ESSENTIAL® PLUS

100% NATURAL ORGANIC TRUE SOLUTION WITH 20 L-AMINO ACIDS

- **REJUVENATES SOIL STRUCTURE**
- **FOOD SOURCE FOR MICROBIAL ACTIVITY**
- **STIMULATES ROOT & PLANT GROWTH**
- **CONTAINS 20 NATURAL L-AMINO ACIDS**

ALSO CONTAINS NON-PLANT FOOD INGREDIENTS:

Humic Acid	7%
Cellulose Fiber	10%
Kelp Extract	0.1%
Carbohydrates	2%
Natural Wetting Agent	0.0025%
Lignin	1.2%
Mono / Disaccharides	3%
Ash Content	2%
Total Amino Acid	2.75%

0.53% L-Glycine	0.08% L-Phenylalanine
0.39% L-Glutamic Acid	0.07% L-Isoleucine
0.35% L-Aspartic Acid	0.04% L-Histidine
0.26% L-Alanine	0.02% L-Methionine
0.19% L-Proline	0.01% L-Tyrosine
0.17% L-Leucine	Trace% L-Carnosine
0.16% L-Lysine	Trace% L-Citrulline
0.16% L-Serine	Trace% L-Cystine
0.12% L-Arginine	Trace% L-Beta-Alanine
0.10% L-Threonine	Trace% L-Taurine
0.10% L-Valine	

Riboflavin (B2)	13.17 mg/ lb.
Vitamin (B6)	0.314%
Gibberellic Acid	0.001%
Natural Rooting Substance	0.01%

Derived From: Humic Acid (Potassium Humate), Plant Extracts, Simple and Complex Sugars, North Atlantic Kelp Extract, Hydrolyzed Organic Proteins, Natural Wetting Agent and Carbohydrates

Weight per gallon . . . . . 8.99 lbs.

PRODUCT DESCRIPTION:

Essential is a 100% natural organic product derived from plant and vegetative products that provides a rich carbon source of organic matter. Essential is pasteurized and homogenized to be a homogeneous solution. Each ingredient has been selected to provide all the various stages of organic decomposition (from fast decomposers to more complex forms of carbon requiring complex decomposition). Essential contains 20 L-amino acids that promotes nutrient absorption, and stimulates the plants essential metabolic activities. It also becomes an available food source for soil microorganisms. High concentrates of active, soluble humic acid, humus and cellulose fiber will help to replenish soils that have been depleted of organic matter. Essential will improve poor or subsoil conditions and compaction. Essential will improve plant physiology with sugars, 20 amino acids and nutrients that are not available in N-P-K fertilizers.

FOOD SOURCE FOR MICROBIAL ACTIVITY:

Beneficial microorganisms need organic matter as a food source to survive and increase their population. Essential has a high carbon content that slowly decomposes, restoring organic matter back into the soil. This is especially important in overworked urban settings such as golf courses, estates, corporate sites, and other manicured landscape settings.

ENHANCES PLANT PHYSIOLOGY:

Turf, trees, ornamentals, and nursery and greenhouse stock need more than just N-P-K fertilizers to remain in superior health. Essential contains vitamins, enzymes, carbohydrates, sugars, amino acids and root stimulators (from kelp). These nutrients are absorbed and utilized by the plant to enhance growth, vitality and stress resistance. Essential contains natural plant growth regulators that encourage cell division, root development and seed germination.

REJUVENATES SOIL STRUCTURE:

Essential contains high percentages of active, soluble humates, plant extracts, cellulose fiber and a natural wetting agent which are critical to maintain healthy soil. By adding organic matter back into soils that have been depleted, even the most difficult soil conditions can be improved. These ingredients also reduce compaction and improve cation exchange capacities.

APPLICATION RECOMMENDATIONS:

Essential is 100% soluble for spray applications foliar feeding, soil injection, or use in irrigation systems. Essential may be mixed with other technical materials and sprayed in one

Application Recommendations Per 1,000 Square Feet				
Plant Material	Normal Maintenance	Sandy Soil Conditions	Clay Soil Conditions	Newly Seeded / Transplants
Turf Cool Season	3 oz.	5 oz.	5 oz.	4 oz.
Turf Warm Season or Transitional	4 oz.	6 oz.	6 oz.	5 oz.
Foliage Plants	3 oz.	4 oz.	5 oz.	4 oz.
Flowering & Bedding Plants	3 oz.	4 oz.	5 oz.	4 oz.

application, saving labor. Essential can be used on all types of turf grass, shrubs, trees, evergreens and flowering plants, as well as organically grown food crops. Registered with NOFA-NY as 100% certified organic.

SUGGESTED USES:

USGA Spec Tees & Greens: Essential should be part of the regular maintenance program to increase the organic matter content in soils and feed beneficial soil microorganisms. Essential should be used on newly built tees and greens to increase the cation exchange capacity. Regular use of Essential will improve the ability of sandy soils to hold nutrients. Essential will improve seed germination and stimulate root growth. Mix 32 oz. in 100 gallons of water for normal maintenance. Mix 1 gallon in 100 gallons of water for transplants. Spoon feed every four to six weeks.

Clay Soils: Calcareous soils often lead to compaction and nutrient availability problems because of the lack of organic matter. Fertilizers cannot correct the problem and often lead to the build up salts. Essential's high concentration of organic matter and natural wetting agent can penetrate the encrusted soil and begin restoration. Apply Essential throughout the entire growing season. Immediately apply after aeration has been completed or top dressing has been applied.

Lawn Care and Landscaping: Essential should be used in conjunction with a regular fertilization program or as a stand alone product when a natural organic program is required. Essential should be applied to all renovated areas and construction sites, where soil has been removed or adequate top soil is lacking.

Tree Care:
Diameter at breast height (DBH)
2 oz. of Essential per inch of trunk diameter

Tree Care: Established trees and ornamentals in urban settings are often deprived of renewable organic matter during the course of grooming. Essential can be used for year round tree care, to enhance liquid and soluble fertilizer programs. Essential should be used in the summer to reduce stress problems. All newly transplanted trees and ornamentals should have Essential applied. Transplants need additional care to promote root development and enhance the uptake of usable nutrients and storage of carbohydrates. Essential will decrease transplant shock and stimulate root growth. In excavation areas and construction sites Essential should be applied as double the normal maintenance rate. Renovation problems such as compaction and lack of microbial activity that result in plant stress and death can be avoided with Essential.

Tree Care:	
Oz. per 100 gallon of tank mix	
Maintenance	32 oz.
Corrective	1/2 gal.

Transplants:	
After planting or root pruning apply:	1:100 of Essential in water until saturation
Bare root tree planting:	Soak in 2% solution prior to planting

NURSERIES AND GREENHOUSES:

Field Grown Nursery Stock: Essential can be fed foliarly and through the soil throughout the entire growing season. For container grown materials, apply monthly. After transplanting or root pruning, apply by saturation.

Flowering Plants, Bedding And Foliage Plants: Since most soilless mixes contain little organic matter, it is important to add organic matter to improve your plant's health. Essential will hold nutrients in soilless mixes longer, reduce leaching and salt build up. Essential improves seed germination. Adding humic materials will improve plant growth and root development. Essential can be injected through all irrigation systems.

STORAGE AND HANDLING:

Essential should be stored in normal warehouse conditions. It should not be stored in direct sunlight or temperatures above 95° 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 mix or shake well before use. Essential is made from natural organic products and is therefore safe to handle and use. Essential is compatible with all fertilizers and technical products.