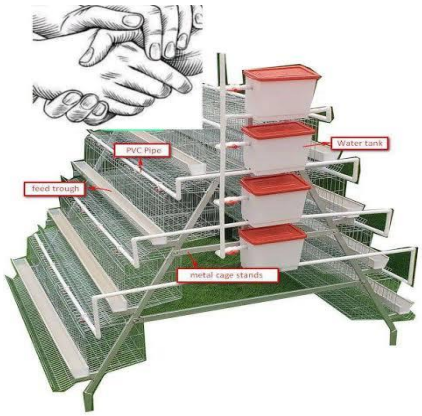
3.5 HANDLING OF CHICKS ON THEIR ARRIVAL

The following steps are important:

1. The chicks should be unboxed and inspected individually for defects and apparently healthy ones should be put under the brooder hover. The deformed ones should be killed while the weak chicks are aided to drink water containing glucose which serves as an anti-stress.
2. After setting them up, they should be observed for some minutes to be sure that they are in a state of comfort.
3. If the chicks spread evenly under the hover, they are considered comfortable. If they huddle in the center close to the heater, they are cold and if they are far from the heater, then the brooder is too hot. Thus, the heater should be regulated to produce the right temperature.

Materials use in Brooding DOC

* Brooding Pen
* Feeds
* Drugs
* Needle & Syringe
* Trough feeder
* Conical Drinker
* Broom
* Wood shavings
* Packer
* Disinfectant
* Bowl
* Coal Port, Lantern, Hover etc.



MANAGEMENT OF DAY-OLD CHICKS (D.O.C) TILL 6TH WEEK

Heat: Heat should be supplied to the chicks from one to six weeks old. The brooder guards should be removed when most of the chicks can fly over the guards during the cold period.

However, brooder guards could be removed after two weeks during the hot season.

Excessive Heating: This is one of the things you should try to avoid when the weather is too hot for the chicks, they behave sluggishly and loss appetite.

To avoid this unpleasant situation, you must make sure that you give the required temperatures to chicks at all times by using a Thermometer properly.

Excessive Cold: When the temperature is too cold for the chicks you would notice that chicks will accumulate under the electric bulbs, cry loudly and this can make the chicks fall sick easily.

Normal Temperature: When the temperature is normal, chicks could be seen to be very lively, evenly distributed/scattered, eating and drinking.

Provide light to chicks:

After the first week, reduce the number of light hours to 10-12 hours per day.

Use one 25-watt bulb for each 100 square feet (10’ x 10’) of floor space.

Adjust temperature for baby chicks:

The biggest change you'll need to make this week is temperature. Older chicks do not need it to be quite as warm. During week one, the temperature should be 95°F.

Starting at week two, lower the temperature by 5° each week until you reach a minimum of 70°F at week six. If using a radiant heater, adjust the heater height to account for the growth of the birds.

Remove brooder guard:

Chicks should be able to find the heat source by day ten. At that time, you can remove the inside brooder guard if you have one.

Keep the chick brooder clean:

Remove any foreign material in the chick feeders and waters daily. Wash the waterers once a week with soap and water. Keep bedding dry (we recommend pine shavings) by removing wet and soiled litter each day and replacing it with clean, dry bedding.

Listen to your chicks:

When everything is right, chicks will emit a soft cheeping. A chick that is stressed will have a shrill, higher pitched or very rapid cheep. Translate this as a call for help and look for the problem. Stress could be caused by chicks being too hot or cold, wet litter or they may be hungry.

Move chick feeders and waterers:

After the brooder guard is taken out, move the feeders and waterers farther from the heat source. This will give chicks more space for exploring as they become more active.

It can also help keep the feeders and waterers cleaner and from being heated by the heat lamp. Raise the chick feeders and waterers until they are at back height of the growing birds.

Remove training feeders:

If you haven't done so by now, remove the training feeders. Make sure chicks always have starter-grower feed and water. The level of feed in the feeders can be decreased a little each week until they remain at least half full. This will help reduce the amount of animal feed waste.

3.6 FEEDS OF BIRDS

We have four (4) feeds types:

* Ultima Feed
* Chikun Feed
* Top Feed
* Hendrix Feed

There is feed for each stage of chick:

1-6weeks	-	Starter Feed
6-12weeks	-	Grower Feed
16+ weeks	-	Layer Feed
12+ weeks	-	Finisher Feed

3.7 VACCINE

A vaccine is a biological preparation that provides active acquired immunity to a particular infectious or malignant disease. A vaccine typically contains an agent that resembles a disease-causing microorganism and is often made from weakened or killed forms of the microbe, its toxins, or one of its surface proteins. The agent stimulates the body's immune system to recognize the agent as a threat, destroy it, and recognize further and destroy any of the microorganisms associated with that agent that it may encounter in the future.

VACCINATION

Vaccination is the administration of a vaccine to help the immune system develop immunity from a disease.

3.8 GUMBORO

Infectious bursal disease (IBD), also known as Gumboro disease, infectious bursitis, and infectious avian nephrosis, is a highly contagious disease of young chickens and turkeys caused by infectious bursal disease virus (IBDV), characterized by immunosuppression and mortality generally at 3 to 6 weeks of age. The disease was first discovered in Gumboro, Delaware in 1962.Infection is via the orofecal route, with affected birds excreting high levels of the virus for approximately 2 weeks after infection. The disease is easily spread from infected chickens to healthy chickens through food, water, and physical contact. Gumboro is deadly disease.

3.9 LASOTA

Lasota vaccine is a prophylactic regimen prepared using the live attenuated Lasota strain of the Newcastle disease virus, cultured on embryonated SPF eggs, freeze-dried and vacuum-sealed.

The vaccine contains streptomycin and penicillin as bacteriostatic agents. It also contains fungizone as a fungistatic agent. Some antibiotics do the work of Losota vaccine.

Practically, vaccine is given to birds four (4) times i.e. First Lasota, First Gumboro, Second Lasota, Second Gumboro. In some cases, it’s good to give Gumboro first before lasota because Gumboro is deadly disease and can be easily spread through physical contact, food etc.

DAYS	VACCINE &MEDICATION
Day 1	Glucose
Day 2 – 7	Antibiotic and Multivitamin
Day 8 – 9	Ordinary Water
Day 10	Lasota Vaccine (Oral)
Day 11 – 13	Ordinary Water
Day 14	Gumboro Vaccine
Day 15 – 17	Ordinary Water
Day 18 – 19	Antibiotic and Multivitamin
Day 20	Ordinary water
Day 21	Lasota Vaccine
Day 22 – 23	Ordinary Water
Day 25 – 26	Antibiotic Multivitamin
Day 27	Ordinary Water
Day 28	Gumboro Vaccine

The vaccine must store in $100^0/_0$ cold place until it is for use, 100 dose is administered for 1litre of water, you must make sure the chicks hasn't eat and drink anything before giving them, give vaccine and serve it along with feed, the vaccine must be with them for 30minutes before withdrawing it from the pen, by that time all them would have drink in it.

CHATPER FOUR

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

The industrial attachment which lasted for three months has been able to help me to differentiate between theoretical work and practical. During this period I fully participated in poultry production, horticulture, cattle sheep and goat, feed mill, mechanization, fishery and piggery. Entrepreneurship in animal sciences were also carried out in poultry production this includes; transportation of old day chicks, installation of battery cages, house design

4.2 RECOMMENDATIONS

It is well known that the university system cannot provide all the technical knowledge and work experience needed by its students hence the opportunity provided through the SIWES. Nigeria students in higher institution should be encouraged to take the SIWES serious so as to enhance the opportunity of later job employment as well as self-employment. Visitations should be made by supervisors from the institutions and representative from industrial training fund (ITF) in order to ensure students are getting the required and relevant training and exposure at their place of assignment.

I will also recommend prompt payment of Stipends by the establishments and payment of SIWES ALLOWANCE by the **Industrial Training Fund (ITF)** during the period of attachment rather than after the program, so has to help the students solve minor needs such as feeding and transportation fare.