DTMA & WEMA Drought Tolerant Maize Varieties and Water Efficient Maize Varieties

Enhance farm's resilience with DTMA and WEMA maize varieties, ensuring consistent yields even in unpredictable weather.

These seed technologies, developed conventionally and biotechnologically, enhance maize resilience to soil dryness and water scarcity, outperforming traditional varieties across various water stress levels in both dry and intermittently wet climates.

International Institute of Tropical Agriculture (IITA)
Jonga Munyaradzi

This technology is TAAT1 validated.

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

Gender assessment 5

Climate impact 7

Problem

- **Dependence on Rainfall:** Over 90% of African maize farming is rainfed, leaving crops vulnerable to unpredictable weather patterns.
- **Yield Instability:** Conventional varieties are highly sensitive to water availability, leading to inconsistent yields.
- **Crop Failure Risk:** Insufficient rainfall can result in complete crop loss, jeopardizing livelihoods.

Solution

- **Enhanced Resilience:** DTMA and WEMA outperform conventional varieties under various water stress levels.
- **Increased Productivity:** Adoption of these varieties leads to substantial increases in maize grain production.
- **Improved Crop Resilience:** Crops become more robust, with heightened resistance to dry spells and low rainfall.

Cost: $$$ **0.8—1.2 USD/kg**
Seed selling cost

ROI: $$$ **240 USD**
Income per Ha

0.6 ton/Ha
Yield increase

20—30 %
Larger grain harvest than common type

IP
Unknown

Technology originally documented by

ProPAS

Commodities

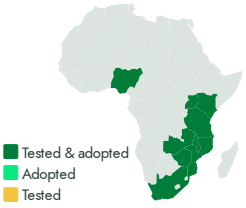
Maize

Sustainable Development Goals

Categories

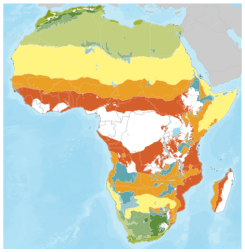
Production, Improved varieties, Disease resistance, Yield improvement

Tested/adopted in



Where it can be used

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



Target groups

Farmers