

# 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.



**African Agricultural Technology Foundation (AATF)**

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This technology is **TAAT1 validated**.

7-7



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

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 from

ProPAS

Commodities

Maize

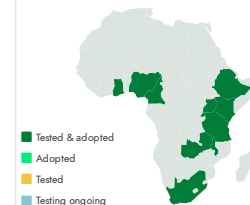
Sustainable Development Goals



Categories

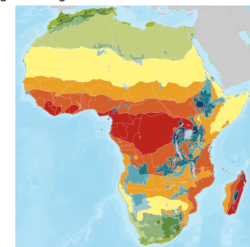
Production, Inputs, Fertilizer

Tested/adopted in



Where it can be used

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



Target groups

Farmers

## 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.

## Key points to design your business plan

For Seed Multiplier:

- Pre-emergence herbicide technology transforms crop productivity sustainably, benefiting farming communities and global nutrition.
- Adhering to local regulations is crucial for agro-input companies.
- Identifying reliable suppliers is key for efficient production.
- Wholesale distributors, projects, and agencies are potential clients.
- Strong partnerships with distributors are essential for success.

For Users:

- Pre-emergence herbicides boost crop productivity and sustainability by curbing early weed growth.
- Consider delivery and import costs for project sites across Africa.
- Budget for herbicides and labor, with specific rates depending on the blend used.
- Cost analysis shows increased grain yield and revenue with herbicide use.
- Collaborate with institutes and suppliers for support and distribution.

Gender assessment

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Climate impact

5

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<https://taat.africa/wyr>

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