

# Pre-emergence herbicides for maize crops

Unlocking Maize's Full Potential

"Pre-emergence herbicides for maize crops" is an innovative technology in Sub-Saharan Africa that prevents weed seedling root development, enhancing maize crop growth and increasing grain yields cost-effectively.



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This technology is **TAAT1 validated**.

7·7

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

Gender assessment 4

Climate impact 5 1

## Problem

- High weed encroachment in Sub-Saharan Africa reduces grain yields and agricultural returns.
- Manual or mechanical weed removal is labor-intensive and costly.
- Other weed control methods may spread weed seeds, leading to long-term issues.
- Multiple herbicide applications are often needed throughout the growing season.
- Herbicide formulation and timing vary based on regional factors.

## Solution

- Pre-emergence herbicides control weeds early, boosting maize yields.
- They improve fertilizer efficiency and crop resilience to drought.
- Prevent weed seed dispersal, reducing future encroachment and herbicide use.
- Combined with post-emergence herbicides, they optimize weed control.
- Adaptable to various climates with customizable formulations.

Cost: **\$\$** 27 USD

Application of pre-emergence herbicide/Ha

**0.7 - 1.6 Ton per hectare**

Grain yield increase

ROI: **\$\$\$** 61—80 %

Reduction in weeds

**349 USD**

Gross margin per hectare



Open source / open access

Technology originally documented by

ProPAS

Commodities

Maize

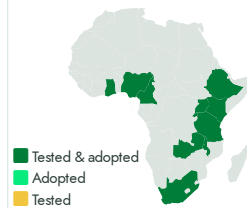
Sustainable Development Goals



Categories

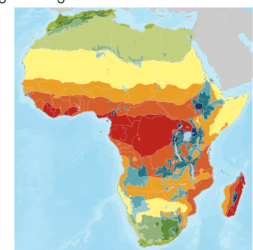
Production, Practices, Weed management

Tested/adopted in



Where it can be used

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



Target groups

Farmers



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<https://e-catalogs.taatafrica.org/org/technologies/pre-emergence-herbicides-for-maize-crops>

Last updated on 22 May 2024, printed on 22 May 2024

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