

Dry
Technology



BioNUTRIENTS TOTAL-PAK INJECTABLE FOR TREES WITH MYCORRHIZA TECHNOLOGY

- CONTAINS ENDO & ECTOMYCORRHIZAE
- BENEFICIAL OF RHIZOSPHERE BACTERIA, YEAST

GUARANTEED ANALYSIS:

Total Nitrogen (N)	3%
3% Slowly Available Water Soluble Nitrogen*	
Soluble Potash (K ₂ O)	3%
Boron (B)	0.001%
Copper (Cu)	0.02%
Iron (Fe)	0.5%
Manganese (Mn)	0.25%
Magnesium (Mg)	0.5%
Molybdenum (Mo)	0.0001%
Zinc (Zn)	0.02%
Derived From: Ferrous Sulfate, Condensed Plant Proteins, Fish Protein Hydrolysate, Potassium Humate, Iron, EDTA, Manganese EDTA, Zinc EDTA, Sodium Molybdate, Boric Acid.	

*3% slowly available Nitrogen derived from plant protein

ALSO CONTAINS NON PLANT FOOD INGREDIENTS:

Bacillus subtilis	.6 x 10 ⁸ CFU per lb.
Bacillus licheniformis	.2 x 10 ⁸ CFU per lb.
Bacillus amyloliquefaciens	.5.2 x 10 ⁸ CFU per lb.
Bacillus pumilus	.7.5 x 10 ⁷ CFU per lb.
Pseudomonas putida	.4 x 10 ⁷ CFU per lb.
Pseudomonas fluorescens	.4 x 10 ⁷ CFU per lb.
Yeast (Saccharomyces cerevisiae)	.4.5 x 10 ¹⁰ CFU per lb.
Endomycorrhizal spores	.24,000 spores / lb.
Glomus intraradices	.8,000 spores per lb.
Glomus mosseae	.8,000 spores per lb.
Glomus aggregatum	.8,000 spores per lb.
Glomus etunicatum	.8,000 spores per lb.
Ectomycorrhizal spores	.176 million / lb.
Pisolithus tinctorius	.160 million spores per lb.
Rhizopogon villosulus	.2 million spores per lb.
Rhizopogon amylopogon	.2 million spores per lb.
Rhizopogon fulvigleba	.2 million spores per lb.
Rhizopogon luteolus	.2 million spores per lb.
Scleroderma cepa	.4 million spores per lb.
Scleroderma citrinum	.4 million spores per lb.

* Colony Forming Units

SOIL AMENDING INGREDIENTS

17%	Humic Acid (derived from Leonardite)
10%	Kelp Extract (Ascophyllum nodosum)
50%	Maltodextrin
1.5%	Natural Wetting Agent (Yucca schidigera)

PRODUCT DESCRIPTION

BioNutrients Total-Pak contains the top performing Endo and Ecto Mycorrhizae that are able to propagate in a broad range of soil temperatures including northern climates and in pH soil of 7 and above. It also contains seven prolific Rhizosphere beneficial bacteria, a micronutrient package, biologically active soil condition-

- COMPLETE MICRONUTRIENT PACKAGE
- PLUS NUTRIENT BOOST FOR FAST COLONIZATION

Trees, Shrubs & Palms			
Caliper DBH	Root Ball Diameter	Rate Tank Mix per Tree	# of Injection Sites
2 inch	24"	1.5 gal	6
3 inch	36"	2 gal.	8
4- 5 inch	48-50 "	3 gal.	12
6 inch	60"	4 gal.	16
7 inch	70"	5 gal.	20
8 inch	80"	6 gal.	24

ers, natural wetting agent and rich organic supplements. Easy to apply on existing trees and landscaped areas to reduce stress of trees, large ornamentals and other landscape materials. Mycorrhizal will improve uptake of nutrients, minerals and absorption of water. Bacillus strains produce a variety of enzymes, PGRs and metabolites that aid in the breakdown of organic fertilizers and organic matter. Bacillus rapidly colonize the root's surface (niche occupation) and stimulate root growth, maintain healthy root system and crowd out invading pathogens.

APPLICATION RECOMMENDATIONS:

Mix one packet of Total-Pak in 50 gallons of water. For ground area method, measure below drip line of tree. Use standard soil injection equipment. Pump requirements of between 100 - 200 psi is needed for good coverage. Be sure to calibrate your equipment by using a pre-measured container and time how long it takes to fill the container using the feeding needle.

ROOT INJECTION RATES:

Total-Pak should be injected into the top 4" to 8" inches of soil where feeder roots extend. Start application approximately 2-3 feet from tree trunk. Extend the same distance beyond drip line. Lay out a grid pattern, and spacing should be every 2 1/2 ft. A minimum of 1 quart of tank mix should be applied per hole. Be sure to measure the tree DBH in order to calculate the total amount of mix needed. For difficult, compacted soils it is desirable to add a natural wetting agent such as HydroMax. BioNutrients are compatible with all Growth Products liquids.

CAUTION: Keep out of reach of children. In case of contact with eyes, flush immediately with copious amounts of water. Contact a physician. Do not take internally.

Manufactured in the USA By:

