

Biosafety Concerns and Regulatory Framework in Kenya

Kenya's capacity to regulate Biotechnology Activities and
Products

SEMILS UoN
Seed Enterprises Management Institute
University of Nairobi

Dr. James Onsando

Managing Director - KEPHIS



Outline

- **Institutional Capacity**
- **Laboratory capacity**
- **Regional Capacity**
- **Capacity in Universities**
- **Bio-Containment and Confinement capacity**
- **Legal and administrative capacity**
- **Institutional Collaboration**



Institutional Capacity

KEPHIS

- Release of plant varieties. GM Varieties are not exceptional
- Participation in Institutional Biosafety committees.
- Participation in decision making at the Board of the National Biosafety Authority
- Competent staff: MSc, PhD

National Biosafety Authority

- Competent staff: MSc, PhD
- Coordination structure for regulatory agencies in place

SEMMIS UoN
Seed Enterprises Management Institute
University of Nairobi



Laboratory capacity



**DROMESA Referral Laboratory at the Plant Quarantine and Biosecurity Station
Equipped with modern equipment and capacity for:**

Real time PCR

Conventional PCR

ELISA

Rapid Strips

Laboratory capacity

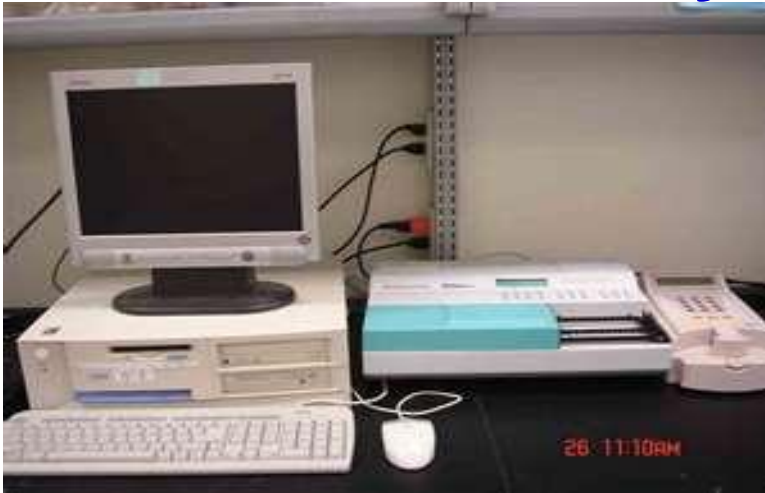


Seed Enterprises Management Institute

World Class laboratory at KEPHIS Headquarters housing:

- **Molecular laboratory (Realtime PCR, Conventional PCR, ELISA, Rapid Kits)**
- **Plant Health Laboratory**
- **Food microbiology laboratory**
- **Analytical Chemistry Laboratory**

Laboratory testing Equipment



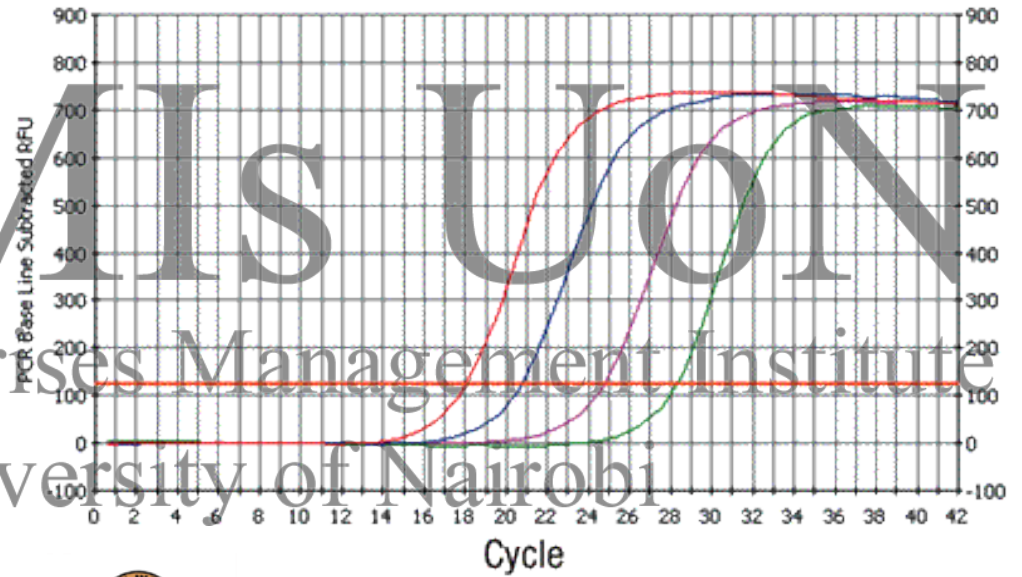
ELISA Reader



Real time PCR



-80 Freezer



Real time PCR Curve



Regional Capacity at BeCA - ILRI

Bioinformatics, DNA sequencing, Genotyping and Oligonucleotide synthesis
Modern biosciences training laboratory



University of Nairobi and Kenyatta University



SEMI-Structured Enterprises Management Institute
University of Nairobi

**Biotechnology
Centers available**

Cartagena Protocol Based Bio-Containment facility at KARI Biotechnology Centre



SEMISUON
Seed Enterprises Management Institute
University of Nairobi

22 13:05

Cartagena Protocol Based confined Field Facilities in KARI Stations



- Confined Field Trials (CFT) conducted for a number of GM crops since 1991 when the first CFT (sweet potato) was initiated.
- Experience has been gained by researchers & regulators.
- Now there is a specific law and regulations as well as Standard Operating Procedures
 - *Isolation maintained*
 - *Protection from animals, man, environment during trials*

Legal and administrative capacity

International

- Codex Alimentarius (FAO/WHO): Principles of risk analysis and guidelines for food safety assessment – NBA could use the principles for Food safety assessment
- Cartagena Protocol on Biosafety (CBD/UNEP): Safe transfer, handling, transboundary movement – KEPHIS participates in implementation
- International Plant Protection Convention (FAO): Standards for risk analysis – KEPHIS is a signatory to this Convention

National

- Kenya Standards on Food safety for Modern Biotechnology
- Effective border control and monitoring system – KEPHIS has inspectors at all major port of entry.
- The Kenya Standing Technical Committee on Imports and Export.
- A National Policy on Biotechnology approved by Cabinet in 2006
- The Biosafety Act was gazetted in February 2009 – NBA implements the Act together with regulatory agencies
- Regulations of the Biosafety Act



Institutional Collaboration

- The capacities in the country are in different government and regional agencies
- It is therefore critical that the NBA signs MoUs with relevant agencies to utilise the available capacity.

Seed Enterprises Management Institute
University of Nairobi



**Contact
KEPHIS**

P.O. Box 49592-00100, Nairobi, Kenya

Tel.: +254-20-3536171/2

Fax: + 254-20-3536175/

Email: director@kephis.org

Website: www.kephis.org

Thank you