

Editorial:

Confined Field Testing Starts

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Biovision congratulates NARO, specifically the Biotechnology Centre at the National Agricultural Laboratories, Kawanda, on getting started with confined field research with genetically modified (GM) bananas. Bananas are an extremely important crop for Uganda but unfortunately there are attacked by diseases and pests that have proved impossible to contain using conventional means. Exploring transformation technology to fight these constraints is logical and timely. The introduction of GM banana materials for the confined field testing (CFT) is a landmark in the application of modern biotechnology in Uganda. These materials were produced by a Ugandan scientist while pursuing his PhD in Belgium which was strategically designed to address a local problem.

Though just an initial step, the CFT work allows the scientists to test the materials under local field conditions and evaluate them for desirable traits like resistance to pests and diseases, growth period and yield potential and any other agronomic factors. Field testing is a normal procedure in crop research. In case of GM materials the trial is confined for purposes of separation so that there is no mix up between the experimental plants and others that may be growing in the vicinity. The trial is small in size and the way it is planted, managed and harvested follows standard operating procedures that are approved by regulators, observed by scientists and enforced by crop inspectors.

The banana CFT was introduced after considerable preparations by the regulators and scientists and when both infrastructure capacity and human expertise and documentation to handle the trial from planting through to evaluation and monitoring up to the post harvest phase were in place. Thanks to the Government for investing into this cutting edge science that is enabling local scientist to apply their knowledge and effectively tackle local problems. CFT of GM materials is currently being done in many countries of the world in both private and public sector organizations. Since the first CFT carried out in 1987, there have been over 20,000 carried out in different parts of the world, even in Europe in spite of all controversy. In Africa research in this technology is being conducted in over 10 countries and CFTs are underway in South Africa, Egypt, Burkina Faso, Zimbabwe, Kenya and now in Uganda. Kenya has already conducted CFTs of maize, sweet potato cotton and cassava.

CFT is a research stage that is designed to yield useful results and products in future. The expected products however can only be used when the country has a policy framework and legal provisions to regulate such products. Uganda is still a distance from realizing full benefits from the technology. While research on GM crops can be approved under the UNCST Act, more elaborate policy framework and legal provisions are needed for further advancement and increased support for this technology. Commercializing of GM products will only be possible after the country has an approved policy and laws to direct the use of such product.