

MYCORRHIZAL FUNGI

What are mycorrhizal fungi?

They are root-inhabiting, symbiotic fungi that colonize the fine absorbing roots of more than 99 percent of Earth's plants. The fungi colonize tree and plant roots, thereby increasing the surface area of the roots. The mycorrhizae absorb water and essential mineral elements which they share with their host plant. Some mycorrhizal forms can increase the absorptive surface area of root systems by more than 700 percent when compared to nonmycorrhizal roots.



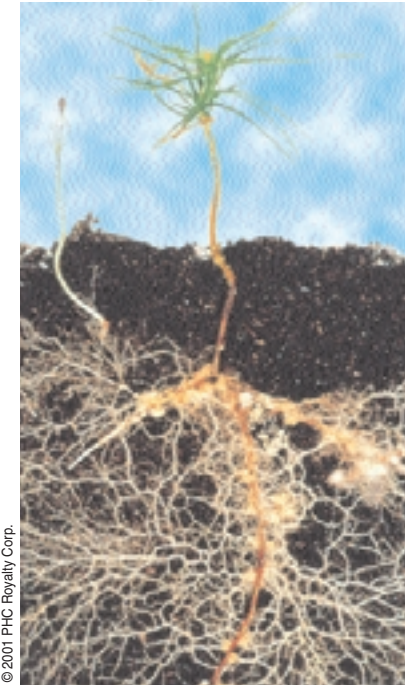
Schematic illustration of Vesicular Arbuscular Mycorrhizae (VAM) Root

Why do we need them?

Trees and plants with thriving mycorrhizal root systems are better able to survive and compete in stressful man made environments. Their need for mycorrhizal fungi is even greater than in natural forests because there is more stress in urban environments and less available water, nutrients and organic matter. In addition, most nursery plants are grown in soilless mixes and fumigated soils, so they do not contain mycorrhizal fungi. Presence of the fungi in landscapes is also limited by compaction and "generally poor" soil conditions.

Recent breakthrough advances in biotechnology enable us to create a "natural forest soil ecosystem" for new landscape plantings and mature trees and shrubs by inoculating the roots with naturally occurring mycorrhizal fungi found in Mycor™ products.

MYCORRHIZAL FUNGAL Mycor™ INOCULANTS FOR SUSTAINABLE LANDSCAPES



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Tree and Shrub Planting
Tree and Shrub Care
Flowerbeds and Gardens
Turfgrass Sod and Seeding



MYCORRHIZAL FUNGAL INOCULANT PRODUCTS

If You Need To:	Try This Product:
Plant Trees/Shrubs Quickly establish new plantings Prevent/reduce losses	Mycor™ Tree Saver® Transplant Endo/ectomycorrhizal fungal transplant inoculant Rate*: 3-oz pak treats one 1-inch caliper tree or three 1-gallon potted shrubs
Plant or Revive Container Plants Create ideal growing conditions for all landscape plantings	Mycor™ Plant Saver™ Mycorrhizal fungal inoculant, Healthy Start® biofertilizer, growth-promoting bacteria and biostimulants Rate: 22-Lb box treats 65 1-gallon plants or 35 5-gallon plants
Plant or Revive Tropical Plants Improve survival, establishment and vigor of palms and tropical plants	Mycor™ Palm Saver® Endomycorrhizal fungal inoculant plus 6-3-6 biofertilizer and micronutrients Rate: 22-Lb box treats fifteen 15-gallon transplants or 10 mature palms as a vertimulch
Plant Bareroot Seedlings Improve survival, establishment and vigor of bare-root and container seedlings	MycorTree® Root Dip Endo/ectomycorrhizal fungal inoculant Rate: 3-oz bag treats about 100-6 to 10 inch tall tree seedlings
Plant Flower Beds/Groundcovers Improve growth, flowering, disease resistance and transplant survival of flowers and garden plants	Mycor™ Flower Saver™ Plus VA mycorrhizal fungi with Colonize™ stimulant, Healthy Start® biofertilizer and beneficial bacteria Rate: 5-Lb jug treats 80 to 85 sq ft; 30-Lb box treats 500-sq ft
Install Sod or Grass Seed Quickly establish vigorous turf from sod or seed	Mycor™ Turf Saver™ VAM Fungal Inoculant Endomycorrhizal fungal inoculant with beneficial bacteria and organic nutrients Rate: 22-Lb box treats 1,100-sq ft
Rejuvenate Mature Trees Revitalize declining trees, reduce stress, aerate and organically amend	MycorTree® Vertimulch Endo/ectomycorrhizal fungal inoculant with organic nutrients, soil conditioners and beneficial bacteria Rate: As a vertimulch, 22-Lb box treats about 725-sq ft
Prevent Root Decline Revitalize declining trees/shrubs, increase root growth, reduce stress	MycorTree® Injectable (for soil-injection equipment) Endo/ectomycorrhizal fungal inoculant with PHC™ Colonize™ and BioPak® Rate: 8-oz bag /100 gallons of water treats 1,250-sq ft
Stimulate VA Mycorrhizae Increase development of VA mycorrhizae	PHC™ Colonize™ Injectable (soil injection or drench) Patented endomycorrhizal fungal stimulant with PHC BioPak® biostimulant Rate: 8-oz bag /100 gallons of water treats 1,250-sq ft

*Common rates. For other rate recommendations, call 1-800-421-9051

MYCORRHIZAE BENEFITS

Mycorrhizae are able to absorb, accumulate and transfer all of the 15 major and minor mineral elements and water to trees more rapidly and

for longer periods of time than nonmycorrhizal

absorbing roots. Plants with mycor-

rhizae are more tolerant to:

- Drought
- Compaction
- High soil temperatures
- Heavy metals
- Soil salinity
- Organic and inorganic soil toxins
- Extremes of soil pH
- Root diseases caused by pathogenic fungi and nematodes



MYCORRHIZAE TYPES MATTER

Ecto vs. Endo



Ectomycorrhizae:
Colonize the outside of plant cells and the root

to benefit conifers and hardwoods, such as beech, birch, eucalyptus, fir, oak and willow

Endomycorrhizae: Colonize the inside of plant root cells to benefit turfgrasses, most ornamental plants, most deciduous trees, hardwoods, fruit and nut trees and shrubs

THE PLANT HEALTH CARE DIFFERENCE

Why should you use the Mycor™ and MycorTree™ family of products? Because Plant Health Care, Inc.:

- Leads in the development and commercialization of mycorrhizal fungi
- Is the only “producer” of mycorrhizal fungal inoculants that sells pure spore inoculum products
- Has the scientific expertise with six full-time Ph.D. scientists/biologists
- Tests products through rigorous Quality Control production standards
- Has independent testing performed for spore viability and plant root colonization
- Conducts in-house, university and independent research trials for product evaluation and performance
- Maintains the PHC Education Center for soil and plant physiology workshops
- Is interactive with an in-depth web site at www.planthealthcare.com
- Educates with an extensive soil/plant physiology-based online magazine
- Offers a money-back Green for Life™ Guarantee

Green for Life™ Guarantee

At Plant Health Care, Inc. we guarantee that every product we manufacture is made with the finest ingredients available and under strict quality control conditions. If for any reason you are not completely satisfied with their PHC product(s), call our Customer Service Department at 1-800-421-9051. At Plant Health Care, Inc. your satisfaction is our number one priority.

