

USDA Certified BioBased Product



Growth Products

BioNutrients line meets the 2002 Farm Bill standard for biobased products. Composed, in part, of biological products and renewable agricultural materials, it reduces reliance on petroleum and increases the use of sustainable agronomy which may significantly contribute to decreasing adverse environmental and health impacts.

EASY TO APPLY


BioNutrients 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; 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 Growth Products HydroMax.

Trees, Shrubs & Palms Rates

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



Another quality product from:
Growth Products, Ltd.

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BioNUTRIENTS™

TOTAL-PAK INJECTABLE FOR TREES



YOUR PEACE OF MIND

Avoid plant loss and replacement which is time consuming and costly. BioNutrients Total-Pak gives you "peace of mind" and an insurance policy by offering a one-step method to reduce stress and transplant loss on trees and ornamentals.



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Natural Soil Nutrition

Condition Soil Structure

Existing highly groomed landscape and newly planted areas often have been stripped of valuable top soil, leaving compacted subsoils with drainage problems. BioNutrients Total-Pak has a unique combination of soil conditioners – including yucca (a natural wetting agent), humic acid, kelp, sugars and a complete micronutrient package – that drastically improve soil conditions, reducing compaction and improving aeration and percolation, for better plant growth.

Biostimulant

A unique combination of ingredients, such as humic acid and seven strains of beneficial rhizosphere bacteria, stimulate new root growth. North Atlantic sea kelp contains natural auxins along with L-amino acids promote root mass for better nutrient uptake.

Micronutrients

BioNutrients Total-Pak Injectible provides a complete micronutrient package of seven micronutrients (Boron, Copper, Iron, Manganese, Magnesium, Molybdenum, and Zinc). Professional

“From 200 year old redwoods to newly planted oak trees, it is my go-to for every tree and landscape project because it’s simple, easy and effective.”

**Ryan K.
San Jose, CA**

arborists can rely on BioNutrients Total-Pak to ward off micronutrient deficiencies, maintaining a critical balance to promote better establishment of transplants and improve the health, growth and color of deciduous, evergreen trees and palms.

Increase Root Efficiency

BioNutrients Total-Pak includes seven strains of ecto- and four strains of endo-mycorrhizal, as well as seven bacterial species. Colonized in the soil, these beneficial fungi form a symbiotic relationship

with a plant’s root system, literally extending the plant’s root with white, filament-type threads. They greatly increase the root’s ability to absorb water and nutrients, improving the tree’s health, vigor and survival. The result is better nutrient uptake (particularly of phosphorus, potassium and magnesium), improved mineral uptake, and increased water absorption by the plant. This superior blend ensures that the correct type of fungi is present for all types of trees and shrubs, and that the mycorrhizae will be viable in the broadest possible range of soil temperatures and soil pHs.

Soil Nutrition

BioNutrients Total-Pak also contains four strains of beneficial bacteria – including *Bacillus subtilis*, *B. licheniformis*, *B. amyloliquefaciens*, and *B. pumilus* – to improve soil health and promote plant vigor. In addition, this dry soluble includes biologically active soil conditioners, a natural wetting agent, humic acid, and kelp extracts.

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Spec Sheet or visit
www.GrowthProducts.com

