



ESSENTIAL[®] ORGANIC 1-0-1

OMRI CERTIFIED FOR ORGANICALLY GROWN CROPS, HERBS & PLUGS

- Stimulates Fertilizer & Micronutrient Uptake
- Contains a Natural Sticker / Spreader
- Improves Nutrient Release & Water Holding Capacity

GUARANTEED ANALYSIS: F106

Total Nitrogen (N)	1%
1% Other Water Soluble Organic Nitrogen	
Soluble Potash (K2O)	1%
Calcium (Ca)	1.0%
Magnesium (Mg)	0.5%
Sulfur (S) Combined	1.0%
Iron (Fe)	0.29%
Derived From: Potassium Humate (from Leonardite), Kelp (Asco- phyllum nodosum), Plant Extracts, Simple and Complex Sugars, Iron Sulfate, Magnesium Sulfate, Yucca	

ALSO CONTAINS NON-PLANT FOOD INGREDIENTS

Humic Acid (derived from Leonardite)	7%
Mono / Disaccharides	3%
Total L-Amino Acids	2.75%
2% Carbohydrates	2%
Ash Content	2%
Lignin	1.2%
Vitamin (B6)	0.314%
Kelp Extract	0.1%
Natural Rooting Substance	0.01%
Gibberellic Acid	0.001%
Wetting Agent (Yucca Schidigera)	0.0025%
Riboflavin (B2)	13.17 mg / lb.
Total L-Amino Acids	2.75%
0.53% 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	

Weight per gallon 8.99 lbs.

PRODUCT DESCRIPTION:

Essential Plus is a 100% natural organic product derived from potassium Humate, 20 natural L-amino acids, enzymes, simple & complex sugars, vitamins, kelp extracts, carbohydrates, cellulose, lignin, hydrolyzed organic proteins and a natural wetting agent. Each ingredient has been selected to provide a rich source of organic building blocks not found in typical nitrogen-phosphorus-

- Improves Cation Exchange Capacity in Soil
- A Food Source for Beneficial Soil Microbes
- Improves Root Development & Seed Germination
- Contains a Natural Wetting Agent

potassium (NPK) fertilizers. Essential Plus provides a safe alternative to chemical hormones. It is ideal for use from plug production to ensure seed germination and good rooting. When used at the time of plug transplant to the field, Essential Plus will help eliminate transplant shock and provide better establishment.

The ingredients will add organic matter to depleted soils reducing the effects of compaction and improving water penetration and nutrient holding capacity. Essential Plus provides an important food source for beneficial soil microbes. The high carbon content creates an environment suitable for beneficial microorganism growth. Essential Plus corrects soil alkalinity and is ideal on high salt soils to reduce and neutralize salts. The active humic acid in Essential Plus retains nutrients ions from leaching through soils and holds them in a form readily available for plant uptake. Essential Plus is rich in organic materials that have a high absorption and exchange capacity for nutrient cations. Humic acid will help mobilize phosphates that have been tied up in soils.

Essential Plus is 100% Organic and is classified safe for the applicator and the environment.

Injection Ratio		
Injector Ratio	1:100	1:200
Essential Plus Per Gallon of Water	32 fl oz. (1 L)	64 fl oz. (2 L)

Crop Care
For all types of Field, Vegetables, and Fruit Crops.

Application:	Rate	Frequency / Notes
Crop Care & Fertilization	Mix 32 oz per acre in a min. of 100 gal water (1 Liter per 400 L water)	Apply monthly
Stress Recovery	Mix 64 oz per acre in a min. of 100 gal water (2 Liters per 400 L water)	Apply every 2 weeks until visual response
Neutralize Salts, Repair Phytotoxicity Damage	Mix 64 oz per acre in a min. of 100 gal water (2 Liters per 400 L water)	Apply every two weeks for 2 applications
Visit www.growthproducts.com for supplemental spec sheet that contains specific crop recommendations		

Cuttings
For All Types of Herbaceous, Softwood, Semi-Hardwood, & Hardwood Cuttings

Application Method:	Rate	Frequency / Notes
Drench Rate:	Mix 4 oz per gallon of water (30 ml per Liter water)	Drench trays after sticking. Re-apply at callus formation or in 4 weeks

Agricultural & Horticultural Applications

Application	Rate	Frequency/ Notes
Sizing-Up & Transplanting	4 oz per gallon of water (30 ml per Liter water)	Drench plant trays, liners or pots after planting
Field Transplants of Plugs	Mix 32 oz per acre in a min. of 100 gallons water (3 Liters per Hectare in a minimum of 400 L water)	Apply at time of transplant
Bareroot or Containerized Trees, Woody Vines, & Berries	Mix 32 oz per acre in a min. of 100 gallons water (3 Liters per Hectare in a minimum of 400 L water)	Apply at time of transplant by drenching root ball
Vegetable & Herb Plugs	Mix 2 oz per gallon of water (15 ml per Liter water)	Re-apply every 14-28 days
Freshly Grown Herbs	Mix 2-4 oz per gallon of water (15-30 ml in 1 Liter water)	Re-apply every 14-28 days
Seeding	Drench: 2 oz per gallon of water (15 ml per Liter water)	Drench seed trays or plug trays until thoroughly soaked at time of seeding
	Seed Soak: 12 oz per 100 lbs of seed (385 ml per 50 Kg seeds)	Spray directly on seed prior to sowing
Hydroponics, Constant Feed, Ebb and Flood	Charging: 8 oz per 150 gallons of water (40 ml per 100 Liters water)	Run through system
	Recharging Rate: 3 oz per 150 gallons of water (20 ml per 100 Liters water)	Replenish every time water is added

Fruit	Application Method	Rate	Application Timing / Intervals				
			1st	2nd	3rd	4th	Additional
Apples, Pears	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Green tip (tight cluster)	Pre-bloom/ pink bud	Full bloom	Early fruit	Every 21 days
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					
Citrus	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Early bloom	Petal fall	With summer spray	With fall spray	6-8 weeks prior to harvest
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					
Grapes	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 8 - 12" or 20-30 cm cane	At 18- 24" or 45-60 cm cane	Full bloom	Berry set per early shattering	2-3 weeks later
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					
Stone Fruit	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Pink or white bud	Full bloom	Early fruit formation	3 weeks later	3 weeks later
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					
Nut Trees	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Pink or white bud	Full bloom	Early fruit formation	3 weeks later	3 weeks later
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					
Strawberries, Blueberries, Cranberries and other berries	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Prior to transplanting or early spring growth	At first prebloom	At first fruit set	Every 3-4 weeks to mid point in harvest season	
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha					

***For treatment of individual trees or vines, divide rate per acre by number of trees and vines per acre.**

VEGETABLE CROPS	Application Method	Rate	Application Timing / Intervals			
			1st	2nd	3rd	Additional
Beans, Peas	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 4-6 leaf stage	At first-bloom		At first pods
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Carrots, Onions, Leeks, Turnips	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	2-3 weeks after emergence	At root enlargement		Every 14 - 28 days until harvest
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Broccoli, Brussels Sprouts, Cauliflower, Cabbage	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Begin at 4-5 leaf stage	Every 14 days later		At head initiation
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Corn, Sweet	Broadcast-Spray	64 fl oz per Acre 2.33 L per Ha	Begin at 2-6 leaf stage	At 50-70 cm of 20-30" growth		Just prior tasselling
	Band -Spray; & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Cucumbers, Pickles	Broadcast -Spray	64 fl oz per Acre 2.33 L Ha	At first 4 true leave	First pre-bloom	14 days later	Within 48 hours of each picking
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Eggplants, Sweet and Hot Peppers, Melons, Squash	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Apply at 6-8" of growth or 15-20 cm	Pre-bloom stage		At fruit set
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Potatoes	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At tuber set	14 days later		At early bloom
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				
Tomatoes	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Apply at 6-8" or 15-20 cm growth	At first prebloom	At first fruit set	Within 48 hours of each picking
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha				

Herbs	Application Method	Rate	Application Timing / Intervals		
			1st	2nd	3rd / Additional
Sage, Rosemary, Thyme, Peppermint, Basil, Dill or Parsley	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Prior to transplanting or early spring growth	14 days later	Within 48 hours of each harvest
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha			
	Greenhouse Drench	2 - 4 oz per Gallon			

Field Crops	Application Method	Rate	Application Timing / Intervals	
			1st	Additional
Beets, Sugar	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 6-8 leaf stage	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Corn	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 2-6 leaf stage	Between flower initiation and final bloom
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Cotton	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Begin at pinhead square	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Peanuts	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Begin 30 days after planting	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Rice	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 2-5 leaf stage or pinnacle initiation	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Sorghum	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 2-6 leaf stage	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Soybeans	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	At 3-7 trifoliate leaf stage	Then at 14 - 28 day intervals
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		
Wheat	Broadcast- Spray	64 fl oz per Acre 2.33 L per Ha	Start of tillering in the fall and/or spring	Then when 2 - 3 leaves Form on main stem
	Band-Spray, & Drip Irrigation	32 fl oz per Acre 1.16 L per Ha		

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.

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 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.

Manufactured By:

