



Mycorrhizal Inoculum

Restoration / Land Reclamation

Mycorrhizal fungi are a necessary component of a self-sustaining ecosystem. Disturbance from construction, erosion and certain agricultural practices can deplete the presence of this organism from the soil. Any natural re-entry of fungi can be slow and often impossible. **AM 120** provides *Glomus Intraradices* for improved reestablishment of native host plants. As restoration proceeds, various dynamic functions begin to occur.

Improved survival of most native grasses, forbs, shrubs and trees:

Mycorrhizae extend root systems 40 times or more for greatly improved water and nutrient absorption. Adding mycorrhiza back to disturbed sites has consistently increased native plant establishment by 50 – 100% or more.

Suppression of weedy non-mycorrhizal plants:

The close association between the host plants and fungi restrict growth of non-host weeds. This is due to the efficient uptake and storage of plant nutrients and water by the fungi for the native plants and by allelopathy.

More efficient use of available moisture and nutrient supplies:

By radically increasing plants' effective root systems, mycorrhiza increase the ability of plants to survive and tolerate dry or low nutrient soils. Mycorrhiza have been shown to directly mineralize nutrients from the soil and help decompose and scavenge nutrients from organic material. Mycorrhizae help mitigate nutrient runoff concerns and the need for repeated fertilizer applications.

Increased soil biota activity:

The several miles of mycorrhiza filaments that occupy each square meter of soil breakdown organic matter, stimulate other beneficial organisms such as *Trichoderma* and act as a conduit by which beneficial microorganisms can associate throughout the root zone.

Improved soil aggregation and aeration:

Mycorrhizae produce "glomalin", a substance that acts as a soil-binding agent, improving particle aggregation. This leads to a more stable soil with improved drainage, aeration and greater resistance to erosion.

Carbon sequestering:

Up to 30% of the soils' biomass is a result of mycorrhizal activity. Mycorrhiza increase their production of organic material at elevated carbon dioxide levels.

Mycorrhiza
A close physical association between a fungus and the roots of a plant, from which both fungus and plant appear to benefit; a mycorrhizal root takes up nutrients more efficiently than does an uninfected root. A very wide range of plants can form mycorrhizas of one form or another, and some plants (e.g. some orchids and some species of *Pinus*) appear incapable of normal development in the absence of their mycorrhizal fungi.



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AM120

Arbuscular Mycorrhizal Inoculum

ENDOMYCORRHIZAL INOCULUM: Endo (arbuscular) mycorrhizal inoculum shall consist of spores, mycelium, and mycorrhizal root fragments in a solid carrier suitable for handling by hydro-seeding or dry seeding equipment. The carrier shall be the material in which the inoculum was originally produced, and may include organic materials, vermiculite, perlite, calcined clay or other approved materials consistent with mechanical application and with food plant growth. Each endomycorrhizal inoculum shall carry a supplier's guarantee of numbers of propagules per unit weight of volume of bulk material.

Use

Endomycorrhizal inoculum is a live material: it shall be transported and stored with a temperature of less than 32° C (90° F). Store under cool dry conditions. Do not expose inoculum to direct sunlight for extended periods of time.

Caution: This product produces dust...always wear a dust mask when handling.

Seeding Rates: 60lbs. Per acre (67.5 kg/ha)/1.4 lbs. Per 1,000 ft²(0.7 kg / 100 m²). Rate provides approximately 3,600,000 living propagules per acre (8,956,000 propagules /ha).

Hydroseeding: Apply in first pass with seed and a controlled release or organic fertilizer. A second pass with mulch to cover exposed seed and inoculum is recommended.

Seed Drilling: Incorporate into the soil at a depth ranger at or below the seed.

Broadcast and Till: Evenly distribute across seedbed after seeding. Cover the exposed seed and inoculum by harrowing, chain dragging or applying an organic topdressing. Do not leave inoculum exposed to sunlight for more than four hours.

Row Crop Applications: Side dress seed furrows or transplants at rates of 5 to 8 lbs. per acre (5.61 kg/ha) on 30 inch to 40 inch spaced rows. Rate provides 18 to 28 living propagules per linear foot of row crop (60 to 90 living propagules per meter of row crop). Incorporate at 2 inches to 6 inches (5 to 15 cm) below soil surface.

Nursery Medium: Evenly blend at 5 lbs per yd³ (3 kg. Per m³). 1 lb. (454 grams) contains approximately 60,000 living propagules. Rate provides 300,000 living propagules per yd³ (396,000 living propagules per m³) or 6.5 living propagules per in³.

Statement of Claims:

RTI certifies that this product contains one or more species of mycorrhizae fungi at a minimum rate of 120 propagules per cubic centimeter. The Mycorrhizal symbiosis is sensitive to environmental conditions and RTI is unable to make any guarantees beyond the above statement.

**Auxilliary Biotic Soil and Plant Substance
Non Plant Food Ingredient**



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