



STANES SYMBION[®] VAM PLUS

PHOSPHORUS MOBILIZER

Composition: **Vesicular Arbuscular Mycorrhiza**



General Description

Symbion VAM Plus is a carrier-based microbial inoculant consisting of selected strains of viable micro-organisms like the Phosphorus solubilising bacteria *Bacillus megathrium* and a combination of different species of VAM fungi like *Glomus sp.* These solubilise and mobilise Phosphorus and other plant nutrients.

Mode of action

- * The phosphorus solubilising bacteria, *Bacillus megathrium*, solubilises the unavailable form of phosphates and make it available to the plants.
- * The VAM fungi are associated with the plant in a mutually beneficial relationship. The VAM fungi, (*Glomus sp.*) develop extensive network of external hyphae which increase the absorbing capacity of plant roots by exploring a greater volume of soil normally inaccessible to the plant.
- * The network of fungal filaments established simultaneously inside the roots and the surrounding soil considerably increases the volume of soil to which the root system has access. Water and nutrients are made available resulting in a better nutritive equilibrium. This results in an increase in plant resistance to environmental stress such as drought, chilling and the detrimental effect of some root pathogens.
- * Fungi are heterotrophs and they benefit by obtaining from their plant partners increased sources of carbohydrates, amino acids, vitamins, and other elements essential for its growth. This interaction between plants and fungi creates a real symbiotic relationship and is advantageous to both the partners.

Maximising the benefits of Symbion VAM

- It is recommended that Symbion VAM Plus be inoculated as early in the plants life cycle as practically feasible. The best strategy for inoculating Symbion VAM into an existing system is by side dressing, vectoring or probing into the root zone.
- Direct inoculation of the root during germination or rooting can enhance the quality and quantity of mycorrhizal formation.

Recommended Application Rates

Soil Application.

- 12kg per Hectare of Symbion VAM Plus bulked in 150- 200kgs of farmyard manure, jungle soil or field soil (or along with 1000kgs of commercial organic manure or other bio-fertilizers)
- 25-30 gm per potted plant.

Added benefits

- Stanes Symbion VAM Plus increases nutrient uptake of Phosphorus and Zinc by mycorrhizae.
- Symbion VAM Plus may save upto 50% Phosphatic fertilizer without reducing the yield.
- Symbion VAM Plus produces growth-promoting substances.
- Imparts tolerance to drought, salinity, and resistance to plant pathogens and higher survivability to various environment stresses.
- It increases the plant biomass, precocity in flowering and fruit maturation.
- Compatible with biofertilizers and biocontrol agents.



Leaf spt(Peas)



Leaf spot(Tomato)



Leaf spot(Pumpkin)



Septoria(Tomato)



Osho Chemical Industries Ltd.

Osho Complex, Sasio Road, off Lunga Lunga Road, Industrial Area, Nairobi, Kenya.
P.O. Box 49916 GPO 00100 Nairobi, Kenya • Tel: +254 20 533621/3, 531428, 532939/40, 650195/6.
Fax: +254 20 531429, 650197 • E-mail: oshochem@oshochem.com • Web: www.oshochem.com