



NATIONAL BIOSAFETY AUTHORITY

APPROVAL TO CONDUCT CONTAINED USE ACTIVITY USING GENETICALLY MODIFIED ORGANISM

APPROVAL NUMBER: NBA/GMO/CO9/18/10	DATE OF ISSUE: 6th MARCH 2014 VALID UP TO: TRIAL COMPLETION AS PER THE PROJECT WORK PLAN
In accordance with regulation 9 of the Biosafety (Contained Use) Regulations, of the Biosafety Act 2009, I hereby grant the approval to undertake contained use activity of the genetically modified organism herein stated in the research institution mentioned in this approval.	
Name of the Applicant/ Research Institution	MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY(MMUST)
Specification of the genetically modified organism	Transgenic cassava Variety TME7 resistant to Cassava Brown Streak Virus(CBSV) and Transgenic Cassava Variety 60444 resistant to African Cassava Mosaic Virus(ACMV).
Quantity approved	Acreage of approved CFT Facility at KARI-Alupe is 0.4 Hectares. 1000 imported cassava plantlets. Regeneration is allowed, but NBA has to be informed for monitoring purposes.
Specification of the genetic modification	Embryonic cells of cassava were transformed with RNA constructs carrying viral sequences from Cassava Brown Streak Virus and African Cassava Mosaic Virus coat protein, and the <i>nptII</i> selectable marker gene by co-culture with <i>Agrobacterium tumefaciens</i> strain.

Risk category	Low
Purpose of the use:	To conduct research under confined field trial as a proof of concept to test feasibility of RNAi technology in transgenic cassava lines in conferring resistance to cassava brown streak virus(CBSV) and African cassava mosaic virus(ACMV) under field conditions.

This approval is granted subject to the following conditions-

1. Applicant to obtain a plant import permit (PIP) from KEPHIS. On importation, the transgenic material must be escorted by officers from NBA/KEPHIS from the port of entry to the experimental site who shall ensure proper packaging during transport.
2. Strict adherence to the set operation and regulatory guidelines for cassava
3. Staff to be involved in the trial to be trained on handling transgenic plants and overall biosafety matters.
4. Train IBC members on overall biosafety matters and specifically on their roles in the project.
5. To aid in the planning of monitoring activities, a schedule of activities need to be provided to NBA and KEPHIS before commencement of the trial.
6. Put and implement measures to ensure that no plant material from the confined field trials may leave the site and enter the human food or animal feed chain. In instances where sample tissues will be taken from the CFT site for further analysis, Authority must be sought from the Authority and escorted as directed.
7. Provide quarterly and annual progress reports to NBA in the prescribed format
8. Notify the NBA and other relevant regulatory agencies of any changes to the experiment that might affect the risk status of the introduced material or those generated.
9. If the project proceeds to environmental release, appropriate Environmental Impact Assessment (EIA) approval certificate or exemptions must be obtained from National Environmental Management Authority (NEMA) prior to such release.

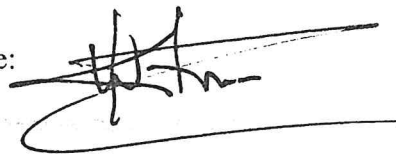
This approval is not transferrable and is valid from the approval date until completion of the trial as per submitted work plan.

Place: **Nairobi**

Date: **6th March 2014**

Name: **Willy K. Tonui, PhD, RBP**

Signature:

A handwritten signature in black ink, appearing to be 'Willy K. Tonui', written over a horizontal line.

Chief Executive Officer
National Biosafety Authority

