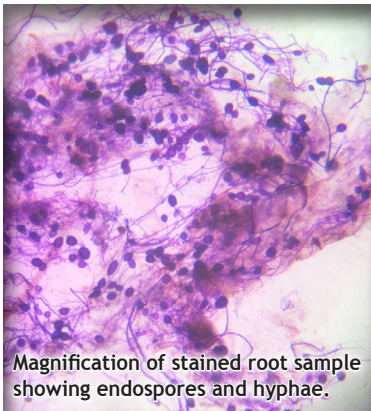




# ARBUSCULAR MYCORRHIZAL

## GRANULAR INOCULANT



Magnification of stained root sample showing endospores and hyphae.

### Sustane Arbuscular Mycorrhizal Inoculant - Granular

The use of mycorrhizal fungi is used to treat disturbed soils that have been depleted of beneficial microorganisms. Mycorrhizae are major facilitators in soil microbiological processes. The addition of mycorrhizal inoculants has a positive effect on microbial populations by providing an environment for organisms that aggregate the soil, convert matter to available plant nutrients and suppress pathogens, which are generally present in higher populations when mycorrhizae are not present and when soils are compacted and anaerobic.

**Background on Mycorrhizal Fungi:** Mycorrhizal fungi are living organisms that provide several benefits for their host plant. These organisms are entirely dependent upon their symbiotic relationship with plants for survival and consequently provide a number of services and materials to assure their host plant's survival and productivity.

**Sustane utilizes four species** selected for wide range of ecosystems and climates: *Glomus intraradices*, *G. Etunicatum*, *G. Deserticola*, and *G. Clarum*. Sustane guarantees 120 propagules per cubic centimeter. Mycorrhizae are available from Sustane in 11 lb. and 40 lb. bags or custom blended into Sustane fertilizers. Recommended application rate is 60 lb. per acre applied with hydroseed or seed drill.

#### Key Benefits of Sustane mycorrhizae:

- Efficient use of water and plant nutrients:** Upon colonization of the host plant, mycorrhizae begin to significantly increase the plant's access to the soil resource pool by extending (literally miles of additional) microfilaments known as hyphae throughout the rhizosphere (root zone). These threadlike structures extract both soil moisture and plant nutrients from an enlarged area and from minute sites that are inaccessible to bare roots drawing water and nutrients from a volume of soil that is 40 to 50 times greater than what the plant alone can access.
- Enhanced Plant Immune and Defense System:** Mycorrhizae provide access to soil nutrients such as phosphorous, calcium, sulfur, ammoniacal nitrogen and zinc. These specific plant nutrients are key to the plant's formation of immuno-defense compounds such as alkaloids, terpenes phenols, and flavinoids. When these compounds are present at sufficient levels in a plant it has the capacity to fend off pests and pathogens.
- Improved Soil Structure:** As mycorrhizal hyphae develop they excrete a glue-like substance called "glomalin". Glomalin is an important substance found in well-aggregated soils that creates additional porosity, which allows for increased movement of air, water and beneficial soil organisms throughout the soil profile. Many of the common root pathogens actually prefer waterlogged and compacted soils (anaerobic conditions). Conversely, an oxygen-rich (aerobic) soil environment created by well aggregated soils favors many of the beneficial microorganisms that assist plants in soil mineralization (of plant nutrients) and help in the suppression of plant and soil pathogens.

#### Auxiliary Soil & Plant Substance

Contains vesicular arbuscular mycorrhizal fungi  
**VAM Mycorrhiza ..... minimum of 120 propagules / cc**  
**84 propagules / cc *Glomus intraradices***  
**12 propagules / cc *Etunicatum***  
**12 propagules / cc *Deserticola***  
**12 propagules / cc *Clarum***

Use this product within two years of date stamped on this label.  
 Store in a cool dry place. Treat inoculum similar to seed.  
 Keep out of reach of children.

### Sustane® Natural Fertilizers Inc.

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