

# 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.



This technology is **TAAT1 validated**.

8·8



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

Inclusion assessment



Climate impact



## 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.

## Key points to design your project

- Estimate seed quantity needed (0.8 to 1.2 USD per kg, 25 kg/ha).
- Factor in delivery costs, import duties (available in Kenya, Malawi, etc.).
- Arrange training and post-training support.
- Develop communication materials (flyers, videos, radio).
- Optimize with complementary techniques (e.g., IR maize, fertilizer blending).
- Collaborate with agricultural institutes and seed companies for implementation.

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



Unknown



**African Agricultural Technology Foundation (AATF)**

Jonga Munyaradzi

Technology from

ProPAS

Commodities

Maize

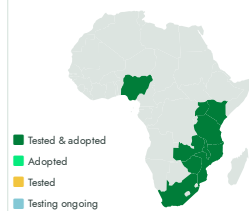
Sustainable Development Goals



Categories

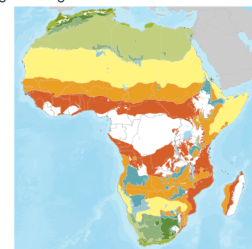
Production, Improved varieties, Disease resistance, Yield improvement

Tested/adopted in



Where it can be used

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



Target groups

Farmers



**DTMA & WEMA**

<https://taat.africa/nla>

Last updated on 30 June 2025, printed on 30 June 2025

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)