TECHNICAL REPORT ON STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

UNDERTAKEN AT

Ilorin East is a local government area, Kwara State, Nigeria.

KM 5, Ilorin East Local Government Area.

PRESENTED BY

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SUBMITTED TO:

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ACKNOWLEDGEMENT

I wish to register my profound gratitude to Allah Almighty for the guidance and grace throughout my life.

My appreciation goes to the entire staff of **Ilorin East is a local government area** for making industrial training interesting educative and worthwhile. My appreciation also goes to my industrial based supervisor**,** whose accessibility. Unitary effort, patient and guidance and suggestion fabulously contribution to the completion of this report, may God continue to guide and protect them and their family.

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SIWES COORDINATOR DATE

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SIWES SUPERVISOR DATE

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CHAPTER ONE

1.0 INTRODUCTION OF SIWES

SIWES simply refer to students industry work experience scheme, is a skill training programme deigned to expose and prepare students of universities, polytechnics, college of technology, colleges of agriculture and colleges of education for the industrial work experience they are likely to meet after graduation. The pogramme also affords student the opportunity of familiarizing and exposing themselves to the needed experience in handling equipment and machinery that are usually not available in their institutions.

Before the establishment of the scheme, there was a growing concern among industrialist that graduates of tertiary institution lacked adequate practical background preparatory for employment in industries. That is, the employers were of the opinion that the theoretical education going on in institutions for initiating and designing the scheme by the fund during it's formative years 19673 – 94 was introduced to acquaint student with skill of handling employers and machinery.

1.1 AIMS OF SIWES

✔ To expose students of higher place of learning to the practical aspects of what they are being taught in school and prepare them for future work related experiences.

1.2 OBJECTIVES OF SIWES

✔ To prepare for the industrial work experience they are to undergo after graduation

- ✔ To expose student to work method and techniques in handling equipment and machinery that may not available in their institution.
- ✔ To provide student opportunity to see the world of theirs.

CHAPTER TWO

2.0 BACKGROUND HISTORY OF THE ESTABLISHMENT

2.1 LOCATION AND BRIEF HISTORY OF ESTABLISHMENT

Ilorin East is a local government area in Kwara State, Nigeria. It is headquartered in Oke-Oyi. It has an area of 486 km² and a population of 204,310 based on the 2006 population census.

The local government area was created in 1991 from the old Ilorin local government area. The local government is very rich in land and the people are mainly rice cultivators. Interestingly, the area has grown to become a hub of business, sports, and agriculture. It consists of twelve wards, which are grouped into six wards in the free form and six wards in the rural community. The people are mostly of the Yoruba ethnic group, with a few Nupe communities, and local businesses revolve around trading and farming.

2.2 OBJECTIVE OF THE ESTABLISHMENT:

Determined to improve efficiency and reduce dependency on external suppliers, the founder decided to venture into hatchery operations. Like many other local government areas across the country, the establishment of Ilorin East local government is to serve as a platform for the general administration of different localities, bringing governance closer to the people. The local government is to complement the State Government's efforts in providing infrastructure, security, and policies that enhance development and social welfare.

2.3 ORGANIZATION STRUCTURE:

Just like what obtains at the federal and state level, the government in Ilorin East local government has three arms: the Executive, Legislative, and Judicial arms of government.

The Executive arm is led by the local government Chairman, who works alongside the Secretary to the Local Government (SLG), the Supervisory Councilors, the Director of Personnel Management (DPM), and the Local Government Treasurer (LGT).

The Legislative arm is made up of all ward councilors, with a Speaker as the head.

The Judicial arm has legal officers who resolve conflicts, interpret local laws, and collaborate with other state-level judicial bodies when necessary.

The judicial officers are based in the state capital but work closely with the local government.

2.4 IMPACT AND GROWTH OF AGRICULTURAL UNIT

Over the years, Ilorin East is a local government area in Kwara State, Nigeria. has made notable contributions to the aquaculture industry by producing high – quality livestock population due to improved breeding techniques. The company's ability to reducing manual labor, speeding up land preparation, and improving productivity, innovation and expansion, the business has remained sustainable and profitable.

The journey of Ilorin East is a local government area in Kwara State, Nigeria. highlights the importance of adaptation and self – sufficiency in agribusiness from starting with a small concrete pond to establishing a full-fledged harrowing, planting, and transportation, leading to higher crop output and reduced production costs.

Division/Units => Crop Production,Poultry Unit.

Division/Unit

|

| |

Crop Poultry

Production Unit

2.5 ORGANOGRAM

Director (Owner)

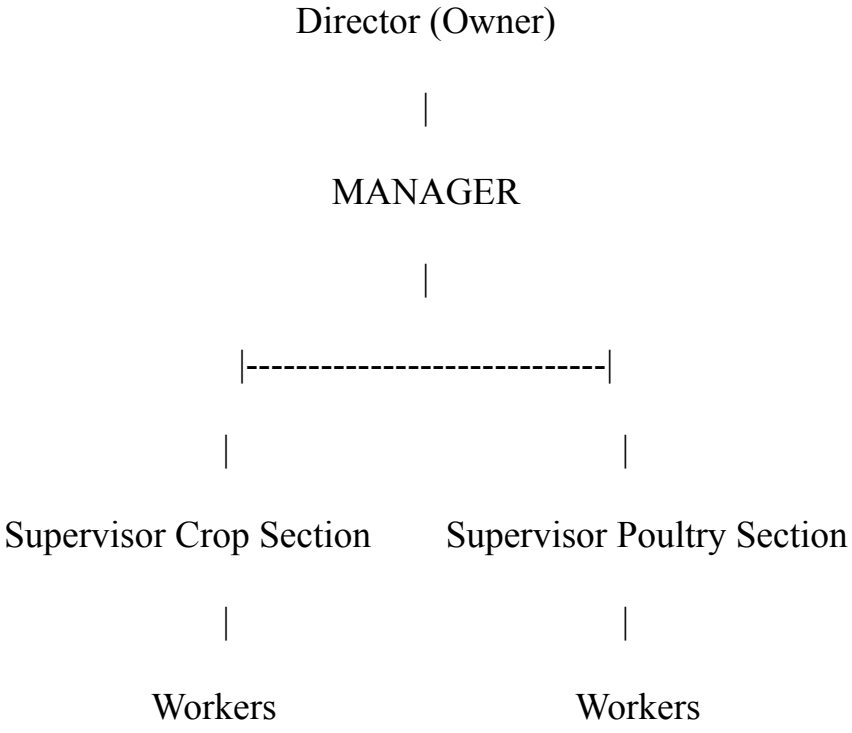
Division/Units ➜ Crop Production, Poultry Unit

Division/Unit

|

| |

Crop Production Poultry Unit


Director (Owner)
MANAGER
Supervisor Crop Section
Supervisor Poultry Section
Workers
Workers

CHAPTER THREE

3.1 TECHNICAL TRAINING EXPERIENCE

At my SIWES placement Forescraft Phase I and II there were two major division/unit as their area of specialization

Division / unit/ section

i. Crop unit / section
ii. Poultry unit / section

3.2 CROP UNIT

At crop production unit were exposed to various technical aspect of focuses on boosting crop yield and improving farming techniques for staple and cash crops, as follows:

- Crop, and Crop type
- Soil and Land Management
- Planting Techniques and Spacing
- Irrigation and Water Management
- Crop Rotation and Intercropping
- Weed and Pest Control
- Growth Stage of Crop
- Harvesting and Post-Harvest Management
- Storage and Preservation Techniques

❖ **Crop**: is a plant grown and harvested for food, livestock feed, fiber, or other uses.

❖ **Agronomy:** is the science and practice of growing crops and managing soil for better productivity and sustainability. It involves understanding plant physiology, soil science, and environmental factors affecting crop growth.

At my SIWES farm, we were introduced and exposed to various crop types, including cereals, legumes, tubers, and vegetables. We learned how to cultivate these crops, from land preparation to harvesting and storage.

Soil Types and Land Preparation:

We studied different soil types and how to prepare land for planting through plowing, harrowing, and ridging to create suitable conditions for crop growth.

Plant Nutrient Management:

- ✔ We explored how to balance soil nutrients using organic and inorganic fertilizers to promote healthy plant development and maximize yields.
- ✔ Planting Techniques and Spacing:
- ✔ We practiced various planting methods, such as direct seeding and transplanting, and learned the importance of proper spacing for optimal plant growth and resource utilization.

Growth Stages of Crops:

Understanding the stages of crop development helped us manage crops more effectively:

Germination → Seedling → Vegetative stage → Flowering → Maturity → Harvest

Common Crop Feeds (Fertilizer Components):

Just like fish feed has ingredients, crops need specific nutrients:

- ✔ Nitrogen (N) — for leaf and stem growth
- ✔ Phosphorus (P) — for root development and flowering
- ✔ Potassium (K) — for disease resistance and overall plant health
- ✔ Organic matter — for soil structure and long-term fertility

When and How to Plant Crops

We were introduced to planting techniques and practiced proper scheduling based on crop type, season, and environmental factors.

✔ Morning planting (7:30 – 8:30 am): Ideal for crops that prefer cool temperatures to prevent transplant shock.

✔ Evening planting (4:30 – 5:30 pm): Useful for seedlings that need time to acclimate before exposure to full sunlight.

Planting was done using broadcasting, drilling, or transplanting, depending on the crop requirements.

Soil and Water Management for Crops

Soil health and water availability are essential for successful crop production. The supervisor emphasized the importance of soil moisture, drainage, and nutrient levels.

Reliable Water Sources for Crop Production:

✔ Rainwater: Ideal for most crops, providing natural irrigation and nutrient cycling.

✔ Irrigation from wells (85–75% efficiency): Suitable for consistent watering, especially in dry seasons.

✔ Borehole water (50–45% efficiency): Useful for drought-prone areas but may require treatment for mineral balance.

> **Note:** Stagnant water is not advisable, as it may promote fungal diseases and root rot.

Soil Types and Land Preparation

We learned that different crops thrive in specific soil types, and proper land preparation enhances

growth potential.

Soil Types:

✔ Loamy soil: Ideal for most crops due to its balanced texture and nutrient-holding capacity.

✔ Clay soil: Suitable for water-loving crops but requires amendments for drainage.

✔ Sandy soil: Good for root crops but needs organic matter to improve moisture retention.

Land Preparation Techniques:

✔ Plowing: To break up compact soil and improve aeration.

✔ Harrowing: To refine soil texture and remove weeds.

✔ Ridging: For crops like yam, to promote root development and drainage.

i. Crop Classification and Identification

Farmers learn to select crops based on soil, climate, and market demand:

✔ Cereals: Maize, rice, millet

✔ Legumes: Cowpea, soybean

✔ Tubers: Yam, cassava

✔ Vegetables: Tomatoes, leafy greens

✔ Cash Crops: Cocoa, oil palm

ii. Soil and Land Management

Healthy soil is vital for crop growth. Farmers are trained in:

✔ Soil Testing: Checking pH and nutrients

✔ Fertilization: Using organic/inorganic fertilizers

✔ Land Preparation: Plowing, harrowing, and ridging

✔ Soil Conservation: Techniques like terracing and cover cropping

iii. Planting Techniques and Spacing

Proper planting boosts yields and prevents overcrowding:

✔ Seed Selection: Choosing disease-resistant seeds

✔ Planting Depth & Spacing: Optimizing root development

✔ Plant Population Management: Thinning and pruning for airflow

iv. Irrigation and Water Management

Efficient water use prevents stress and increases growth:

✔ Irrigation Systems: Drip, sprinkler, and furrow irrigation

✔ Water Conservation: Mulching and rainwater harvesting

✔ Drainage Solutions: Preventing waterlogging and root diseases

v. Crop Rotation and Intercropping

Diverse cropping strategies improve soil health and reduce pests:

✔ Crop Rotation: Alternating crops to balance nutrients

✔ Intercropping: Planting complementary crops (e.g., maize + beans)

✔ Companion Planting: Using plants like marigolds to repel pests

vi. Harvesting and Post-Harvest Management

Timely harvesting and careful handling prevent losses:

✔ Timely Harvesting: Picking crops at peak maturity

✔ Harvesting Techniques: Using tools to avoid damage

✔ Post-Harvest Handling: Sorting, drying, and proper transport

vii. Storage and Preservation Techniques

Proper storage protects crop quality and reduces spoilage:

✔ Storage Structures: Silos, cribs, and airtight containers

✔ Preservation Methods: Drying, smoking, and chemical treatments

✔ Pest Control: Managing rodents and molds with safe methods

CHAPTER FOUR

4.1 POULTRY UNIT

We were taught and identified that poultry are birds of any difference kinds and they are classified as mongrastric animals i.e. local cock, hen hybrid birds ranges from cocokrel, boiler layers noiler, ducks, geese, ostreg, etc.

At poultry units we were taught and had a technical training on the following.

4.2 BROODING OF DAY OLD CHICKS (DO)

With the help of industrial based supervisor we purchased day old chicks for brood and brooding management

We made used of the following materials for brood and brooding management

- Brooding pen or cage
- Dislufecent; for dislufect pen or cage against any diseases
- Heat source: be it electiciites heat generating bulbs, charcoal coolpot
- Brightness source: bulb, lanta dry cell battery touch light
- Drinks, feeders, drugs, feeds, vaccine
- Needle and syringe.

4.3 MEDICATION AND VACCINATION

We were showed difference poultry drugs and how to medicate poultry birds at day old likewise at adult example drugs used are Embaz in forth, anacinlin antibiotic maltivitamines oxtetracylin power and injectable.

Vaccine and vaccination

Vaccine and hormones instored on luingorgansim to prevent deadly infestion that can calm poultry birds to death.

TYPES OF AVAILABLE VACCINE

Lasto ta vaccine

Gomboro vaccine

Fow pox vaccine

Kamorov vaccine

Vaccination programme we were exposed to during SIWES for broiler day old birds

Days	**Vaccine**	**How we administer**
Before 10days old	Lastoal	Oral, inside water through mouth
Before 14days	1st gomboro	Oral, inside water through mouth
Before 21days	2nd lastoa	Oral, inside water through mouth
Before 28days	2nd Gomboro	Oral, inside water through mouth

3.4 DAILY ROUTINE MANAGEMENT

Everything we cleaned the pen/cage, washed their drinker for another fresh water or if there was need to applied drugs or medicant for medication.

NB We were taught that we should be giving preventives antibiotic at every two to three weeks for three to five days to prevent infection that those birds might picked along with feed or with water or on the floor.

Also any applied drugs that lapse 24hours most be discard and washed the drink or with ordinary water or water solution provided the materials to washed should not be metalics.

4.5 FEEDS AND FEEDING OF BIRDS (DOC)

During the SIWES we were exposed to difference feeds and the feed ingredients constituent in feed type.

Chick starter or broiler starter ——→ from day one till 4weeks

Broiler finisher ——→ 4weeks till 8 to 12weeks

Grower mash ——→ 6weeks till table size for cocreals and 10% egg drop for layers.

Layers mash ——→ After 10% egg dropped till spent or old layers

Some Available feeds ingredient of different proposition

Maize

GNC (Ground-nut cake)

Soya beans

Fish

PKC (Palm Kernel Cake)

Bone meal

Micro nutrient

Lysine

Methionine

Premix

Salt

4.6 SMALL RUMINANT UNIT (SHEEP & GOATS)

We were taught and identified that sheep and goats are small ruminant animals reared for meat, milk, skin, and fiber production. They are classified as ruminants due to their four-chambered stomachs, which enable them to digest fibrous plant materials effectively.

At the small ruminant unit, we were taught and received technical training on the following aspects

4.7 CARE AND MANAGEMENT OF KIDS AND LAMBS

With the help of an industry-based supervisor, we learned how to care for and manage newborn lambs and kids to ensure their survival and healthy growth.

We made use of the following materials and practices for care and management:

Housing or pen: Clean, dry, well-ventilated pens with proper space allocation.

Disinfectant: For cleaning pens to prevent diseases.

Heat source (if necessary): Heat lamps or dry bedding to keep young ones warm.

Feeding equipment: Bottles for hand feeding, feeders, water troughs.

Colostrum feeding: Ensuring newborns get colostrum within the first few hours of birth.

Drugs and supplements: Vitamins, minerals, antibiotics (as prescribed).

Dewormers: For parasite control.

Tagging and identification: Ear tags or collars to identify individual animals.

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4.8 MEDICATION AND VACCINATION

We were shown different drugs and how to administer them to sheep and goats at various life stages. Medications included antibiotics, dewormers, and vitamin supplements to promote health and prevent diseases.

Common Medications:

Antibiotics: Oxytetracycline, Penicillin

Multivitamins: Injectable and oral formulations

Dewormers: Albendazole, Ivermectin

Anti-coccidial drugs: Sulfa-based medications

Vaccine and Vaccination:

Vaccines are stored properly to maintain efficacy and administered according to a vaccination schedule to prevent deadly diseases.

TYPES OF AVAILABLE VACCINES

PPR Vaccine (Peste des Petits Ruminants)

Enterotoxemia Vaccine

Clostridial Vaccine (for tetanus, pulpy kidney, etc.)

Foot and Mouth Disease Vaccine

Brucellosis Vaccine

VACCINATION PROGRAM FOR SHEEP AND GOATS

Recommended Vaccine and Health Management Schedule for Sheep and Goats				
Stage of production	**Timing**	**Recommended vaccines/health management**	**Diseases covered**	**Optional vaccines***
Pregnant sheep and goats	2–4 weeks prior to lambing or kidding	• *Clostridium perfringens* types C and D and tetanus. Will need to	*Clostridium perfringens* types C and D and tetanus Keds and lice in sheep	

		use cattle vaccines labeled safe for sheep and goats. • Topical external parasite control (permethrin)		
Kid goats 	At lambing or kidding	• Topical and drench wormers to dams	Prevents internal parasite infestation	SE/vitamin E can help prevent white muscle disease

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New lambs 	Lambs 2 weeks of age	• Dock tails and castrate		300 I.U. tetanus antitoxin, if dam was not vaccinated during gestation
	30 days after lambing or kidding. Booster at 45 days (2 weeks later).	• Clostridium perfringens types C and D antitoxin	Enterotoxemia	Ovine ecthyma for soremouth
Ewes and does	60–30 days pre-breeding	• *Campylobacter fetus-jejuni* bacterin • *Chlamydia psittaci*	Vibriosis (late-term abortions) Chlamydia (late-term abortions; vaccine can be	

		ewe vaccine • Clostridial 8-way (once) • Caseous lymphadenitis (CL)	used in both sheep and goats) Eight clostridial strain bacterial diseases CL, a contagious bacterial disease that causes skin lesions and abscesses	
Bucks and rams 	30–60 days pre-breeding	• Clostridial 8-way • Anthelmintic (de-wormer)	Eight clostridial strain bacterial diseases Prevents parasite infestation	

CHAPTER FIVE

RECOMMENDATION AND CONCLUSION

RECOMMENDATION

SIWES Programe is an interested practical and working experience which facilitate familiarity with working act, tools and machinery handling for student such graduate and under graduate with these view. It is highly recommend that federal governments should fund the programme for more better efficiency.

CONCLUSION

In conclusion SIWES programme it's what of continuity with strong monitoring by the (ITF) officers and various higher places of learning to make sure that their students are fully participate in the programme for better working experience for great better nation ahead.