

Precision Fertilizer Micro-Dosing for Millet and Sorghum Yield Enhancement



Smarter Fertilizer, Stronger Crops: Maximize Growth with Minimal Input

The Fertilizer Micro-Dosing for Enhanced Yield and Efficiency Technology is a practice that involves applying small amounts of fertilizer in shallow holes at the base of each plant. This precise method is low-risk, affordable, and efficient.



This technology is **TAAT1 validated**.

8-7



Scaling readiness: idea maturity: 8/9; level of use: 7/9

Cost: \$\$\$ **43 USD/ha**

Application without equipment

ROI: \$\$\$ **15—108 %**

Increase in yield



Open source / open access

Problem

- Nutrient deficiencies in millet and sorghum
- Inefficient and risky fertilizer application methods
- Insufficient nutrient replenishment and gradual soil fertility decline
- Crop failure risk due to drought discouraging fertilizer investment

Solution

- Addressing nutrient deficiencies in millet and sorghum
- Providing a low-risk and precise fertilizer application method
- Fostering rapid crop growth

Key points to design your business plan

Micro-Dosing benefits farmers by optimizing millet and sorghum cultivation through precise, low-risk fertilizer application.

To implement:

1. Identify fertilizers: Millet (50 kg/ha, 16,666 plants) and Sorghum (100 kg/ha, 26,666 plants). Use NPK (15-15-15) or DAP fertilizers.
2. Estimate production costs and fertilizer needs based on planting density.
3. Provide training for effective adoption.
4. Partner with agro-dealers for reliable fertilizer supply.
5. Evaluate the profitability of the practice to demonstrate its benefits to farmers.

Gender assessment

4

Climate impact

7



International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
Dougbedji Fatondji

Technology from

ProPAS

Commodities

Sorghum/Millet

Sustainable Development Goals



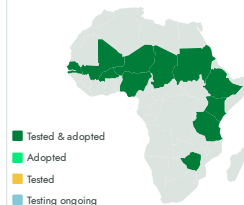
Categories

Production, Practices,
Fertilizer management

Best used with

- [Millet and Sorghum Varieties for Better Nutrition and Stress Resistance >](#)
- [Dual-purpose Millet Varieties for Crop and Livestock Integration >](#)
- [Proactive Management of Striga Infestation >](#)

Tested/adopted in



Where it can be used

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



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<https://taat.africa/nxc>

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