ESSENTIAL® PLUS 1-0-1
100% NATURAL ORGANIC SOIL AMENDMENT And
ROOT STIMULATOR With 21 L-AMINO ACIDS

- REJUVENATES SOIL STRUCTURE
- FOOD SOURCE FOR MICROBIAL ACTIVITY

GUARANTEED ANALYSIS:
Total Nitrogen (N) ........................................... .1%
1% Other Water Soluble Organic Nitrogen
Soluble Potash (K₂O) ........................................... .1%
Iron (Fe) .......................................................... .29%
Derived From: Kelp (Ascophyllum nodosum), Potassium Humate, Gibberellic Acid, Fish Hydrolysate, Plant Extracts,
Simple and Complex Sugars and Iron Glucoheptonate.

ALSO CONTAINS NON-PLANT FOOD INGREDIENTS
- Humic Acid (derived from Leonardite)
- Cellulose Fiber
- Kelp Extract
- Natural Wetting Agent
- Natural Rooting Substance
- Ash Content
- Riboflavin (B2)
- Vitamin (B6)
- Total L-Amino Acid

0.77% L-Glutamic Acid 0.16% L-Phenylalanine
0.42% L-Proline 0.16% L-Isoleucine
0.46% L-Leucine 0.15% L-Tyrosine
0.37% L-Aspartic Acid 0.13% L-Histidine
0.32% L-Alanine 0.11% L-Cystine
0.28% L-Arginine 0.10% L-Methionine
0.23% Glycine Trace% L-Carnosine
0.23% L-Valine Trace% L-Citrulline
0.21% L-Leucine Trace% L-Arginine
0.21% L-Serine Trace% L-Ornithine
0.18% L-Threonine

Weight per gallon
8.99 lbs.
Weight per liter ....................................... 1.07 kg
pH ...................................................... 5-6

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 21 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 concentrations of active, sol-
uble 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, 21
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 over-
worked 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 develop-
ment 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, 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.

SUGGESTED USES:
USGA Spec Tees & Greens: Essential should be part of the reg-
ular maintenance program to increase the organic matter con-
tent 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.
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 of 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 after aerating or if aeration has been completed or top dressing has been applied.

Turf Applications Per 1,000 Sq. Ft. (100 m²)

<table>
<thead>
<tr>
<th>Turf Variety</th>
<th>Normal Maintenance</th>
<th>Sandy Soils</th>
<th>Clay Soils</th>
<th>Newly Seeded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cool Season</td>
<td>3 oz. (90 ml)</td>
<td>5 oz. (150 ml)</td>
<td>5 oz. (150 ml)</td>
<td>4 oz. (120 ml)</td>
</tr>
<tr>
<td>Warm Season &amp; Transitional</td>
<td>4 oz. (120 ml)</td>
<td>6 oz. (170 ml)</td>
<td>6 oz. (170 ml)</td>
<td>5 oz. (170 ml)</td>
</tr>
</tbody>
</table>

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: 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 at 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.

Transplants

<table>
<thead>
<tr>
<th>B &amp; B Plantings</th>
<th>2 oz. per gallon of water</th>
<th>Repeat in 30 days.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bare Root Plantings</td>
<td>32-64 oz. in 100 gallons of water</td>
<td>Drench 2-5 gal. (250-500 ml per 17-19 L) water of mix around planting</td>
</tr>
</tbody>
</table>

Trees, Shrubs & Ornamentals:

| Foliar Spray | 24 oz. in 100 gallons of water. Thoroughly spray to point of run-off. (709 ml in 400 L water) |
| Root Injection | Maintenance: 32 oz of Essential per 100 gal water. Inject over 3,000 ft² area (250 ml per 100 L water over 300 m²) |
| | Corrective: 64 oz of Essential per 100 gal water. Inject over 3,000 ft² area (500 ml per 100 L water over 75 m²) |
| Soil Drench | 3 - 5 ounces per gal of water. Thoroughly drench soil around area. (88 - 147 ml per 4 L water) |

Turf Applications

<table>
<thead>
<tr>
<th>Application</th>
<th>Rate</th>
<th>Frequency/ Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greens &amp; Tees</td>
<td>3 oz. per 1,000 FT² (88 ml per 100 m²)</td>
<td>Apply every 14 days throughout growing season</td>
</tr>
<tr>
<td>Fairways</td>
<td>4 oz. per 1,000 FT² (118 ml per 100 m²)</td>
<td>Apply monthly throughout growing season</td>
</tr>
<tr>
<td>Sports Turf</td>
<td>4 oz. per 1,000 FT² (118 ml per 100 m²)</td>
<td>Apply monthly throughout growing season</td>
</tr>
<tr>
<td>New Seeding &amp; Overseeding</td>
<td>3 oz. per 1,000 FT² (88 ml per 100 m²)</td>
<td>Apply at time of seeding and then every 14 days for 4 applications</td>
</tr>
<tr>
<td>Hydroseeding</td>
<td>6 oz. per 100 gal water (1 L in 400 L water)</td>
<td>Mix into hydroseeding tank mix</td>
</tr>
<tr>
<td>Sod Installation</td>
<td>4 oz. per 1,000 FT² (118 ml per 100 m²)</td>
<td>Apply at time of sod installation and then every 6-weeks throughout growing season</td>
</tr>
<tr>
<td>Lawn Care</td>
<td>4 oz. per 1,000 FT² (118 ml per 100 m²)</td>
<td>Apply monthly throughout growing season</td>
</tr>
</tbody>
</table>

Storage & Handling:

Essential should be stored in normal warehouse conditions. It 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 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.

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

H316 Causes Mild Skin Irritation (or Dermatitis in Some Individuals Upon Prolonged Contact)
H520 Causes Eye Irritation (Burning)

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.

CAUTION: Keep out of reach of children. In case of contact with eyes, flush immediately with copious amounts of water. Contact a physician. Do not take internally.

Manufactured in the USA By:

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