Specifications

DIEHARD™ PALM

Part 1: Product Description

DIEHARD™ Palm Transplant is formulated as a preparation to inoculate the roots of palm trees with live beneficial mycorrhizal fungi and microflora stimulants. It contains highly selected endomycorrhizal fungi that will quickly colonize the roots of palms to provide the best possible conditions for the roots to grow and extract from the root zone water and nutrients. The mycorrhizal fungi are combined with humic acids, biostimulants, beneficial bacteria, soluble sea kelp, yucca plant extracts, fulvic acid, nitrogen, phosphorous, potassium, and chelated magnesium, manganese, iron and zinc, to promote rapid root development. The product is used to promote new feeder root and mycorrhizal development on newly planted trees and shrubs.

Part 2: Product Specification

GUARANTEED NUTRIENT ANALYSIS 6-3-6

Total Nitrogen (N) …… 6%
1.3% Other Water Soluble Nitrogen and /or Urea Nitrogen
2.1% Water Soluble Nitrogen
2.6% Water Insoluble Nitrogen
Available Phosphate (P205) …… 3%
Soluble Potash (K20) …… 6%
Total Magnesium (Mg) …… 2.5%
2.5% Water Soluble Magnesuim (Mg)
Total Manganese (Mn) …….. 4%
4.0% Water Soluble Manganese (Mn)
Total Zinc (Zn) …… 1.5%
1.5% Soluble Zinc (Zn)
Total Iron (Fe) …… 2.5%
2.5% Soluble Iron as (Fe)
Derived from Kelp (Ascophythum Nodosum), Manganese Sulfate, Zinc Sulfate, Iron Sulfate, Magnesium Sulfate, Superphosphate, Urea, And Potassium Sulfate.

NONPLANT FOOD INGREDIENTS

Endomycorrhizal	19 Propagules per cubic centimeter *Glomus mosseae (3.75), Glomus intraradices (3.75), Glomus fasciculatum (3.75), Glomus dussii (1.9), Glomus clarum (1.9), Glomus desertico-la (1.9) Glomus microaggregatum (1.9)*
Nitrogen Fixing, Phosphate Solubilizing and Growth Promoting Bacteria.	1,000,000 CFU's per cc to include *GENUS BACILLUS:* *Bacillus amyloliquefaciens, Bacillus azotoformans, Bacillus polymyxa, Bacillus licheniformis, Bacillus pumulis, Bacillus subtilla, Bacillus megaterium* *GENUS PSUEDOMONAS:* *Psuedomonas fluorescence, Pseudomonas putida, Pseudomo-nas aureofaceans, Pseudomonas durum* *GENUS STREPTOMYCES* *Streptomyces lydicus, Streptomyces griseus, Streptomyces coe-licolor.*
Trichoderma	96,000 CFU's per cc *Genus Trichoderma: Trichoderma hamatum, Trichoderma harzianum, Trichoderma viride, Trichoderma reesei.*
Root Promoting Vitamin	Biotin, Folic Acid, B, B2, B3,B6, B7, B12, C and K
Amino Acids (Protein)	Animal and Plant Proteins
Root Promoting Vitamins	Biotin, Folic Acid, B, B2, B3,B6, B7, B12, C and K
3% Humic Acid Derived from Leonardite	
3% Sea Kelp Extract (Ascophyllum Nodosum)	
1% Yucca Plant Extract (Yucca Schidigera)	

Part 3: Application

Stress Recovery - Small and newly planted trees and shrubs: Punch holes around the root ball (4 holes per mature palm). Apply 6 oz. per hole (2" wide x 6-8" deep) and water in. Alternatively, with a broom handle, or soil probe, poke holes around the root ball and apply as follows:

Gray Wood/Container Size = Number of 6 oz. Scoops

1 Gal.	5 Gal.	10 Gal.	6 Ft.	9 Ft.	15 Ft.
1/2	1	2	2	3	5

Part 4: Execution

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

Part 5: 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.

Part 6: Verification of Use
At the request of the specifier excavation of random plots of up to 1% of planted materials.

Part 7: Alternative Procedures
If it has been determined that product has not been used contractor shall immediately apply both a vertimulch application with product and a deep soil injection with an appropriate injection product containing endomycorrhizae and yucca extracts.

END OF SECTION