

Climbing Bean with High Yield and N Fixation

Growing Prosperity: Climbing Beans for Food Security & Income Growth



Climbing beans, with their long vines and high growth, are a valuable crop for small-scale farmers in Sub-Saharan Africa. Improved varieties, bred for productivity, resilience, and superior nitrogen-fixing abilities, contribute significantly to food security and income in the region. These beans are also processed into various products for local and international markets.

This technology is **TAAT1 validated**.

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

Gender assessment 4

Climate impact 7

Problem

- Agricultural Challenges:** Limited yields and susceptibility to pests and diseases affect small-scale farmers.
- Environmental Stresses:** Drought, poor soil quality, and nitrogen-depleted soils hinder bean cultivation.
- Food Insecurity:** These challenges contribute to food insecurity and malnutrition in small-scale farming communities.

Solution

- Higher Yields:** Climbing beans yield more than bush beans.
- Pest/Disease Resistance:** These varieties resist common pests and diseases.
- Stress Tolerance:** They thrive in adverse conditions.
- Nitrogen Fixation:** The technology reduces fertilizer costs.
- Food Security:** They provide a reliable food source for small-scale farmers.

4.6 t/ha Potential yield	92 kg N fixed per ha	28 % Increase in bean consumption	IP Trademark
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Alliance

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)
Josey Kamanda

Technology from
ProPAS

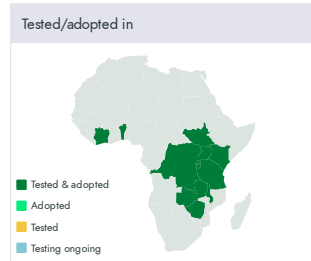
Commodities
Common bean

Sustainable Development Goals

Categories
Production, Improved varieties,
Disease resistance, Insect resistance

Best used with

- [Low-Cost Staking for Climbing Beans >](#)
- [Seed Inoculation with Rhizobia >](#)
- [Seed dressing of Seed with Fungicide and Insecticide >](#)



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



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<https://e-catalogs.taatafrica.org/org/technologies/climbing-bean-with-high-yield-and-n-fixation>

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