**Benefits**

**For the soil:**
- Maintains soil nitrogen levels
- Promotes growth of other useful microorganisms
- Provides increased soil organic matter
- Can help control striga

**For the yield:**
- Can improve yield by 50%
- Improves protein quality of crops

**For economic value**
- It is cheaper than ordinary nitrogen fertilizer
- The small sachet are very easy to transport

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**Target crops**

- **Rhizobium leguminosarum phaseoli** for common bean
- **Bradyrhizobium elkanii** for cowpea
- **Bradyrhizobium japonicum** for soybean
- **Rhizobium spp** for groundnut

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**Information for suppliers and retailers**

**Quality of inoculant**
- Strain should be efficient for target crops.
- Ensure good quality carrier material, free from microbial contamination
- Adequate number of efficient and viable bacteria cells

**Handling and storage**
- Transport and store at correct temperatures i.e. 10°C-28°C
- Do not expose to direct sunlight
- Do not transport or store together with chemicals
- Do not stock longer than the expiry date.

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**For more information, contact:**
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What is bio-fertilizer?

An organic fertilizer containing living cells that help plants uptake of nutrients when applied to seed or soil.

Rhizobia-based bio-fertilizer contains symbiotic bacteria capable of invading and eliciting root or stem nodules on leguminous crops to convert atmospheric nitrogen, into ammonia in plant roots.

For rhizobia-based fertilizer to be effective in legumes, phosphate fertilizers are needed.

How to apply

Step 1: Prepare 16kg of clean seed, enough for 1 acre

Step 2: Pour 300ml of clean lukewarm water into a 500ml bottle

Step 3: Add 2 tablespoons of sugar to the water and mix thoroughly

Step 4: Add the sugar solution to the prepared seed and mix evenly

Step 5: Shake the sachet of inoculum to break clods. Open sachet under shade and pour into the prepared seed in a basin

Step 6: Mix the seed and inoculant and slowly shake until seeds are uniformly coated. Be careful not to split or peel the outer coat of seeds.

Step 7: Plant all the coated seed immediately after inoculation

Repeat the same process Until the field is planted.