

IMPROVED



THE LANDSCAPER'S **BioNUTRITION**™

3-0-3 GRANULAR WITH ENDO & ECTO MYCORRHIZAE

FOR TREES, PLANTINGS AND HYDROSEEDING

- CONTAINS ENDO & ECTOMYCORRHIZAE
- PACKED IN EASY TO USE 8 OZ PACKS
- CONTAINS GELSCAPE® POLYMER GEL

- PREVENTS TRANSPLANT LOSS
- 142 BILLION BACILLUS SPORES PER LB.
- ORGANIC L-AMINO ACID BASED

GUARANTEED ANALYSIS:

F106

PLANT FOOD INGREDIENTS:

Total Nitrogen (N)	3%
0.5% Urea Nitrogen	
2.5% Slowly Available Water Soluble Nitrogen*	
Soluble Potash (K ₂ O)	3%
Iron (Fe)	2%

Derived From: Methylene Urea, Urea, Ferrous Sulfate, Condensed Fermented Plant Extracts, Fish Meal.

*2.5% slowly available Nitrogen from Methylene Urea

0.46% L-Valine
0.40% L-Phenylalanine
0.32% L-Isoleucine
0.30% L-Histidine
0.18% L-Methionine
0.34% L-Tyrosine
0.14% L-Cystine

INERT INGREDIENTS

25%.....Clay
20% ...Potassium Propenoate-Propenamide Copolymers

ALSO CONTAINS NON PLANT FOOD INGREDIENTS:

Bacteria:	Total 313 Million CFU* per gram
Bacillus subtilis	2.4 x 10 ⁸ CFU per gram
Bacillus licheniformis	.2 x 10 ⁶ CFU per gram
Bacillus amyloliquefaciens	1.4 x 10 ⁷ CFU per gram
Bacillus pumilus	1.9 x 10 ⁷ CFU per gram
Yeast (Saccharomyces cerevisiae)	4 x 10 ⁷ CFU per gram
Endomycorrhizal spores	52 spores per gram
Glomus intraradices	13 spores per gram
Glomus mosseae	13 spores per gram
Glomus aggregatum	13 spores per gram
Glomus etunicatum	13 spores per gram
Ectomycorrhizal spores	Total 137,000 spores per gram
Pisolithus tinctorius	8.8 x 10 ⁴ spores per gram
Rhizopogon villosulus	1.10 x 10 ⁴ spores per gram
Rhizopogon amylopogon	1.10 x 10 ⁴ spores per gram
Rhizopogon fulvicleba	1.10 x 10 ⁴ spores per gram
Rhizopogon luteolus	1.10 x 10 ⁴ spores per gram
Scleroderma cepa	2.20 x 10 ³ spores per gram
Scleroderma citrinum	2.20 x 10 ³ spores per gram

*Colony Forming Units

SOIL AMENDING INGREDIENTS

15%	Humic Acid (derived from Leonardite)
10%	Kelp Extract (Ascophyllum nodosum)
1.5%	Natural Wetting Agent (Yucca schidigera)
9.5%	Total L-Amino Acid
0.44%	Glycine
1.8%	L-Glutamic Acid
0.56%	L-Aspartic Acid
0.90%	L-Alanine
0.88%	L-Proline
0.96%	L-Leucine
0.36%	L-Lysine
0.44%	L-Serine
0.40%	L-Arginine
0.65%	L-Threonine

PRODUCT DESCRIPTION

The Landscaper's BioNutrition is formulated to reduce transplant stress of trees, large ornamentals, other landscape materials, sod and turf establishment. It will provide biologically active soil conditioners, natural wetting agent and rich organic supplements with Rhizosphere beneficial bacteria and Endo and Ecto Mycorrhizae, which are a research-selected mixture of mesophiles and thermophiles that grow and metabolize in the soil in temperature ranges of 45° - 140°F. Mycorrhizae will improve uptake of nutrients, minerals and absorption of water. The Bacillus strains produce a variety of enzymes, PGRs and metabolites that aid in the breakdown of organic fertilizers and organic matter. The Landscaper's BioNutrition can be applied to any tree or plant species to produce healthier root system, and overcome urban and transplant shock. Bacilli rapidly colonize the root's surface of the developing root system (niche occupation), and stimulate root growth, maintain healthy root system and crowd out invading pathogens.

Landscaper's BioNutrition contains Gelscape® a unique water-control polymer gel that absorbs water for gradual release.

The Landscaper's BioNutrition contains 17 natural L-amino acids. They act as a natural chelating / complexing agent for cation nutrients. They also act as plant growth regulators and provide a food source for soil microbes. All amino acids have the potential to decompose into amines that go into solution in the form of plant-available nitrogen.

TRANSPLANTS:

Use The Landscaper's BioNutrition to treat the root zone of trees, shrubs, annuals and perennials at the time of planting. This product contains beneficial Bacillus bacteria that will quickly colonize the root surface improving nutrient uptake, stimulating new root growth and protecting roots against stress. Simply sprinkle The Landscaper's BioNutrition into the transplanting hole, or incorporate into the top soil or backfill.

Landscaping Plantings		
Application	Rate	Notes
Shrubs & Woody Ornamentals	8 oz per 250 square feet	Remove mulch. Work into soil with hoe to a depth of 4 inches or more. Replace mulch.
Vegetable Plantings	8 oz per 20 linear feet	Loosen soil prior to planting. Work Landscaper's into soil around plant.
Flower Beds Annuals & Perennials	8 oz per 250 - 500 square feet	New Plantings: Loosen soil prior to planting. Sprinkle Landscaper's over ground area and work into soil. Existing Plantings: Gently work into soil around plants.
Newly Seeded Lawns	1 lb. per 5,000 square feet	Add into billion drop seeder.
Laying Sod	1 lb. per 5,000 square feet	Mix well with approximately 50 lbs. of fertilizer.
Poor Soil Conditions, Stressed Plants	1- 2 lb. per 1,000 square feet	Mix in with starter fertilizer. Mix into top 5"-6" of soil
Tropicals & Foliage Plants	1 oz per 1-2 gal pot 4 oz per 3-7 gal pot 8 oz per 20-30 gal pot	For both interior and exterior scapes. Work gently into soil without disturbing root system
Bulk Media for Greenhouse & Nursery Soils	1 lb per cubic yard	Pre-mix into media prior to planting

Hydroseeding		
Application	Rate	Notes
Residential & Commercial lawns, Roadside State DOT, & Landfills, airports, mine reclamation	1-2 packs / 500-1,000 gal water per 5,000-10,000 ft ² (Based on average output of 80 - 100 gal. per 1,000 ft ²)	Mix in with water, starter fertilizer, grass seed and hydromulch such as bonder fiber mulch, cellulose, and other holding materials.

DIRECTIONS FOR TRANSPLANTS:

See application rate chart.

1. Mix Landscaper's BioNutrition into top- 4 - 8" of soil or backfill in contact with root ball
2. Fill hole with treated soil
3. Pack soil firmly and water well.

PLANT MATERIALS:

The Landscaper's BioNutrition can be used on all plant species including woody ornamentals such as Rhododendron's, Azaleas and Laurels. The Landscaper's BioNutrition can be used on all types of trees including deciduous, evergreens, fruit, oaks, and shrubs. Apply to all types of landscaping materials including annuals, perennials, vines, vegetables, baskets and pots, sod and new seeding. Landscaper's BioNutrition can be used in combination with pesticide applications.

HYDROSEEDING: Easily mixes into slurry. For use with all hydro seeds such as blue, rye, fescue, bermuda, pasture, native grasses and wildflower mixes. Landscaper's will increase and hasten seed germination. Provides a natural wetting agent, slow release nitrogen, beneficial bacteria and mycorrhiza to ensure better rooting and turf establishment. Landscaper's also contains a water-control polymer gel to hold and release moisture slowly.

STORAGE AND HANDLING: Store in normal warehouse conditions in dry place. Shelf life is in excess of 2 years.

PACKAGE SIZES

- 8 oz pack x 30 - case
- 5 lb, 20 lb and 50 lb bulk in EZ-Store Pail
- 200 lb bulk in Drum

Gelscape® is a registered trademark of AMEREQ, Inc.

Tree, Shrub and Palm Rates

Use 4 ounces per caliper inch or per 1 foot of root ball.

1. Mix evenly into the upper 8-10" of the backfill soil and no more than 8-10" away from the root ball.
2. Pack the treated backfill firmly around the root ball.
3. Mulch and water to soil saturation.

Size	Landscaper's per Plant Size
1 Gallon	1 oz
2 Gallon	2 oz
3 to 7 Gallon	4 oz
7 to 15 Gallon	4 oz
20 to 30 Gallon	8 oz
24 inch B&B / Box	8 oz
36 inch B&B / Box	12 oz
48 inch B&B / Box	16 oz
60 inch B&B / Box	19 oz
1 inch caliper	4 oz
2 inch caliper	8 oz
3 inch caliper	12 oz
4 inch caliper	16 oz
5 inch caliper	20 oz
6 inch caliper	24 oz
7 inch caliper	28 oz
8 inch caliper	32 oz
24 inch spade	6 oz
30 inch spade	12 oz
44 inch spade	16 oz
60 inch spade	24 oz

FIRST AID

IF SWALLOWED:	Call a poison center or doctor if you feel unwell: Rinse mouth.
IF IN EYES:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
IF ON SKIN:	Remove contaminated clothing and wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention.
IF INHALED:	Call a poison center or doctor if you feel unwell.

You may also contact 1-800-992-5994 day or night for emergency treatment information. If medical advice is needed, have product container or label at hand (P101), Keep out of reach of children (P102), Read label before use (P103).

STORAGE: Keep container tightly closed. May be stored in unheated area, but keep from freezing. Store in areas inaccessible to children and pets.

DISPOSAL: Dispose of contents/container in accordance with local/regional/national/international regulations. Do not reuse container.

The following precautionary statements and pictograms are based on The Globally Harmonized System of Classifications and Labeling of Chemicals (GHS) and are mandated by the Occupational Safety and Health Administration (OSHA)



WARNING

H316 Causes Mild Skin Irritation
H320 Causes Eye Irritation
H335 May Cause Respiratory Irritation

Condition of Sale and Warranty: Growth Products, Ltd. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. Handling, storage and use of the product by Buyer or User are beyond the control of Growth Products, Ltd. and Seller. Risks such as crop injury or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by Buyer or User. IN NO CASE WILL GROWTH PRODUCTS, LTD. OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

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