



# Essential<sup>®</sup> Plus 1-0-1

## Soil Amendment

- Revitalizes Soil
- For Seeding & Overseeding
- Promotes Nutrient Absorption
- Provides a Food Source for Beneficial Microbes

### GUARANTEED ANALYSIS:

Total Nitrogen (N) . . . . .	1%
1% Water Soluble Nitrogen	
Soluble Potash (K <sub>2</sub> O) . . . . .	1%
Magnesium (Mg) . . . . .	.05%
Sulfur (S) . . . . .	1.0%
1.0% Combined Sulfur (S)	
Iron (Fe). . . . .	0.29%
0.29% Chelated iron (Fe)	

Derived From: Fish Protein Hydrolysate, Potassium Humate, Iron Glucoheptonate and Magnesium Sulfate.

### Also Contains Non-Plant Food Ingredients

7% . . . . .	Humic Acid (derived from Leonardite)
10% . . . . .	Cellulose Fiber
0.117% . . . . .	Kelp Extract (Ascophyllum nodosum) Microbe Food
2% . . . . .	Glucose (Polysaccharide) Microbe Food
0.0025% . . . . .	Natural Wetting Agent (Yucca schidigera)
3% . . . . .	Monosaccharide (Dextrose)
13.17 mg/ lb. . . . .	Riboflavin (B2)
0.314% . . . . .	Vitamin (B6)

Weight per gallon . . . . . 8.99 lbs.

Weight per liter. . . . . 1.07 kg

pH. . . . . 5.5

Not For Use On Food Crops

### PRODUCT DESCRIPTION:

Essential Plus 1-0-1 is a 100% natural soil amendment derived from potassium humate, enzymes, simple & complex sugars, B-vitamins, kelp extracts, carbohydrates, cellulose, lignin, hydrolyzed organic proteins and a natural wetting agent. A colloidal liquid solution that provides a rich source of organic building blocks not found in typical nitrogen-phosphorus-potassium (NPK) fertilizers. Essential aids in nutrient absorption. High concentrations of humic acid, soluble humus and cellulose fiber replenish soils that have been depleted of organic matter, help alleviate soil compaction, and provide a food source for beneficial soil microorganisms. Essential requires no mixing and can be applied through any spray or fertigation system without clogging. It is compatible with most other fertilizers and products and requires no special handling.

### STORAGE & HANDLING:

Essential should be stored in room temperature warehousing and avoid freezing conditions. Essential should not be stored in direct sunlight or temperatures above 95° F for long periods of time. Replace cap after using. Never store exposed to the air. Since Essential contains a high percentage of solids it is important to shake the container well before use. Agitate 30 (113 liter) and 55 gallon (208 liter) drums frequently before use.

### TURF & ORNAMENTALS:

Essential is ideal for a variety of golf course, lawn care, landscape, sports turf, and tree care applications. Regular use of Essential Plus also reduces the effects of soil compaction, improves water penetration, increases a soil's cation exchange capacity (CEC), and neutralizes excess salt accumulations. Plants require more than just N-P-K fertilizers to remain vital and productive. Essential also contains vitamins, enzymes, carbohydrates and sugars to help plants thrive.

### HORTICULTURAL / GREENHOUSE APPLICATIONS:

Essential Plus is an easy to use liquid formulation that can be utilized as a drip prior to planting. It can be applied through a drip irrigation system, or via hand watering. It contains a safe, non-phytotoxic wetting agent derived from the yucca plant, which assures quick penetration into soils that are often difficult to wet.

Turf Applications		
Application	Rate	Frequency / Notes
Greens & Tees	3 oz per 1,000 FT <sup>2</sup> (88 ml per 100 m <sup>2</sup> )	Apply every 14 days throughout growing season
Fairways	4 oz per 1,000 FT <sup>2</sup> (118 ml per 100 m <sup>2</sup> )	Apply monthly throughout growing season
Sports Turf	4 oz per 1,000 FT <sup>2</sup> (118 ml per 100 m <sup>2</sup> )	Apply monthly throughout growing season
New Seeding & Overseeding	3 oz per 1,000 FT <sup>2</sup> (88 ml per 100 m <sup>2</sup> )	Apply at time of seeding and then every 14 days for 4 applications
Hydroseeding	6 oz per 100 gal water (47 ml in 100 L water)	Add to hydroseeding tank mix
Sod Installation	4 oz per 1,000 FT <sup>2</sup> (118 ml per 100 m <sup>2</sup> )	Apply at time of sod installation and then every 6 weeks throughout growing season

Turf Applications Rates by Soil Type Per 1,000 Sq. Ft. (100 m <sup>2</sup> )				
Variety	Normal Maintenance	Sandy Soils	Clay Soils	Newly Seeded
Cool Season	3 fl oz. (90 ml)	5 fl oz. (150 ml)	5 fl oz. (150 ml)	4 fl oz. (120 ml)
Warm Season & Transitional	4 fl oz. (120 ml)	6 fl oz. (170 ml)	6 fl oz. (170 ml)	5 fl oz. (150 ml)

Transplanting Trees, Shrubs & Ornamentals		
B & B Plantings	2 oz per gallon of water (15 ml per liter water)	Apply at time of planting and repeat in 30 days.
Bare Root Plantings	32-64 oz in 100 gallons of water (1-2 L per 100 L water)	At time of planting, drench 2-5 gal of mix around planting



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### Trees, Shrubs & Ornamentals:

Maintenance: 32 oz of Essential per 100 gal water. Inject over 3,000 FT<sup>2</sup> area. (250 ml in 100 L water inject over 75m<sup>2</sup>)

Root Injection:

Corrective: 64 oz of Essential per 100 gal water. Inject over 3,000 FT<sup>2</sup> area.  
(500 ml in 100 L water inject over 75m<sup>2</sup>)

Soil Drench:

32-64 oz per 100 gallons water. For smaller applications mix 3 - 5 ounces per gal of water. Thoroughly drench soil around area.  
(250-500 ml per 100 liters water)

### Injection System Ratio

Set Injector Ratio At: 1:100

1:200

Essential Per Gallon of Stock Water 32 fl oz. (1 L)

64 fl oz.(2 L)

### Plant Care

Application:	Rate	Frequency / Notes
Plant Maintenance:	32 oz per 100 gal of water (250 ml per 100 L water)	Drench monthly
Stress Recovery	2 oz per gal of water (16 ml per liter water)	Apply every 2 weeks until visible response
Neutralize Salts, Repair Phytotoxicity Damage	64 oz per 100 gallons of water, or 2 oz per 1,000 FT <sup>2</sup> of pot area (500 ml per 100 L water, or 60 ml per 100 m <sup>2</sup> )	Apply every two weeks for 2 applications