

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**.

8·7



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

4.6 t/ha

Potential yield

92 kg

N fixed per ha

28 %

Increase in bean consumption



Trademark

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.

Key points to design your business plan

Seed Multiplier: Producing climbing bean varieties is a sustainable solution that empowers farming communities and contributes to global wellbeing. Seed multipliers need to acquire Foundation or Registered Seed and adhere to licensing requirements for producing and selling certified seeds. Their potential customers include wholesale distributors, development projects, government agencies, and NGOs.

Resellers: Reselling climbing bean varieties enhances health and wellbeing globally. Resellers need to source climbing bean varieties in bulk, identify efficient transportation methods, and find suitable storage facilities. Their potential customers include local retailers, development projects, producers, and producer cooperatives.

User: Using climbing bean varieties fosters economic empowerment and enhances the wellbeing of farming communities. Users need sellers of climbing bean varieties and must consider costs of seeds, labor, and fertilizer inputs to estimate potential profit.

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



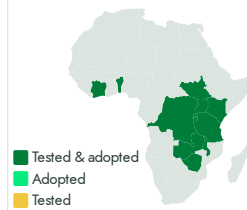
Categories

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 >](#)

Tested/adopted in



Where it can be used

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



Gender assessment

4

Climate impact

7



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

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