A

TECHNICAL REPORT ON

STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES) REPORT

UNDERTAKEN AT

MIKKY INTEGRATED SERVICES LTD

PRESENTED BY

ADEDOKUN UTHMAN ADESHOLA
ND/23/ABE/FT/0058

SUBMITED TO

THE SIWES CORDINATOR

DEPARTMENT OF AGRIC AND BIO-ENVIRONMENTAL TECH.

KWARA STATE POLYTECHNIC, ILORIN

FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN AGRIC AND BIO-ENVIRONMENTAL TECHNOLOGY

August - December2024

CERTIFICATION

This SIWES report is cordially acknowledgement and certified by the following dignitaries.

TABLE CONTENTS

ACKNOWLEDGEMENT

I thank Almighty Allah of all glory, honor and adoration, for mercy received during the source of my studies and when undergoing my industrial training.

My appreciation also goes to my industrial based lecturer who accessibility untiring effort to the completion them and their family.

CHAPTER ONE

INTRODUCTION

SIWES is an acronym of student industrial work experience scheme SIWES is an effective instrument used for exposing student to the realities of the work environment in Nigeria, especially and the world in general, in their various profession so as to achieve the needed technological advance for the nation.

SOME OF THE AIM OF SIWES ARE:

- To provide for the student opportunities to be involved in the practical aspect of their respective disciplines. This bridging the gap between the practical aspect taught in the class and the real world situation
- To expose student to latest development or technological innovation in their chosen profession
- To prepare students for industrial working environment they are likely to meet after graduation

BRIEF HISTORY OF SIWES

The student industrial work experience scheme (**SIWES**) is skill training program designed to expose and prepare student of universities, polytechnic college of technology and others for the industrial work experience they are likely to meet after graduation.

The scheme also afford student of opportunity of familiarizing and exposing themselves to the needed experience in handling equipment and machineries that are usually not available to their institution, the industrial training final(itf) funded the scheme during its formative year in 1973/74 but as the financial involvement became unbearable fund withdraw from the scheme in 1978. The federal government handed over the scheme in 1979 to both the National Universities Commission (**NUC**) and the national board for technical education (**NBTE**) later, the federal government in November 1984 revert the management and the 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 handbook, the specific objectives and importance of the SIWES are to:

- Provide an avenue for student institution of higher learning to acquire industrial skills and experience in their course of study
- Prepare student for the industrial work experience they are to undergo after graduation.
- Provide student with an opportunity to apply their knowledge real work situation there by bridging the gap between theory and practical
- To satisfy accreditation requirement set by NBTE
- To provide student an opportunity to see the real world of their discipline and consequently bridge the gap between the classroom and real work situation
- To enable student asses interest suitable for their chosen profession

CHAPTER TWO

2.0 INTRODUCTION TO MIKKY FARMS

The Farms was created in 2021. At State creation, it was named as the years went by, it was renamed Mikky Farms & Natural resources and was established as a whole Company in March, 2009 by the then Mojeed Mukaila. The administration in quest to put Agriculture in its rightful position as the major driver of economic growth ranked it first in its policy framework of "A CARING HEART" where 'A' denotes Agriculture and Food Security.

The company is made up of various Departments and Agencies which are mentioned:

- Agricultural extension Department
- Planning Monitoring and Evaluation Department
- Technical Service Department
- Human Resource Development Department
- Rural Institute development Department
- Finance Department
- Engineering Department
- Admin and General Service Department

2.1 Objectives of Mikky Farms Ltd

i. To promote accelerated development of Agricultural activities in the State

ii. Self-sufficiency in basic food commodities in which the state has comparative advantage in their production

iii. Transforming Agriculture from the level of subsistence agriculture to commercial level through mechanization

iv. Increased production of livestock and fisheries to improve the animal protein intake in the diet of the populace

v. Increased production of agricultural raw materials for the agro-based and allied industries

CHAPTER THREE

DESCRIPTION OF THE ATTACHMENT ACTIVITIES

3.1 Actual Work and Experiences Gained

This aspect of the report was carried out at the MIKKY FARMS LTD and it is basically prepared to depict the various activities carried out and experiences gained during the training.

3.1.1 Broilers production

It practically involves the brooding of broilers from day old to table size. The total number of birds brought was 500 day old chicks, projected capital for the brooding was N240, 000. The birds were purchased from ZARM FARM, Offa at the rate of N200 per bird. The type of management adopted for brooding was an intensive method of keeping poultry referred to as the 'Deep Litter System'.

The brooding house was cleaned, sanitized and fumigated with the use of Izal and Morigad, while all other equipment including the feeding trough, drinkers, lanterns, buckets, kegs, and stoves were thoroughly washed and cleaned with soap and water. Wood shavings were spread on the floor to about 2cm deep of the brooding pen; coal pot and lanterns was set inside the brooding house, in order to raise the temperature of the brooding house. This helps in providing the correct amount of temperature needed for the day old chicks. Subsequently, the day old chicks were introduced into the pen.

Because of the long distance in which the chicks were transported, they must have undergone a lot of stress, so anti-stress (glucose) and antibiotics (Furasol) was given to them orally. These were administered at the rate of 10g each into 10 liters of water. About 30 minutes later, the drinkers containing the drugs were withdrawn, after which they were provided with feed (Broiler starter mash) and water; and allowed to brood. The average weight of the birds was taken and it was 100g at day old.

Daily Routine Management

1. Drinkers and feeders were washed on daily basis.

2. Chicks were supplied with fresh feeds and clean water free from any form of contamination at least twice per day at a regular time interval.

3. Feeding was increased to three times per day starting from fourth week due to increase in feed intake.

4. Foot dips were created for disinfection and was changed and disinfected with protex 20 on daily basis.

5. We paid close attention to notice feed intake, temperature, sound of their cry and deformed and or dead birds were removed as soon as possible.

6. The litter was always changed regularly (weekly).

7. Taking the average weight of the birds weekly for weight check and to monitor their growth rates.

8. Multi vitamin, antibiotic and sometimes anti-stress was always given daily for four weeks and when any disease is noticed.

9. At week one, two, three and four, the birds were vaccinated against Gomboro vaccine against Newcastle disease and Lasota vaccine.

Procedures Followed During the Gomboro Vaccination Exercise

1. The chicks were starved of water for two hours in order to make them eager to take the vaccine.

2. 10 liters of well water was measured into a bucket.

3. The vaccine was opened gently inside the water and mixed thoroughly.

4. The chicks were served with the vaccinated water for 1 hour preferably done in the morning.

5. The brooding house was sprayed with disinfectant (Izal&Morigad).

6. The vaccinated water was withdrawn.

7. A pit was dug at a reasonable distance outside the brooding house and the remaining vaccinated water was buried in it after which the area was disinfected.

8. Subsequently, the equipment used during the vaccination was washed with soap and water and were disinfected as well.

9. Finally, the chicks were served with clean water and allowed to rest for some time before they were provided with feed.

Procedures Followed In Administering Lasota vaccine

The procedures are the same as with when administering the Gomboro vaccine except that in giving these chicks the lasota, 10 liters of water was used as against the 5 liters used during the Gomboro vaccination. This was because Lasota in its own case was being sold in 1000 birds per dosage; against the 500 dosage in Gomboro vaccine.

The birds were split into two equal halves and the first half remained in their initial brooding house, the other half was moved into another newly prepared brooding house. This was done purposely in order to reduce the competition for space among the bird which could further cause them to be clamping together. After these, anti-stress (Top multi- vitamin powder) was given to them via their drinking water.

The birds were given E.S.T powder (recommended rate of 100g / 200L of water), and Furasol (recommended rate of 100g / 100L of water). But due to the population of the birds, only 40L of water was used instead of the recommended rate. The average body weight of each of the birds was done and it was between 2.1kg and 2.5 kg.

Therefore:

Quantity of E.S.T used = (40L/200L) *100g = 20g out of the 100g

Quantity of Furasol used = (40L/200L) * 100g = 40g out of the 100g.

Benefits and Experiences Gained From the Practical Training

1. I can now raise broilers from day old to table size.

2. I have being enlightened on how to make maximum use of my time, capital for any business, labor and resources in any form of agricultural project so as to maximize profit.

3. I have also been able to see the impact of proper and well planned management on broilers brooding. This can be attested to from the yield at the end of the project (with less than 5% mortality recorded).

4. Also in the course of the training, we bought and sold thereby improving marketing skills.

CHAPTER FOUR

Actual Work Done With Experiences Gained in Agronomy

4.1 Maize Production

In this report we planted 5 hectares of maize crop, harvest it, milled and stored it in bags for sale. The land was cleared, ploughed, harrowed and ridged by a tractor. These land preparation procedures were done with implement-mounted tractors. We started planting the maize seeds by hand at the beginning of the second week. We planted about 2 hectares in the first day and the remaining 3 hectares on the next day. Immediately after planting was spraying of pre-emergence herbicides. Thereafter germination, thinning was done and application of fertilizer in the 4th week of planting. It was performed using the hand placement method were Urea and NPK fertilizers were mixed together and applied at the same time in one week.

Weeding was done in the sixth week. After the final manual weeding, the farm was left for about two months in which we used in attending to other activities in the program. After the maize crop had matured and dried properly, we harvested the maize manually milled it using the STEEL MAN diesel engine miller. It was winnowed to remove shaft and post storage pesticide was applied.

4.2 Cassava Flakes Processing

The cassava roots was harvested manually and peeling of the cassava was done using knife. It was followed by washing and grating. The Grating was done using motorized cassava grater, the grated cassava pulp were then properly packed into polypropylene sacks and placed in hydraulic press for five days depending on consumer taste. The main reason of pressing is to help in draining off the water content. This process helps the removal of cyanide present in cassava and also to produce desirable flavor. This is followed by Sifting/sieving of the drained cassava pulp to sieve off large particles.

Frying of the garri was then carried out in a large cast-iron pan over fire (coal) with constant stirring using a broken calabash or small short broom for close to 20 minutes or more. During frying of the garri, you can also add red oil to reduce cyanide content,

beautify the garri and give better taste. The fried garri was left to cool and it sieved again. The sieved garri were then packed in polythene bags and stored in a cool, dry place. The following chart describes the

Summary of the whole process:

Harvesting of Cassava—Peeling—Washing—Grating—Fermentation—Pressing—Sifting— Frying—Cooling--Sieving (After frying)—Packing—Storing.

4.3 Activities And Experiences Gained At Farm Service.

There are so many departments and sections here. We were at the poultry section for up to three weeks. We had a lot of lectures on other aspects of animal production including snailery, rabbitery and fishery respectively.

Chapter Five

Summary, Conclusions and Recommendations

5.1 Summary of Attachment Activities

This report is a complete write-up of an Industrial Training Program carried out Mikky Farm. Attachment activities including practical field work experiences such as clearing of allotted portions of land for cultivation of various crops, weeding, herbicide application and fertilizer application. Farm implements uses and tractor driving and handling, poultry production and lots of visits and excursions to different farms and Agricultural centers.

5.2 Problems Encountered During the Program

There were quite a number of problems and difficulties during the industrial attachment program.

These problems include:

1. Inadequate monitoring of students on industrial training.

2. Lack of cooperation and support from companies and organizations

3. Delay in release of funds for supervision and student's industrial training allowances.

4. It was also observed in the course of this study that student's project reports were not corrected.

5. There was difficulty in finding the establishment to work in, which took away some of the time of the attachment period.

6. The distance from home to place of the attachment was quite far and sometimes caused delay in arriving to work.

7. There was also the issue of low level of infrastructures, were we use buckets in watering our vegetables plots due to insufficient watering cans. Even in the case of

producing heat in the brooding house, we had to use charcoal pots and lantern instead of electricity.

8. There was also the problem of late arrival of the supervisors at some occasions during the program.

5.3 Suggestions for Improvement of the Scheme

1. Visiting of students during the SIWES program should be ensured by the Industrial Training Fund officials and college coordinators in order to ensure that students get necessary exposure and to boost their morale.

2. Companies/Organizations should be sensitized through organization of workshops/seminars in order to acquaint them with their expected roles towards students on industrial training.

3. Federal government should endeavor to make fund available to the institutions as at when due in order to facilitate proper monitoring of students on IT.

4. Students should be paid their IT allowance to time so that they can be motivated.

5. Also, the federal government should make it mandatory for companies/organizationsto supplement funding of the scheme by paying students stipends and providingenabling condition for them.

6. Students should be taught how to write reports and their reports should be readthrough and corrected.

7. Selection of placement should not be left completely to students. The college should device a means of allocating students to related companies/organizations.

8. I suggest there should be full participation by the government in the provision of tools and equipment, rehabilitation and taking care of the limited equipment available in the ministry. This will improve the level of infrastructures and other amenities needed in the establishment.