



# **DIEHARD<sup>TM</sup> INJECTABLE**

### **Product Description**

Established trees and shrubs that are in decline from construction damage or as part of an annual preventative maintenance measure shall be treated with live beneficial mycorrhizal fungi with the use of root injection equipment. The inoculum shall contain highly selected strains of low host specificity endo (7) - ectomycorrhizal (2) fungi that will quickly colonize the roots of mature and newly planted landscape trees and shrubs. The mycorrhizal fungi inoculants shall include humic acids, soluble sea kelp and yucca plant extracts and a beneficial bacteria package to promote rapid root development.

Endomycorrhizal	220 Propagules per gram Glomus mosseae (44), Glomus in-
	traradices (44), Glomus fasciculatum (44), Glomus dussii
	(22), Glomus clarum (22), Glomus deserticola (22), Glomus
	microaggregatum (22).
Ectomycorrhizal	11,000,000 spores per gram to include: Pisolithus tinctorius
	(9,422,000), Rhizopogon (1,578,000).
Trichoderma	4,820,000 CFU'S per gram to include Genus Trichoderma
	(6 species), Trichoderma virens (2 strains), Trichoderma
	harzianum (2 strains), Trichoderma viride (2 strains).
Nitrogen Fixing, Phosphate	72,000,000 CFU's per gram of Genus Bacillus (Bacillus
Solubilizing and Growth Promoting Bacteria.	subtilla, Bacillus azotofixans, Genus Psuedomonas (Psue-
	domonas aureofaceans ), Genus Streptomyces (Streptomy-
	cetes lycidas, Streptomyces griseoviridis ).
Humic Acid	22% derived from <i>Leonardite</i>
Sea Kelp Extract	18% Ascophyllum nodosum
Yucca Plant Extract	10% Yucca schidigera
Root Promoting Vitamin	B, B2, B3, B6, B7, B12, C, K, Biotin, Fulvic Acid
Amino Acids (Protein)	Animal and plant proteins
Fulvic Acid	Plant-derived mineral
Natural Sugars	Dextrose

## **Product Specification**



### Application

Mix the contents of each 8 oz. bag with 100 gallons of water. Fertilizers may be added. Inject on a  $2\frac{1}{2}$  foot grid pattern 8-10 inches deep with  $\frac{1}{2}$  gallon of solution per injection site.

Placement of compound as follows:



Measure from the trunk to the drip line (A). Divide this number by 2. Add this to drip line measurement (B) to get the treatment area. Apply product on a grid pattern.

**Nursery Propagation Drench:** Each 8 oz. bag treats 5,000 seedlings. Best application method is a 2 step process. Apply 1-2 weeks after sowing just as roots have developed to the sides of cells. Mix with sufficient water to apply as a drench with a backpack sprayer. Care should be taken to insure that spores applied are drenched into the media to the level of the roots. Second application just as you are hardening off the crop for shipment. One week before and one week after avoid use of phosphate fertilizers. Avoid the use of high phosphorus fertilizer as this treatment would have a negative effect on Endomycorrhizal colonization. Organic nitrogen fertilizers are recommended.

### Execution

Use in accordance with approved submittal for each type of planting required in strict accordance with supplier's recommendations.

### **Manufacturer's Service**

At the request of specifier provide the services of a qualified technical representative to instruct the user in proper mixing and handling of the product.

### Verification of Use

At the request of the specifier excavation of random plots of up to 1% of planted materials. Alternative procedures if product has not been used shall be required by specifier.