TAAT e-catalog for **government**

https://e-catalogs.taat-africa.org/gov/technologies/propagation-of-banana-and-plantain-disease-cleaned-suckers

Propagation of Banana and Plantain Disease-Cleaned Suckers

Propagate Success with Clean Suckers

Macro-propagation involves two techniques: field-based (decapitation) and detached corm (beds). It ensures disease-free seedlings, promoting uniform growth and stress resistance. Clean knives and hardened sprouts are vital for success.

Complete decapitation with excised meristem (top) and sprouting suckers (bottom)

✓ This technology is TAAT1 validated.

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

Gender assessment 👍 4

Climate impact 👍 7

Problem

- Natural regeneration often results in contaminated banana and plantain planting materials, harming productivity and lifespan.
- Traditional methods result in non-uniform growth, affecting the overall efficiency of banana and plantain cultivation.
- Conventional methods may lead to stress-prone plantlets, negatively impacting their adaptation and performance in the field.

Solution

- Macro-propagation ensures the production of banana and plantain seedlings free from pests and diseases, promoting healthier and more resilient crops.
- Macro-propagation contributes to increased productivity and prolonged lifespan of banana and plantain plants .
- This technique reduces financial barriers by offering a low-cost method of obtaining disease-free seedlings
- Macro-propagation ensures more uniform growth of banana and plantain seedlings.

Key points to design your project

The adoption of Propagation of Disease-Cleaned Suckers technology presents an opportunity to enhance banana and plantain production. To integrate this technology into your project, consider the following steps:

- Ensure access to disease-free suckers for banana and plantain farmers at affordable prices.
- Educate farmers about the benefits of using disease-cleaned suckers and encourage their adoption of this technology.
- Provide training and certification to farmers on proper sucker selection and planting techniques to maximize yield.
- Collaborate with agricultural extension services to disseminate information and support the implementation of disease-cleaned sucker propagation.

Cost: $$$ **1500 USD per 8000 plantlets**

Nusery four months maintenance

ROI: $$$ **725—1050 USD**

Net profit per cycle

340 USD

2,500 plantlets shade house

2,300 USD

Cost of chamber of 8,000 plantlets

IP

Open source / open access

IITA
Transforming African Agriculture

International Institute of Tropical Agriculture (IITA)
Amah Delphine

Technology from

ProPAS

Commodities

Banana/Plantain

Sustainable Development Goals

1 NO POVERTY
2 ZERO HUNGER
8 DECENT WORK AND ECONOMIC GROWTH

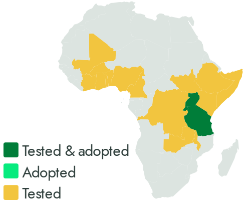
Categories

Production, Practices, Seed system

Best used with

- Improved Varieties of Plantain for Tropical Lowlands ›
- Improved Varieties of Banana for the African Highlands ›

Tested/adopted in



Where it can be used

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