Biodiversity and Biosafety Association Kenya



The case of cassava in Kenya: What you need to know about genetically modified cassava

Cassava is a staple food crop grown by many smallholder farmers. A genetically modified (GM) RNAi cassava variety 4046 is likely to be introduced for commercial cultivation in Kenya. The new cassava variety is undergoing research for resistance to Cassava Brown Streak Disease (CBSD). However, scientific understanding of RNAi remains incomplete, with evolving research revealing safety concerns.

The story of cassava

Across countries and continents

Cassava was domesticated **5000 – 7000 years BC**, in Brazil, and has been handed over to generations freely mainly by smallholder farmers.

61% of global production occurs in Africa **(40 out of 53 African countries)**.

90% of the production is in small-scale farms.

Cassava is a key food crop in Africa and grows in marginal land and therefore important for resilience of smallholder farmers and pastoralist communities.



In Kenya

Cassava is grown in Western, Nyanza, Eastern and Coastal Regions in Busia, Homabay, Siaya, Migori, Kwale, Kilifi and Kitui counties.

It is the 2nd most important food security crop after maize and a major contributor to food security.

Cassava dishes Kenyans enjoy
Cassava pudding: grated cassava roots with mixed with grated coconut and sugar which is served hot or cold.
Ugali which may be served with fish, green vegetables or any stew.

Nutritional benefits
Cassava is very high in potassium and vitamin C. It also contains most of the B-vitamins (except B12), vitamin A, magnesium, selenium, calcium, and iron.
Gluten free



GM cassava and your power to choose

- Consumer acceptability of cassava varieties is based on palatability and cooking qualities which normally takes approximately 20- 30 minutes boiling time.
- Modified cassava could change these characteristics in a way that differs from our current cultural preferences and practices.
- The informal nature of cassava trade is likely to result in poor traceability and contamination of non-GM and GM cassava.
- It will be impossible for consumers to differentiate the final product as labelling of cassava in not common practice. This will negatively affect consumers' right to know as well as make informed choices.

Are there health concerns?

1. RNA interference (RNAi), is a mechanism that regulates the expression of genes in a plant, animal or person. In GM cassava, the RNAi technique is used to suppress the expression of viral pathogen genes.
2. The impacts of GM cassava are unknown, and coming at a time when there is a global debate among the scientific community on the effects of GMOs on human health and the environment.
3. The Kenya law says, consumers need to be aware of the genetically modified food, feed, or products so that we can make informed choices when buying our food from local supermarkets and mama mbogas.



What can consumers do?

In view of insufficient scientific certainty about the safety of GM food, the Precautionary Principle of Cartagena Protocol must apply. Whereas, enforcement and monitoring of GM contamination in the Kenyan market by regulators is weak at best.

Presently, there is no consistent and impartial government initiative for awareness on GMOs. A wider discussion among the Kenyan public on the willingness to adopt GMO foods, has not been held.

There is evidence of GM products on Kenya markets with no label and most recently the Bt cotton seed labelled as hybrid only. Enforcement and monitoring of GM contamination in Kenyan market by regulators is weak at best.

It is better to be safe than sorry

The **Precautionary Principle** applies where scientific evidence is insufficient, inconclusive or uncertain and preliminary scientific evaluation indicates that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with a high level of protection (EU, 2000).



Consumers must demand

1. For more independent information and sensitization on the genetically modified foods.
2. At least a 10-year moratorium on commercialization of GM produce/ products in Kenya
3. Safe and GMO-free food for consumption

Feedback section

A. Do you know what GMOs are?
B. Would you consume GM Cassava?

Let us know your thoughts:

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