

## Microbial Soil Amendment

**CONTAINS NON-PLANTFOOD INGREDIENTS**

### ACTIVE INGREDIENTS

#### 1% MICROBIAL INGREDIENTS

Bacillus subtilis .....	1 x 10 <sup>9</sup> cfu/g
Bacillus pumilus .....	1 x 10 <sup>9</sup> cfu/g
Bacillus lichenformis .....	1 x 10 <sup>9</sup> cfu/g
Bacillus megaterium .....	1 x 10 <sup>9</sup> cfu/g
Bacillus amyloliquefaciens.....	1 x 10 <sup>9</sup> cfu/g
Trichoderma harzianum.....	1 x 10 <sup>8</sup> cfu/g

47.5% Maltodextrin (microbe food)

47.5% Sucrose (microbe food)

Available Size:

½ LB.

5 LBS.

### PLANT BIOTICS INGREDIENTS AND THEIR BENEFITS:

#### Bacillus (bacteria)

- Enhance plant growth
- Decompose organic matter and pesticide residues – nutrient cycling
- Nitrogen fixation
- Increase resistance to environmental extremes
- Solubilize minerals (including phosphorous) for plant availability
- Produce natural plant hormones
- Improve soil structure
- Enhance seed germination and viability of emerging seedlings

#### Trichoderma (fungi)

- Increase resistance to environmental extremes
- Produce natural plant growth hormones

Available in CA and OR only.



### Brings your soil to life!

Nature's Source® Plant Biotics is a unique complex of beneficial microorganisms. It promotes the establishment and enhances the growth of greenhouse and nursery crops, landscape plants and specialty crops, in all types of soils and growing media. Beneficial microbe populations are essential to creating the ideal soil environment for healthy plant growth.

Over the past 500 million years, plants and beneficial microorganisms have developed a symbiotic relationship. When a plant photosynthesizes it releases carbon exudates into the soil or growing media, which microorganisms use as a food source. The microbes in the rhizosphere surround the root to get this food source. In return, these microorganisms protect the plant roots from nematodes and pathogens, recycle nutrients, improve the surrounding soil structure, and make minerals available to the plant.

Unfortunately, today many soils are grossly out of balance and are virtually devoid of beneficial microbial populations. This is due primarily to the use of soilless media in greenhouse and nursery production, and to over-reliance on pesticides and synthetic fertilizers to treat the symptoms rather than the cause of the problems.

These chemicals adversely affect the beneficial microbial populations found in healthy soil. Nature's Source Plant Biotics is formulated to reestablish beneficial microbial populations that provide the soil with the necessary components to promote healthy growth and reduce plant stress.

### BENEFITS OF NATURE'S SOURCE PLANT BIOTICS:

- Overall healthier plants – strengthens plants' natural immunity
- Aids in nutrient cycling and availability
- Improves soil structure
- Promotes faster, stronger rooting
- Reduces planting/transplant shock (better plant establishment)
- Easy to use and environmentally beneficial
- Increases resistance to environmental stress

Use of a fertilizer that contains organic elements, such as Nature's Source Plant Food, will effectively feed your plants, and serve as a food source for the microorganisms in Plant Biotics.

# NATURE'S SOURCE®

# Nature's Source® Plant Biotics Grower's Guide

## Application Rates

### FOR COMMERCIAL USE ONLY

#### GREENHOUSE/NURSERIES

*FOLIAR APPLICATION\*/SOIL DRENCH\*\*:*

##### **Tank Mix:**

Dissolve 1/2 lb. of Nature's Source Plant Biotics and 32 oz. of Nature's Source Plant Food in 100 gallons of water. Spray on foliage and growing media or apply as soil drench.

##### **Injector Application:**

Can be mixed in a stock tank with Nature's Source Plant Food, with injector set on 1:100. Dissolve 1/2 lb. of Nature's Source Plant Biotics and 32 oz. of Nature's Source Plant Food per gallon of stock tank solution.

\*1/2 lb. of Nature's Source Plant Biotics per 20,000 sq. ft. every 2 to 3 weeks.

##### **\*\*Application Key:**

(Finished solution 1/4 lb. per 50 gallons)

- **6-in. pots and smaller** – 1.5 oz. finished solution multiplied by pot size.  
(Example: 4-in. pot = 6 oz. of finished solution)
- **Gallon pots and larger** – 10 oz. finished solution per gallon size container.  
(Example: 2-gal. container = 20 oz. of finished solution)
- **Plug trays** – 100 gallons finished solution covers 1,000 to 1,200 sq. ft.
- **Potted/Young Trees** – 1-5 gallons of finished solution per pot/container 3-4 times during growing season.

##### **SOIL BLENDING AMENDMENT:**

1/4 lb. of Nature's Source Plant Biotics per cubic yard of growing media. Dissolve with water based on amount of water being added per cubic yard.

##### **Jar Test:**

Nature's Source Plant Biotics is tank mix compatible. Jar testing is still recommended to ensure nutrient solutions and water do not cause coagulation.

**Shelf Life:** 12 to 18 months when stored in a cool, dry environment.

#### AGRICULTURE

##### **Initial Colonization/Pre-plant or Initial Watering:**

Inject or spray 1/4 to 1/2 lb. of Nature's Source Plant Biotics with 64 oz. of Nature's Source Plant Food per acre.

**Microbial Maintenance Program:** Inject or spray 1/4 lb. of Nature's Source Plant Biotics with 32 oz. of Nature's Source Plant Food per acre monthly.

#### ORNAMENTAL INSTALLATION, LANDSCAPE AND TRANSPLANTING

##### *INSTALLATION:*

Dissolve 1/2 lb. of Nature's Source Plant Biotics and 32 oz. of Nature's Source Plant Food in 50 gallons of water. Soak root ball prior to backfilling. At planting, utilize 32 oz. of the finished product for every 5 gallons.

##### *TREE/LANDSCAPE AND MAINTENANCE:*

Per 1,000 sq. ft. of coverage, dissolve 1/16 lb. of Nature's Source Plant Biotics and 3 oz. of Nature's Source Plant Food in a minimum of 5 gallons of water or soil drench trees and shrubs with 5 grams of Nature's Source Plant Biotics in 1-5 gallons of water 3 to 4 times during growing season.

##### *TURF GRASS/COMMERCIAL LANDSCAPE APPLICATION AND MAINTENANCE:*

Dissolve 1 lb. of Nature's Source Plant Biotics and 64 oz. of Nature's Source Plant Food in a minimum of 50 gallons of water per 5 acres. Reapply as frequently as every 4 to 6 weeks during active growing season.

Nature's Source Plant Biotics alone, and in conjunction with Nature's Source Plant Food, can be applied through your specific applicator, whether it is low-pressure watering nozzle, overhead boom sprayers and sprinklers, injectors, propagation mist nozzles, hydroponic systems, flood floors and benches, spray tanks or fertigation systems.

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# NATURE'S SOURCE®

Guaranteed by: Nature's Source  
307 E. Mulberry Street, Sherman, TX 75090 USA

Available only in California and Oregon. Not available in Canada.  
Visit [www.NS-PF.com](http://www.NS-PF.com) for details.

