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)

International Institute of Tropical Agriculture (IITA)
Amah Delphine

This technology is TAAT1 validated.

8·8 Scaling readiness: idea maturity 8/9; level of use8/9

Inclusion 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 program

Propagation of Disease-Cleaned Banana and Plantain Suckers can be integrated into food security, seed systems, agribusiness, and banana and plantain value chain programs to improve access to healthy planting materials, increase productivity, and strengthen farmer incomes. Its adoption contributes to **SDGs 1, 2, 8, and 15.**

To integrate this technology into your project, plan and budget for the following activities and prerequisites:

- Facilitate access to disease-cleaned planting materials and macro-propagation units.
- Build partnerships with IITA, research institutes, nurseries, extension services, and cooperatives.
- Train beneficiaries on macro-propagation, nursery management, and plant health practices.
- Promote women's and youth participation in seedling multiplication enterprises.
- Monitor seedling production, adoption rates, crop productivity, and employment creation.

340 USD	**2,300** USD	IP
2,500 plantlets shade house	Cost of chamber of 8,000 plantlets	Open source / open access

Technology from

ProPAS

Commodities

Bananas & plantains

Sustainable Development Goals

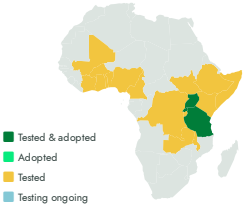
Categories

Pre-production, Practices, Seed system

Best used with

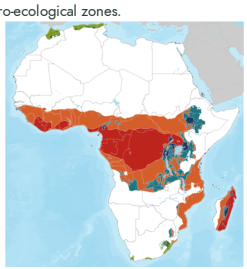
Improved Varieties of Plantain for Tropical Lowlands, Improved Varieties of Banana for the African Highlands
See all 2 technologies online

Tested/adopted in



Where it can be used

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



Target groups

Farmers, Seed companies