

# GROWTH INNOVATION

THROUGH COLLOIDAL NANO TECHNOLOGY

## PhaseBoost

- Plant Derived & 100% Biodegradable Ingredients
- Completely Environmentally Safe
- Non-carcinogenic, Non-Fuming & Non-Toxic

SUPERNATURAL GROWTH

PhaseBoost is a revolutionary new growth enhancement product designed to significantly improve your existing nutrient program at a nominal cost for maximum benefit. It's constituted from natural ingredients and brings together cutting edge technologies in a single formula to revive the health of your growing media, enhance nutrient absorption and plant growth. Most importantly, PhaseBoost significantly increases the cationic exchange capacity (CEC) of the soil and will:

- Enhance Water and Nutrient Uptake
- Improve Plant Growth Rate
- Increase Cola Size and Density
- Improve Bud to Leaf Ratio
- Naturally Enhance Resistance to Insects & Disease
- Shorten Growing Periods by 20%
- Lower Nutrient Costs by more than 50%
- Make Soil Sustainable for up to 5-6 Harvests
- Eliminate Flushing & Preserve Tricomes
- Increase Product Potency

## Technical Characteristics

PhaseBoost encapsulates three highly specialized technologies into one medium; namely:

- 1) A Nano Scale Linear Surfactant
- 2) Bio Technology - Complex Beneficial Microbiological Formula
- 3) Concentrated Liquid Kelp Extract - Plant Growth Regulators

Through the integration of nano technology with colloidal science, PhaseBoost's base component is a unique linear surfactant. The linear micelles are able to incorporate key microelements into a positively charged colloidal suspension that enables a significantly enhanced nutrient delivery mechanism to the plant root by increasing the cationic exchange capacity (CEC) in the soil. Increasing the CEC improves the soils' ability to hold onto essential nutrients like calcium, magnesium and potassium and provide a buffer against soil acidification.

Encapsulated in the micelles of the surfactant is a specialized microbial blend that has been carefully produced via a proprietary fermentation process to capture critical catalytic building blocks to promote rapid microbial growth in the soil; key bacterial functions include, nitrification and mineralization.

A highly concentrated premium liquid kelp extract, provides a rich array of plant growth hormones that help improve early root development.



## Primary Functions

**SOIL CLEANING ABILITIES** – The soil is cleaned and rehabilitated via two primary mechanisms. Firstly the surfactant base delivers a temporary emulsion deep into the soil that allows the release and mobilization of all contaminants away from the root capillaries. Secondly, the hyper-wetting and penetrating emulsion saturates the soil with a proprietary blend of beneficial bacteria and enzymes that breaks down any toxic residues or pathogens existing in the root zone.

**NUTRIENT OPTIMIZATION** - PhaseBoost utilizes more of less. It helps dissolve accumulated NPK's and nutrient salts away from the roots allowing the root capillaries to be opened. This enhances the plants' ability to absorb nutrients. Nutrient uptake is further expedited from the inclusion of cations within the PhaseBoost formulation. Negatively charged anions (nutrients) bind to these positive atoms and hitch a ride into the plant. In other words, PhaseBoost is an effective transporter and penetrant, delivering nourishment directly to the plant roots and enhancing their capillary action, boosting all the facets of plant growth.

**ENHANCED TRANSPIRATION** – As the root zone is cleansed and freed of contaminants, root development is stimulated. A combination of these factors, aids the plants ability to absorb moisture and transpire more effectively. This in turn helps keep the leaf's stomata healthy and able to absorb more CO<sub>2</sub> from the atmosphere.

**NO FLUSH REQUIREMENTS** - Utilizing less chemical additives with PhaseBoost, keeps the root zone free of contaminants and enhances the plants' ability to transpire. A clean transpiration preserves the trichomes and all the cannabinoids contained within them. Traditional practices of flushing and pushing those soil contaminants through the plant causes many of those trichomes to burst and allowing valuable properties to escape.

**INOCULATION** - Specialized biological components encapsulated inside NanoPhase inoculate the root zone with fast growing species of Bacillus bacteria. Unrivaled in biological viability, PhaseBoost's unique spectrum of microbes perform a wide range of functions including nitrogen fixing, plant growth promoting hormone production and enzyme production to help stimulate the growth of endo and ecto fungi.

**BIOCONTROL** – PhaseBoost enhances Bacillus levels in the soil and helps prevent gram negative bacteria commonly found in commercial soil from taking hold. Specific beneficial species like the antibiotic producing *P. Polymyxa* or *P. fluorescens* can flourish and target fusarium helping to prevent instances of Powdery Mildew (PM).