

Rootgrow[®] Inc.

Turf Care Kits

Rootgrow[®], we have created a biological soil amendment that can transform virtually any soil into an ideal turf environment. Beneficial turfgrass specific organisms have been selected to create our unique products. Each species was hand picked for its ability to enhance plant growth in local microclimates. Each of the strains of microorganisms is isolated and laboratory cultured for an extremely concentrated product, requiring small amounts necessary for application. This makes our products very cost effective!



Each Kit Contains:

- ✓ Billions of Beneficial Bacteria
- ✓ Millions of Beneficial Fungi
- ✓ Millions of Both Endo- and Ecto- Mycorrhizae
- ✓ Millions of Nutrient Cycling Protozoa
- ✓ Thousands of Beneficial Nutrient Cycling Nematodes
- ✓ Liquid Humus and Sea Kelp Biostimulants

Bacterial Combo™ is a powerful inoculum of naturally occurring beneficial bacterial species proven to promote and stimulate plant growth.

Bacterial Combo™ Features:

- ✓ Nitrogen-Fixing Bacteria
 - ▲ Converts atmospheric nitrogen into plant available forms (*Azotobacter* and *Bacillus*)
- ✓ Phosphate Solubilizing Microbes
 - ▲ Secrete organic acids lowering pH and bring about the dissolution of bound forms of phosphate (*Pseudomonas*, *Rahnella* and *Bacillus*)
- ✓ *Azotobacter* spp:
 - ▲ Besides, nitrogen fixation, *Azotobacter* also produces, Thiomine, Riboflavin, indole acetic acid and gibberellins.
- ✓ Facultative Anaerobes
 - ▲ Switch metabolic pathways and function as either aerobes or anaerobes depending on environmental conditions (*Bacillus*, *Rahnella*, and *Serratia*)
 - ▲ Optimal ratio of Aerobes to Anaerobes is 10:1

Examples of Bacteria Included:

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| ✓ <i>Arthrobacter</i> (1 species) | ✓ <i>Citrobacter</i> (1 species) | ✓ <i>Raoutella</i> (1 species) |
| ✓ <i>Azotobacter</i> (2 species) | ✓ <i>Flavobacterium</i> (1 species) | ✓ <i>Serratia</i> (2 species) |
| ✓ <i>Bacillus</i> (11 species) | ✓ <i>Micrococcus</i> (1 species) | ✓ <i>Stenotrophomonas</i> (1 species) |
| ✓ <i>Brevibacterium</i> (3 species) | ✓ <i>Pseudomonas</i> (11 species) | ✓ <i>Streptomyces</i> (2 species) |
| ✓ <i>Cellulosimicrobium</i> (1 species) | ✓ <i>Rahnella</i> (1 species) | |

Fungal Strength™ is a liquid combination of over 100 isolated beneficial fungal species. This inoculum helps nutrient retention and reduces nutrient leaching. The fungi in Fungi Strength™ decomposes organic matter and complex carbon, binds soil particles into aggregates improving soil structure.

Myco-Mix™ is a diverse granular mycorrhizal inoculum containing ecto- and endo- mycorrhizae and 2 species of beneficial *trichoderma* fungi. This inoculum will colonize roots and increase water and nutrient absorption. Treated plants will be healthier and more tolerant of drought and other environmental stresses.

Fungal Strength™ & Myco-Mix™ Features:

- ✓ Improved water uptake in drought conditions
- ✓ Improved uptake of micronutrients such as Cu, Zn, Fe, Mn and also the macronutrients Ca and Mg
- ✓ Reduced uptake of toxic heavy metals and salts
- ✓ Aid in the establishment and growth of newly introduced plants

Examples of Fungi Included (130,000 spores of each species/lb):

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|---------------------------------|--------------------------------------|
| ✓ <i>Glomus</i> (5 species) | ✓ <i>Laccaria</i> (2 species) |
| ✓ <i>Gigaspora</i> (1 species) | ✓ <i>Sacchromyces</i> (1 species) |
| ✓ <i>Rhizopogon</i> (4 species) | ✓ <i>Suillus</i> (2 species) |
| ✓ <i>Pisolithus</i> (1 species) | ✓ <i>Tricoderma</i> spp. (2 species) |

Missing Link™ A combination of beneficial nematodes are present which consume bacteria and fungi and release the nitrogen tied up in bacteria and fungi into the root zone. These organisms will also prey on disease-causing organisms and promote a healthier growing medium.

Protozone™ A minimum of 30 species of protozoa, including 15 species of flagellates, 10 species of amoebae and 5 species of ciliates indigenous to your local region's conditions and environments. These organisms are responsible for harvesting bacteria and fungi in the soil and releasing nutrients held their biomass in the root zone to improve plant growth and balance plant nutrient needs without toxic levels of inorganic fertilizer applications required.

Liquid Humus™ is derived from organic mater and provides numerous benefits to woody plants. It helps to break up clay and soil compaction, assists in transferring micronutrients from the soil to the plant, enhances water retention, and stimulates microbial populations in the soils.

Application Rate:

100 Gallon Kit: Mix the contents into 100 gallons of de-chlorinated water. Soil Drench: 100 gallons will cover 1 acre or 10 gallons per 4000 sq ft.

300 Gallon Kit: Mix the contents into 300 gallons of de-chlorinated water. Soil Drench: 100 gallons will cover 1 acre or 10 gallons per 4000 sq ft. Store in a cool place. Shake Bottles Well Before Use!

Contents: Appropriate Ratios of the Following: 8oz-Bacterial Combo™, 8oz-Fungal Strength™, 8oz-Protozone™, 8oz-Missing Link™, 20oz-Liquid Humus™, Myco-mix™

Add Rootgrow® to your Fertilizing Programs to Provide an Ideal Soil Foodweb!

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