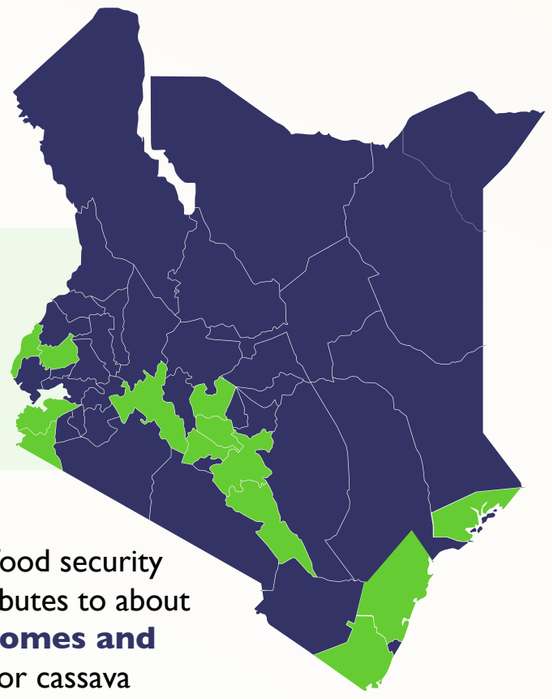
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Cassava farming in Kenya: What you need to know about genetically modified cassava

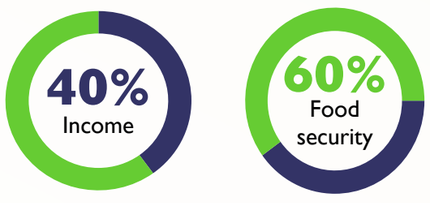
Cassava (Manihot esculenta Crantz) is a staple food crop grown by many smallholder farmers.

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



Kenya produces about
1.2 metric tonnes
of cassava every year.

It's the second most important food security crop after maize. Cassava contributes to about **40% of household cash incomes and 60% to food security** in major cassava growing areas in the country.

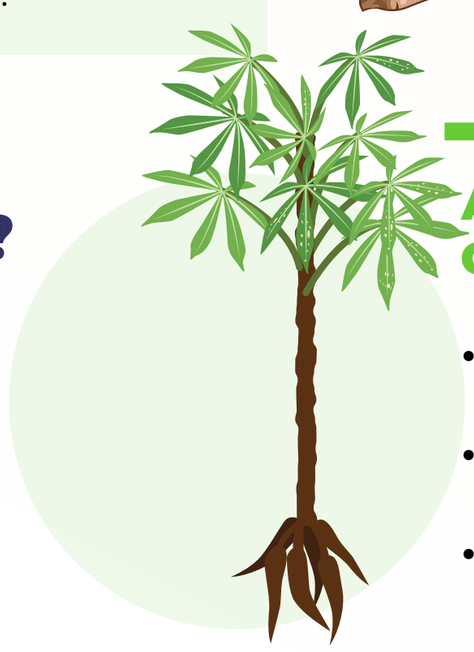


Cassava challenges in production

Cassava production is affected by diseases specifically Cassava Mosaic Disease (CMD) and Cassava Brown Streak Disease (CBSD), which can cause up to 60% production losses.
In response to this, KALRO released a genetically modified (GM) cassava line 4046, which protects cassava from the CBSD.

What will the cost effects of GM cassava be?

Farmers need to buy cuttings seasonally, since regeneration of GM cassava cuttings is not possible. Contamination can spark **dramatic economic losses** for farmers practicing organic farming who can lose their organic certification and premium they earn from the crop.



Should farmers be worried about GM cassava?







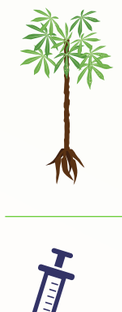
There are risks of cross contamination. Farmers grow a multitude of cassava varieties in their farms as a coping mechanism to reduce risk of crop loss.

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Risks of loss of locally adapted cassava and indigenous varieties



Risks high costs of the cuttings used for propagation



Majority of farmers practice mixed farming to ensure food security and for soil regeneration and risk management. GM cassava encourages farmers to use monocropping hence losing the benefits related to mixed farming.



GM cassava event 4046 variety will be put in the farmer preferred cassava varieties adapted to the different agroecological regions if approved which could change the taste, maturing period and other characteristics of their known cassava.

Approaches to curb spread of Cassava Brown Streak Disease

- **Use of clean propagative material** during planting reduces disease infestation
- **Crop rotation:** Farmers should plant crops of different families to reduce pest and disease infestation
- **Use of the cassava varieties** that are known to be resistant to the disease such as MM series, Mh series, DM 13 and Migyeera
- **Farmers should avoid transportation of cuttings** from one region to another, to reduce contamination of the less disease prevalent regions



What should farmers' demand?

1. Advocacy for a clearer (and farmer friendly) framework on the process of release and containment.
2. Advocacy for the release of the GM crop in places with high severity of disease rather than countrywide.
3. Strong local level monitoring frameworks to ensure containment measures are adhered to.
4. A multi-stakeholder approach to solving the CBSD problem should be used, as this has been done before rather than genetically modify a staple crop.

Feedback section

A. Do you know what GMOs are?
B. Do you support the Kenyan Government proposed move to introduce GM cassava?

Let us know your thoughts:

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If you have any information that we've not included in the poster, on how you deal with Cassava Brown Streak Disease, please email us on: info@kbioc.org