

**THE UNIVERSITY OF NAIROBI.  
COLLEGE OF AGRICULTURE AND  
VETERINARY SCIENCES.**

INDUSTRIAL ATTACHMENT

- **Period of Attachment:** 7-october to 29-november 2013
- **Report presented by:** COLLINS OTIENO NYAKAKO
- **Registration No:** A138/29585/2012
- **Place of Attachment:** KARI-NARL
- **Course:** Diploma in Crop protection

# Background Information

## ecological zone

- It is a government parastatal
- It is located in Nairobi County, Westlands district, off -Waiyaki way.
- it receives an annual rainfall of between 970-1059mm, with humid to sub-humid climates.
- Temperatures ranges from 13-23 degree Celsius
- It occupies approximately 25 hectares of land and lies at longitude 36°44'' E and latitude 01°15'' S

# facilities found within KARI-NARL

## include:-

- Workshop rooms
  - Farm machineries
  - Weather station
  - Computer rooms
- Administration
- Staff houses
- Green houses
- Laboratories

# **Clients who are served by KARI NARL**

## **include**

- Farmers, community agricultural organizations
- Government ministries
- Public and private extension service providers
- Private agricultural sectors and Non-Governmental Organizations (NGOs)
- Universities and other tertiary education institutions.

- **KARI Vision**
- It envisions being a vibrant commercially oriented and competitive agricultural sector propelled by science, technology and innovation.
- **KARI Mission**
- To contribute to increased productivity, commercialization and competitiveness of the agricultural sector through generation and promotion of knowledge, information and technologies that respond to client's demands and opportunities.

# KARI Objectives

- 1. To ensure that they constantly deliver products and services that satisfies the requirements of both internal and external customers.
- 2. Adopt quality as an integral part of their operations.
- 3. Continually improve the quality of products and services they provide in agricultural research for development.
- 4. Empower employees to embrace quality as a collective responsibility.
- 5. Provide an enabling and safe working environment for all employees
- 6. Protect the environment and maintain good corporate social responsibility
- 7. Comply with statutory and regulatory requirements
- 8. Ensure that their goals and objectives are geared towards compliance with the Quality Management system.

# DEPARTMENT/ SECTIONS

- Soil Fertility and plant Nutrition Section
- The Kenya Soil Survey Section
- Irrigation and Drainage Research Section
- Crop Protection section
- Socioeconomics Section
- Biotechnology Research Programme
- Other Institutions Based at NARL



# 1)The plant pathology unit

- I was in this section for three weeks
- I learnt taking samples from farmers, mainly diseased plant samples, different soil and water samples
- In the bacteriology lab I learnt about different media which are used for identification of different micro organism
- Disease diagnostics was mostly done in the mycology lab
- We also did mass cleaning of all laboratories in preparation for the ISO Certification agent's inspection

## 2)The Weed Science unit

- I was in this section for one week
- I learnt about various weeds that were found at KARI –NARL field station and their classification using their morphology and their occurrence
- I learnt how to prepare a Herbarium and its uses
- I also learnt about the different types of sprayers used for application of pesticides and herbicides
- Different weeds are controlled differently according to their classification and the nature of the herbicides

### 3)The crop storage unit

- I was here for one week
- Here they dealt with research on main pests that affect crops that have been stored. This was mainly LGB (Larger Grain Borer) and others
- We determined moisture content of different samples through oven method
- We did damage analysis of different grain samples

## 4)The field entomology unit

- I was here for one week
- We did the storage of insects specimen in their special boxes and also the capturing of the insects.
- We laid out agronets as a method of controlling different pests on an ongoing experiment
- We classified insects according to their morphology

# Irrigation and Drainage Research unit

- I spent one week in this unit
- We measured soil texture using the hygrometer method
- We classified different soil samples according to texture

# Weakness of KARI-NARL

- Shortage of laborers was the main problem, this led to overworking of existing staff
- Delayed payment to staff and casual workers, some workers are underpaid
- The management is over burdened with tasks of teaching

# Strengths of KARI

- The staff is very cooperative and usually helps each other i.e.they are very united and work as a team when carrying out their research activities
- The different KARI Centers all over the country cooperate with the KARI NARL wherever possible for example the Field Entomology section at KARI NARL can sometimes borrow equipments from the entomology section at KARI Muguga
- Does high quality research and have developed drought tolerant varieties of crops and other high yielding varieties.
- Provide training to students and also carries out extension services to farmers
- Coordinates with major international agricultural bodies like ILRI , ICIPE and FAO

# Recommendations

- They should increase their staff to avoid overworking and therefore increase the morale of their labour force



THANK YOU