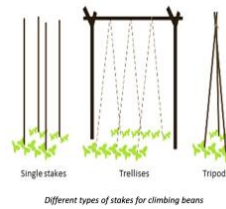


Low-Cost Staking for Climbing Beans

Empowering Beans, Sustaining Growth!

The Low-Cost Staking practice provides affordable solutions for supporting climbing bean cultivation, aiming to reduce reliance on wooden stakes and mitigate deforestation caused by their overharvesting.



Different types of stakes for climbing beans

Alliance

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)
Justin Mabeya Machini

This technology is **TAAT1 validated**.
 8•8
 Scaling readiness: idea maturity 8/9; level of use 8/9

Gender assessment **4**

Climate impact **7**

Problem

- Farmers face expense issues with plant support, leading to yield losses.
- Shortage of wooden stakes affects plant density and yield.
- Overharvesting of stakes harms forests and afforestation efforts.
- Knowledge of optimal density and stake length varies with method.

Solution

- Offers farmer-acceptable, lower-cost staking innovations.
- Utilizes tripod arrangements and string trellises to reduce wooden stakes.
- Recommends the use of agroforestry species and tall grasses for stakes.
- Improved yield and climbing bean production.

Technology from **ProPAS**

Commodities
Common bean

Sustainable Development Goals

Cost: **\$\$**

<p>300 %</p> <p>Increase in yields compared to bush beans</p>	<p>20,000—50,000</p> <p>stakes per hectare</p> <p>Staking density for highest yields</p>	<p>2 meters</p> <p>Height of stakes for highest yields</p>	<p>~200,000</p> <p>plants</p> <p>Plant population per hectare</p>	<p> IP</p> <p>Open source / open access</p>
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Categories
Production, Practices, Yield improvement, Production system

Best used with

- [Climbing Bean with High Yield and N Fixation >](#)

Tested/adopted in

■ Tested & adopted
■ Adopted
■ Tested
■ Testing ongoing

Where it can be used

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

