



Rwanda Agri-Biotech Programme



Biotech KingaKUU Cassava in Rwanda:

Questions & Answers



Q1. What is biotech KingaKUU cassava?

Biotech KingaKUU cassava has been improved to provide very strong resistance to cassava brown streak disease (CBSD) and cassava mosaic disease (CMD), as well as the high storage root yields desired by farmers. CBSD and CMD are the most destructive cassava diseases in Rwanda. These diseases are expanding in Rwanda, leading to a **73% decline in cassava yields**. In severe infections, CBSD can result in up to 100% loss of usable storage roots.



Q2. How will Rwandan farmers benefit from the new biotech KingaKUU cassava varieties?

Farmers currently have no options to protect their cassava from CBSD and CMD. No chemical applications are effective, and no conventional varieties are available that carry high level, durable dual resistance to both diseases.

Biotech KingaKUU cassava varieties offer many benefits, including:

- **High-level protection against cassava brown streak disease**
- **High-level protection against cassava mosaic disease**
- **Bigger overall yields, with high yields of storage roots**
- **Better quality cassava**
- **Improved farm productivity**

This in-plant dual protection against two destructive cassava diseases prevents total crop loss and assures the farmer of better yields and higher incomes.

Q3. Why are biotech cassava varieties being grown in Rwanda?

The Rwanda Agri-Biotech Programme, with the support of the Government of Rwanda, is improving cassava, maize, and potato to protect these important foods against the insect pests and diseases that destroy crops. Currently, farmers have no tools to protect their crops against CBSD and CMB. *Biotech cassava offers in-plant protection from these two destructive diseases.*

The Rwanda Agri-Biotech Programme is using the modern tools of biotechnology to:

- Protect cassava farmers from **total (100%) yield loss**
- Reduce maize yield losses by **up to 75%**
- Cut potato yield losses by **more than 70%**

This will benefit more than 500,000 farmer households through higher yields, food security, reduced pesticide use, and economic growth.

MODERN TOOLS TO PROTECT FARMERS FROM:





Q4. How was biotech cassava developed?

Researchers developed KingaKUU cassava by activating defensive mechanisms within the plant that can resist CBD and CMD. Biotech cassava has been evaluated over a period of eight years in multiple locations in Rwanda, Kenya, and Uganda, where it has shown high and durable resistance to both diseases.



Q5. Does biotech KingaKUU cassava require processing to reduce cyanogenic content?

No. KingaKUU cassava is a sweet variety with very low cyanogenic content.



Q6. Does biotech KingaKUU cassava require special chemicals or farming practices?

No. Biotech KingaKUU cassava is planted and grown in the same way as other cassava varieties released by RAB. It requires no chemicals and can be grown with other crops.

Q7. Can farmers replant biotech KingaKUU cassava?

Yes. Biotech KingaKUU cassava cuttings can be replanted in the same way as other cassava varieties released by RAB.



Q8. Can cassava farmers share biotech KingaKUU cassava planting material?

Yes. Farmers will be free to share stem cuttings of biotech KingaKUU cassava in the same manner as other cassava varieties. Farmers are advised to source clean planting materials after every three seasons.



Q9. Is biotech cassava safe?

Yes. Biotech cassava varieties are safe for human and animal consumption. KingaKUU cassava has undergone a strict risk assessment by expert regulatory authorities in Rwanda.





Q10. How does Rwanda review the safety of biotech cassava?

The Government of Rwanda has adopted a robust legal and institutional framework for the safe and responsible use of modern biotechnology. The Rwanda Environment Management Authority (REMA) conducts safety assessments before any biotech varieties can be grown and used. REMA considers changes in the biotech crop compared to conventional varieties; any potential risk to the environment where the biotech crop would be released; and the food and feed safety of the biotech crop and any products derived from it. The variety evaluation is done by the Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA).



Q11. Is biotech cassava approved in Rwanda?

Yes. Research partners, working with REMA and RICA, are currently conducting field trials for biotech KingaKUU cassava and developing new high-yielding varieties with strong resistance to CBSD and CMD.

Q12. When will Rwandan farmers be able to access biotech KingaKUU cassava?

Farmers will be able to plant the biotech cassava after national performance trials are completed and the best varieties for Rwanda's growing conditions are selected and registered in the variety catalogue.



Q13. How much will biotech KingaKUU cassava planting material cost?

Biotech KingaKUU cassava planting material will be available to farmers at the same price as other cassava varieties.



Q14. Who owns biotech KingaKUU cassava varieties?

The Rwanda Agriculture and Animal Resources Development Board and its partners under the Rwanda Agri-biotech Programme, a public-private partnership, have negotiated access to the Biotech Cassava varieties to make them available to farmers in Rwanda.





For more information, contact: The **Rwanda Agriculture and Animal Resources Development Board (RAB)**, P.O. Box 5016, Kigali. Email: info@rab.gov.rw, Website: <https://www.rab.gov.rw/>