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Specifications

DIEHARD™ ROOT DIP

Product Description

All bare roots plants shall be dipped to inoculate them with live beneficial mycorrhizal fungi before planting. The treatment shall contain highly selected strains of low host specificity endo- and ectomycorrhizae fungi that will quickly colonize the roots of bare root plants to provide the best possible conditions for the roots to become as effective during and after planting. The mycorrhizal inoculant used shall also contain humic acids, beneficial bacteria, soluble sea kelp, and yucca plant extracts to promote rapid root development. The mycorrhizal inoculant shall include a water management gel which is essential to managed the treatment on the roots and protect the roots from drying out.

Product Specification

Endomycorrhizal Fungi	127 Propagules per gram centimeter Glomus mosseae, Glomus intraradices, Glomus claroideum, Glomus etunicatum, Glomus clarum , Glomus deserticola , Glomus microaggregatum.
Ectomycorrhizal Fungi	660,793 Spores per gram centimeter to include: Pisolithus tinctorius (568,282), Rhizopogon (92,511).
Humic Acids	1% derived from <i>Leonardite</i>
<i>Trichoderma</i>	79,956 CFU's per gram Genus <i>Trichoderma</i> : <i>Trichoderma hamatum</i> , <i>Trichoderma harzianum</i> , <i>Trichoderma viride</i> , <i>Trichoderma reesei</i> .
Yucca Plant Extract	1% <i>Yucca schidigera</i>
Sea Kelp Extract	1% <i>Ascophyllum nodosum</i>
Bacillus, Pseudomonas & Streptomyces Species	12,230,396 CFU's per gram Genus <i>Bacillus</i> : <i>B. megaterium</i> , <i>B. subtilis</i> , <i>B. amyloliquefaciens</i> , <i>B. azotoformans</i> , <i>B. licheniformis</i> , <i>B. pumilus</i> , <i>B. Firmus</i> , <i>B. coagulans</i> , <i>Geobacillus stearothermophilus</i> , and <i>Paenibacillus polymyxa</i> . Genus <i>Pseudomonas</i> : <i>P. putida</i> , <i>P. fluorescence</i> , <i>P. aureofaceans</i> , <i>P. Durum</i> . Genus <i>Streptomyces</i> : <i>S. lydicus</i> , <i>S. griseus</i> , <i>S. coelicolor</i> .
Root Promoting Vitamins	Biotin, Folic Acid, B, B2, B3, B6, B7, B12, C, and K
Horta-Sorb® SM Water Management Gel	55% Cross linked copolymer
Particle Size	0.3 mm to 0.8 mm, maximum 5 % < .075 mm

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*Technology Based * Service Lead * Customer Driven*



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Percent Soluble	Less than 0.05 %
Absorption Rate	300 - 400 times in distilled water

*Note - Bacteria are measured in colony forming unit's (CFU's)

Application

Mix the contents of each bag with water to form a mixture the consistency of thick gravy. Let stand for 15-20 minutes. Dip or spray roots and plant, or package seedlings for shipment or storage. Adjust thickness of mixture to insure that the gel adheres to the roots when dipping.

Execution

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

Free Of Charge Services Provided to Specifiers

- We do a take off for you - fax your plant list to us and we will do a take off and fax back to you the amount of materials required for the job.
- We introduce your contractors to our products - give us a list of your contractors and we will introduce, educate and provide them with installation information and list of materials for the job.
- With toll-free phone and fax lines we are at your service at a moments notice.

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- We can provide verification to you that products have been purchased by the contractor.

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