



# BioNutrients™ SOLUBLE 8-0-9

## FOR FAIRWAYS, SPORTS TURF, LAWN CARE, AND TREES

- **PACKED IN EASY-TO-USE 8 OZ PACKS**
- **ORGANIC BIOSTIMULANT & SOIL CONDITIONER**
- **CONTAINS A NATURAL RHIZOSPHERE BACTERIA**

**GUARANTEED ANALYSIS:** F106

Total Nitrogen (N) .....	8%
8% Slowly Available Nitrogen*	
Soluble Potash (K <sub>2</sub> O) .....	9%
Iron (Fe) .....	3%

**Derived From:** Ferrous Sulfate, Plant Protein, Fish Protein Hydrolysate, Potassium Humate.

\*8% Slowly Available Nitrogen derived from: Plant Protein, Fish Protein Hydrolysate

**ALSO CONTAINS NON-PLANT FOOD INGREDIENTS**

Bacillus subtilis .....	7.5 x 10 <sup>8</sup> CFU per gram
Bacillus licheniformis .....	1.5 x 10 <sup>8</sup> CFU per gram
Bacillus amyloliquefaciens .....	7.5 x 10 <sup>8</sup> CFU per gram
Bacillus pumilus .....	7.5 x 10 <sup>8</sup> CFU per gram
Pseudomonas putida .....	7.5 x 10 <sup>7</sup> CFU per gram
Yeast (Saccharomyces cerevisiae) ..	4.5 x 10 <sup>8</sup> CFU per gram

\*Colony Forming Units

20% .....	Humic Acid (derived from Leonardite)
10% .....	Kelp Extract (Ascophyllum nodosum)
1.5% .....	Natural Wetting Agent (Yucca schidigera)
35.7% .....	Total L-Amino Acids

3.34% Glycine	0.96% L-Threonine
5.85% L-Glutamic Acid	1.74% L-Valine
2.44% L-Aspartic Acid	1.90% L-Phenylalanine
1.63% L-Alanine	1.44% L-Isoleucine
3.65% L-Proline	0.85% L-Histidine
3.31% L-Leucine	0.46% L-Methionine
1.40% L-Lysine	1.19% L-Tyrosine
1.48% L-Serine	0.70% L-Cystine
3.19% L-Arginine	0.21% L-Tryptophan

**PRODUCT DESCRIPTION:**

BioNutrients is a unique, dry, 100% soluble blend of humic acid, natural wetting agent, kelp, natural L-amino acids and our exclusive combination of beneficial soil bacteria along with fortified natural carriers that add rich organic material to soils. It has the added advantage of containing a natural biostimulant to promote strong rooting. BioNutrients can be used on all fairway grasses, sports turf, lawn care and hydroseeding applications.

The BioNutrients formulation is designed to improve soil quality by adding rich organic nutrients that are often depleted in old and over worked soils. A powerful natural wetting agent insures deep penetration into even the most difficult and compacted soils. Once in the rhizosphere, a combination of L-amino acids, kelp and natural soil bacteria colonize and revitalize the soil with

- **REVITALIZES SOIL**
- **PROMOTES FASTER & STRONGER ROOTING**
- **IMPROVES POOR SOILS CONDITIONS**

active communities of living soil microbes.

The humic acid and plant extracts are rich in carbon which becomes a food and energy source for the soil bacteria colonies.



**Turf Applications and Rates**

Application	Rate	Frequency / Notes
<b>Regular Maintenance Cool and Warm Season Grasses</b>	<b>Rate Per Acre:</b> Mix 1 pack in 20 - 50 gallons of water. Apply 1 - 2 packs per acre. For smaller applications mix 1/3 - 1/2 oz (1 tbs.) per gallon water.	Apply monthly during growing season
<b>Overseeding, Newly Seeded, Sod</b>	<b>Metric:</b> <b>Rate per Hectare:</b> Mix 1-2 packs in 100- 200 Liters water. For smaller applications mix 1 - 2 grams per Liter water.	Apply at time of seeding and then apply at germination or 14 - 21 days
<b>Aeration</b>		Apply after aeration
<b>Hydroseeding</b>	<b>Rate Per Acre:</b> Mix 1 pack in 100 - 200 gallons of water and apply per acre.	Add to equipment tank slurry mix with Wood fiber or cellulose mulches.
<b>Divot &amp; Ball Mark Repair</b>		Mix 1- 2 packs per cubic yard sand divot mix. Hand Repair - Lightly sprinkle into divot hole prior to replacement of turf

### HYDROSEEDING APPLICATION:

Can be used with a broad variety of hydromulch materials including wood fiber and cellulose. Will ensure better germination and rooting.

#### Trees and Ornamentals Applications and Rates

Application	Rate	Notes
Tree & Shrub	Initial Application: 1 lb, or two 8 oz packs, per 50 to 100 gal water. Maintenance: 1/2 lb, or one 8 oz pack, per 50 to 100 gal water.	Soil injection, drench or spray per 1,000 sq. ft.
New Plantings, Ornamental Plants, Potted Plants	1/2 lb, or one 8 oz pack, per 25 gal water.	Drench or spray to saturate soil per 1,000 sq. ft.
Pre-Digging and Transplants	1 1/2 lbs, or three 8 oz packs, per 100 gal water.	Drench prior to digging and immediately after planting.
Flower Beds	1 lb, or two 8 oz packs, per 25 to 50 gal water.	Drench or spray to saturate soil.

### MIXING INSTRUCTIONS:

BioNutrients can be tank mixed with most pesticides, fertilizers and micronutrients. Add approximately half of the water to tank mix, leaving enough room to add other products. Add BioNutrients and agitate tank mix. Do not agitate when adding herbicides. This will cause foaming. Agitate after the herbicide has been added. Add other products in the following order: 1.

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).	
<b>STORAGE:</b> Keep container tightly closed. May be stored in unheated area, but keep from freezing. Store in areas inaccessible to children and pets.	
<b>DISPOSAL:</b> Dispose of contents/container in accordance with local/regional/national/international regulations. Do not reuse container.	

#### Composting Materials

Rate	Application	Notes
1/2 - 1 lb. per cu. yd.	Apply at beginning of composting procedure and every 21 days.	Mix with water. For use on green and brown materials to boost digesting microbes.

urea and other N-P-K fertilizers, 2. pesticides and fungicides, 3. add herbicides last. Agitate between each addition. Use tank mix according to technical material instructions. Be sure to agitate before spraying.

### MIXING:

Agitate before spraying.

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

H303 May be Harmful if Swallowed  
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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