

IN PARTIAL FULFILLMENT OF NATIONAL DIPLOMA IN AGRICULTURAL TECHNOLOGY FOR THE AWARD OF NATIONAL DIPLOMA, IN AGRICULTURAL TECHNOLOGY KWARA STATE POLYTECHNIC, ILORIN

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### **ACKNOWLEDGMENT**

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 **ERIN ILE AGRO TECH** for making my 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 ported them and their family.

#### **CHAPTER ONE**

### INTRODUCTION

Siwes is acronyms for student industrial wore experience such. Siwes is an infusive instrument used for exposing student to the realities of the work environment in Nigeria especially, and the world in general, in their various professions so as to achieve the needed technological advancement for the nation, some of the aims of Siwes are:

- ❖ To provide for the students opportunities to be involved in the practical aspects of their respective discipline, this bridging the gap between the theatrical aspects thought in the class and the real world sudations
- ❖ To expose students to latest development and technological innovation in their chosen professions.
- ❖ To prepare students for industrial working environment, they are likely to meet often graduation.

### **BRIEF HISTORY OF SIWES**

The students industrial work experience (**Siwes**) is a skill training designed to expose and prepare students of universities polytechnics, colleges of technology and others for the industrial work experience, they are likely to meet after graduation.

The scheme also offered students the opportunities of familiarizing and exposing themselves to the needed experiences in handing equipment and machines that are usually not available in their institutions. The industrial training and (ITF) funded the schemes during its formative year in 1973/74. But, as the financial involvement became unbearable to the fund, it withdrawn from the scheme in 1978.

The federal government handed over the scheme in 1979 to both the national universities commission (NVC) and the national board for technical education (NBTE). Later, the federal government in November 1984 revert the management and implementation of the Siwes program to (ITF) and it was effectively taken over by the industrial training fund in July 1985 with the funding being solely borne by the federal government.

### IMPORTANCE AND OBJECTIVE OF SIWES

In regards to the Siwes handwork the specific objectives and importance of the Views are to:

- ➤ Provide an avenue for students in institutions of higher learning to acquire industrial skills and experience in their course of study.
- ➤ Prepare students for the industrial work experience they are to undergo after graduation.

- > To provide students with an opportunity to apply their knowledge in real work solution thereby bridging the gap between they and practice.
- > To satisfy accreditation requirements set by NBTE
- > To provide students and opportunity to see the real world of their discipline and consequently bridge gap between the classroom and real work situation.
- > To enable students assess interest suitable for their chosen profession.

#### **CHAPTER TWO**

#### **OBJECTIVE AND VALUES OF THE ESTABLISHMENT**

The core of the organization is to give a vary sound chicken and good eggs – most of the farm business is very lucrative. farms products are also extremely perishable; many customers have grown to expect farm businesses to offer product that is well nurtured and fresh daily, making it challenging to meet demand without wasting inventory. Business objectives for a chicken rearing should include building a broad and committed customer base and developing a business model that brings in enough income to cover your expenses despite a potentially high level of waste

The objectives and core values of **ERIN ILE AGRO TECH** is as follows:

### **GOALS**

- 1. Profitability: To operate a profitable farm business that generates sufficient revenue to sustain and grow the business.
- 2. Sustainability: To establish a sustainable farm business that minimizes environmental impact and promotes social responsibility.

• 3. Quality Production: To produce high-quality chicken products that meet customer demands and expectations.

Objectives

Short-term Objectives (1-2 years)

- 1. Establish Farm Infrastructure: To establish a well-equipped and functional farm infrastructure, including coops, feeding systems, and waste management facilities.
- 2. Acquire Initial Stock: To acquire a healthy and disease-free initial stock of chickens.
- 3. Develop Marketing Strategy: To develop a marketing strategy to promote the farm's products and attract customers.
- 4. Achieve Initial Production Targets: To achieve initial production targets of [insert target] chickens per month

#### ORGANIZATIONAL STRUCTURE OF ESTABLISHMENT

#### THE VARIOUS DEPARTMENTS

1. Functional Organizational Structure

In this structure, the farm is divided into different departments, each responsible for a specific function, such as:

❖ Production Department: responsible for chicken breeding, feeding, and health management.

- Processing Department: responsible for slaughtering, processing, and packaging chicken products.
- Marketing Department: responsible for promoting and selling chicken products.
- ❖ Finance Department: responsible for managing finances, accounting, and budgeting Accountants / Cashiers

## 2. Divisional Organizational Structure

In this structure, the farm is divided into different divisions, each responsible for a specific product or market, such as:

- ➤ Broiler Division: responsible for producing broiler chickens for meat production.
- ➤ Layer Division: responsible for producing layer chickens for egg production.
- > Processing Division: responsible for processing and packaging chicken products.

# 3. Matrix Organizational Structure

In this structure, the farm uses a combination of functional and divisional structures, with employees reporting to multiple managers, such as:

- a. A production manager who oversees chicken breeding and feeding.
- b. A processing manager who oversees slaughtering and packaging.
- c. A marketing manager who oversees promotion and sales.

# 4. Flat Organizational Structure

In this structure, the farm has a minimal number of management layers, with employees reporting directly to the farm owner or manager, such as:

- Farm Owner/Manager: responsible for overall farm operations.
- Production Supervisor: responsible for overseeing chicken breeding and feeding.

- Processing Supervisor: responsible for overseeing slaughtering and packaging.

## 5. Hierarchical Organizational Structure

In this structure, the farm has a clear chain of command, with each level of management having a specific role and responsibility, such as:

- Farm Owner/Manager: responsible for overall farm operations.
- Department Heads: responsible for overseeing specific departments, such as production, processing, and marketing.
- Supervisors: responsible for overseeing specific teams or sections within each department.

## 6. Team-Based Organizational Structure

In this structure, the farm is organized into teams, each responsible for a specific task or project, such as:

- Chicken Health Team: responsible for monitoring and maintaining chicken health.
- Feed and Nutrition Team: responsible for managing chicken feed and nutrition.
- Marketing and Sales Team: responsible for promoting and selling chicken products.

Each organizational structure has its advantages and disadvantages, and the best structure for a farm chicken business will depend on factors such as the size of the farm, the type of products being produced, and the management style of the farm owner or manager.

#### CHAPTER THREE

### **`ACTUAL WORKDONE WITH EXPERIENCE GAINED**

During my Students Industrial Working Experience Scheme (SIWES) at the **DAYNTEE FARM LIMITED**, we were able to learn and gain a lot of industrial and organizational experience as goes:

### PRE HEATING OF PEN

# **Purpose of Pre-Heating**

Pre-heating a pen is essential to ensure a comfortable and healthy environment for chickens, especially during the brooding phase (0-4 weeks). It helps to:

- 1. Maintain optimal temperature
- 2. Reduce stress and mortality
- 3. Promote healthy growth and development

# **Temperature Requirements**

The ideal temperature for pre-heating a pen depends on the age of the chickens:

- 1. Brooding phase (0-4 weeks): 90-100°F (32-38°C)
- 2. Grow-out phase (4-8 weeks): 70-80°F (21-27°C)
- 3. Finishing phase (8 weeks and older): 60-70°F (16-21°C)

## **Pre-Heating Methods**

Common methods for pre-heating a pen include:

- 1. Heat lamps: Suspended heat lamps or heat emitters
- 2. Space heaters: Electric or gas-powered space heaters
- 3. Hot water circulation: Circulating hot water through pipes or radiators
- 4. Insulation: Ensuring the pen is well-insulated to retain heat

# **Pre-Heating Schedule**

A typical pre-heating schedule for a brooding pen might be:

- 1. 24-48 hours before chick arrival: Pre-heat the pen to the desired temperature
- 2. Chick arrival: Monitor temperature and adjust as needed to maintain optimal temperature
- 3. First week: Gradually reduce temperature by 5-10°F (3-6°C) per day
- 4. Subsequent weeks: Continue to adjust temperature according to the chicken's age and needs

# **Important Considerations**

When pre-heating a pen, it's essential to:

- 1. Monitor temperature closely to avoid overheating or underheating
- 2. Ensure proper ventilation to prevent moisture buildup and ammonia accumulation

3. Provide adequate bedding material to maintain a clean and dry environment

By following these guidelines, you can create a comfortable and healthy environment for your farm chickens

#### **EXPANSION OF CHICK**

## **Physical Expansion**

- 1. Weight Gain: Chicks grow rapidly, increasing their weight by 2-3 times within the first week.
- 2. Height Increase: Chicks grow taller, with their height increasing by 50-60% within the first week.
- 3. Feather Development: Chicks develop feathers, which help regulate their body temperature and protect them from the environment.
- 4. Beak and Claw Development: Chicks' beaks and claws grow and develop, enabling them to eat, scratch, and perch.

# **Behavioral Expansion**

- 1. Socialization: Chicks begin to interact with each other, learning important social skills like pecking order and communication.
- 2. Exploration: Chicks become more curious, exploring their environment and learning about their surroundings.
- 3. Foraging: Chicks start to scratch and peck at feed, learning how to forage for food.
- 4. Roosting: Chicks begin to roost, or perch, on elevated surfaces, developing their balance and coordination.

# Physiological Expansion

1. Digestive System Development: Chicks' digestive systems mature, enabling them to absorb nutrients from their feed.

- 2. Immune System Development: Chicks' immune systems develop, helping them fight off diseases and infections.
- 3. Respiratory System Development: Chicks' respiratory systems mature, enabling them to breathe efficiently.
- 4. Circulatory System Development: Chicks' circulatory systems develop, enabling them to regulate their body temperature and transport nutrients and oxygen.

## **Expansion Timeline**

Here's a rough timeline of a chick's expansion:

- 1. 0-3 days: Chicks rely on egg yolk for nutrition, begin to lose down feathers.
- 2. 4-7 days: Chicks start to grow new feathers, develop beaks and claws.
- 3. 7-14 days: Chicks begin to explore their environment, interact with each other.
- 4. 14-21 days: Chicks continue to grow and develop feathers, start to roost.
- 5. 21+ days: Chicks reach adolescence, continue to mature physically and behaviorally.



TYPICAL EXAMPLE 1



FIG2

# WATER ADMINISTRATION [PURE WATER]

[Centry a+ws,maciyiled] Feeding of broiler bird is done ad-libutum

Daily performance record keeping

# **Importance of Water for Chicks**

- 1. Growth and Development: Water is essential for chicks' growth and development, making up approximately 70% of their body weight.
- 2. Temperature Regulation: Chicks need water to regulate their body temperature, especially in hot environments.
- 3. Digestion and Nutrient Absorption: Water helps chicks digest feed and absorb essential nutrients.

# Water Requirements for Chicks

- 1. Age: Chicks require different amounts of water at various ages:
  - 1. 0-2 weeks: 1-2 liters per 100 chicks per day.
  - 2. 2-4 weeks: 2-3 liters per 100 chicks per day.
  - 3. 4-6 weeks: 3-4 liters per 100 chicks per day.
- 2. Climate: Chicks require more water in hot and humid climates.
- 3. Feed: Chicks require more water if fed dry mash or pellets.

#### **Water Administration Methods**

- 1. Bell Waterers: A common method, where chicks drink from a bell-shaped waterer.
- 2. Nipple Waterers: A more modern method, where chicks drink from a nipple-like waterer.
- 3. Dish Waterers: A simple method, where chicks drink from a shallow dish.
- 4. Automatic Watering Systems: A more advanced method, where water is supplied through a network of pipes and drinkers.

## **Tips for Effective Water Administration**

- 1. Cleanliness: Ensure waterers and surrounding areas are clean and free from contamination.
- 2. Accessibility: Ensure chicks have easy access to water at all times.
- 3. Water Quality: Ensure water is fresh, clean, and free from contaminants.
- 4. Monitoring: Regularly monitor water consumption and adjust administration methods as needed.

# **Common Challenges and Solutions**

- 1. Water Spillage: Use waterers with anti-spill features or place waterers on a slight incline.
- 2. Water Contamination: Regularly clean and disinfect waterers, and ensure surrounding areas are free from contamination.
- 3. Water Scarcity: Consider using water-conserving methods, such as drip irrigation or rainwater harvesting.

### CHAPTER FOUR

### **ACTUAL WORKDONE WITH EXPERIENCE**

#### **GAINED**

## (Cont'd)

### RECORD KEEPING IN FARM

## Importance of Record Keeping

- **1.** Decision Making: Accurate records enable informed decisions on feed management, health, and breeding.
- 2. Performance Evaluation: Records help evaluate farm performance, identify areas for improvement, and measure progress.
- 3. Disease Management: Records aid in disease diagnosis, treatment, and prevention.
- 4. Financial Management: Records help track expenses, revenues, and profits.
- 5. Regulatory Compliance: Records ensure compliance with laws, regulations, and industry standards.

### **TYPES OF RECORDS**

1. Flock Records: Include information on flock size, breed, age, and health status.

- 2. Feed Records: Track feed consumption, costs, and nutritional content.
- 3. Health Records: Document vaccinations, medications, and disease outbreaks.
- 4. Breeding Records: Record breeding dates, egg production, and hatchability.
- 5. Financial Records: Include income statements, balance sheets, and cash flow statements.
- 6. Mortality Records: Track mortality rates, causes of death, and carcass disposal.

## Methods of Record Keeping

- 1. Manual Records: Use notebooks, spreadsheets, or paper-based systems.
- 2. Digital Records: Utilize computer software, mobile apps, or online platforms.
- 3. Automated Records: Implement automated systems, such as sensors, RFID, or robotic systems.

#### **Best Practices**

- 1. Accuracy: Ensure records are accurate, complete, and up-to-date.
- 2. Consistency: Use standardized formats and terminology.

- 3. Security: Protect records from unauthorized access, damage, or loss.
- 4. Analysis: Regularly analyze records to inform decision-making.
- 5. Training: Provide training on record-keeping procedures and systems.

# **Benefits of Good Record Keeping**

- 1. Improved Decision Making: Informed decisions based on accurate data.
- 2. Increased Efficiency: Streamlined operations and reduced waste.
- 3. Enhanced Productivity: Optimized feed management, health, and breeding.
- 4. Better Disease Management: Early detection and effective treatment.
- 5. Increased Profitability: Improved financial management and reduced costs.

#### CHAPTER FOUR

### RECOMMENDATIONS AND CONCLUSION

Going through some of the experience gained during are programme, I will recommend that there is need for improvement on some of the activities **SCHEME**.

- > The time duration for the programme should be extended for more than two months
- ➤ Farm business and the federal government should create more practical knowledge for the students for them to acquire more knowledge from their versatile staffs

### CONCLUSION

Siwes was established to provide opportunities for students to be involved in the practical aspect of their respective disciplines un the industrial working environments during my month industrial training, I gained a wide ranges of experience form the various assignments undertaken such as news writing and reporting, news commentary, and editing process, all the experience grayed help to fulfill the objectives of Siwes.