

# Cassava varieties with high dry matter and starch content

Enhancing cassava yields and quality for greater food security in Africa.

This technology involves improved varieties of cassava with enhanced dry matter content. Through conventional breeding and other methods, these cassava varieties have been developed. These high-quality roots are well-suited to the needs of farmers and various industrial processes.



**IITA**  
Transforming African Agriculture

**International Institute of Tropical Agriculture (IITA)**  
Elizabeth Parkes

Technology from

[ProPAS](#)

Commodities

Cassava

Sustainable Development Goals



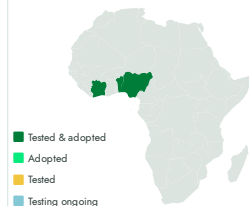
Categories

Production, Improved varieties,  
Yield improvement, Quality improvement

Best used with

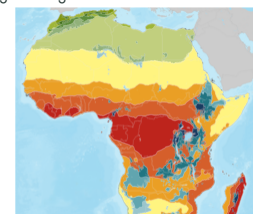
• [Digital Decision Support Tool](#)

Tested/adopted in



Where it can be used

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



✓ This technology is **TAAT1 validated**.

8-8



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

Gender assessment

4

Climate impact

5

## Problem

- **Low Dry Matter and Starch Content:** Traditional cassava varieties often have low dry matter and starch content, reducing their economic value and utility in food and industrial applications.
- **Limited Variety Options:** Farmers have limited access to high-quality cassava varieties, which restricts their ability to improve crop yields and quality.

## Solution

- **Higher Dry Matter & Starch:** Enhances root quality for fresh and industrial use.
- **Increased Yields:** Boosts cassava yield and economic returns.
- **Adaptability:** Resistant to pests, diseases, and harsh conditions.
- **Food Security:** Produces nutritious, high-yield crops.

## Key points to design your program

## A Solution for Cassava Cultivation

Improved cassava varieties with high dry matter and starch content tackle challenges such as low yields, poor root quality, and vulnerability to diseases. These varieties are ideal for fresh consumption and industrial uses, including starch, flour, and ethanol production, offering higher productivity and economic benefits for farmers and processors.

As part of the Cassava Toolkit, they synergize with other innovations to improve efficiency and sustainability:

- **Mechanized Cassava Planting and Harvesting:** Reduces labor and increases efficiency in planting and harvesting.
- **Mobile Cassava Processing Plant:** Minimizes post-harvest losses through on-site processing.
- **Semi-Autotrophic Hydroponics (SAH) for Cassava Multiplication:** Accelerates production of disease-free planting materials.
- **Cassava Seed-Bulking Farms:** Ensures a steady supply of pest- and disease-free cassava cuttings.
- **Solar Bubble Dryer:** Improves drying efficiency and product quality.

Cost: \$\$\$

ROI: \$\$\$

**35 ton/ha**

potential yield

**40 - 45 %**

dry mater content

**80 - 95 %**

starch content

IP

Plant variety protection



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<https://taat.africa/dnn>

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