

MandiPlus: Cutting dipping in insecticides for management of cassava whiteflies

Dip once, Defend for months — MandiPlus controls whiteflies, reduces viruses and boosts cassava yield

MandiPlus is a simple treatment for cassava cuttings that protects them from pests and diseases by soaking them in a mix of insecticide, fungicide, and a binder. This helps farmers use shorter cuttings, improves plant growth and yield, and makes planting cheaper and easier, especially for small farmers.



Cassava & Fruits

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This technology is **pre-validated**.

9.7



Scaling readiness: idea maturity 9/9; level of use 7/9

Inclusion assessment

Climate impact

2

3

Commodities

Cassava

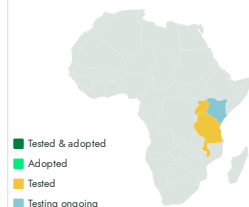
Sustainable Development Goals



Categories

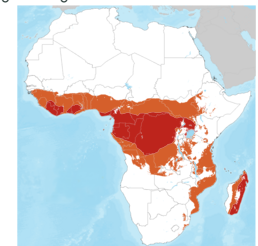
Production, Inputs, Pesticide

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Farmers, Seed companies

Problem

- Whiteflies damage cassava plants by feeding on them and spreading viruses
- Viruses like Cassava Mosaic Disease (CMD) and Cassava Brown Streak Disease (CBSD) cause up to 50% or more yield losses
- These issues have led to food insecurity and repeated famines in parts of Africa
- Economic losses from pest and virus damage exceed US\$1.25 billion in several countries
- Rising whitefly populations worsen crop damage and disease spread
- Smallholder farmers struggle to access healthy, disease-free planting materials
- MandiPlus protects cassava cuttings from pests and diseases, improving plant health and yields

Solution

- MandiPlus coats cassava cuttings with insecticide, fungicide, and binder to protect against whiteflies and diseases.
- It reduces whitefly populations by 85-88% and lowers virus diseases like CMD and CBSD by nearly half.
- The treatment improves sprouting and growth, increasing stem number by 119% and root yield by 50%.
- Allows use of shorter cuttings, reducing planting material needs and costs.
- Simple soaking application makes it easy for small farmers to use without complex equipment.
- Safety gear is recommended to protect farmers during application.
- Affordable and scalable, designed to boost cassava yields and incomes in virus-affected regions.

Key points to design your project

MandiPlus is a low-cost, easy-to-use cassava seed treatment that boosts yields and reduces pests and diseases, while supporting food security and farmer incomes.

To integrate it into your project:

- **Plan inputs & costs:** Estimate chemicals and supplies (USD 5–10/ha).
- **Secure supply chain:** Identify reliable sources, manage delivery, storage, and compliance.
- **Build capacity:** Train farmers and extension workers, with ongoing support.
- **Raise awareness:** Use flyers, videos, and radio in local languages.
- **Link with best practices:** Combine with good planting, soil, and pest management.
- **Foster partnerships:** Engage research bodies, extension services, agro-dealers, and cooperatives.

600 USD/Ha



Open source / open access



MandiPlus

<https://taat.africa/zbi>

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