

# Base One™

## Liquid Bio Fertilizer

EARTHWORKS NATURAL ORGANIC PRODUCTS, INC.

**Base One** is a 1-10-10 bioactive liquid fertilizer designed to provide a manager the flexibility of using a macro/trace package that is not driven by the nitrogen analysis. **Base One** also does not have iron or calcium in its formulation. Many soils are high in iron which can prohibit nutrient uptake. Calcium is a critical nutrient and is best managed separately, based on plant stress issues. **Base One** is a foundation product that allows the manager to add the needed iron, nitrogen and calcium based on specific site needs. This formulation has created a very stable product rich in chelated trace nutrients such as magnesium, manganese, boron, copper, zinc, cobalt, sulfur and silica. **Base One** also includes humic and fulvic acids, kelp extract, and a vitamin premix of vitamins C, D, E and a B complex. The diversity of this recipe has created an extremely effective "Base" to a complete liquid fertility program and can help to feed both the soil and the plant.

### The EarthWorks Process

Manufacturing of the liquids involves first the availability of excellent water. We begin by softening the water, followed by deionization and finally reverse osmosis. The result is water that is absent of total dissolved solids, alkalinity, carbonates and conductivity. This allows for an aqueous medium that can be fully saturated with the diversity of ingredients that go into the **Base One** formula. The recipe is then loaded through a process called "stacking", which simply means using a formula that allows for ingredient compatibility by following a proper sequence of mixing, creating maximum saturation of the water by these nutrients. Finally, the products are micro-screened in order to create a non-plugging filtrate for trouble-free applications.

The EarthWorks Liquid Organics are the most complex formulas available. They are developed to work synergistically with each other and with other nutrient based products. Used on a "small but frequent" basis, **Base One** will become a staple in any turf management program.

**EarthWorks™**  
Natural Organic Products

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Available in a 2 x 2.5 box, 30 and 55 gallon drums.

LIQUID  
ORGANICS

Phosphoric Acid

Potassium  
Hydroxide

Chelated Trace  
Nutrients

Vitamin Premix

Kelp Extract

Bio-Net

# Base One™ *Liquid Bio Fertilizer*

**Base One** is a unique formula designed for the progressive turfgrass manager. It includes chelated forms of phosphorous, potassium and a complete trace package. This product offers the flexibility of adding the right amount and the right forms of nitrogen, calcium and iron to a complete liquid fertility package. These three nutrients are perhaps the most important variables for a healthy plant and soil matrix. Most balanced nutrient packages are loaded with nitrogen and iron, leaving the turf manager with little in the way of decision making. **Base One** offers the ability to provide your property with exactly what you know it needs, when it needs it, allowing you to actually use less nitrogen and iron. **Base One** is the perfect foundation for a complete Liquid Organic program.

**Low Biuret Urea:** A low nitrogen formula, providing enough N to assist in moving other nutrients into the plant.

**Phosphoric Acid:** Food Grade (85%) highly available source of phosphorous necessary for energy transfer in plants, root development, recycling of nutrients and sugar production.

**Potassium Hydroxide:** A low salt index source of potassium to help with sugar transfer, stalk strength and disease resistance.

**Bio-Net:** Fermentation soluble of dairy whey and corn distillates which contain many bioactive components such as organic acids, B-vitamins, amino acids and peptides, trace minerals and enzymes.

**North Atlantic Kelp Extract:** Rich in over 60 minerals, 21 amino acids and 12 vitamins, *ascophyllum nodosum* is also a rich source of naturally occurring plant gibberellins and cytokinins which act as plant growth regulators and stimulants. Kelp extract also provides muco-polysaccharides, which are complex sugars, and along with its vitamins, minerals and amino acids, greatly assists in feeding soil micro flora.

**EW Mineral Plex:** Consisting of copper, boron, zinc, manganese, magnesium, cobalt, selenium, iron and silica chelated with RL-37, which is used to create "clustered" water and places a charge on trace minerals to produce a colloidal suspension.

**Vitamin Complex:**

a) Ascorbic Acid: Vitamin C acts as an antioxidant in plants as it does in animals, preventing plant senescence.

b) D-Alpha Tocopherol: Vitamin E is also an antioxidant that acts as a plant membrane stabilizer and retards senescence.

c) Vitamin B-complex: A bacterial and fungal supplement for the soil biomass.

d) Vitamin B-12: Necessary for the proliferation of certain bacteria and protozoa.

**Magnesium Sulfate:** A soluble source of both magnesium and sulfur. Magnesium is required for chlorophyll production and enzyme synthesis. Sulfur is necessary for proper protein production for the plant.

## APPLICATION RATES & PROGRAMS:

**Greens & Tees** - 3 oz. per 1000 sq. ft. per week or 6 oz. per 1000 every two weeks. Increase rates to 8 - 12 oz. per 1000 sq. ft. for nutrient poor or biologically weak soils.

**Fairways** - 1.5 gallons per acre per month, increase rates to 2.5 gallons per acre on nutrient poor soils.

**Sports Fields** - 1.5 gallons per acre per month, increase rates to 3 gallons per acre on low CEC and poor soils.

**Ornamentals** - 4 oz. per 2 gallons of water drenched into the soil. These applications should be diluted at least 50:1.

**Base One** can be tank mixed with most turf products. A bench test is always recommended, especially when mixing with calcium.

\* add the appropriate form and amount of nitrogen, iron and calcium to this product.

*The EarthWorks Liquid Organics  
are the key to success when  
building a healthy environment.*

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