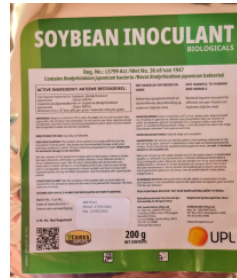


# Soybean inoculant: Rhizobium inoculant range, various strains

N-fixing bacteria to reduce chemical fertilizer use

Stimulant is a specialized range of inoculants designed for various legume crops. It capitalizes on a unique symbiotic relationship between the legume plants and a beneficial bacterium known as Rhizobia. This natural partnership results in the addition of significant nitrogen levels to the soil, ranging from 40 to 150 kg per hectare.



Stimulant company, UPL  
Florent Clair

This technology is **validated**.

9-9



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

Gender assessment 5

Climate impact 7

## Problem

- Nitrogen limitation hampers plant growth, particularly affecting legume crops.
- Soil degradation arises from excessive reliance on chemical fertilizers.
- These factors culminate in economic hardships and food insecurity among farmers.

## Solution

- UPL Powder Carrier Technology shields bacteria from harsh environmental conditions like high temperatures and pH fluctuations.
- It holds the CERES organic certification, meeting stringent organic standards.
- Tailored packaging suits the needs of smallholder farmers, enhancing accessibility.
- The powder formulation extends shelf life to 9 months, reducing wastage and improving efficiency.

## Key points to design your project

To integrate this technology into your project, follow these steps:

- Estimate the quantity of products needed based on a cost range of USD 15-25 per hectare.
- Consider the accessibility of the technology in South Africa and calculate delivery costs, including potential import clearance and duties.
- Arrange training and support from a team of trainers during installation, factoring in the associated costs.
- Develop communication materials such as flyers, videos, and radio broadcasts to raise awareness about the technology.
- Enhance the effectiveness of the improved maize variety by companion planting with soybean varieties resistant to pests and diseases, and focus on nutrient fertilization.
- Collaborate with agricultural development institutes and agro-dealers to facilitate technology implementation in your country.

Cost: \$\$\$ **15–25 USD**

Product cost /ha

ROI: \$\$\$ **35 %**

Yield increase



Open source / open access

### Commodities

Soybean, Groundnut, Cowpea,  
Common bean

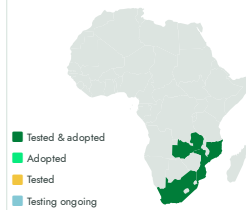
### Sustainable Development Goals



### Categories

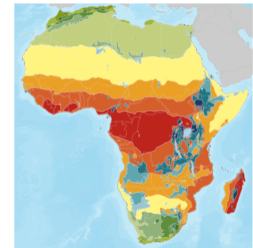
Production, Inputs, Inoculant

### Tested/adopted in



### Where it can be used

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



### Target groups

Farmers



## Soybean inoculant

<https://e-catalogs.taatafrica.org/gov/technologies/soybean-inoculant-rhizobium-inoculant-range-various-strains>

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