Climate-Smart and Market-Preferred Yam Varieties

More yield, better quality, stronger resilience!

Improved yam varieties are climate-smart, high-yielding, and early-maturing crops developed by IITA and partners. They produce 20–30 tons per hectare (compared to 5–10 from local yams), mature in 7–8 months, and are resistant to major pests and diseases. With uniform, consumer-preferred tubers and compatibility with modern seed multiplication methods, they strengthen food security and national seed systems.

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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 4 1

Problem

- Low national productivity from traditional yams (5–10 t/ha).
- Heavy losses due to pests, diseases, and drought.
- Long 10–12 month production cycles tie up land.
- Farmers lack affordable, quality seed yams.

Solution

- Boost yields to 20–30 t/ha, strengthening food supply.
- Pest/disease resistance reduces losses and pesticide costs.
- Early maturity allows double cropping and efficient land use.
- Seed yam compatibility improves affordability and availability.
- Storability and consumer traits enhance markets and nutrition.

Key points to design your project

Improved yam varieties address yield gaps, pest/disease losses, and climate stress in Sub-Saharan Africa. To integrate, focus on seed multiplication using minisett and hydroponics to lower costs and boost availability.

- Train farmers, especially women and youth, on agronomy and pest management.
- Use flyers, videos, and radio to raise awareness.
- Budget for certified seed procurement, delivery, and training support.
- Combine with sustainable practices like soil fertility management and mulching.

Collaborate with IITA, national institutes, seed companies, and community groups. This approach strengthens food security, climate resilience, and rural livelihoods.

IP

Open source / open access

Commodities

Yam

Sustainable Development Goals

1 NO POVERTY · 2 ZERO HUNGER · 13 CLIMATE ACTION · 15 LIFE ON LAND

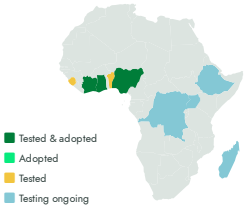
Categories

Pre-production, Improved varieties, Disease resistance, Yield improvement

Best used with

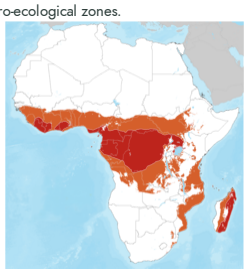
Semi-Autotrophic Hydroponics for yam multiplication
See all 1 technologies online

Tested/adopted in



Where it can be used

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



Target groups