



ESSENTIAL® PLUS 1-0-1

100% NATURAL PLANT & ROOT STIMULANT

- **For Planting, Transplanting & Sizing Up**
- **Overcomes Transplant Shock**
- **Neutralize Salt Build Up**
- **Rapid & Healthy Root Growth**

- **For Greener, Denser, & More Vigorous Plants**
- **Quicker Seed Germination**
- **Apply Through Any Irrigation System**
- **Saves Hours Of Labor**

CONTAINS NON PLANT FOOD INGREDIENTS

Humic Acid	.....	7%
Cellulose Fiber	.....	10%
Natural Rooting Substance	.....	0.01%
Gibberellic Acid	.....	0.001%
Kelp Extract	.....	0.1%
Carbohydrates	.....	2%
Natural Wetting Agent	.....	0.0025%
Lignin	.....	1.2%
Mono / Disaccharides	.....	.3%
Ash Content	.....	2%
Total L-Amino Acids	.....	2.75%
0.08% L-Phenylalanin	0.53% L-Glycine	
0.07% L-Isoleucine	0.39% L-Glutamic Acid	
0.04% L-Histidine	0.35% L-Aspartic Acid	
0.02% L-Methionine	0.26% L-Alanine	
0.01% L-Tyrosine	0.19% L-Proline	
Trace% L-Carnosine	0.17% L-Leucine	
Trace% L-Citrulline	0.16% L-Lysine	
Trace% L-Cystine	0.16% L-Serine	
Trace% L-Beta-Alanine	0.12% L-Arginine	
Trace% L-Taurine	0.10% L-Threonine	
	0.10% L-Valine	
Riboflavin (B2)	.....	13.17 mg/lb.
Vitamin (B6)	.....	0.314%
Derived From: Humic Acid (Potassium Humate), Plant Extracts, Simple and Complex Sugars, North Atlantic Kelp Extract (Ascophyllum nodosum), Hydrolyzed Organic Proteins, Natural Wetting Agent and Carbohydrates		
Weight per gallon	.....	8.74 lbs.

PRODUCT DESCRIPTION:

Essential® Plus provides a safe alternative to the use of chemical hormones like IBA and NAA for the propagation of cuttings. Essential Plus is a true organic solution containing several unique ingredients with auxin-like activities known to stimulate callus formation and rooting on softwood and hardwood cuttings. Essential Plus contains humic acid derived from Leonardite, kelp extract and a proprietary plant extract, which promote rooting. Side by side trials with IBA have proven that Essential Plus produces faster rooting and greater root mass than IBA.

Essential Plus is an easy to use liquid formulation that can be utilized as a dip prior to planting or as a time saving drench. It is pasteurized and free of pathogens. It can be applied through a sprayer, drip irrigation system, or via hand watering, saving many hours of production labor. 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. It is manufactured from only natural organic ingredients, and is labeled by the NOFA as organic.

As an added benefit, Essential Plus promotes other aspects of plant physiology, including photosynthesis, hormonal activity, respiration and ion uptake during the plant's growth cycle. Essential Plus contains two ingredients that speed up seed germination. It quickly softens the seed coat, allowing water penetration and faster, more uniform germination even on tough seed coats.

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 (120 ml per 4 L water)	Drench trays after sticking. Re-apply at callus formation or in 4 weeks
Dip Rate:	Mix 1 oz per 30 oz of water (1:30 ratio) 30 ml per L water	Dip basal end of cuttings, individually or in bunches, for 5 seconds

APPLICATION RECOMMENDATIONS:

Essential Plus needs no mixing and will not settle out of solution. It can be applied through any type of fertigation system, drip irrigation or spray equipment. Use Essential Plus on all types of softwood cuttings, hardwood cuttings, vegetable plugs, bedding plants, perennials, small and large transplants and for seed germination.

Essential Plus is an easy, labor saving alternative to IBA dip. Simply use as a drench when planting cuttings. (Rates below)

Horticultural Applications		
Application	Rate	Frequency/ Notes
Sizing-Up, Transplanting, Re-Potting	4 oz per gallon of water (120 ml per 4 L water)	Drench plant trays, liners or pots after planting
Tissue Culture	1.6 oz per 10 gal of water (50 ml per 40 L water)	Drench plug trays until thoroughly soaked
Seeding	Drench: 2 oz per gallon of water (60 ml per 4 L water)	Drench seed trays or plug trays until thoroughly soaked at time of seeding
	Seed Soak: 12 oz per 100 lbs of seed (360 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 (240 ml per 550 L water)	Run through system
	Recharging Rate: 3 oz per 150 gallons of water (85 ml per 550 L water)	Replenish every time water is added

Plant Care & Maintenance For All Types of Greenhouse & Nursery Crops		
Application	Rate	Frequency /Notes
Plant Maintenance:	32 oz per 100 gal of water (1 L per 400 L water)	Drench monthly
Stress Recovery	2 oz per gal of water (60ml per 4 L water)	Apply every 2 weeks until visual response
Neutralize Salts, Repair Phytotoxicity Damage	4 oz per 1,000 SF2 of pot area (120 ml per 100 m2)	Apply every two weeks for 2 applications

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

DIRECT SIPHON:

Essential Plus can be siphoned directly from the original container. This can be done with a variable proportioner capable of high ratio settings. This eliminates the need to mix stock concentrates or stir the mixing barrels. For proportioner settings, please contact your proportioner supplier.

MIXING / COMPATIBILITY:

Since Essential Plus contains a high percentage of solids, mix or shake well before use. Essential Plus is made from

natural organic products and is therefore safe to handle and use. Essential Plus is compatible with all fertilizers and chemical pesticides.

Handling & Storage:

Essential Plus should be stored in normal warehouse conditions. Do not store in direct sunlight or above 100° for long periods of time. Replace cap after using. Never leave container open to air.

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