

# FERTILIZERS



## BRANDS CARRIED

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[kimatec.com](http://kimatec.com)



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[plantmarvel.com](http://plantmarvel.com)



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[icl-sf.com](http://icl-sf.com)



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[plant-success.com](http://plant-success.com)



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[microbelifehydro.com](http://microbelifehydro.com)

In 2010, American Clay Works & Supply Company became the Master Distributor, for the United States and Canada, of Kimatec Fertilizers. Kimatec has 20 years experience in producing nutrients in Almeria, Spain. For many years they were focused on greenhouse food production fertilizers, but have branched out into field agriculture, turf and ornamental, and other applications, as their different fertilization methods have been accepted by other growing communities at large. They currently sell to over 20 countries, and we are proud to work with them in introducing their fertilizers in the US. We are currently stocking 13 products from Kimatec, many organic amino formulations, as well as combination conventional/amino formulations. We plan to introduce more Kimatec products in the coming years, as well as build on the lines we are already carrying.

Please visit [www.kimatec.com](http://www.kimatec.com) for trial data and more information.



# ESPARTAN

## 2.70-3.03-2.60 Organic Fertilizer derived from Fermented Sugar Beet Molassas

*(2-3-2 in States Requiring Whole Number NPK Labeling.)*

Espartan is a product formulated from organic matter obtained from selected vegetables. The product stimulates the development of the green organs and fruits of plants. The product is rich in organic matter (33.50%) and Fulvic Acids (19.00) obtained from the concentration of vegetable remains. It also contributes with the essential elements; Nitrogen at 2.70%, Phosphorous at 3.03%, and Potassium at 2.60%. The color of the product is black/brown, typical of organic matters. The density is 1.19 g/cc and the pH is 5.80-5.90. Espartan is a product that can to be applied to the soil to take advantage of the effects of the organic matter and fulvic acid. The product improves soil texture and structure, favours the plant metabolism, increases the development of the roots, increases microbial life and assists in nutrient absorption. It can also be used in hydroponic application as an organic NPK fertilizer amendment. **NOP Organic Certified!**

Like all Kimatec Products, Espartan is extremely soluble and will not leave a biofilm buildup in irrigation systems. Espartan is one of our best selling Kimatec Fertilizers. With its low application rate (1.5 ml to 20 ml per gallon depending on application type) a bottle goes a long way. This is a great product to introduce you to the power of Kimatec's fertilizer line.

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.





# BOMBARDIER

## 8-0-0 Organic Fertilizer derived from Fermented Sugar Beet Molassas and Fermented Glucose Syrup

Bombardier is a liquid fertilizer obtained from the concentration of selected vegetables. Bombardier has a double action; to the soil structure and to the crop quality. Due to its origin, it presents a high concentration of Nitrogen, amino acids, organic matter, polysaccharides, and fulvic acid.

Bombardier, the flagship product of Kimitec, is very effective in irrigation, hydroponic and foliar application.

### Benefits To Plants:

- High plant stimulation
- Better metabolic and enzymatic activity
- Higher cellular division
- Improves the resistance to stress conditions
- Increases productivity and crop quality
- Promotes good plant growth
- Increases fruit size and quality
- Improves Rooting System
- Increased Degrees Brix

### Benefits To Soil:

- Improves soil structure
- Improves soil aeration
- Better nutrient absorption
- Improves humidity retention
- Allows for reduced use of other fertilizers



# BOMBARDIER sugar

## 8-0-0 for increasing Degrees Brix

Bombardier Sugar is a new generation of fertilizer with an exclusive formulation. Bombardier Sugar increases the synthesis of sacarose. Through this we obtain a direct effect in ripening and increasing in Degrees Brix (°Bx). As a consequence, the size and quality of fruit is improved as well as the sugar content of the fruit. The product is based on fundamentals and benefits of Aminoacids, Fulvic Acids, Organic Matter and oligosaccharides (short chain saccharides that are easily absorbed by the plant) inside the fruit.

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.





# CAOS

## 10.5% Liquid Calcium Chloride chelated with Lignosulphate

*Allowed as Foliar Spray in Organic Agriculture*

Caos is a product with a high concentration of calcium that prevents and corrects the possible calcium deficiencies in all kinds of crops. Its special formulation with lignosulphonated compounds allows improved calcium absorption. Allowed in organic production as a foliar spray to treat physiological disorder. The symptomatology of calcium deficiency is diverse and varies from simple foliar chlorosis to the necrosis of the fruit. In general, it affects the organs of the plant that have higher calcium demands: meristematic apices and fruit.

Caos is one of the highest rated Kimitec Products by our growers for use in both fruits and vegetables to eliminate blossom end rot, as well as in flower production to increase calcium without having to use a calcium nitrate product when nitrogen is not wanted or needed.

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.



# TUNDAMIX

Tundamix is a Microelement Liquid Concentrate containing 5 essential elements complexed with Lignosulphate that can be used in any crop: vegetables, orchard, fruit trees, ornamental, flowers, nurseries, lawn, etc.

### Tundamix Liquid Microelements:

- Copper (Cu) ..... 0.1 % – 0.1% Chelated Copper
- Iron (Fe)..... 2.5 % – 2.5% Chelated Iron
- Manganese (Mn) ..... 1.4 % – 1.4% Chelated Manganese
- Molybdenum (Mo)..... 0.1 % – 0.1% Chelated Molybdenum
- Zinc (Zn) ..... 0.2 % – 0.2% Chelated Zinc

Tundamix is allowed in organic agriculture according to the requirements of: USDA/NOP Final Rule (USA) 205.601(j)(4) and 205.601(j)(6).

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.



# KATON

## 0-0-26 EDTA Chelated Liquid Potassium

Katon is a liquid solution, with a high potassium concentration, indicated for the prevention and correction of potassium deficiencies and favoring the ripening of fruits in the final stages of the crop. Since it is formulated with a high potassium concentration, and because it is a completely soluble solution, Katon provides the necessary potassium at times of maximum demand in a manner that is easily assimilated by crops. Katon is chelated with EDTA granting easy assimilation into the plant.

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.



# AMIFORT

## 5-0-0 26% Free Amino Acids

Amifort is a liquid fertilizer composed of L-Amino Acids (26%) proceeding from double enzymatic hydrolysis. Amifort is completely water soluble and suitable for use in hydroponics and works very well as a foliar application. Derived through double enzymatic hydrolysis of plant proteins.

Amifort increases the effect of pesticides by chelating the pesticides with Amino Acids, so it is recommended to reduce pesticide dose, especially with products containing sulfur.

Available in 1 Liter, 5 Liter, 20 Liter and 1000 Liter.



# RHYZO

## 7.5-39-0 Non-Hormonal Rooting

(7-39-0 available for States requiring whole number NPK)

Rhyzo is a new type of Root enhancing additive and bio-nutrient. Rhyzo is a new formulation and an alternative to products based on hormones. The high rooting power is based on the specific aminogram, b vitamins and high Phosphorous concentration. Rhyzo is particularly indicated for encouraging rooting, and activating the root system, thus increasing the growth potential for all type of crops (horticultural crops, fruit crops, citrus and olive trees, nurseries, etc) during the initial stages of the vegetative cycle and is also useful throughout your crop cycle to reclaim roots that have been damaged by stress.

Available in 1 Kg.



# RHYZO

## O<sup>2</sup> Natural

## Rhyzo O2 Natural 32% amino acids

Rhyzo O2 Natural is an alternative rooting product that is not based on hormones. Rhyzo O2 Natural gets its superior rooting power based on the specific aminogram. Kimitec Rhyzo O2 Natural is particularly indicated for encouraging rooting, activating the root system and stimulating the growth of all types of crops (horticultural crops, fruit crops, citrus and olive trees, nurseries, etc.) during the initial stages of the vegetative cycle.

**Kimitec Rhyzo O2 Natural is especially recommended in the following situations:**

- Initial stages of crop cycles
- Transplanting periods
- Adverse climate conditions
- Cold periods - winter
- Critical periods such as flowering, ripening, flower setting
- Plant starts
- Critical periods: flowering, start of ripening, development of the fruit, etc

Available in 1 KG





# RHYZO FL

Kimitec Rhyzo FL Liquid is a new type of root enhancing additive and bio-nutrient. Rhyzo is a new formulation and an alternative to products based on hormones. The high rooting power is based on the specific aminogram, b vitamins and high Phosphorous concentration. Kimitec Rhyzo is particularly indicated for encouraging rooting, and activating the root system, thus increasing the growth potential for all type of crops (horticultural crops, fruit crops, citrus and olive trees, nurseries, etc) during the initial stages of the vegetative cycle.

**Recommended For:**

- Initial stages of the crop
- Transplanting periods
- Adverse climatic conditions, most of all during cold periods
- Stress conditions (hydric, heat, root loss, etc.)
- Winter
- Critical periods: flowering, start of ripening, development of the fruit, etc

**Kimitec Rhyzo FL Liquid contains:**

Total Nitrogen.....	1.0%
Zinc.....	0.35%
Free amino acids.....	6.0%
Glucose.....	4.0%



# BIOALGAX

**Guaranteed Analysis**

Soluble Potash (K2O) .....4.5 %  
*Derived from: seaweed extract of Ascophyllum nodosum*

**Contains Non-Plant Food Ingredients:**

Seaweed Extact ..... 22.0 %

Product composed of seaweed extracts 100% of the variety Ascophyllum Nodosum. Bio Algax is an active source of cytoquinines, auxines and giberelines that besides, reinforces the endurance against stress, improving the contribution of macro and micro nutrients, increasing the systematic endurance of the plants and increasing also the pesticides action.

- Aspect: Black Liquid
- pH: 10
- Specific Gravity: 1.13 gr/cc

**Available in 1 Liter, 5 Liter**





# batallón

### Guaranteed Analysis

Soluble Nitrogen (N)..... 1.0%  
*1% Water Soluble Nitrogen*

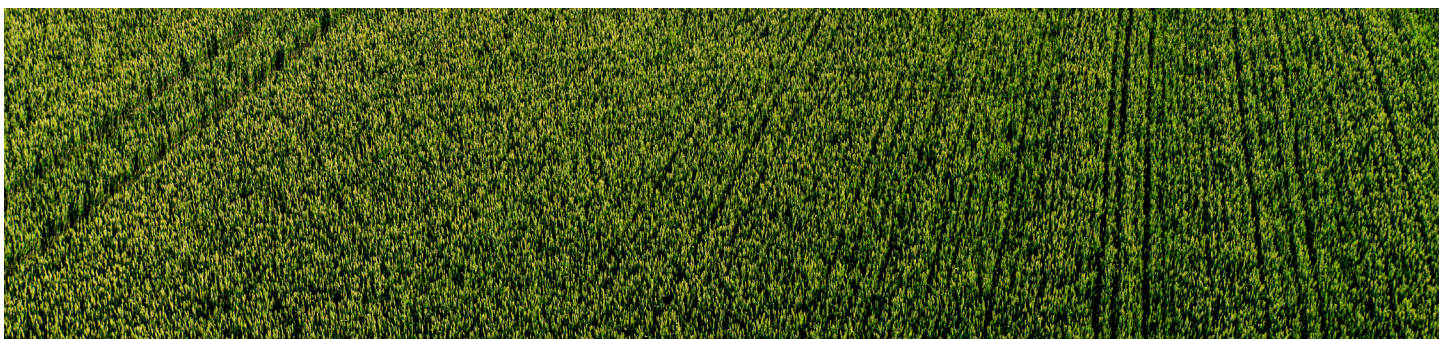
Soluble Potash (K<sub>2</sub>O)..... 5.0 %  
*Derived from: fermented vegetables*

### Contains Non-Plant Food Ingredients:

Fulvic Acids ..... 37.6 %

Kimitec Batallon with 37.6% fulvic acids is a unique product that is used to feed the microbes in your grow media. During the process the microbes will break down the nutrients in the grow media and make them super available to the plants. When using Kimitec Batallon consider lowering the overall nutrient strength to avoid burning the plants.

Available in 1 Liter, 5 Liter, 20 Liter



# NUTRIPHOS COMPLEX

### Guaranteed Analysis

Total Nitrogen (N)..... 6.0 %  
 Ureic Nitrogen.....3.0%  
 Ammoniacal Nitrogen .....1.5 %  
 Nitric Nitrogen .....1.5 %  
 Available Phosphate (P<sub>2</sub>O<sub>5</sub>)..... 21.0 %  
*Derived from: Phosphoric acid, Ammonium Nitrate, Urea, Lignosulphonate and vitamins*

### Contains Non-Plant Food Ingredients:

Total Organic Matter..... 16.0 %  
 Fulvic Acids..... 16.0 %  
 Vitamins..... 0.01 %  
 Inositol.....0.01 %

### Features:

- High Phosphorous assimilation
- Total Phosphorous bioavailability
- Fast assimilation
- Reduces phosphorous locked in soil
- More quantity of fruits with high quality

### Benefits:

- Fast Rooting.
- Blooming.
- More Fruit Set.
- More Energy and vigor
- More QUALITY in fruits and seeds.
- Vegetative Development

Liquid fertilizer with high content in Phosphorous. Fulvic Acids have a complexing effect of nutrients that are locked on the soil and non available for the plant, and makes them available. The product also contains Vitamin bioactivators that helps the sap circulation into the plant, mainly in cold conditions.

Available in 1 Liter, 5 Liter



## Observations When Applying Amino Acids to Plants:

### Trophic effect:

Free amino acids, when quickly metabolized, give birth to biologically active substances. They also invigorate and stimulate vegetation.

### Hormonal effect:

Free amino acids stimulate the formation of:

- Chlorophyll
- Indole-3-Acetic acid
- Vitamins
- Various enzymatic systems
- Greater vitamin content in fruits.

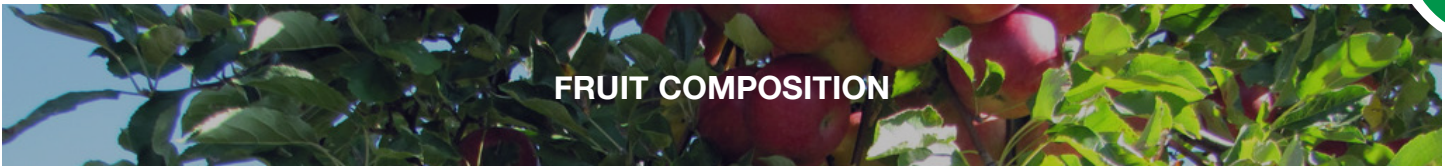
### Trophic + Hormonal effect

- Flowering is stimulated
- Better fruit setting
- Higher precociousness, size and coloration of fruits
- Greater sugar richness

### Amino Acid Effect on Plants:

L-Aspartic Acid:	Promotes Germination
L-Glutamic Acid:	Chelation Stimulates Growth Promotes Germination Favours the Opening of the Stomas Improves Pollination
L-Arginine Acid:	Cold Resistance Induces Synthesis of Flower and Fruit Related Hormones
L-Cysteine Acid:	Chelation
L-Phenylalanine:	Promotes Germination
L-Glycine:	Chelation
L-Histidine:	Chelation Improves Ripening of Fruits
L-Alanine:	Cold Resistance Chlorophyll Synthesis Stimulation Improves Quality of Fruits
L-Lysine:	Chelation Chlorophyll Synthesis Stimulation Promotes Germination Improves Pollination
L-Methionine:	Promotes Germination Stimulates Ethylene Production Improves Pollination Precursor of Growth Factors
L-Proline:	Anti-Stress Action Favors Fertility of Pollen
L-Serine:	Chelation
L-Threonine	Promotes Germination
L-Tryptophan:	Auxin Precursor
L-Valine:	Auxin Precursor Improves Quality of Fruits





## FRUIT COMPOSITION

The chemical composition of fruits depends on the type of fruit and its ripeness, but, in general terms, the main compounds of fruits are:

**1. Water:** More than 80% and 90% of the composition of the fruit is water. Due to this high percentage of water and aromas of its composition, the fruit is very refreshing.

**2. Carbohydrates:** Between 5% and 18% of the fruit is made up of carbohydrates. Content can vary from 20% in the banana to 5% in melon, watermelon and strawberries. Other fruits have an average of 10%. The carbohydrate content can vary according to species and also according to the harvest time. Carbohydrates are usually simple sugars like fructose, sucrose and glucose, easily digested and quickly absorbed.

Some aminoacids take part in Gluconeogenesis. Gluconeogenesis (abbreviated GNG) is a metabolic pathway that results in the generation of glucose from non-carbohydrate carbon substrates such as lactate, glycerol, and glucogenic amino acids. Some others (alanine, glutamic acid and aspartic acid) take part in the tricarboxylic acid cycle (TCA cycle), the Krebs cycle.

**3. Fiber:** Approximately 2% of the fruit is dietary fiber. The main components of fiber in fruit are pectin and hemicellulose. The fruit skin is the part with the highest concentration of fiber. Soluble fiber or gelling such as pectin form viscous mixtures with water. The viscosity depends on the fruit from which it comes and the degree of maturation. Pectins, therefore, play an important role in the consistency of the fruit.

**4. Vitamins:** carotenes, vitamin C, vitamins of group B. According to the level of vitamins there are two large groups of fruits:

- High content in vitamin C: containing 50 mg/100, such as citrus, melons, strawberries and kiwi.
- High content in vitamin A: rich in carotenoids, such as apricots, peaches and plums.

Amino acids are essential in the natural synthesis of many vitamins. These vitamins are essential in the metabolism and for growth and for the proper functioning of the body.

**5. Minerals:** fruits are rich in potassium, magnesium, iron and calcium. The most important mineral is Potassium. Fruit with high content in Potassium are stone fruits such as apricot, cherry, plum, peach, etc..

**6. Calories:** The calorific value is determined by its sugar concentration, varying between 30-80 Kcal/100g. As an exception we have avocado fruit that contains 16% lipids and coconut that ends up having up to 60%. But most fruits are low calorie with respect to its weight.

**7. Protein:** Protein and fat, nitrogen compounds such as proteins and lipids are scarce in the edible part of fruits, while important in the seeds of some of them

Proteins (also known as polypeptides) are organic compounds made of amino acids arranged in a linear chain and folded into a globular form. The amino acids in a polymer are joined together by the peptide bonds between the carboxyl and amino groups of adjacent amino acid residues. The nutritive value of protein depends on the essential amino acid content.

**8. Flavors and Pigments:** Fruit contains acid and other aromatic substances that (together with high water content) make them refreshing. The flavor of each fruit is determined by their content of acids, sugars and other flavorings. Malic acid predominates in apples, citric acid in oranges, lemons and tangerines and tartaric acid in grapes.

Aminoacids are involved in carbohydrates synthesis (sugars, energy reserves), so they can enhance the flavor of the fruit. There are amino acids involved indirectly (through ethylene biosynthesis) and directly in the process of ripening of fruits and vegetables, so they can improve the color of the fruit.



Established in 1922, Plant Marvel pioneered and popularized the use of water soluble fertilizers. They introduced their original 12-31-14 General Purpose Hi Phosphate formulation over 90 years ago helping to fuel the growth of soilless growing and hydroponics. Some years later they've incorporated soluble forms of minor and trace elements into their expanding line of soluble N-P-K fertilizers.



### General Purpose Triple Twenty 20-20-20

General Purpose 20-20-20 provides over 60% nutrient value in a 1-1-1 ratio which makes it suitable for general use in a wide variety of growing situations. It is widely used on containerized stock in the nursery industry and for greenhouse crops such as foliage plants and bedding plants. For institutional and general landscape maintenance, it is ideal because it works well on turf, trees or shrubs as well as blooming plants and can be used as a single all purpose spray feed. It contains high levels of ammoniacal nitrogen, which makes it an ideal warm weather all purpose feed. It is not recommended for use on poinsettias, gloxinias, Easter lilies, mums, geraniums, and other flowering crops that specifically require a higher nitrate nitrogen ratio.

#### Guaranteed Analysis

Total Nitrogen (N) .....	18%	Copper (Cu).....	0.02%
7.15% Ammoniacal Nitrogen		0.02% Chelated Copper (Cu)	
10.85% Nitrate Nitrogen		Iron (Fe) .....	0.2%
Available Phosphate (P2O5) .....	6%	0.20% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	18%	Total Manganese (Mn) .....	0.5%
Calcium (Ca) .....	1.3%	0.5% Chelated Manganese (Mn)	
Magnesium (Mg) .....	2.35%	Molybdenum (Mo) .....	0.001%
Boron (B) .....	0.02%	Zinc (Zn).....	0.05%
		0.05% Chelated Zinc (Zn)	

### Blossom Booster 10-30-20

Blossom Booster 10-30-20 is recommended when high phosphate and potash levels are required. Excellent plant starter formulation for young plants and transplants. Ideal for hydrangeas since the high phosphorus content ties up excess aluminum in the soil causing a strong pink coloration in the blooms. Blossom Booster promotes better fruit set on greenhouse tomatoes and floral plants during blooming phase, induces bud set, intensifies colors, and flower size on orchids and African violets.

#### Guaranteed Analysis

Total Nitrogen (N) .....	10%	Copper (Cu).....	0.015%
4.67% Ammoniacal Nitrogen		0.015% Chelated Copper (Cu)	
5.33% Nitrate Nitrogen		Iron (Fe) .....	0.12%
Available Phosphate (P2O5) .....	30%	0.12% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	20%	Total Manganese (Mn) .....	0.06%
Magnesium (Mg) .....	1.2%	0.06% Water Soluble Manganese (Mn)	
Sulfur (S) .....	1.6%	Molybdenum (Mo) .....	0.001%
Boron (B) .....	0.02%	Zinc (Zn).....	0.015%
		0.015% Chelated Zinc (Zn)	

### High Cal-Mag Vegetable 12-5-19

This high calcium analysis was specifically designed to meet the nutritional needs of field grown vegetable crops when the irrigation waters require a heavy supplement of calcium.. The additional calcium supplied by this formula will be adequate to prevent calcium related deficiency such as blossom end rot. With elevated calcium, potassium and magnesium to provide solid root growth, strengthened xylem for nutrient transport through the plant, and healthy chloroplast for light energy converting to chemical energy, this formula will deliver a robust and healthy crop.

#### Guaranteed Analysis

Total Nitrogen (N) .....	18%	Copper (Cu).....	0.02%
7.15% Ammoniacal Nitrogen		0.02% Chelated Copper (Cu)	
10.85% Nitrate Nitrogen		Iron (Fe) .....	0.2%
Available Phosphate (P2O5) .....	6%	0.20% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	18%	Total Manganese (Mn) .....	0.5%
Calcium (Ca) .....	1.3%	0.5% Chelated Manganese (Mn)	
Magnesium (Mg) .....	2.35%	Molybdenum (Mo) .....	0.001%
Boron (B) .....	0.02%	Zinc (Zn).....	0.05%
		0.05% Chelated Zinc (Zn)	



## Poinsettia Cal-Mag 14-3-14

This Cal-Mag formula is specifically designed for poinsettia production. It supplies most of its nitrogen in the nitrate form and is an ideal feed for crops responsive to nitrate nitrogen during low light periods and all ammonium sensitive plants. It is also an ideal source of calcium and magnesium that is immediately available and ideal for overcoming a calcium deficiency. It will maintain solubility in a concentrate tank when nitrate and/or magnesium nitrate are added. To avoid calcium precipitation, do not mix with other fertilizers or materials that contain phosphate or sulfur compounds.

### Guaranteed Analysis

Total Nitrogen (N) .....	14%	Copper (Cu).....	0.01%
1.94% Ammoniacal Nitrogen		0.01% Chelated Copper (Cu)	
12.08% Nitrate Nitrogen		Iron (Fe) .....	0.12%
Available Phosphate (P2O5) .....	3%	0.12% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	14%	Total Manganese (Mn) .....	0.06%
Calcium (Ca) .....	6.0%	0.06% Water Soluble Manganese (Mn)	
Magnesium (Mg) .....	2.0%	Molybdenum (Mo) .....	0.08%
Boron (B) .....	0.01%	Zinc (Zn).....	0.07%
		0.07% Chelated Zinc (Zn)	

## Plug Special 13-2-13

A plug growing formula with high nitrate nitrogen, calcium, magnesium, and minor elements, mostly derived from the chelated (EDTA) form, and all combined into a totally soluble mix. Test nutrient levels in both water and growing media prior to use. Suggested use for plugs on a constant feed basis is at 50 to 75 PPM Nitrogen. Use growth results and nutritional monitoring to adjust this rate. Avoid mixing with acids or other NPK fertilizers.

### Guaranteed Analysis

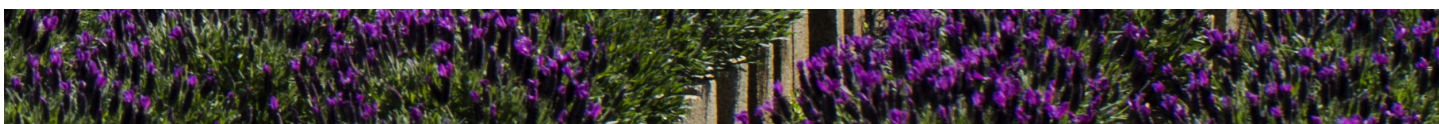
Total Nitrogen (N) .....	13%	Copper (Cu).....	0.03%
0.80% Ammoniacal Nitrogen		0.03% Chelated Copper (Cu)	
12.2% Nitrate Nitrogen		Iron (Fe) .....	0.05%
Available Phosphate (P2O5) .....	2%	0.05% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	13%	Total Manganese (Mn) .....	0.03%
Calcium (Ca) .....	6%	0.03% Chelated Manganese (Mn)	
Magnesium (Mg) .....	3%	Molybdenum (Mo) .....	0.0075%
3% Water Soluble Magnesium (Mg)		Zinc (Zn).....	0.028%
Boron (B) .....	0.0017%	0.028% Chelated Zinc (Zn)	

## Cal-Mag 15-5-15

Cal-Mag Special 15-5-15 PLUS supplies most of its nitrogen in the nitrate form and is an ideal feed for crops responsive to nitrate nitrogen during low light periods and all ammonium sensitive plants. It is also an ideal source of calcium and magnesium that is immediately available and ideal for overcoming a calcium deficiency. It will maintain solubility in concentrate tank when calcium nitrate and/or magnesium nitrate are added. To avoid calcium precipitation do not mix with other fertilizers or materials that contain phosphate or sulfur compounds.

### Guaranteed Analysis

Total Nitrogen (N) .....	15%	Copper (Cu).....	0.01%
2.86% Ammoniacal Nitrogen		0.01% Chelated Copper (Cu)	
12.14% Nitrate Nitrogen		Iron (Fe) .....	0.10%
Available Phosphate (P2O5) .....	5%	0.10% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	15%	Total Manganese (Mn) .....	0.05%
Calcium (Ca) .....	5.0%	0.05% Chelated Manganese (Mn)	
Magnesium (Mg) .....	2.0%	Molybdenum (Mo) .....	0.007%
Boron (B) .....	0.02%	Zinc (Zn).....	0.08%
		0.07% Water Soluble Zinc (Zn)	





## Cal-Mag 17-5-17

This Cal Mag Special formula is probably very close to being the perfect fertilizer all in one bag. It contains all the major, secondary and minor elements almost any crop would need. NPK, calcium, magnesium, six trace elements and a very high ratio of nitrogen in nitrate form. The calcium to magnesium ratio is perfectly proportioned so that they will not impede one another's uptake by acting as antagonists. And while slightly on the acid side, this formula allows the delivery of these essential cations without a major impact on media pH.

### Guaranteed Analysis

Total Nitrogen (N) .....	17%	Copper (Cu).....	0.02%
4.33% Ammoniacal Nitrogen		0.02% Chelated Copper (Cu)	
12.67% Nitrate Nitrogen		Iron (Fe) .....	0.10%
Available Phosphate (P2O5) .....	5%	0.10% Chelated Iron (Fe)	
Soluble Potash (K2O) .....	17%	Total Manganese (Mn) .....	0.05%
Calcium (Ca) .....	4.0%	0.05% Chelated Manganese (Mn)	
Magnesium (Mg) .....	1.0%	Molybdenum (Mo) .....	0.0007%
Boron (B) .....	0.02%	Zinc (Zn).....	0.05%
		0.05% Chelated Zinc (Zn)	

## General Purpose 20-10-20

General Purpose 20-10-20<sup>PLUS</sup> is an all purpose feed with elevated levels of Nitrate Nitrogen to give better nutritional control when feeding the cool darker months. Commonly used as a foliar application or root feed on ornamentals, turf and nursery stock. Because it formulated to provide a balance of both major and minor elements, it is a safe choice when feeding a wide range of plant life with the same fertilizer. It will provide immediate but gentle nourishment in a form of application that can overcome and bypass other nutrient complication due to soil problems.

### Guaranteed Analysis

Total Nitrogen (N) .....	20%	Boron (B) .....	0.02%
7.90% Ammoniacal Nitrogen		Copper (Cu).....	0.05%
12.10% Nitrate Nitrogen		0.5% Chelated Copper (Cu)	
Available Phosphate (P2O5) .....	10%	Iron (Fe) .....	0.10%
Soluble Potash (K2O) .....	20%	0.10% Chelated Iron (Fe)	
Calcium (Ca) .....	5.0%	Total Manganese (Mn) .....	0.05%
Magnesium (Mg) .....	0.11%	0.05% Chelated Manganese (Mn)	
0.11% Water Soluble Magnesium (Mg)		Molybdenum (Mo) .....	0.01%
Sulfur (S) .....	0.16%	Zinc (Zn).....	0.05%
0.16% Combined Sulfur		0.05% Chelated Zinc (Zn)	

## Acid Special 21-7-7

An effective formula that will help in lowering pH when irrigation water or media are high in alkalinity. Generally used as an occasional feed for correcting these problems in most crops and as a basic feed for acid loving woody ornamentals and foliage plants. Commonly used as a foliar application or root feed on ornamentals, turf and nursery stock.

### Guaranteed Analysis

Total Nitrogen (N) .....	21%	Copper (Cu).....	0.05%
14.00% Ammoniacal Nitrogen		0.05% Chelated Copper (Cu)	
2.10% Nitrate Nitrogen		Iron (Fe) .....	0.10%
4.90% Urea Nitrogen		0.10% Chelated Iron (Fe)	
Available Phosphate (P2O5) .....	7%	Total Manganese (Mn) .....	0.05%
Soluble Potash (K2O) .....	7%	0.05% Chelated Manganese (Mn)	
Sulfur (S) .....	10%	Molybdenum (Mo) .....	0.0009%
10% Combined Sulfur (S)		Zinc (Zn).....	0.05%
Boron (B) .....	0.02%	0.05% Chelated Zinc (Zn)	





## Hydroponic Special 4-18-38



Hydroponic Special 4-18-38 represents a basic formulation that the grower, through leaf analysis, can manipulate to provide virtually any combination of nutrient levels desired. Hydroponic Special contains all the necessary elements to provide basic diet for Hydroponic Culture.

## General Purpose 21-5-20



General Purpose 21-5-20 is an all purpose feed with elevated levels of Nitrate Nitrogen to give better nutritional control when feeding the cool darker months. Commonly used as a foliar application or root feed on ornamentals, turf and nursery stock.

## K-Blast 9-15-30



K-Blast was specifically designed to enhance fruit size, harvested fruit yield and post harvest shelf life. The synergy provided by the NPK ratio enhances the translocation of carbohydrates toward fruit formation which will result in increased yield.

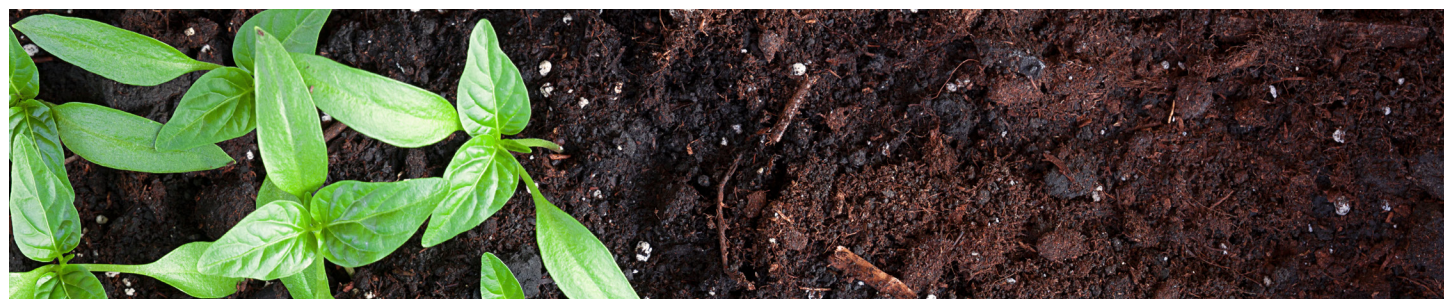
## Chemec-B® - Chelated Minor Element Complex



Chemec is a completely soluble, high quality, concentrated micro nutrient compound in chelated form. The Iron has two forms of chelation to make it effective over a broad range of pH. It has the ability to correct a minor element deficiency through soil application.

ACW Supply carries a wide range of Plant Marvel fertilizers as well as many special formulations. Please contact ACW Supply for a full list of fertilizers or with any questions about their products.

**\*Sold in 25lb bags or in 5lb containers with minimums.**

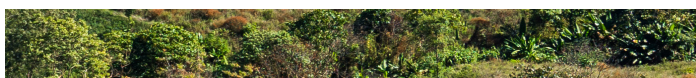


## Hydroponic Special 6-10-27



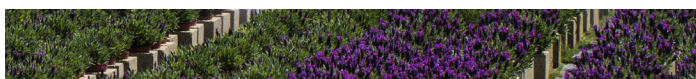
Hydroponic Special 6-10-27 represents a basic formulation that the grower, through leaf analysis, can manipulate to provide virtually any combination of nutrient levels desired. Hydroponic Special contains all the necessary elements to provide basic diet for Hydroponic Culture.

## Tropical Foliage Special 24-8-16



Tropical Foliage Special 24-8-16 is formulated to give nutrient ratios shown to be at optimum levels for tropical foliage plants by Florida researchers. Excellent as a regular feed for established foliage plants as well as a maintenance feed for Interiorscape use.

## Geranium and Bedding Plant Special 17-17-17



Geranium and Bedding Plant Special was developed to provide an almost neutral pH effect on the soil media and to deliver higher rates of nitrate nitrogen than provided for in their standard 20-20-20. Approximately 50% of the nitrogen contained in this formula is nitrate nitrogen.

## Organic Bicarbonate Reducer - 99% Citric Acid



A reducer that is derived from Citric Acid. It has the advantage over harsh mineral based "Hazmat" acids, like Nitric, Phosphoric or Sulfuric Acid, of being nonhazardous and easy to handle, easily dissolves in water and is highly compatible with other water soluble products.

**Plant  
Marvel**

Peters Professional fertilizers are the world's leading water-soluble fertilizers. With its exclusive M-77 chelating formula, Peters Professional assures that nutrients and trace elements remain readily available for fast and easy uptake. **\*Sold in 25lb bags**

**General Purpose 20-20-20**

When growing media contains mineral soil, this formula provides acidifying action to help combat excessive pH. Also use when reduced micronutrients are desired.

- B (Base) formulation can be used alone or rotated with a C (Customizing) component
- Appropriate for Water Types 2, 3 and 4 as a drip, drench or foliar feed
- Contains a full range of essential micronutrients
- Also available in no dye formulation (SKU# 99291)



**Peat-Lite Special 15-16-17**

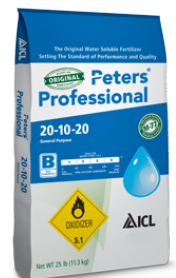
The perfect 1:1:1 N-P-K formulation for geraniums raised in soilless growing media.

- B (Base) formulation can be used alone or rotated with a C (Customizing) component
- Appropriate for Water Types 2, 3 and 4
- Contains a full range of essential micronutrients

**Peat Lite 20-10-20**

Crops that are sensitive to excess micronutrients thrive with this classic formula with its acidifying action that corrects an overload of growing media pH.

- B (Base) formulation can be used alone or rotated with a C (Customizing) component
- Effective for all Water Types
- Contains a full range of essential micronutrients



**Hydroponic Special 5-11-26**

Designed exclusively for hydroponic culture, this classic formula is ideal for most hydroponic crops, especially tomatoes, cucumbers and lettuce.

- Flexible B (Base) formulation is easily augmented to meet unique plant needs
- Effective for all Water Types
- Buffered to help maintain acceptable working solution pH

*Other Formulations Available in Pallet Quantities*



For 50 years, Osmocote has been the brand that professional gardeners trust for plant nutrition. Each granule is coated with a unique resin that controls nutritional release. Plants get what they need, when they need it. Osmocote has decades of rigorous field testing to confirm product effectiveness.

Osmocote uses a proprietary biodegradable resin-coating to encapsulate a nutritional prill called a granule. Each homogeneous prill contains a thoughtfully blended mix of nitrogen, phosphorous and potassium. **\*Sold in 50lb Bags**

**Osmocote Classic**  
- No Micronutrients

**Osmocote Pro**  
- Micronutrients in the prill

**Osmocote Plus**  
- Micronutrients around the prill

### E-Max Topdress 12-6-8

Osmocote Blend 12-6-8 2-3 month topdress is a heterogeneous blend of Polymer-Coated Urea, uncoated Phosphorus and Potassium and micronutrients. Only a portion of the Nitrogen is coated; a majority of the product is soluble and quickly available after it is applied and watered in.

- For use on nursery stock, foliage and landscapes.
- This product contains coated urea nitrogen featuring E-Max Release Technology and uncoated, granular micronutrients.



### Topdress 17-3-6

Osmocote Blend 17-3-6 4-6 month is a quick green-up, topdress product formulated to give the plants a boost prior to the selling season or any time during the year. It contains our top quality Poly-S® coating to provide Nitrogen that releases up to 6 months. This product also contains STEP® Hi-Mag micronutrients.

- For use on nursery stock, foliage and landscapes.
- Contains Poly-S and micronutrients

### Osmocote Classic 14-14-14 (3-4 month) *\*no micronutrients*

Osmocote 14-14-14, the original time tested and proven resin coated fertilizer, safely and consistently delivers N-P-K nutrition for up to 4 months. Often used in greenhouse production as a base feed, it is incorporated into the growing media or top dressed onto hanging baskets at point of sale to provide long term nutrition to the green goods consumer.

- Homogeneous Osmocote N-P-K delivers nutrition consistently for many months.
- Provides a sustained supply of nitrogen, phosphorus and potassium critical for proper plant growth and development.
- Safe & predictable nutrient release.
- Eliminates repeated applications, saving time, labor, and ultimately dollars.



### Osmocote Pro 19-5-8 (8-9 month)

Osmocote Blend 19-5-8 8-9 month used in outside container nurseries as a multi-purpose fertilizer. It is used on a wide variety of plants that are grown in bark mixes.

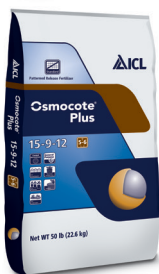
- Featuring 100% coated, homogeneous N-P-K prills blended with a proven micronutrient package (equivalent to Micromax®) provides plants elements essential for high quality growth in a form they can easily utilize
- For use on nursery stock, foliage and landscapes
- For general purpose outdoor nursery production
- This product contains coated urea and micronutrients in sulfate/oxide form.



## Osmocote Pro 17-5-11 (3-4 month & 5-6 month)

Osmocote Blend 17-5-11 is recommended for use in greenhouse, nursery, field grown and landscape environments. It is generally blended into the growing media, but it can be topdressed in the pot, subdressed or dibbled. It is recommended that the pot is thoroughly watered before or directly after planting to release the minor nutrients from the Micromax granules and disperse it into the media.

- Featuring 100% coated, homogeneous N-P-K prills blended with a proven micronutrient package (equivalent to Micromax®) to provide plant elements essential for high quality growth in a sulfated form they can easily utilize
- Elevated level of iron in sulfate form is easily taken up by plants and encourages good foliage color
- Choice of longevities offers the flexibility to deliver consistent, reliable nutrition for as long as plants need it
- Provides good cost-in-use value
- Contains no urea so can be used in covered production areas as well as outdoor nursery, foliage and landscape plants



## Osmocote Plus 15-9-12 (3-4 month & 5-6 month)

Osmocote Plus 15-9-12 Standard contains homogenous 100% resin coated fertilizer cores that contain the major nutrients - nitrogen, potash, phosphorous plus the secondary nutrients magnesium and sulfur, as well as the minor nutrients boron, copper, iron, manganese, molybdenum and zinc. Our unique coating made from plant resins releases nutrients with an even (standard) pattern over the 3-4 or 5-6 month time period.

- For use in greenhouse, nursery and foliage production, container gardens, interiorscapes and landscapes.
- Contains 100% resin coated N-P-K plus micronutrients nutrient cores. ICL Specialty Fertilizers Patterned Nutrient Release Technology™ meets specific feeding cycles with unmatched consistency, efficiency and safety.
- “Standard” release products are recommended for use when consistent fertility is required throughout the plant’s growth cycle
- Special circumstances such as sensitive or high-value crops can be fertilized with this product
- For use with Dibbling equipment
- Can be Incorporated into growing media or Surface Applied in the container

### Other Formulations Available in Pallet Quantities







# ACW SUPPLY

## GENERIC SALTS & ORGANIC SOLIDS

ACW Supply carries a wide range of single mineral salts and organic solids in **40 or 55lb bags**. Mineral fertilizers greatly affect the soil (physical, chemical, and biologic properties) and plants - feeding the plants and enriching the soil at the same time.

### SALTS

#### Calcium Carbonate

- Acceptable for use in conventional and organic growing by the WSDA organic program, CDFA OIM program.
- Allowed in Organics (OMRI Listed)

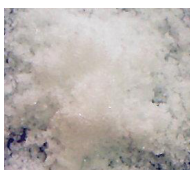


#### Calcium Nitrate **15.5-0-0 + 19% Ca**

- Fully water soluble nitrogen and calcium fertilizer. It is a free flowing, fine granular or prilled material which dissolves quickly in water without any residues.
- Technical Greenhouse Grade

#### Calcium Chloride

- Fully water soluble calcium fertilizer (soluble grade) Is suited to application through all fertigation and hydroponics systems.
- High Purity
- Technical Greenhouse Grade



#### Magnesium Nitrate **11-0-0 + 16% Mg**

- Provides plants with readily-available magnesium, which is essential for their healthy growth.
- 9.6 mag (or 16% mag oxide)
- Technical Greenhouse Grade

#### Magnesium Sulfate (Epsom Salt)

- Tests show that Epsom salt helps produce more flowers and makes pepper plants grow larger. Experts say it can increase harvests, make fruit taste sweeter.
- Allowed in Organics
- Technical Greenhouse Grade



#### Potassium Nitrate **13-0-46**

- Potassium nitrate is a high quality source of both potassium and nitrogen, two essential macronutrients (primary nutrients) for plants.
- Technical Greenhouse Grade

#### Potassium Sulfate **0-0-50**

- Sulfur 17% - A naturally mined product. For lower application rates you can mix it into a fertilizer to get a more even distribution.
- Organic Certified
- Technical Greenhouse Grad



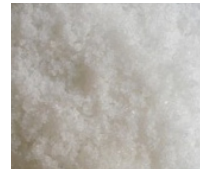


### Copper Sulfate

- This compound is highly advantageous in addressing an overly alkaline environment, remedying plant fungi, unwanted root growth, algae growth, etc.
- Allowed in Organics
- Technical Greenhouse Grade

### Zinc Sulfate

- Zinc deficiencies are more common on sands, sandy loams and organic soils because these soils originally contain low total zinc levels.
- Allowed in Organics
- Technical Greenhouse Grade



### Iron Sulfate

- This product Keeps iron in your soil using exact specifications for quality and consistency in plant health technologies.
- Allowed in Organics
- Technical Greenhouse Grade

### Dolomitic Lime

- Reduces soil acidity and provide a high purity source of calcium and magnesium for plants.
- Allowed in Organics
- Technical Greenhouse Grade



### Gypsum

- Agricultural gypsum works as a soil amendment, conditioner and fertilizer to improve the soil, supplying calcium and plant available Sulfate Sulfur.
- Organic Certified

### Manganese Sulfate

- Broadcast 20-60 lbs. per acre preplant or at planting. For banded or side-dress applications, use 10-30 lbs.
- 32% Manganese, 18% Sulfur
- Allowed in Organics
- Technical Greenhouse Grade



### Ammonium Sulfate

- Functions to bind iron and calcium cations that are present in both well water and plant cells. It is particularly effective as an adjuvant for 2,4-D (amine), glyphosate, and glufosinate herbicides.
- Technical Greenhouse Grade

### Di-Ammonium Phosphate 18-46-0

- Made from two common constituents in the fertilizer industry - its relatively high nutrient content and excellent physical properties make it a popular choice in farming and other industries.
- Technical Greenhouse Grade



### Mono-ammonium Phosphate 12-61-0

- Monoammonium phosphate is used for all soil types, for ground and bed application, and for all agricultural crops and climates.
- Technical Greenhouse Grade



### Monopotassium Phosphate 0-52-34

- Monopotassium Phosphate fertilizer contains 52% Phosphorous and 34% Potassium and is water soluble.
- Recommended as a supplement to increase yield especially in fruit.
- [Technical Greenhouse Grade](#)



### Triple Superphosphate 0-45-0

- Desirable for fertilization of leguminous crops, such as alfalfa or beans, where no additional N fertilization is needed to supplement biological N fixation.
- Over 90 percent of the total P in this product is water soluble, so it becomes rapidly available for plant uptake.
- [Technical Greenhouse Grade](#)

### Agsil 16

- Agsil 16 is a soluble form of potassium silicate providing the plant a 100% available source of silicon and potassium that are essential for optimum plant growth and health.
- [Allowed in Organics](#)
- [Technical Greenhouse Grade](#)



### PeKacid

- PeKacid is the only solid, highly acidifying, dry mono-crystal, free flowing and water soluble fertigation fertilizer that contains both phosphorus and potassium.
- [Technical Greenhouse Grade](#)

## ORGANIC SOLIDS

### Fish Meal 9-4.5-0

- Stimulates vigorous growth and deep green color. A strong source of organic nitrogen, Fish Meal fertilizer is uniquely processed to retain maximum nutritional value without using high temperatures or synthetic chemicals.
- Applied to leaves it is assimilated quickly by plants. Often combined with kelp extract to enhance performance.

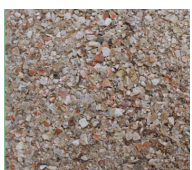


### Alfalfa Meal 2.5-0-2.5

- Excellent, all-purpose fertilizer when supplemented with a source of phosphorus. Alfalfa Meal has the ability to increase water retention, improve soil structure, and stimulate biological activity.
- It's great at replenishing worn out soils when used as a soil amendment. It can also be used as an accelerant in compost piles.

### Bat Guano 9-3-1

- Natural fertilizer containing nitrogen, phosphate and potassium. Nitrogen contributes to rapid green growth, phosphate to root growth and flowering while potassium builds strong stems.
- Feeds not only the plant but spurs an increase in beneficial soil microbe populations.



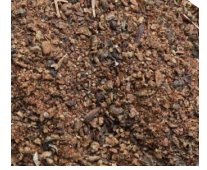
### Crustacean Meal 4-0-0 12% Ca

- Crustacean Meal is an excellent organic source of nitrogen, phosphorous, calcium and magnesium. The high calcium content and slow release nitrogen and phosphorous makes this a perfect general fertilizer ideal for tomato growers.
- 4% Nitrogen (N), 12% Calcium (Ca)



### Cottonseed Meal 5-2-1

- Cottonseed meal fertilizer is highly beneficial with a high organic content which aerates tight, dense soil and aids in retaining moisture in light, sandy soil. Due to its slow release time, cottonseed meal feed is safe to use liberally without danger of possible foliage burn, promotes healthy foliage, increases crop production and fosters profuse, spectacular blooms.
- Natural - Not Organic Certified



### Feather Meal 12-0-0

- Slow Release Nitrogen from hydrolyzed, ground feathers high in protein.
- An all-natural source of slow-release nitrogen, it is perfect for corn, tomatoes and fall harvested vegetables.

### Sodium Nitrate / Chilean Nitrate 15-0-2

- A mined product from the desert in Northern Chile, which is the only known deposit of this mineral salt in the world. NNS has an analysis of 15-0-2 and is considered soluble. Chilean Nitrate is commonly used in New England and elsewhere on organic farms as a form of nitrogen that is available to plants in cold soils.



### Pro-Pellit! Blood Meal 13-0-0

- Pro-Pellit! Blood Meal 13-0-0 provides a potent source of nitrogen to your soil and is ideal for heavy feeders like corn, broccoli, tomatoes, and leafy greens. It is proven to provide vigorous growth and nurture a deep, lush green in all plant types.

### Bone Meal 3-15-0

- Pro-Pellit! Bone Meal 3-15-0 provides plants with an exceptional source of three key nutrients: nitrogen, phosphorus, and calcium. These nutrients promote vegetative growth, deep root structures, robust stems, as well as, stalks and leaves.
- Ideal for bulbs, fruits, and other flowering plants



### Kelp Meal 1-0-2

- Kelp Meal (*Ascophyllum nodosum*) is sustainably harvested seaweed collected from North Atlantic waters. It is an organic plant food that provides natural nitrogen and potassium. The product feeds beneficial soil microbes and contributes to organic matter content in soils and soil mixes.

### Multi-Purpose Fertilizer 9-3-7

- Granulated, protein-based, multi purpose fertilizer with all essential elements for healthy plant growth. The nitrogen, derived from feather meal releases in concert with your plant's growth. As they grow faster, more nitrogen is available for uptake.



### Greensand

- Naturally occurring iron-potassium silicate used to remineralize soil. Long used in sustainable agriculture, PAR4® Greensand provides essential trace elements, including silicon, to help loosen hard soils, bind sandy soils, and contribute to plant health - strengthening the plants ability to withstand disease and insect attack.





The American Root Company was created with a very simple and organic idea; provide the world's most superior mycorrhizae products at an affordable cost to the consumer. Mycorrhizal fungi release powerful enzymes into the soil that dissolve hard-to-capture nutrients, such as phosphorus, iron and other "tightly bound" soil nutrients.

### Bigfoot Mycorrhizae Granular & Concentrate

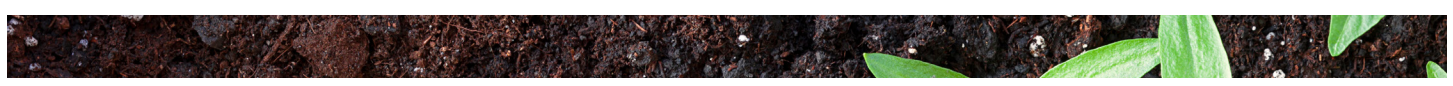
By combining the world's most powerful mycorrhizae and high performing ingredients as the carrier, Big Foot has mycorrhizae colonization levels that are unrivaled.



- Big Foot Granular is perfect for transplanting. Mix in soil.
- Granular needs to be applied near the roots of the plant. Do not apply granular on top of soil.
- Contains biochar, kelp, worm castings, humic acid and high performance mycorrhizal fungi - perfect for your plants.

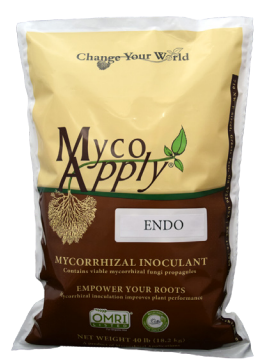


- Big Foot Concentrate is a water-in product.
- Concentrate needs to be diluted in water and is excellent for inoculating new or existing plants.
- Contains biochar, kelp, worm castings, humic acid and high performance mycorrhizal fungi - perfect for your plants.



Mycorrhizal Applications, Inc. is a leader in the research and development of mycorrhizal inoculum for commercial use. Mycorrhizal fungi increase the surface absorbing area of roots 100 to a 1,000 times, thereby greatly improving the ability of the plant to access soil resources.

### MycoApply Granular & Powder



- Endo**
- Granular
  - 4 species Endomycorrhizae
  - 60,000 Propagules per lb.



- Endo/Ecto**
- Granular
  - 4 species Endo & 7 species Ecto
  - 60,000 Endo & 110 million Ecto Propagules per lb.



- All Purpose Granular**
- Granular
  - 9 species Endo & 7 species Ecto
  - 30,000 Endo & 140 million Ecto Propagules per lb.



- Soluble Maxx**
- Suspensible Powder
  - 9 species Endo & 10 species Ecto
  - 30,000 Endo & 1.5 billion Ecto Propagules per lb.
  - The ultimate product for re-establishing biological diversity in soil and ensuring maximum plant performance.
  - 1lb bags

- All Purpose Soluble**
- Suspensible Powder
  - 4 species Endo & 5 species Ecto
  - 40,000 Endo & 210 million Ecto Propagules per lb.



Plant Success Organics Granular and Soluble mycorrhizae provide a wide spectrum of beneficial soil microbes for most plant types. Mycorrhizae are fundamental for superior plant performance, supplying the water and nutrients needed for optimal plant and root development, flowering and fruiting.

### Great White® Premium Mycorrhizae

Great White is the most complete mycorrhizal product on the market. The cutting edge formula contains 16 different species of mycorrhizal fungi, 14 different species of beneficial bacteria and 2 species of trichoderma, all in one product. Research shows that this powerful formula will encourage plant and root development, giving plants the tools they need to maximize yields.

- Great White® can be used on seeds, cuttings, in hydroponic systems, coco or soil.
- The key to vital plants starts with a vigorous root system, and a vigorous root system starts with Great White!



### Orca® Premium Liquid Mycorrhizae

Orca is a highly concentrated liquid mycorrhizal and beneficial bacteria product. It brings together 4 highly effective endo mycorrhizal species with 14 super effective bacteria strains. From the people who brought you Great White, this all-in-one inoculant is all you need when it comes to beneficials.



- Orca® can be used on seeds, cuttings, in coco and soil or in any hydroponic system.
- Never before has such a powerful inoculant been so clean, easy to apply, and effective.

### Plant Success Organics Granular

Plant Success Organics Granular™ contains mycorrhizae, bacteria, trichoderma and an all-purpose fertilizer. It is well-suited to a variety of soils, climates and plants. Granular is easily applied to new plantings by simply sprinkling it into a planting hole or mixing in potting soil. The all-purpose fertilizer provides an excellent microbe food to establish plants and beneficial organisms. Plant Success Organics Granular™ will create a thriving and diverse soil capable of supporting maximum root and plant growth.

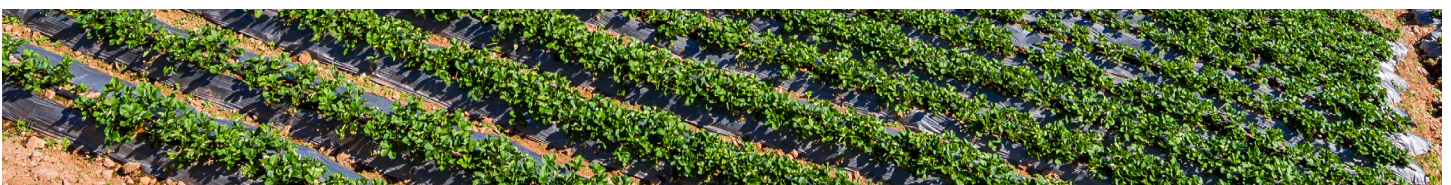
- Spread the granular at the bottom of the planting hole. While filling the planting hole, spread product in close proximity to the roots.



### Plant Success Organics Soluble

Plant Success Organics Soluble™ contains mycorrhizae, bacteria and trichoderma. It is well-suited to a variety of soils, climates and plants. It is easily applied to existing landscapes and yards by mixing with water and using a hose-end sprayer or watering can. Also included is seaweed extract and humic acids to feed beneficial soil organisms. Plant Success Organics™ Soluble will create a thriving and diverse soil capable of supporting maximum root and plant growth.

- Apply at a rate of 1 tsp per gal of water.





RMBP products are all natural and beneficial for soil structure, plant health and plant growth, while also keeping soils in place to prevent and reduce soil erosion. These products are research proven in the field and in the laboratory. When these products are used in combination they can “fix dirt” by turning your dirt into a productive soil, that will support plant life over several years, until the soil can support nutrient cycling.

## Biosol

Biosol is a 100% organic long lasting fertilizer with soil improving consequences. Biosol has a balanced nutrition ratio and supplies the plant with micro and macro nutrients throughout the whole growing period. Building the organic matter and humus allows the soil to become active, allowing the nutrients to be available for plant intake. It is the high organic material in the Biosol that improves the humus content of the soil in addition to providing quality nutrients for plants. The soil is enriched, rooting is strengthened and the growing and vitality of your turf is increased, while strengthening the plants resistance against disease. Biosol lacks salt and is therefore suitable for greenhouse crops and arid/low precipitation areas.

- All natural & environmentally balanced
- Produces healthy plants with vibrant color and root structure
- Benefits entire landscape
- Long lasting & will not burn lawn
- Cost effective (Biosol holds 3-4 times it's weight in water)

### Available Sizes:

11lb	--	BS11P
55lb	--	BS55P
50lb	--	BSM50P

# BIOSOL



## Grow-Plex SP Humic Acid

Grow-Plex SP is a water-soluble source of humic acid. It also supplies levels of soluble potassium and phosphorus in readily available forms. Combined with humic acid, the potassium, phosphorus, calcium, iron and sulfur can be rapidly absorbed and incorporated into the plant whether via soil or foliar application methods.

Grow-Plex SP is compatible with almost all starter and foliar fertilizers for more efficient uptake and more sustained nutrition. Simply, it helps the fertilizer with which it is applied work more effectively.



- General growth stimulation.
- Improved soil wetting.
- Improved availability of iron and other trace metals.
- Improved iron uptake.

### Available Sizes:

1lb	--	BSGP1P
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## Grow-Plex G NatureMate Humic Acid

Granular Grow-Plex G natural humic acid based soil conditioner functions as an organic chelator and microbial stimulator. It is a source of natural humic acid with a unique carbon matrix incorporating a high concentration of organic acids, specifically humic acid, which improves the plant's ability to take in vital nutrients. A natural trace mineral, carbon, and humic acid based granular soil conditioner that acts as an organic chelator and microbial stimulator. It has a unique carbon matrix incorporating a high concentration of trace minerals and organic acids, specifically humic acid, which improves the plant's ability to take in vital nutrients.

- Unlocks soil nutrients
- Improves effect of fertilizers
- Enhances root development
- Improves soil structure
- Enhances seed germination & survival

### Available Sizes:

1lb	--	BSNM25P
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### SeaMate Fe 6-8-12

A balanced seaweed, N-P-K, trace mineral, carbon, and humic acid based water-soluble powder for use as a stand alone product, or as an ingredient in balanced fertility programs as a foliar nutrient spray or soil drench for plant growth and development.

SeaMate Fe 6-8-12 supplies levels of natural growth stimulants, soluble nitrogen, potassium and phosphorus in readily available forms. Combined with humic acid, the nitrogen, potassium, phosphorus, calcium, and iron can be rapidly absorbed and incorporated into the plant whether via soil or foliar application methods.



- Stimulates root development whether foliar or soil applied. Low organic soils respond best. Foliar applications are effective regardless of soil condition.
- Growth stimulant for tomatoes.
- Improved germination of tomato seeds.
- Increased yield of potatoes and soybeans

#### Available Sizes:

1lb -- BSSM68121P

### Menefee Humate

Granular Earthgreen Menefee Humate All Natural Organic Soil Conditioner natural humic acid based solid conditioner functions as an organic chelator and microbial stimulator. It is a source of Green Grassnatural humic acid with a unique carbon matrix incorporating a high concentration of organic acids, specifically humic acid, which improves the plant's ability to take in vital nutrients.

Earthgreen Menefee Humate All Natural Organic Soil Conditioner is the most consistent and highest quality granular humic acid product on the market. Users may expect plant response consistent with such a high quality product. However, no guarantee of performance in any of these applications is stated or implied.

- Earthgreen Menefee Humate All Natural Organic Soil Conditioner will significantly improve poor soils when used in combination with a balanced fertilization program
- Works best when minimum daily soil temperatures reach 55° F.

#### Available Sizes:

50lb -- BSNM50P







Microbe Life's unique microbial and humate products rapidly break down most pollution, vastly improving plant and turf nutrient intake; restoring the soil to a more natural, biologically active state. Microbe Life products inhabit the root zone, resulting in better uptake of macro- and micronutrients, minerals and more efficient water usage. This strengthens the roots, leading to a vigorous plant, accelerating photosynthesis at the foliar level, and providing increased energy.

## Photosynthesis Plus

The culture consortium produced by Ecological Laboratories, Inc. that is used on tens of thousands of acres of crops worldwide is the foundation for our Photosynthesis Plus, a complete ecosystem in the bottle. The proprietary formulation and culture growth enhances product performance via selective adaptation, resulting in superior performance in aerobic, facultative, anaerobic and anoxic environments. Shelf stable for two years.

- Photosynthetic Bacteria - promoting photosynthesis
- Autotrophic bacteria for improved CO2 conversion
- Rare earth water soluble humates - mined from organic matter



## Nourish L

Microbe Life Hydroponics Nourish-L is a unique, liquid conditioner derived from a highly decomposed organic humus deposit, unparalleled by any other source of humates. Contains natural carbon made up of marine animal carbon and vegetative carbon compounds, making it more complex and superior to Leonardite sources as well as an amazing wealth of Cypress lignin—a high-level food source for the beneficial fungi and bacteria—which strengthens plant cell walls and enhances nutrient absorption and water-binding capabilities. 100% Verified Organic to USDA standards. Microbe Life Hydroponics Nourish-L enhances the ability of plants to absorb nutrients more efficiently, optimizing plant functions and facilitates greater results using less nutrients.

## Vegetable & Fruit Yield Enhancer

Microbe Life Hydroponics Vegetable and Fruit Yield Enhancer is a unique conditioner that is derived from an extremely rare and highly decomposed organic humus deposit. It is highly concentrated containing bacillus microbes, humic acids, living photosynthetic microbes and Endomycorrhizal fungi which has unequaled performance in vegetable & fruit enhancement. The result is a better soil structure and an enhancement that may aid in the ability for vegetables and fruit to absorb nutrients. Microbe Life Hydroponics Vegetable and Fruit Yield Enhancer contains a rare mixture of carbon compounds, the ultimate food source for your plants and the soil microorganisms



## Also Available: Consumer Sprays & Refills

- 1.) Lawn Conditioner & Sod Starter
- 2.) Foliar Spray & Root Drench
- 3.) Plant Builder
- 4.) Vegetable & Fruit Yield Enhancer
- 5.) Growth Accelerator
- 6.) Thatch Remover







## Promot Biological Inoculum

Promot Biological Inoculum contains the ecto-mycorrhizal fungi *Pisolithus tinctorius* and fermentation byproducts of *Trichoderma* spp. Promot Biological Inoculum is designed for application to conifer trees like Douglas fir, pine and all sorts of Christmas trees. Promot Biological Inoculum is an excellent product to help reestablish forest plantings or to maintain the health of landscape conifer plants. *Pisolithus tinctorius* is a specialized mycorrhizae that forms a symbiotic relationship with conifer plants and promotes their health and growth.

- This product is only for conifers, it is not suitable for use on other plants
- Can be used for seeding, as a side dress, in furrows and drip irrigation, as a transplant dip, and as a standard soil application.

### Available Sizes:

- 1 Gal -- [JHB02291GAL](#)
- 2.5 Gal -- [JHB02292.5GAL](#)



## Salt Down

Salt Down is a source of nitrogen and calcium that reduces excess sodium salt levels in the soil. Salt Down restores soil structure for better drainage and increased plant vigor. Salt Down provides plant nutrients and stimulates biological activity in the soil.

- Salt Down replaces sodium with calcium on soil particles.
- 5-10 gallons per acre is needed to force enough sodium off the soil particles to make a difference.
- Repeat application with each irrigation to improve the soil properties.

### Available Sizes:

- 1 Gal -- [JHB05511G](#)

## Nitrate Converter

Nitrate Converter contains molybdenum which is part of the nitrate reductase enzyme that is involved in the process of converting nitrate to available nitrogen. Nitrate Converter is designed to increase fruit yield and quality, seed and storage tissue uniformity, reduce excessive vegetative growth, improve disease resistance, maintain hormone balance, and prepare crops for harvest.

- This product is only for conifers, it is not suitable for use on other plants
- Can be used for seeding, as a side dress, in furrows and drip irrigation, as a transplant dip, and as a standard soil application.

### Available Sizes:

- 1 Gal -- [JHB05541G](#)
- 2.5 Gal -- [JHB05542.5G](#)



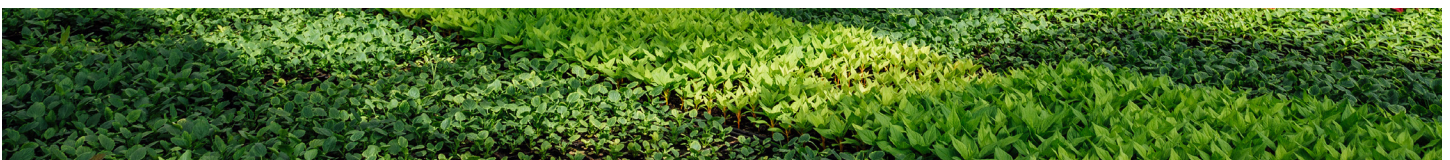
## Phosgard 0-0-25

Phosgard contains plant nutrients designed for soil and/or foliar applications. The phosphorus contained in Phosgard is derived from phosphorous acid, making it different from the traditional phosphate fertilizer derived from phosphoric acid or its salts.

- Salt Down replaces sodium with calcium on soil particles.
- 5-10 gallons per acre is needed to force enough sodium off the soil particles to make a difference.
- Repeat application with each irrigation to improve the soil properties.

### Available Sizes:

- 2.5 Gal -- [JHB06232.5G](#)





Agroplasma USA sells high production organic fertilizers approved for organic agriculture production in over 30 states nationwide. The Ferticell® products are based on different types of algae extracts, natural extracts of plants, and have been developed based directly off grower request. Ferticell® started in 1983 and has developed some of the most unique, efficient fertilizers available to the ag industry.

### Universal 0-0-1

- Provides faster and more efficient fertilizer assimilation through both foliar and soil applications
- Increased root development by promoting more lateral and deeper roots
- Lower salt content than seaweed or kelp products, reducing salt inputs and burn potential
- Improved quality of fruit and vegetables through better absorption of nutrients

- Increased flowering and decreased flower loss
- Develops more homogenous fruits and reduces fruit fall
- Foliar and soil applications with any standard equipment
- Increased yield production at economic rates
- Balanced hormonal package for healthy growth curve
- Provides energy for the plant to focus on physiological functions
- Increased resistance to abiotic stress



### Active 2-20-2, 5-10-10, 10-3-10, 13-2-2



- Ferticell® Active N-P-K is a line of high efficiency organic certified fertilizing materials for organic crop production. Ferticell® Active N-P-K affords the organic grower the ability to fine-tune his/her fertilization plan, a flexibility previously enjoyed mostly by conventional farmers.
- Developing correct plant nutrition recommendations has always been a challenge in organic production. Along with pest control, plant nutrition remains one of the major yield limiting factors for organic farmers.
- Provides energy for the plant to focus on physiological functions
- Increased resistance to abiotic stress

### Pro Phos 0-20-0

Ferticell® Pro Phos 0-20-0 is an Organic certified, mineral sourced, liquid phosphorus fertilizer, designed to supply this key nutrient in an easily mineralizable form. Ferticell® uses micronization technology and algae extract components work together to supply this important nutrient to the plant.

- Phosphorous is known to be immobile in the soil, as it rapidly joins with cations in the soil colloids to form insoluble compounds that resist leaching. This in turn requires the plant to constantly grow new roots to intercept new locations of phosphates.
- Micronization allows ProPhos 0-20-0 to travel through the soil pores and into the root zone itself. Once there its tremendous surface area will reduce the energy required to mineralize its phosphate component. Its liquid provides flexibility and ease of application.

### Why use Pro Phos 0-20-0?

- Mineral sourced organic phosphorous
- Contain no risk salts or limiting nutrients
- High surface area for low energy mineralization
- Micronized liquid suspension for ease of use and translocation





## Calcium 880 Plus

- Ferticell® Calcium 880 Plus is a complex of Calcium carbonate and freshwater algae extract which can be used effectively in foliar applications and most irrigation systems. It contains a natural package of unicellular algae cell extracts to encourage biological activity in the plant. The algae cells act as a facilitator of mobility for the Calcium molecule in the plant, and provide the fastest and most efficient assimilation of Calcium possible.
- Calcium 880 Plus is processed under pharmaceutical guidelines, providing for the highest quality Calcium available. The Calcium carbonate is mined, and processed to a size of less than one micron. This extremely small particle size increases the surface area of Calcium when applied to a crop, helping to increase the rate and volume of assimilation, and the mobility of the Calcium once assimilated by the plant.



## Microelements 1-0-0

- Ferticell® Microelements is a blend of micronutrients, freshwater algae extract, nitrogen and plant extracted amino acids (derived from soy bean).
- Ferticell® Microelements is a natural liquid micronutrient blend of high quality chelated micronutrients. Ferticell® Microelements helps to boost the synthesis of enzymes, the process of photosynthesis, and the absorption of water.
- By using Ferticell® Microelements throughout the crop cycle many nutrient deficiencies in the plant and soil can be avoided before they become a problem.
- Unlike many micronutrient blends, Ferticell® Microelements are immediately available to the plant. Using natural unicellular algae cells helps to promote biological activity and ensure the maximum uptake and assimilation of nutrients by acting as a delivery system directly to the plant cells.

## Nutri-Plus 2.5-0-0

- Ferticell® Nutri-Plus is a product containing active unicellular freshwater algae cells and high levels of amino acids. The algae cells are especially important in plant nutrition for increased yields, precocity, and quality in all crops. Amino acids act as natural stimulators for biological activity. They greatly influence rapid fixation of carbonic anhydride for photosynthesis, while producing a regulatory and balanced endo-cellular activity. The balance of amino acids results in an increased efficiency of protein formation, fertility of pollen, and resistance to cold weather stress.
- Ferticell® Nutri-Plus consists of unicellular algae cells and amino acids which are completely neutral and biologically active, making assimilation of nutrients rapid and complete. The amino acids are incorporated into the metabolic cycle of the crop, saving the plant energy for increased production.



## Microelements 1-0-0

- Ferticell® Microelements is a blend of micronutrients, freshwater algae extract, nitrogen and plant extracted amino acids (derived from soy bean).
- Ferticell® Microelements is a natural liquid micronutrient blend of high quality chelated micronutrients. Ferticell® Microelements helps to boost the synthesis of enzymes, the process of photosynthesis, and the absorption of water.
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