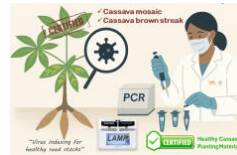


Cassava virus indexing: Molecular diagnostics for cassava seed health certification

Virus diagnostic tool for cassava seed health certification by seed producers and seed certifiers.

Cassava virus indexing is a method used to detect and remove virus-infected cassava plants early in the seed production process. It uses advanced diagnostics like **PCR** and **LAMP** to ensure only virus-free plants are used. This helps maintain seed quality, strengthens crop health, and supports seed certification efforts, making it essential for seed producers and certifiers in cassava-growing regions.



Commodities

Cassava

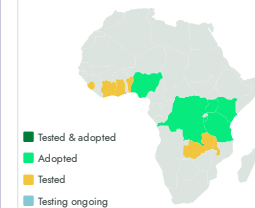
Sustainable Development Goals



Categories

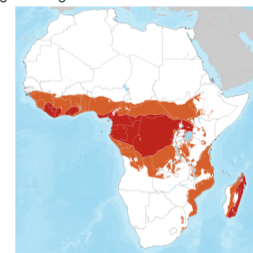
Pre-production, Practices,
Pest control (excluding weeds), Seed system

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Breeders, Seed companies,
Advisory and Extension Services,
Seed Regulators

This technology is **pre-validated**.

9.8


Scaling readiness: idea maturity
9/9; level of use 8/9

Gender assessment

4

Climate impact

3

Problem

- Virus-infected cassava planting materials are often unknowingly used in seed production.
- Vegetative propagation (e.g., stem cuttings) increases the risk of virus transmission.
- Cassava crops are highly vulnerable to damaging viruses like CMD (Cassava Mosaic Disease) and CBSD (Cassava Brown Streak Disease).
- Lack of effective screening tools leads to poor seed quality and crop losses.
- Seed certification systems often lack reliable diagnostics for virus detection.
- Infected planting materials can harm the reputation and income of seed producers.
- The absence of systematic testing allows virus spread across farms and regions.

Solution

- Accurate detection** of viruses using PCR and LAMP techniques.
- Virus-free planting material** selection for better seed quality.
- Improved seed certification** by enabling diagnostic-based certification.
- Increased crop resilience** and yield by using healthy seeds.

Key points to design your program

Cassava Virus Indexing improves cassava seed quality and food security by detecting and removing virus-infected planting materials early.

To integrate it into your program:

- Raise awareness** among seed actors about the benefits of virus-free seeds.
- Train** lab and field staff in PCR/LAMP diagnostics.
- Fund** equipment, supplies, and testing costs.
- Monitor** impact through data on infection rates and seed quality improvements.

20,000 USD

Initial setup cost for a diagnostic lab

3 USD

Cost per sample for testing



No formal IP rights



<https://e-catalogs.taatafrica.org/org/technologies/cassava-virus-indexing-molecular-diagnostics-for-cassava-seed-health-certification>

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