

An advanced line of liquid nutrients, soil amendments, biostimulants, and water management products specially formulated for greencare professionals

BioPro Technologies is proud to offer an advanced line of liquid fertilizers, soil amendments, micronutrients, plant growth biostimulants, soil moisture management products, as well as products for pond, lake, and water feature health.

We have spent decades in the development and testing of these products for use on golf and sports fields, and by lawn and landscape professionals.

BioPro Technologies - Superior Results Through Science.





Table of Contents

46

47

Pond and Lake Management

Aqua-T[™] Pond Bacteria

4-5 6	Product Summary Application Rate Summary
	Seaweed Supplements
8 9	CytoGro® Hormone Biostimulant SeaXtra™ Nutritional Supplement (1-0-3)
10	Soil Conditioners
11 12	EnviroPlex [™] Bio MP [™] (5-3-2)
13	Soil Remediation
14 15	$Na-X^{\text{TM}}$ Soil Salt Flush (5-0-0-12Ca) Nutralyz TM (12-0-0-26S)
16	Specialty NPK Liquid Blends
17 18 19 20 21 22 23 24 25 26 27	Enviro N [™] (28-0-0) Enviro P [™] (7-21-0) Enviro K [™] (0-0-30) All K [™] (0-0-25-17S) Greens Plus [™] (14-4-10) Greens Plus [™] (12-0-12) TurfPlex [™] (20-2-3) made with SeaXtra [™] TurfPlex NoPhos [™] (20-0-3) made with SeaXtra [™] Turf Starter [™] (8-16-5) made with SeaXtra [™] BloomPlex [™] (8-16-5) ArborPlex [™] (14-4-5)
28	Micronutrients
29 30 31 32 33 34 35 36 37 38	Boron Plus [™] (8-0-0-10Ca) Iron Plus [™] (15-0-0-6) made with SeaXtra [™] Iron Plus Mn [™] (12-0-0-6-2) made with SeaXtra [™] Magnesium Plus [™] (7-0-0-6) Manganese Plus [™] (0-0-0-5) made with SeaXtra [™] Silica (0-0-2) NutriSolve [™] made with SeaXtra [™] Spectrum [™] (8-0-0) made with SeaXtra [™] Tuff Greens [™] (0-0-13)
39	Soil Moisture Management
40 41 42	H3O Plus [™] H3O Plus Granular QD™ H3O Plus Granular OC™
43	Combination Products
44 45	SeaXtra [™] Water Penetrating Pellet Multi-Purpose Plus [™] (4-0-2) made with SeaXtra [™] & H3O Plus [™]

	Product	Volume Size	Model #	Summary of Use
	CytoGro®	1 quart bottle 1 gallon jug 30 gallon drum	57315 57310 57312	CytoGro is an EPA registered hormone biostimulant that supplements a plant's natural growth hormones, cytokins, and auxins. CytoGro increases root growth, fertilizer uptake, and recovery from environmental stresses.
SI	SeaXtra™ Nutritional Supplement (1-0-3) EAWEED SUPPLEMENTS	1 quart bottle 1 gallon jug 30 gallon drum	57331 57332 57334	SeaXtra Nutritional Supplement is a superior seaweed extract derived from Ascophyllum nodosum. A blend of nutrients and synergistic bioactive components, SeaXtra optimizes natural root development and stress tolerance. Organic content also improves nutrient availability.
	EnviroPlex™	2.5 gallon jug 30 gallon drum	57004 57005	EnviroPlex is a highly concentrated soil conditioner containing 22% organic acids from leonardite. EnviroPlex improves soil fertility, increases soil microbial activity, and increases the uptake of plant nutrients.
	Bio MP™ (5-3-2)	2.5 gallon jug 30 gallon drum	57622 57623	Bio MP is a high carbohydrate, molasses-based soil conditioner designed to stimulate biological activity by providing an immediately available energy source. Bio MP is particularly well suited for soils with organic layers, organic matter accumulated on the surface, or soils with anaerobic conditions caused by compaction.
S	OIL CONDITIONERS Na-X™ Soil Salt Flush	2.5 gallon jug	57056	Na-X Soil Salt Flush is a soluble electrolyte solution that rapidly reduces
	(5-0-0-12Ca)	30 gallon drum 275 gallon tote	57057 57059	sodium levels in soils to restore soil structure, increase water infiltration and percolation, and provide calcium for turfgrass experiencing calcium deficiency.
	Nutralyz™ (12-0-0-26S)	2.5 gallon jug 30 gallon drum 275 gallon tote	57060 57061 57062	Nutralyz is a premium grade, clear liquid ammonium thiosulfate solution. It is ideal for reducing the pH of alkaline soils through the production of sulfuric acid during microbial degradation. In addition, it provides nitrogen and sulfur for the plant.
S	OIL REMEDIATION Enviro NIM (28.0.0)	2 F gallon iug	F7120	Enviro N is a high quality controlled release nitrogen source. Nitrogen is
	Enviro N™ (28-0-0) 70% SRN	2.5 gallon jug 30 gallon drum 275 gallon tote	57129 57130 57131	supplied in a urea-triazone solution combined with organic acids to increase nutrient availability and uptake. Enviro N provides uniform growth without surges and declines, while maintaining consistently good color.
	Enviro P™ (7-21-0)	2.5 gallon jug 30 gallon drum 275 gallon tote	57135 57136 57137	Enviro P is an exceptional phosphorus source, particularly for overseeding and new turf establishment. A proprietary process complexes organic acids from leonardite with phosphorus to produce a very stable product that remains plant-available in the root zone significantly longer than conventional fertilizers.
	Enviro K™ (0-0-30)	2.5 gallon jug 30 gallon drum 275 gallon tote	57132 57133 57134	Enviro K is an excellent source of potassium derived from potassium carbonate, a high quality, less caustic, chlorine free source of potassium that provides extended nutrient availability. It also contains organic acids for improved nutrient uptake.
	All K™ (0-0-25-17S)	2.5 gallon jug 30 gallon drum 275 gallon tote	56100 56101 56102	All K potassium thiosulfate provides a high quality, less caustic, chlorine free, and readily available source of potassium and sulfur. It is ideal for use when both potassium and sulfur deficiencies are present.
	Greens Plus™ (14-4-10) 65% SRN	2.5 gallon jug 30 gallon drum 275 gallon tote	57123 57124 57125	Greens Plus (14-4-10) is a balanced blend of nitrogen from controlled release urea-triazone, phosphorus from Enviro P that increases nutrient availability and uptake, and potassium from Enviro K. The NPK is in an ideal plant tissue ratio.
	Greens Plus™ (12-0-12) 70% SRN	2.5 gallon jug 30 gallon drum 275 gallon tote	57126 57127 57128	Greens Plus (12-0-12) is a balanced N and K nutrient blend from controlled release urea-triazone and potassium from Enviro K. Organic acids increase nutrient availability and uptake. It is a high quality, phosphorus free product for use in areas with phosphorus restrictions.
	TurfPlex™ (20-2-3)	2.5 gallon jug 30 gallon drum 275 gallon tote	57507 57508 57509	TurfPlex is a high quality foliar nutrient blend with N, P, and K that produce excellent turf color and quality. It contains micronutrients, seaweed extracts, and organic acids. An ideal product for spoon-feeding greens, tees, and other high traffic areas.
	TurfPlex™ NoPhos (20-0-3) made with Sea Stra	2.5 gallon jug 30 gallon drum 275 gallon tote	57517 57518 57519	TurfPlex NoPhos is a high quality foliar nutrient blend with N and K that produce excellent turf color and quality. It also contains micronutrients, seaweed extracts, and organic acids. An ideal product for spoon-feeding in areas with phosphorus restrictions.
	Turf Starter™ (8-16-5)	2.5 gallon jug 30 gallon drum 275 gallon tote	57527 57528 57529	Turf Starter is an excellent product for use during grow-in, for fall fertility programs on cool season turf, and for overseeding establishment. It contains organic acids and seaweed extracts for optimized turf vigor.
	BloomPlex™ (8-16-5)	1 quart bottle 1 gallon jug 2.5 gallon jug 30 gallon drum 275 gallon tote	57532 57533 57534 57535 57536	BloomPlex is specially formulated with a high quality source of phosphorus to promote flowering and fruiting as well as root development. It also contains micronutrients and organic acids, and is an ideal product for use in seasonal color beds.

	Product	Volume Size	Model#	Summary of Use
SPECIA	ArborPlex™ (14-4-5) 50% SRN LTY NPK BLENDS (CONT′D)	2.5 gallon jug 30 gallon drum 275 gallon tote	57513 57514 57516	ArborPlex is formulated with slowly available nitrogen from urea-triazone combined with micronutrients and organic acids. It is designed to provide consistent, extended feeding for trees and shrubs. It is an ideal solution for improving tree and ornamental development and vigor without unwanted shoot growth.
	Boron Plus™ (0-0-0-5)	1 quart bottle	57200	Boron Plus is a formulation of boric and organic acids. It is designed to correct boron deficiencies.
	Calcium Plus™ (8-0-0-10Ca)	2.5 gallon jug 30 gallon drum	57189 57190	Calcium Plus is a chloride free, economical source of calcium and nitrate nitrogen readily available for plant utilization. It is an excellent product to correct calcium deficiencies in ornamental plants, turfgrasses, trees, and vegetable crops.
	Iron Plus™ (15-0-0-6) made with Sea Xtra	2.5 gallon jug 30 gallon drum 275 gallon tote	57195 57196 57197	Iron Plus is designed for foliar application to correct or prevent iron deficiencies in turfgrasses, trees, shrubs, and woody ornamentals. It contains seaweed extracts as well as organic acid chelators to stabilize nutrients, and to extend and enhance plant uptake.
	Iron Plus Mn [™] (12-0-0-6-2)	2.5 gallon jug 30 gallon drum 275 gallon tote	57198 57199 57205	Iron Plus Mn is a formulation of essential Fe, Mn, S, and N designed for foliar application to correct and prevent iron and manganese deficiencies in turfgrasses, trees, shrubs, and woody ornamentals. It contains seaweed extracts as well as organic acid chelators to stabilize and extend nutrient availability.
	Magnesium Plus™ (7-0-0-6)	2.5 gallon jug 30 gallon drum	57186 57187	Magnesium Plus is a solution of readily available magnesium and nitrate nitrogen. It contains organic acids derived from leonardite to extend the availability of Mg in the soil and enhance plant uptake.
	Manganese Plus™ (0-0-0-5) made with Seaktra	2.5 gallon jug 30 gallon drum 275 gallon tote	57201 57202 57203	Manganese Plus is a formulation of manganese and iron chelated with a proprietary combination of organic acids, which stabilize and extend micronutrient availability. Enhanced with seaweed extracts, it is designed for foliar application to correct and prevent manganese deficiencies on turfgrasses and ornamental plants.
	Silica (0-0-2)	1 gallon jug	57676	Silica is a formulation of silicon and organic acids derived from potassium silicate. It is designed as a foliar application to help increase wear tolerance and leaf blade rigidity for a more consistent playing surface.
	NutriSolve™ B, Cu, Fe, Mn, Mo, S, Zn made with Sea Stra	2.5 gallon jug 30 gallon drum 275 gallon tote	57180 57181 57182	NutriSolve is a blend of micronutrients (B, Cu, Fe, Mn, Mo, S, Zn) formulated with the same ratios that occur in the plant. It is designed to correct a wide range of micronutrient deficiencies without added nitrogen. It contains seaweed extracts and is chelated with citric and other organic acids to extend nutrient availability.
	Spectrum™ (8-0-0) Fe, Mg, Mn, S	2.5 gallon jug 30 gallon drum 275 gallon tote	57183 57184 57185	Spectrum is a blend of Fe, Mg, Mn, and S, chelated with a proprietary combination of citric and other organic acids to extend nutrient availability. It also contains seaweed extracts and is ideal for improving color.
MICROI	Tuff Greens™ (0-0-13) NUTRIENTS	2.5 gallon jug	57502	Tuff Greens is a unique formulation of K, Ca, Si, Fe, and organic acids to create a more playable and stress resistant turf. Designed to improve green speed, increase wear tolerance, and promote turf uniformity.
	H3O Plus™	1 quart bottle 2.5 gallon jug 30 gallon drum 275 gallon tote	1401 57280 57281 57283	H3O Plus is a patented blend of hygroscopic and humectant compounds that manages root zone moisture and provides more plant available water by converting root zone humidity into water droplets. H3O Plus increases water use efficiency, reduces drought stress and wilt, and aids in eliminating localized dry spots.
	H3O Plus Granular QD™	40 pound bag	57286	H3O Plus Granular QD puts the power of H3O Plus on a free-flowing, quick dissolving gypsum carrier.
MOISTU	H3O Plus Granular OC™ JRE MANAGEMENT	40 pound bag	57287	H3O Plus Granular OC puts the power of H3O Plus on a free-flowing, organic compost carrier.
	SeaXtra™ Water Penetrating Pellets	box of 12 case of 96	57329 57330	SeaXtra Water Penetrating Pellets contain a unique formulation of a nonionic, non-toxic surfactant enhanced with SeaXtra Seaweed Extract to optimize natural root development.
СОМВІІ	Multi-Purpose Plus™ (4-0-2) ****de with SeaXra and H3Q NATION PRODUCTS	2.5 gallon jug 30 gallon drum 275 gallon tote	57614 57615 57616	Multi-Purpose Plus is the next generation of combination liquids for turf and ornamentals. It contains SeaXtra Seaweed Extract, H3O Plus soil moisture management product, a natural based surfactant, and micronutrients with superior chelation.
	Aqua-T™ Pond Bacteria	10 pound pail 25 pound pail	57210 57225	Aqua-T Pond Bacteria is a biological pond maintenance product that is used to restore the natural balance in a pond. Aqua-T clarifies the water, reduces sludge and eliminates pond odors.

Values expressed are for general turf application - refer to product labeling for complete application instructions.

Products	Pounds / Gallon	Oz Product / 1,000 sq. ft.	Gallons H ₂ O / 1,000 sq. ft.	Gallons Product / Acre	Gallons H ₂ O / Acre
Seaweed Supplements					
CytoGro®	9.0	0.8 / 0.4 initial / maintenance	1	32 oz. / 16 oz. initial / maintenance	40
SeaXtra™ Nutritional Supplem (1-0-3)	ent 9.0	0.8 / 0.4 initial / maintenance	1	32 oz. / 16 oz. initial / maintenance	40
Soil Conditioners					
EnviroPlex™	8.96	3-6	1-2	1-2	40-80
Bio MP [™] (5-3-2)	9.65	6-15	2-2.5	2-5	80-100
Soil Remediation					
Na-X [™] (5-0-0-12Ca)	11.68	32-64	2	10-22	80
Nutralyz™ (12-0-0-26S)	11.0	13	2	4.3	80
Specialty NPK Blends					
Enviro N™ (28-0-0)	10.56	4,3	2	1,5	80
, ,		(0.1 lbs. N / 1,000 sq. ft.)		(0.1 lbs. N / 1,000 sq. ft.)	
Enviro P [™] (7-21-0)	10.58	14.4 (0.25 lbs. P ₂ O ₅ / 1,000 sq. ft.)	2	4.9 (0.25 lbs. P ₂ O ₅ / 1,000 sq. ft.)	80
Enviro K [™] (0-0-30)	12.26	² 8.6 (0.25 lbs. K ₂ O / 1,000 sq. ft.)	2	3.0 (0.25 lbs. K, O / 1,000 sq. ft.)	80
All K (0-0-25-17S)	12.21	10.5 (0.25 lbs. K ₃ O / 1,000 sq. ft.)	2	3.6 (0.25 lbs. K ₂ O / 1,000 sq. ft.)	80
Greens Plus™ (14-4-10)	10.88	8.4 (0.1 lbs. N / 1,000 sq. ft.)	2	2.9 (0.1 lbs. N / 1,000 sq. ft.)	80
Greens Plus™ (12-0-12)	10.80	9.8 (0.1 lbs. N / 1,000 sq. ft.)	2	3.3 (0.1 lbs. N / 1,000 sq. ft.)	80
TurfPlex™ (20-2-3)	10.61	6.0 (0.1 lbs. N / 1,000 sq. ft.)	1	2.1 (0.1 lbs. N / 1,000 sq. ft.)	40
TurfPlex [™] NoPhos (20-0-3)	10.54	6.0 (0.1 lbs. N / 1,000 sq. ft.)	1	2.1 (0.1 lbs. N / 1,000 sq. ft.)	40
Turf Starter™ (8-16-5)	10.94	18.2 (0.25 lbs. P ₂ O ₅ / 1,000 sq. ft.)	2	6.2 (0.25 lbs. P ₂ O _c / 1,000 sq. ft.)	80
Microputrionts		(0.23 lbs. P ₂ O ₅ / 1,000 sq. 1t.)		(0.25 lbs. P ₂ O ₅ / 1,000 sq. 1t.)	
Micronutrients Boron Plus™	8.55	0.5-1	1	22-44 oz.	40-80
Calcium Plus™ (8-0-0-10Ca)	11.85	12	2	4	80
Iron Plus™ (15-0-0-6)	10.78	3-6* / 6-12**	1	2	40
Iron Plus Mn [™] (12-0-0-6-2)	11.46	3-6* / 6-12**	1	2	40
Magnesium Plus™ (7-0-0-6)	11.06	6	2	2	80
Manganese Plus™ (0-0-0-5)	10.47	3	1	1	40
Silica (0-0-2)	8.96	0.1	11	4.4 oz.	40
NutriSolve™ B, Cu, Fe, Mn, Mo, S, Z		3-6* / 6-12**	1	2	40
Spectrum [™] (8-0-0) Fe, Mg, Mn, S Tuff Greens [™] (0-0-13)	10.78 10.23	3-6* / 6-12** 3-6	1 1	2 1-2	40 40
	10.23	30	'	12	10
Moisture Management	40.44	0./2	2.5	2/4	400
H3O Plus™	10.44	9/3 initial/maintenance	2.5	3 / 1 initial / maintenance	100
H3O Plus Granular QD™	N/A	2.7 lbs.	N/A	120 lbs.	N/A
H3O Plus Granular OC™	N/A	2.7 lbs.	N/A	120 lbs.	N/A
Combination Products					
SeaXtra™Water Penetrating Pe		1 Pellet per 12,000 sq. ft.	N/A	N/A	N/A
Multi-Purpose Plus™ (4-0-2)	11.13	6	1-2	2	40-80
*Greens and Tees **Fairways,	Lawns, Athletic Fields	s and Other Turf			

Sample calculation for nitrogen rates from liquid fertilizers

- 1) Calculate pounds of N in 1 gallon of product by multiplying the product weight in lbs./gal. by the % N in the guaranteed analysis.
- 2) For ounces of product per 1,000 sq. ft.: Divide the desired application rate in pounds of N/1,000 sq. ft. by the pounds of N/gal. calculated in Step 1. Multiply the resulting fraction by 128 (fl. oz./gal.) to get the number of ounces of product to be applied to 1,000 sq. ft. of turf for the desired rate of N.
- 3) For gallons of product per acre: Multiply the same fraction in Step 2 by 43.56 (1,000s of sq. ft./acre) to get the number of gallons of product to be applied to one acre of turf for the desired rate of N.

Example:

Fertilizers:

Enviro N (28-0-0) weighs 10.6 lbs./gal. and contains 28% N. Therefore, it contains 10.6 X 0.28 = 2.97 lbs. of N per gallon of product. For 0.1 lbs. N/1,000 sq. ft.: $0.1 \div 2.97 = 0.033$; $0.033 \times 128 = 4.3$ oz. of product per 1,000 sq. ft. For the amount of product per acre.

Fertilizer & Helpful Conversions

i ci tilizci si
P to P ₃ O ₅ - multiply by 2.30
$P_{5}O_{5}$ to P - multiply by 0.44
K to K,O - multiply by 1.20
K,O to K - multiply by 0.83

Weight:

lbs. per acre X 1.12 = kg per ha lbs. per 1,000 sq.ft. X 0.49 = kg per 100 m² 1 metric ton = 1,000 kg = 2205 lbs. 1 gallon of water = 8.34 lbs. = 3.78 kg

Temperature:

 $^{\circ}F = ^{\circ}C \times 1.8 + 32$ $^{\circ}C = (^{\circ}F - 32) / 1.8$

Luid Valuma

1 teaspoon = 1/3 tablespoon = 0.17 oz. = 5 milliliter 1 tablespoon = 1/16 cup = 1/2 fl. oz. = 15 milliliter 1 ounce = 1/8 cup = 30 milliliter 1 cup = 1/2 pint = 8 fluid ounces = 237 milliliter

1 cup = 1/2 pint = 8 fluid ounces = 237 milliliter 1 pint = 1/2 quart = 16 fluid ounces = 473 milliliter 1 quart = 1/4 gallon = 32 fluid ounces = 946 milliliter 1 qallon = 128 fluid ounces = 3.8 Liter

Area:

10.76 square feet = 1 square meter 1 square foot = 0.09 square meters 2.47 acres = 1 hectare 1 acre = 0.40 hectares



About our Seaweed Supplements

BioPro's Seaweed Supplements are derived from Ascophyllum nodosum. Harvested from the cold, nutrient-rich waters of the Bay of Fundy off of Nova Scotia, this seaweed is one of the hardiest plants on earth. Conditioned to survive the harsh environment of the intertidal zone where it resides, this resilient kelp provides a superior source of seaweed extracts.

The hardy nature of Ascophyllum nodosum is largely due to its biochemical makeup. The seaweed utilizes substances such as amino acids, vitamins, enzymes, proteins, minerals and organic acids to help it survive a wide array of environmental stresses. These same bioactive components help plants optimize natural root development and stress tolerance.

The quality of a seaweed extract is based on both the source of the seaweed as well as the extraction process. BioPro's Seaweed Supplements are processed using a proprietary extraction method which preserves the maximum amount of beneficial ingredients to produce high quality seaweed products.

Benefits of Use:

- Optimizes natural root development. Bioactive substances provide the components for plants to maximize their natural potential for root and lateral growth. Furthermore, the biostimulants in CytoGro stimulate cell division to amplify root mass.
- Promotes plant vitality and stress tolerance. Similar to the way that vitamins support human well-being, seaweed extracts provide beneficial ingredients that help support the plant's ability to tolerate environmental stresses.
- Improves nutrient availability. The unique source of organic contents improves soil microbial activity and nutrient cycling.
- Cost effective and easy to use. Extremely effective at low rates, BioPro's Seaweed Supplements are an excellent addition to any agronomic program, regardless of budget.



Benefits of Use:

- Promotes deeper, denser root systems
- Enhances lateral growth
- Speeds recovery and grow-in
- Increases stress tolerance
- Increases transplant survival
- Maximizes nutrient uptake
- Improves salinity tolerance
- Retards turf senescence
- Minimizes frost damage
- Effective on all turf and plants
- Affordable and easy to use
- Compatible with growth regulators

Problem Conditions Improved

- Shallow or poorly developed root systems
- Weak or thin areas in turf
- Wear in high traffic areas
- Damage from drought, insects or temperature extremes
- Harsh winter conditions

Active Ingredients:

Cytokinins, as kinetin.....50 ppm (based on bioassay)

EPA Registration #90022-1

Physical Characteristics:

9.0 lbs./gal.; pH 7.0

NON PHYTOTOXIC Not a plant food product

Container Sizes & Model Numbers:

1 Quart Bottle Model #57315 1 Gallon Jug Model #57310 30 Gallon Drum Model #57312





CytoGro® is an EPA registered hormone biostimulant derived from seaweed extracts. A consistent source of cytokinins and auxins, CytoGro stimulates root growth; encourages tiller, rhizome and stolon production; increases vigor; and improves stress tolerance for fine turf, lawns, trees, landscape ornamentals and flowering plants. Additionally, CytoGro contains hormone cofactors, such as amino acids, vitamins, proteins, carboxylic acids, mannates, and sea minerals, which allow the product to be effective at low rates. By amplifying root mass, CytoGro not only improves plant health, it also aids in the uptake of water, fertilizers and pesticides, saving both time and money.

CytoGro has been tested by many renowned turf grass experts including: Dr. Richard Schmidt, Virginia Polytechnic Institute; Dr. Jack Fry and Dr. Roch Gaussoin, Kansas State University; and Dr. Carlos Blanco-Montero, University of New Mexico.

Application Instructions:

CytoGro can be applied through fertigation or conventional spray. It may be applied alone or tank mixed with other products.

Initial Application: Apply 0.8 oz. of CytoGro per 1,000 sq. ft. (2 pints per acre).

Monthly Application: Following the initial application apply 0.4 oz. of CytoGro per 1,000 sq. ft. (1 pint per acre). To maximize performance, maintenance rates may be split in weekly or bi-weekly applications.

Note: CytoGro is best applied as a foliar spray in the late afternoon or early morning with leaves being allowed to dry. For additional root growth and green-up from CytoGro, tank mix with iron sulfate or chelated iron.

Transplanting Trees, Shrubs and Ornamentals:

Add 1 fl. oz. of CytoGro per 3 gallons of transplant solution.

Landscape Maintenance:

To improve flowering and stress tolerance of bedding plants; to speed up the correction of nutritional deficiencies, such as iron chlorosis; and to enhance nutrient uptake in root feeding of trees and shrubs. Mix 1 fl. oz. of CytoGro per 3 gallons of water and apply through fertigation, soil drench, foliar spray or root injection. Apply every 2 to 4 weeks or as needed.

Compatibility:

CytoGro is compatible with most commonly used turf and ornamental products. A standard "jar test" is always recommended to confirm compatibility.

Handling and Storage:

Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.

For additional information, refer to the CytoGro flyer, label and/or SDS.





Benefits of Use:

- Maximizes the plant's natural potential for root development
- Promotes plant vitality
- Optimizes stress tolerance
- Improves micronutrient availability
- Effective on all turf and plants
- Affordable and easy to use
- Compatible with growth regulators

Problem Conditions Improved

- Shallow or poorly developed root systems
- Weak or thin areas in turf
- Landscapes prone to environmental stresses including temperature extremes, drought, salinity, high traffic, etc.

Guaranteed Analysis:

Nitrogen (N)	.1.00%
0.45% Water Soluble Organic 1	Nitrogen
0.55% Urea Nitrogen	
Potassium (K ₂ O)	.3.00%

Derived From:

Seaweed Extract (Ascophyllum nodosum), Urea, and Potassium Acetate

Physical Characteristics:

9.0 lbs./gal. (0.09 lbs. N/gal and 0.27 lbs. K₂0/gal.); pH 7.0

Container Sizes & Model Numbers:

1 Quart Bottle Model #57331 1 Gallon Jug Model #57332 30 Gallon Drum Model #57334



SeaXtra Nutritional Supplement (1-0-3) is a superior seaweed extract derived from the highest quality Ascophyllum nodosum. This hardy kelp is sourced from the cold, nutrient rich waters of the Bay of Fundy. Thriving in intertidal zones, this seaweed is constantly exposed to a variety of environmental stresses. As tides change throughout the day, the kelp goes from being completely exposed on the rocky shoreline to submerged beneath the frigid salt waters of the North Atlantic. To survive these environmental extremes, the seaweed contains a variety of beneficial bioactive substances including, amino acids, vitamins, enzymes, proteins, minerals, organic acids, etc.

When applied to plants, the nutrients and blend of synergistic components found in SeaXtra Nutritional Supplement have been known to optimize the plant's natural potential for root development and stress tolerance. SeaXtra also provides a unique source of organic content that improves soil microbial activity and nutrient availability. These benefits are particularly advantageous for new plantings and to protect existing plants from temperature extremes, drought, salinity, and other environmental stresses.

Application Instructions:

SeaXtra Nutritional Supplement (1-0-3) can be applied through fertigation, foliar or conventional spray. It may be applied alone or tank mixed with other products. Shake well before using.

Turf:

Initial Application: Apply 0.8 oz. of SeaXtra per 1,000 sq. ft. (2 pints per acre).

Monthly Application: Following the initial application apply 0.4 oz. of SeaXtra per 1,000 sq. ft. (1 pint per acre). To maximize performance maintenance rates may be split in weekly or bi-weekly applications.

Note: SeaXtra is best applied as a foliar spray in the late afternoon or early morning with leaves being allowed to dry.

Transplanting Trees, Shrubs and Ornamentals:

Add 1 fl. oz. of SeaXtra per 3 gallons of transplant solution.

Landscape Maintenance:

To improve flowering and stress tolerance of bedding plants; to speed up the correction of nutritional deficiencies, such as iron chlorosis; and to enhance nutrient uptake in root feeding of trees and shrubs. Mix 1 fl. oz. of SeaXtra per three gallons of water and apply through fertigation, soil drench, foliar spray or root injection. Apply every 2 to 4 weeks or as needed.

Compatibility:

SeaXtra is compatible with most commonly used turf and ornamental products. A standard "jar test" is always recommended to confirm compatibility.

Handling and Storage:

About our Soil Conditioners

BioPro Soil Conditioners are organic-based solutions formulated to improve soil health, increase turf vigor, and provide additional protection against stresses affecting turf and ornamental plants. The organic acids that form the foundation of the soil conditioners are derived from leonardite ore through a proprietary chemical extraction process.

Soil conditioners improve the ability of soils to retain nutrients by increasing the cation exchange capacity (CEC) and increasing soil microbial activity. This results in a wide variety of benefits including accelerated breakdown of organic material, natural recycling of nutrients, enhanced uptake of nutrients by turf and plants, stimulation of root growth, and improved overall plant vigor.

BioPro Soil Conditioners can be applied individually through fertigation or with a conventional sprayer, or tank-mixed with nutrient blends.

Benefits of Use:

- Increased turf vigor and stress resistance. Organic acids increase the availability and enhance the uptake of critical mineral nutrients.
- Increased nutrient retention and uptake. Humic substances added to the soil stimulate microbial activity that improves nutrient retention through increasing cation exchange capacity (CEC). Organic acids and natural chelating agents aid in the chelation of micronutrients, creating soluble complexes which increase plant uptake of micronutrients. Nutrient loss through leaching is reduced, and the overall nutrient efficiency of the plant-soil system is enhanced.
- Increased soil microbial activity
- Buffered soil system. BioPro Soil Conditioners improve the ability for a soil to resist changes in pH and provide for a more controlled availability of nutrients.
- Improves salinity tolerance



Benefits of Use:

- Increases tolerance to mid-summer stress
- · Easily applied through fertigation
- Increases nutrient uptake by plants
- Supports soil microbial activity
- Stimulates root growth
- Increases seedling establishment in new turf and overseeding
- Increases water and nutrient holding capacity in soils over time
- Increases overall plant vigor
- Increases nutrient recycling
- Aids in decomposition of thatch and black layers

Problems Addressed:

- Poor nutrient retention in sandy soils
- Low levels of soil microbial activity
- Anaerobic soil conditions
- Soil compaction
- Poor water infiltration
- Black layer formation
- Toxic conditions from salt or chemical accumulation

Guaranteed Analysis:

Contains non-plant food ingredients: 22% organic acids derived from leonardite ore.

Derived From

Leonardite Ore.

Physical Characteristics:

8.96 lbs./gal.; pH 10.27

Container Sizes & Model Numbers:

Model #57004 2.5 Gallon Jug 30 Gallon Drum Model #57005



EnviroPlex is a unique, highly concentrated liquid organic soil conditioner produced from a proprietary humate extraction process. EnviroPlex contains 22% humic acids derived from leonardite ore. These humates have an extremely high cation exchange capacity (CEC) that is several times higher than soil organic matter. Humic acids have the proven ability to hold positively charged ions such as potassium, calcium, magnesium, iron, and manganese, as well as several other metal nutrients. This effect allows EnviroPlex to chelate these nutrients and increase their availability to the plant.

In addition, the high concentration of carbon in EnviroPlex helps stimulate and enhance microbial activity. Stimulated microbes improve nutrient cycling, organic matter digestion, and other beneficial processes within the soil. This is particularly beneficial in sandy soils.

Finally, these humates have also been shown to mimic the effect of plant hormones, particularly cytokins and auxins. This effect promotes greater root mass and improves seedling establishment, making EnviroPlex an excellent symbiotic product with CytoGro.

Application Instructions:

EnviroPlex can be applied through fertigation or conventional spray. It may be applied alone or tank-mixed with other products. Apply 3 to 6 oz. diluted in 1 to 2 gallons of water per 1,000 sq.ft. (1 to 2 gallons diluted in 40 to 80 gallons of water per acre) per month.

Compatibility:

Do not mix with calcium-based and/or high phosphate fertilizers. Perform a standard "jar test" to check compatibility with other products before mixing. Fertilizers with a pH of 4.0 or less may not be compatible.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Reduces leaching and loss of nutrients in sterile sand conditions
- Enhances nutrient uptake
- Stimulates root growth
- Increases tolerance of multiple stresses
- Improves overall plant vigor
- Stimulates the decomposition of thatch
- Stimulates decomposition of layering caused by anaerobic soil conditions
- Restores healthy soil biology and promotes soil microbial activity
- Source of micronutrients and humates

Problems Addressed:

- Black layering caused by anaerobic conditions
- Thatch build-up on the surface or as a sub-surface layer
- Excessive nutrient leaching
- Low CEC
- Low water holding capacity

Guaranteed Analysis:

Derived From:

Urea, Potassium Nitrate, Potassium Phosphate, Phosphoric Acid, Molasses, Iron Sulfate, Manganese Sulfate, Zinc Sulfate. This products also contains soluble carbohydrates and organic acids.

Physical Characteristics:

9.65 lbs./gal. (0.48 lbs. N/gal.); pH 3.0

Container Sizes & Model Numbers:

2.5 Gallon lug Model #57622 30 Gallon Drum Model #57623



Bio MP (5-3-2) is a high carbohydrate soil conditioner designed to stimulate biological activity by providing an immediately available energy source for soil microbes. Molasses is the primary source of carbohydrates. When applied as directed, Bio MP has been formulated to achieve commonly recommended molasses application rates. Bio MP is particularly well suited for soils with organic layers, organic matter accumulated on the surface, or soils with anaerobic conditions caused by compaction. Bio MP is also an excellent product for sterile sandy soils with low CEC and water holding capacities.

Application Instructions:

Bio MP can be applied through fertigation or conventional spray. It may be applied alone or tank mixed with other products. Apply 6 to 15 oz. diluted in 2 to 2.5 gallons of water per 1,000 sq. ft. (2 to 5 gallons diluted in 80 to 100 gallons of water per acre) per month. To maximize performance, rates may be split into weekly or bi-weekly applications. Shake well before using.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



About our Soil Remediation Line

BioPro Soil Remediation products are formulated to alleviate problem soil conditions resulting from the accumulation of toxic substances. These products breakdown or inactivate undesirable substances through the utilization and acceleration of natural soil processes, which also promote microbial activity. These soil remediation products also improve overall soil health and increase turf vigor in a manner similar to BioPro Soil Conditioners, creating a higher quality, more playable surface.

Benefits of Use:

- Address accumulated soil toxins. BioPro Soil Remediation products are engineered to break down bicarbonates and flush salts from the soil profile.
- Increased turf vigor and stress resistance
- Improved soil structure
- Increased gas exchange
- Heightened water penetration and infiltration



Benefits of Use:

- Quickly reduces sodium levels
- Improves soil tilth and structure
- Reduces standing water and runoff
- Improves water penetration
- Calcium supply for turf
- Cost effective
- Easy to use

Problems Addressed:

- Soils irrigated with poor quality irrigation or reclaimed water
- Soils near roadways, sidewalks and driveways treated with salts for snow removal
- Soils with inherent high sodium levels
- Coastal areas affected by saltwater intrusion.
- Soils affected by fertilizer salt build-up

Guaranteed Analysis:

Total Nitrogen (N)	5.00%
5.00% Urea Nitrogen (N)	
Calcium (Ca)	12.00%
12.00% Calcium (Ca)	

Derived From:

Urea, Calcium Chloride.

Physical Characteristics:

11.68 lbs./gal. (1.4 lbs. Ca/gal.); pH 6.3 - 6.6

Container Sizes & Model Numbers:

2.5 Gallon lug Model #57056 30 Gallon Drum Model #57057 275 Gallon Tote Model #57059



Sodic soils are those that contain a high level of sodium on cation exchange sites. In these soils, clay and organic matter is dispersed, filling pore space, which creates dense layers that reduce water infiltration and limit root growth. Left untreated, sodic soils will lead to a decline in turf and plant health.

Na-X Soil Salt Flush is a soluble electrolyte solution of urea nitrogen and calcium designed to rapidly reduce sodium salt levels and improve soil structure.

Calcium is the strongest cation available to displace sodium on cation exchange sites, removing sodium quickly, improving soil structure and increasing hydraulic conductivity. However, the rate and efficiency of the displacement of sodium is directly related to the calcium concentration in the soil water solution. As a liquid calcium electrolyte solution, Na-X contains high levels of free exchangeable calcium ions that quickly overwhelm and displace sodium ions.

In addition to displacing sodium ions, calcium improves soil structure by flocculating clay fractions. Structure is critical to soil health, particularly in heavy soils where the movement of water and nutrients is entirely dependent on their configuration. Without flocculation, soil particles (sand, silt and clay) do not bind together. The calcium in Na-X causes the soil particles to come together to form the structure that allows water and air to flow unimpeded through the soil profile. This also allows the sodium to be carried away by flush water once it is displaced from the soil colloid.

Along with the nitrogen in Na-X, excess calcium is available for uptake by plant roots, improving stem strength and leaf structures.

Application Instructions:

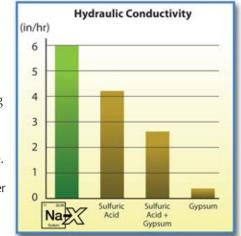
Na-X may be applied through fertigation or conventional spray as a stand-alone application. Apply 32 to 64 oz. of Na-X diluted in 2 gallons of water per 1,000 sq.ft. (10 to 22 gallons of Na-X diluted in 80 gallons of water per acre). Water in immediately

following the application with enough water to saturate the soil profile. Repeat applications every two weeks until sodium drops to an acceptable level. Shake well before using.

Compatibility:

Do not mix with sulfates or phosphates. Na-X is designed as a stand-alone application, tank mixing is not recommended.

Handling and Storage:





Benefits of Use:

- Reduces soil pH
- Reduces bicarbonate and sodium levels
- Helps improve micronutrient availability
- Excellent source of nitrogen and sulfur
- Reduces isolated dry spots caused by bicarbonate and sodium build-up
- Improves water and air penetration
- More even and deeper turf color

Problems Addressed:

- Bicarbonate and sodium toxicity
- Isolated dry spots
- Poor water penetration
- Poor fertilizer, particularly micronutrient performance

Guaranteed Analysis:

Total Nitrogen (N)	12.00%
12.00% Ammoniacal Nit	rogen (N)
Combined Sulfur (S)	26.00%

Derived From:

Ammonium Thiosulfate.

Physical Characteristics:

11.0 lbs./gal. (1.32 lbs. N/gal. and 2.86 lbs. S/gal.); pH 6.5 - 8.5

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57060 30 Gallon Drum Model #57061 275 Gallon Tote Model #57062



Photo courtesy of Spectrum Technologies, Inc.

Nutralyz is a premium grade, clear liquid ammonium thiosulfate, which provides an excellent source of both nitrogen and sulfur. As soil microorganisms break down Nutralyz to release the nitrogen, the sulfur is converted into sulfuric acid. This release of sulfuric acid reduces the pH of alkaline soils. As pH is reduced, micronutrients become more available for plant uptake. Additionally, sulfuric acid will also break down bicarbonates and allow sodium to be flushed from the soil. Sulfur is widely recognized as an essential element for plant growth. It is a critical nutrient for the development of chlorophyll, helps nitrogen to be used more efficiently, and is required by the plants to synthesize certain vitamins and amino acids. It has also been documented to help reduce certain diseases in turf. When used with a proper NPK program, sulfur can help progress the decomposition of thatch, stimulate microbial activity, enhance turf color and density, increase drought tolerance and improve winter hardiness.

Application Instructions:

Nutralyz may be applied through fertigation or conventional spray. It may be applied alone or tank mixed with other products.

Corrective Application: Apply 13 oz. diluted in 2 gallons of water per 1,000 sq. ft. (4.3 gallons diluted in 80 gallons of water per acre) once per week for 3 consecutive weeks. Promptly water this application into the soil. Repeat every two months as needed.

Preventative Application: Apply 13 oz. per 1,000 sq. ft. diluted in 2 gallons of water (4.3 gallons diluted in 80 gallons of water per acre) every 4 to 6 weeks. Promptly water this application into the soil.

Fertility: Nutralyz may also be used a part of a regular nitrogen fertility program. Refer to the table below to determine the volume of Nutralyz to apply to achieve the desired amount of nitrogen.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	9.7	3.3
0.125	12.1	4.1
0.134	13.0	4.4
0.25	24.2	8.2

*Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Partially fill the tank with water and start agitation
- 2. Slowly add products to the circulating mix one at a time
- 3. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



About our Specialty NPK Liquid Blends

BioPro Specialty NPK Liquid Blends are formulated from superior nutrient sources. The Enviro and Greens Plus products are designed for root absorption, while the TurfPlex products offer a high quality foliar fertilizer option.

Nitrogen is supplied in blends from either a controlled release ureatriazone solution; a urea ammonium nitrate (UAN), which provides a balance of three nitrogen forms that deliver rapid to medium response; or other ammoniacal sources that provide rapid response. These sources of nitrogen are combined in ratios to eliminate the growth spikes and declines common to soluble forms of N, and minimize the risk of leaf burn because of low osmotic potential. These blends have demonstrated superior plant growth response compared to other sources of N in controlled studies.

The Enviro and Greens Plus phosphorus is supplied through a proprietary manufacturing process that complexes organic acids derived from leonardite ore with phosphorus to extend its availability in the root zone. Phosphorus is commonly tied up in forms unavailable to plants shortly after entering the soil system. The organically complexed P in the Enviro and Greens Plus blends not only remains plant-available for extended periods, it also exhibits many of the growth enhancing effects of humic substances.

Potassium is supplied as either potassium carbonate, potassium hydroxide, or potassium thiosulfate, which are high quality, chlorine free, less caustic sources. Potassium carbonate is held longer in the soil system, sustaining K availability to the plant.

TurfPlex products contain SeaXtra Seaweed Extract to optimize natural root development, aid in nutrient uptake and maximize environmental stress tolerance.

Benefits of Use:

- High quality ingredients. All nutrients are supplied from the highest quality liquid sources. These products are particularly well suited for greens and tees or other areas of high quality turf.
- Low burn potential. All ingredients have low osmotic potentials minimizing any risk of foliage burn.
- Controlled release N. The urea-triazone solution provides an immediate N response followed by a uniform and sustained release. Growth surges and declines are minimized, creating a consistent playing surface.
- Extended availability of P & K. High quality sources of potassium and phosphorus remain available in the soil longer for increased plant uptake. These innovative P & K sources are also more resistant to leaching, making them an eco-friendly fertilizer option.
- Organic advantage. A complex mix of organic acids enhance the availability and performance of nutrient blends while also improving soil quality.



Benefits of Use:

- Low burn potential
- Slow release nitrogen for more consistent growth and color
- Enhanced nitrogen uptake and tissue nitrogen levels from organic acids
- Minimum growth surges and declines
- Improves turf establishment and density

Problems Addressed:

- Growth surges caused by the use of quick release nitrogen
- Inconsistent nitrogen response on sandy soils
- Loss of nitrogen in highly leached soil
- Thin turf or weak growth
- Poor color

Guaranteed Analysis:

Total Nitrogen (N)......28.00% 20.20% Water Soluble Organic Nitrogen (N)* 7.80% Urea Nitrogen (N)

Derived From:

Urea-Triazone Solution. This product also contains organic acids.

*This product contains 20.20% Slow Release Nitrogen (70% of the total N) from Urea-Triazone Solution.

Physical Characteristics:

10.56 lbs./gal. (2.96 lbs. N/gal.); pH 9.3

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57129 30 Gallon Drum Model #57130 275 Gallon Tote Model #57131



Enviro N (28-0-0) is a controlled release nitrogen source for heavily used turf areas. Nitrogen is supplied in a urea-triazone solution, which has demonstrated superior plant growth response compared to other sources of N in controlled studies. Enviro N provides consistently high quality color and uniform turf growth without surges and declines. Enviro N has a low burn potential (even at high rates) and may be left on leaf blades for a period of time before being watered into the soil. It can be applied in substantially lower volumes of water due to an extremely low phytotoxicity. It is also compatible with most herbicides, insecticides and other pesticides.

Application Instructions:

Enviro N can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Enviro N (28-0-0) contains 2.96 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve a certain amount of nitrogen. Apply Enviro N diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	4.3	1.5
0.125	5.4	1.8
0.25	10.8	3.7

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Superior establishment of new turf
- Extended availability of phosphorus
- Enhanced uptake and tissue phosphorus levels from humic acid
- Stabilizes phosphorus in water with high mineral content
- Improves winter hardiness
- Increases rooting and stimulates tillering
- Speeds maturity

Problems Addressed:

- Phosphorus precipitation caused by high mineral water
- Phosphorus deficiency
- Turf situations requiring higher levels of plant available phosphorus
- Thin or weak plant establishment

Guaranteed Analysis:

Total Nitrogen (N)
6.00% Ammoniacal Nitrogen (N)
0.30% Nitrate Nitrogen (N)
0.70% Urea Nitrogen (N)
Available Phosphate (P ₂ O ₅)21.00%
Zinc (Zn)0.20%
0.20% Water Soluble Zinc (Zn)

Derived From:

Anhydrous Ammonia, Urea Ammonium Nitrate, Phosphoric Acid, Zinc Sulfate. This product also contains organic acids derived from leonardite.

Physical Characteristics:

10.58 lbs./gal. (0.74 lbs. N/gal.; 2.22 lbs. P₂O₅/gal.), pH 6.3

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57135 30 Gallon Drum Model #57136 Model #57137 275 Gallon Tote



Enviro P (7-21-0) is an exceptional source of phosphorus for turf and ornamentals. A proprietary production process complexes organic acids from leonardite with phosphorus, producing a very stable product that retains phosphorus in the root zone significantly longer than conventional fertilizers. Phosphorus is commonly tied up in the soil becoming chemically unavailable for plant uptake, which can result in phosphorus deficiency. Deficiency symptoms include reddish-purple color and loss of vigor. The unique combination of nutrients and organic acids in Enviro P not only sustains the availability of phosphorus to reduce deficiency symptoms, but also improves the overall growth response of turf. Phosphorus is particularly important in the establishment and development of new seedlings. Enviro P is most effective when used as a pre-plant application for new grow-in, overseeding, ornamental installation, and tree planting. It will provide a continuous source of P,O, during establishment. Enviro P gives new turf a substantial head start, creating a more vigorous playable surface in a shorter period of time.

Application Instructions:

Enviro P can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Enviro P (7-21-0) contains 2.22 lbs. of phosphorus as P₂O₅ and 0.74 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of phosphorus. Apply Enviro P diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of P ₂ O ₅ (Corresponding N)	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10 (0.03 lbs. N)	5.8	2.0
0.125 (0.04 lbs. N)	7.2	2.4
0.25 (0.08 lbs. N)	14.4	4.9

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Less caustic source of potassium
- Potassium remains plant available longer in soil
- Enhances stress tolerance
- Humic acids increase nutrient uptake
- Improves drought tolerance
- Chlorine free

Problems Addressed:

- Low potassium levels in leached or sandy soils
- Stunted growth with necrotic leaf tips resulting from potassium deficiency
- Low vigor turf susceptible to mid-summer
- · Poor response to temperature change and drought

Guaranteed Analysis:

Soluble Potash (K₂O).....30.00%

Derived From:

Potassium Carbonate.

This product also contains organic acids.

Physical Characteristics:

12.26 lbs./gal. (3.68 lbs. K₂O/gal.); pH 13.2

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57132 30 Gallon Drum Model #57133 275 Gallon Tote Model #57134



Enviro K (0-0-30) is an excellent source of potassium for turf. The role potassium plays in sustaining vigorous plant growth through stressful conditions is well-documented. It is also well known that potassium is readily lost from the root zone through leaching, especially in sandy soils. Enviro K is derived from potassium carbonate, a high quality, less caustic, chlorine free source of potassium. The potassium in Enviro K is retained in the root zone longer for more uniform and consistent plant uptake. Enviro K also contains organic acids from leonardite, which enhances turf performance and improves soil quality.

Application Instructions:

Enviro K can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Enviro K (0-0-30) contains 3.68 lbs. of potassium as K.O. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of potassium. Apply Enviro K diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of K ₂ O	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	3.5	1.2
0.125	4.3	1.5
0.25	8.6	3.0

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:

In its concentrated form, Enviro K is (0-0-30) is very alkaline. Care and safety should be taken during handling. Goggles, gloves and protective clothing should be worn. Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.



Benefits of Use: Benefits of Use:

- Excellent source of highly soluble potassium
- Less caustic source of potassium
- Enhances stress tolerance
- Improves drought resistance
- Excellent source of sulfur
- Chlorine free
- Low salt index

Problems Addressed:

- Low potassium levels in leached or sandy
- Stunted growth with necrotic leaf tips resulting from potassium deficiency
- Low vigor turf susceptible to mid-summer stresses
- Sulfur deficiency

Guaranteed Analysis:

Soluble Potash (K₂O)......25.00% Combined Sulfur (S)......17.00%

Derived From:

Potassium Thiosulfate.

Physical Characteristics:

12.21lbs./gal. (3.05 lbs. K₂O/gal.); pH 7.0 - 8.2

Container Sizes & Model Numbers:

Model #56100 2.5 Gallon Jug 30 Gallon Drum Model #56101 275 Gallon Tote Model #56102



All K (0-0-25-17S) provides a high quality, readily available source of potassium and sulfur. It is an ideal product to use when both sulfur and potassium deficiencies are present in turf.

The role potassium plays in sustaining vigorous plant growth through stressful conditions is well-documented. It is also well known that potassium is readily lost from the root zone through leaching, especially in sandy soils. All K provides potassium from potassium thiosulfate, a high quality, less caustic, chlorine free source.

Sulfur is widely recognized as an essential element for plant growth. Sulfur is a critical nutrient for the development of chlorophyll, helps nitrogen to be used more efficiently, and is required by the plants to synthesize certain vitamins and amino acids. It has also been documented to help reduce certain diseases in turf. When used with a proper NPK program, sulfur can help progress the decomposition of thatch, stimulate microbial activity, enhance turf color and density, increase drought tolerance and improve winter hardiness.

Application Instructions:

All K can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of All K (0-0-25-17S) contains 3.05 lbs. of potassium as K₂O and 2.08 lbs. of sulfur. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of potassium. Apply All K diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of K ₂ O	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	4.2	1.4
0.125	5.2	1.8
0.25	10.5	3.6

*Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- N-P-K in same ratio as turf tissue
- Low burn potential / low salt index
- SRN for more consistent growth and color
- Enhanced nutrient uptake and tissue nutrient levels from humic acid
- Minimum growth surges and declines
- Less caustic source of potassium
- P & K remain plant available longer in soil
- Enhances stress tolerance

Problems Addressed:

- Low nitrogen and/or potassium levels in leached or sandy soils
- Inconsistent nitrogen response
- Growth surges from quick release N
- Low vigor turf prone to mid-summer stress
- Stunted growth with necrotic leaf tips resulting from potassium deficiency
- Phosphorus deficiency symptoms

Guaranteed Analysis:

Total Nitrogen (N)14.00%
1.14% Ammoniacal Nitrogen (N)
0.06% Nitrate Nitrogen (N)
3.66% Urea Nitrogen (N)
9.14% Water Soluble Organic Nitrogen (N)*
Available Phosphate (P ₂ O ₅)4.00%
Soluble Potash (K,O)
Zinc (Zn)0.04%
0.04% Water Soluble Zinc (Zn)

Derived From:

Urea, Urea-Triazone Solution, Urea Ammonium Nitrate, Anhydrous Ammonia, Phosphoric Acid, Potassium Carbonate, Zinc Sulfate. This product also contains organic acids from leonardite.

*This product contains 9.14% Slow Release Nitrogen (65% of the total N) from Urea-Triazone Solution.

Physical Characteristics:

10.88 lbs./gal. (1.52 lbs. N/gal., 0.44 lbs. P₂O₅ /gal., 1.08 lbs. K₂O / gal.), pH 10.0

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57123 30 Gallon Drum Model #57124 275 Gallon Tote Model #57125



Greens Plus (14-4-10) is a balanced nutrient blend with nitrogen, phosphorus, and potassium in the same ratios as they are generally found in plant tissue. It is an excellent, superior quality product for general turf maintenance on greens, tees, and other areas of high quality turf. Nitrogen is supplied in a slow release, extended feed form from a urea-triazone solution, which provides uniform turf growth and color for prolonged intervals between applications. Phosphorus is supplied from Enviro P, a proprietary blend with organic acids which increase the availability and uptake of nutrients. Potassium is supplied from Enviro K, which remains available longer in the soil. Greens Plus is formulated for soil uptake, has low burn potential (even at high rates), and can be applied in substantially lower volumes of water due to an extremely low phytotoxicity.

Application Instructions:

Greens Plus (14-4-10) can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Greens Plus (14-4-10) contains 1.52 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of nitrogen. Apply Greens Plus diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	8.4	2.9
0.125	10.5	3.6
0.25	21.0	7.2

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Balanced nitrogen and potassium
- Low burn potential / low salt index
- SRN for more consistent growth and color
- Enhanced nutrient uptake and tissue nutrient levels from humic acid
- Minimum growth surges and declines
- Less caustic source of potassium
- Potassium remains plant available longer in soil
- Enhances stress tolerance
- Ideal for areas with phosphorus restrictions

Problems Addressed:

- Low nitrogen and/or potassium levels in leached or sandy soils
- Inconsistent nitrogen response on sandy
- Growth surges caused by the use of quick release nitrogen
- Low vigor turf susceptible to mid-summer
- Stunted growth with necrotic leaf tips resulting from potassium deficiency

Guaranteed Analysis:

Total Nitrogen (N)......12.00% 3.36% Urea Nitrogen (N) 8.64% Water Soluble Organic Nitrogen (N)* Soluble Potash (K₂O)......12.00%

Derived From:

Urea-Triazone Solution, Potassium Carbonate, and Fulvic Acid. This product also contains organic acids.

*This product contains 8.64% Slow Release Nitrogen (70% of the total N) from Urea-**Triazone Solution**

Physical Characteristics:

10.80 lbs./gal. (1.30 lbs. N/gal. and 1.30 lbs. K₂O / gal.), pH 11.7

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57126 30 Gallon Drum Model #57127 275 Gallon Tote Model #57128



Greens Plus (12-0-12) is formulated with balanced nitrogen and potassium for optimum turf vigor and stress resistance. It is an excellent product for golf courses, sports fields, and other areas of high quality turf as well as for soils susceptible to N and K loss through leaching. The phosphorus free formula provides a high quality fertility option for areas under phosphorus use restrictions or bans. Nitrogen is supplied in a urea-triazone solution, and potassium from Enviro K, which remains available longer in the soil. Organic acids increase the availability and uptake of nutrients and improve soil conditions, particularly in sandy profiles. Greens Plus has a low burn potential and may be left on leaf blades for a period of time before being watered into the soil. It is also compatible with most herbicides, insecticides and other pesticides.

Application Instructions:

Greens Plus (12-0-12) can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Greens Plus (12-0-12) contains 1.30 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of nitrogen. Apply diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	9.8	3.3
0.125	12.3	4.2
0.25	24.6	8.4

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Suitable for foliar feeding
- Increases overall turf vigor
- Balanced nutrient blend
- More consistent and sustained turf color
- Improves overall playability
- Increases tolerance to multiple stresses

Problems Addressed:

- General lack of turf vigor
- Sandy soils with low CEC and water holding capacity
- Inconsistent turf growth due to excessive nutrient leaching
- Inconsistent turf color
- Micronutrient deficiencies

Guaranteed Analysis:

Total Nitrogen (N)20.00%
4.74% Ammoniacal Nitrogen (N)
4.77% Nitrate Nitrogen (N)
10.49% Urea Nitrogen (N)
Available Phosphate (P_2O_5) 2.00%
Soluble Potash (K ₂ O)3.00%
Iron (Fe)0.10%
0.10% Chelated Iron (Fe)
Manganese (Mn)0.05%
0.05% Chelated Manganese (Mn)
Combined Sulfur (S)1.00%
Zinc (Zn)
0.05% Chelated Zinc (Zn)

Derived From:

Urea Ammonium Nitrate, Phosphoric Acid, Potassium Hydroxide, Ferrous Citrate, Manganese Sulfate, and Zinc Sulfate. Chelating Agents: Humic/Fulvic Acid and Citric Acid. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

10.61 lbs./gal. (2.12 lbs. N/gal.; 0.21lbs. P₂O₅/gal.; 0.32 lbs. K₂O/gal.); pH 6.4

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57507 30 Gallon Drum Model #57508 275 Gallon Tote Model #57509



TurfPlex (20-2-3) is a high nitrogen complete fertilizer for heavily used turf areas. It contains micronutrients and seaweed extracts as well as organic acids derived from leonardite. Nitrogen is provided in three plant-available forms that produce an optimum turf response and excellent color, while also providing moderate longevity. Organic acids increase the availability and uptake of nutrients to produce more vigorous turf. TurfPlex is an ideal product for foliar feeding, spoon-feeding and/or fertigation on greens, tees, and other high traffic areas.

Application Instructions:

TurfPlex (20-2-3) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products. One gallon of TurfPlex (20-2-3) contains 2.12 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of nitrogen. Apply diluted with 1 gallon of water per 1,000 sq. ft. or 40 gallons of water per acre. The amount of water can be increased if root absorption is desired.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	6.0	2.1
0.125	7.5	2.6
0.25	15.1	5.1

^{*}Apply in 1 gal. of water per 1,000 sq. ft. **Apply in 40 gal. of water per acre.

Note:

6 oz. of TurfPlex per 1,000 sq. ft. every two weeks will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Suitable for foliar feeding
- Increases overall turf vigor
- Balanced nutrient blend
- · More consistent and sustained turf color
- Improves overall playability
- Increases tolerance to multiple stresses
- Ideal for areas with phosphorus restrictions

Problems Addressed:

- General lack of turf vigor
- Sandy soils with low CEC and water holding capacity
- Inconsistent turf growth due to excessive nutrient leaching
- Inconsistent turf color
- Micronutrient deficiencies

Guaranteed Analysis:

Total Nitrogen (N)20.00%
4.74% Ammoniacal Nitrogen (N)
4.77% Nitrate Nitrogen (N)
10.49% Urea Nitrogen (N)
Soluble Potash (K ₂ O)3.00%
Iron (Fe)
0.10% Chelated Iron (Fe)
Manganese (Mn)0.05%
0.05% Chelated Manganese (Mn)
Combined Sulfur (S)1.30%
Zinc (Zn)
0.05% Chelated Zinc (Zn)

Derived From:

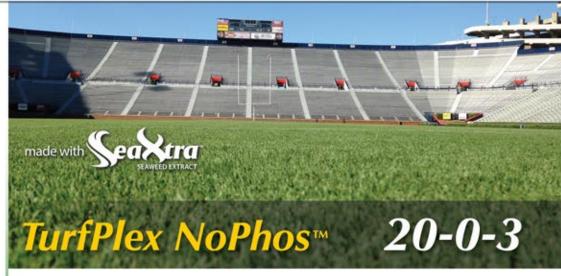
Urea Ammonium Nitrate, Potassium Hydroxide, Ferrous Citrate, Manganese Sulfate, and Zinc Sulfate. Chelating Agents: Humic/Fulvic Acid and Citric Acid. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

10.54 lbs./gal. (2.11 lbs. N/gal.; 0.32 lbs. K₂O/gal.); pH 7.4

Container Sizes & Model Numbers:

2.5 Gallon Jug
 30 Gallon Drum
 275 Gallon Tote
 Model #57518
 Model #57519



TurfPlex™ NoPhos (20-0-3) is a high nitrogen fertilizer for heavily used turf areas. It contains micronutrients and seaweed extracts as well as organic acids derived from leonardite. Nitrogen is provided in three plant-available forms that produce an optimum turf response and excellent color, while also providing moderate longevity. Organic acids increase the availability and uptake of nutrients to produce more vigorous turf. TurfPlex is an ideal product for foliar feeding, spoon-feeding and/or fertigation on greens, tees, and other high traffic areas. The NoPhos formula is specifically designed for areas with phosphorus bans or use restrictions.

Application Instructions:

TurfPlex NoPhos (20-0-3) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products. One gallon of TurfPlex (20-0-3) contains 2.11 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of nitrogen. Apply diluted with 1 gallon of water per 1,000 sq. ft. or 40 gallons of water per acre. The amount of water can be increased if root absorption is desired.

Desired lbs. of N	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10	6.1	2.1
0.125	7.6	2.6
0.25	15.2	5.2

^{*}Apply in 1 gal. of water per 1,000 sq. ft. **Apply in 40 gal. of water per acre.

Note:

6 oz. of TurfPlex NoPhos per 1,000 sq. ft. every two weeks will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Rapid establishment of new seed, sod and sprigs
- Quicker and more complete turf coverage due to improved crown and tiller growth
- Phosphorus increases seedling vigor and root growth
- Ideal for fertigation

Problems Addressed:

- Thin and slowly emerging seed, or new sod that is slow to knit
- New turf exhibiting phosphorus deficiency symptoms
- Any soil condition adverse to seedling establishment
- Landscape situations that necessitate rapid establishment of new seed or sod

Guaranteed Analysis:

Total Nitrogen (N)	8.00%
4.00% Ammoniacal Nitrogen (N)
1.34% Nitrate Nitrogen (N)	
2.66% Urea (N)	
Available Phosphate (P ₂ O ₅)	16.00%
Soluble Potash (K ₂ O)	

Derived From:

Ammonium Hydroxide, Urea Ammonium Nitrate, Orthophosphoric Acid, Potassium Hydroxide. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

10.94 lbs./gal. (0.88 lbs. N/gal., 1.75 lbs. P₂O₅/gal., 0.55 lbs.K₂O/gal.); pH 5.5 – 5.7

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57527 30 Gallon Drum Model #57528 275 Gallon Tote Model #57529



Turf Starter (8-16-5) is an excellent product for the establishment of new seed, sod and sprigs. It can also be used to increase the density of existing turf and is a great source of phosphorus during periods of active root growth. Nutrients are provided in plantavailable forms making Turf Starter an excellent product for spoon-feeding during growin, for fall fertility programs on cool season turf, and for overseeding establishment. The Turf Starter formulation uses organic acids, which help keep nutrients available in the soil solution longer for improved uptake. Additionally, the organic acids in Turf Starter will stimulate soil microbial activity to promote root development. Furthermore, Turf Starter is enhanced with SeaXtra Seaweed Extract to maximize stress tolerance and optimize conditions for the successful establishment of seed, sod and sprigs.

Application Instructions:

Turf Starter can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products. One gallon of Turf Starter (8-16-5) contains 1.75 lbs. of phosphorus as P₂O₅ and 0.88 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of phosphorus. Apply diluted with 2 gallons of water per 1,000 sq. ft. or 80 gallons of water per acre.

Desired lbs. of P ₂ O ₅ (Corresponding N)	Fl. oz. per 1,000 sq. ft.*	Gallons per acre**
0.10 (0.05 lbs. N)	7.3	2.5
0.125 (0.06 lbs. N)	9.1	3.1
0.25 (0.125 lbs. N)	18.2	6.2

^{*}Apply in 2 gal. of water per 1,000 sq. ft. **Apply in 80 gal. of water per acre.

9 oz. of Turf Starter per 1,000 sq. ft. per month provides the monthly maintenance rate for SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use

- Enhanced blooming
- Improved stress tolerance
- Encourages full, even growth
- Rapid establishment of flowers, ornamentals and vegetables
- Increased vigor due to greater root growth

Problems Addressed:

- Thin and slowly emerging plants
- Phosphorus deficiency symptoms
- Soil conditions adverse to establishment
- Landscapes that necessitate rapid establishment of new plants
- Poor flower or fruit development

Guaranteed Analysis:

Total Nitrogen (N)	8.00%
4.60% Ammoniacal Nitrogen	(N)
1.14% Nitrate Nitrogen (N)	
2.26% Urea Nitrogen (N)	
Phosphate (P ₂ O ₅)	16.00%
Potash (K ₂ O)	5.00%
Calcium (Ca)	
0.50% Chelated Calcium (Ca)	
Iron (Fe)	0.10%
0.10% Chelated Iron (Fe)	
Manganese (Mn)	0.05%
0.05% Chelated Manganese (A	∕ln)
Zinc (Zn)	0.05%
0.05% Chelated Zinc (Zn)	

Derived From:

Ammonium Hydroxide, Urea Ammonium Nitrate, Orthophosphoric Acid, Potassium Hydroxide, Calcium Ethanolamine, Iron Glucoheptonate, Manganese Glucoheptonate, and Žinc Glucoheptonate. This product also contains organic acids.

Physical Characteristics:

10.94 lbs./gal. (0.88 lbs. N/gal., 1.75 lbs. P₂O₅/gal., and 0.55 lbs. K₂O/gal.); pH: 5.57

Container Sizes & Model Numbers:

1 Quart Bottle	Model #57532
1 Gallon Jug	Model #57533
2.5 Gallon Jug	Model #57534
30 Gallon Drum	Model #57535
275 Gallon Tote	Model #57536



BloomPlex (8-16-5) is an excellent nutrient blend for use on flowering plants, shrubs, herbs, fruits and vegetable gardens. Specially formulated with a high quality source of phosphorus, BloomPlex is designed to promote flowering and fruiting as well as root development. It encourages rapid establishment and full, even growth, making it an essential fertilizer for seasonal color beds. BloomPlex uses organic acids, which help keep nutrients available in the soil solution longer for improved uptake. Additionally, these organic acids will stimulate soil microbial activity to further promote root development. A complete fertilizer with chelated secondary and micronutrients to assure bloom set and deeper colors, BloomPlex is an ideal product for use from installation through life-long plant maintenance.

Application Instructions:

BloomPlex can be applied through fertigation, soil drench or foliar spray. It can be applied alone or tank mixed with other products. One gallon of BloomPlex (8-16-5) contains 1.75 lbs. of phosphorus as P₂O₅ and 0.88 lbs. of nitrogen. Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of phosphorus. Shake well before using.

Desired lbs. of P ₂ O ₅ (Corresponding N)	Fluid Ounces
0.08 (0.04 lbs. N)	5.8
0.10 (0.05 lbs. N)	7.3
0.125 (0.06 lbs. N)	9.1
0.25 (0.126 lbs. N)	18.3

Flowers and Perennials (Including Fruit, Vegetable and Herb Gardens):

Installation: Apply 6 to 12 oz. of BloomPlex in 50 gallons of water per 100 sq. ft. Maintenance: Mix 12 oz. of BloomPlex per 50 gallons of water. Apply 1 quart of diluted solution per sq. ft. as a soil drench. For foliar spray, mix 1 oz. of BloomPlex per 2 gallons of water and spray foliage to the point of runoff. Reapply every 4 to 6 weeks or as needed throughout the growing season.

Flowering Shrubs:

Installation: Apply 6 to 12 oz. of BloomPlex in 3 to 5 gallons of water per 100 sq. ft. Maintenance: Mix 2 quarts of BloomPlex per 100 gallons of water. Apply 1 to 4 quarts of diluted solution per shrub depending on the size, using the lower rate for smaller shrubs and the higher rate for larger shrubs. Apply to the soil at the base of each shrub. Reapply every 4 to 6 weeks or as needed throughout the growing season.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Handling and Storage:



Benefits of Use:

- Consistent, extended feeding
- Improved stress tolerance
- Provides essential micronutrients
- Improved vigor, especially in urban trees
- Promotes balanced root and shoot growth
- Enhances transplant survival

Problems Addressed:

- Nutrient deficiencies
- Loss of vigor
- Adverse growing conditions
- Depleted soils
- Weak trees susceptible to disease or pest infestations

Guaranteed Analysis:

Total Nitrogen (N)	14.00%
1.40% Ammoniacal Nitrogen	(N)
0.95% Nitrate Nitrogen (N)	
4.60% Urea Nitrogen (N)	
7.05% Water Soluble Organic	Nitrogen (N)*
Available Phosphate (P ₂ O ₅)	4.00%
Soluble Potash (K,O)	
Iron (Fe)	
0.10% Chelated Iron (Fe)	
Manganese (Mn)	0.05%
0.05 Chelated Manganese (M	n)
Zinc (Zn)	0.05%
0.05% Chelated Zinc (Zn)	

Derived From:

Urea, Urea-Triazone Solution, Ammonium Nitrate, Anhydrous Ammonia, Phosphoric Acid, Potassium Hydroxide, Ferrous Citrate, Manganese Citrate, and Zinc Citrate. This product also contains organic acids.

*7.00% Slow Release Nitrogen (50% of the total N) from Urea-Triazone Solution

Physical Characteristics:

10.56 lbs./gal. (1.48 lbs. N/gal., 0.42 lbs. P₂O₅ / gal., 0.53 lbs. K₂O/gal.); pH 7.6

Container Sizes & Model Numbers:

2.5 Gallon Jug
 30 Gallon Drum
 275 Gallon Tote
 Model #57514
 Model #57516



ArborPlex (14-4-5) is an easy to use, liquid nutrient solution designed to promote optimum tree and shrub health. Slowly available nitrogen is supplied from a urea-triazone solution, which provides consistent, extended feeding without causing unwanted growth spurts. Additionally, by feeding slowly, ArborPlex will not create a root/shoot imbalance. The phosphorus from Enviro P provides rapid uptake and longer soil availability. Phosphorus enhances root development while also improving stress tolerance and plant hardiness. Potassium is supplied as potassium hydroxide (KOH), which is a superior source due to its high solubility and low salt index. ArborPlex also contains fully chelated micronutrients to enhance color and improve deficiency symptoms. Organic acids are used to keep nutrients available in the soil solution longer for improved uptake. ArborPlex is an ideal, complete solution to improve tree and ornamental color and vigor without unwanted shoot growth. The chloride-free formula provides high quality results with low burn potential.

Application Instructions:

ArborPlex can be applied through soil drench, root injection or foliar feeding. It may be applied alone or tank mixed with other products. One gallon of ArborPlex (14-4-5) contains 1.48 lbs. of nitrogen, 0.42 lbs. of P_2O_5 , and 0.53 lbs. of K_2O . Refer to the table below to determine the volume of fertilizer to apply to achieve the desired amount of nitrogen. Shake well before using.

Desired lbs. of N	Fl. oz. of ArborPlex	Gallons of ArborPlex
0.5	43.2	0.34
1.0	86.5	0.68
2.0	173.0	1.35

Root Injection:

Inject a nutrient solution of ArborPlex and water into the soil where the feeder roots occur. This typically is 4 to 12 inches deep in the soil. Begin injection 2 feet from the base of the tree, and work in a grid pattern away from the tree to approximately 2 feet from the drip line. Determine the amount of fertilizer desired based on the nitrogen chart above and mix with at least 5 gallons of water per caliper inch at breast height.

Foliar Feeding:

To correct deficiencies that may occur during the season, mix 2 to 3 quarts of ArborPlex with 100 gallons of water. Spray the mixture onto the foliage until it begins to drip off. Do not foliar feed during drought conditions or when air temperature exceeds 85°F.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Handling and Storage:

About our Micronutrients

BioPro Micronutrients are specially designed to provide individual nutrients or specific nutrient combinations for turf and ornamentals. Each product contains a combination of organic acids to complex or chelate the nutrient(s), increasing plant availability and uptake. The organic acids in each micronutrient formulation also improve soil conditions, as do many of the other products in the BioPro line.

Offering products with individual nutrients provides turf managers and greenscape professionals the option to address specific micronutrient deficiencies or imbalances. Combination products are designed for scenarios where multiple micronutrients are lacking or unavailable, such as sand based systems with very low cation exchange capacity (CEC) and nutrient holding capacity. The guaranteed analysis and deficiency symptoms for each micronutrient are listed for each product.

A number of the BioPro Micronutrients are designed for foliar absorption. These products contain SeaXtra Seaweed Extract. The addition of SeaXtra will optimize natural root development, aid in nutrient uptake and maximize environmental stress tolerance.

Benefits of Use:

- Enhanced nutrient availability. Organic acids and other environmentally friendly agents chelate nutrients, increasing their availability and plant uptake.
- Flexibility. Individual nutrient solutions allow specific deficiencies to be remedied. A customized application program can be designed in combination with a tissue analysis system. Combination products allow for a more broad spectrum approach.
- Organic advantage. The organic acids help stimulate beneficial organisms promoting healthy soil systems.
- Compatibility. BioPro micronutrients are tank-compatible with many other turf care products, and may be tank-mixed with many other liquids, saving application costs.



Benefits of Use:

- Restored vigor in boron deficient situations identified by tissue analysis
- Rapid response from foliar uptake
- Increased nutrient uptake from organic
- Easy-to-use source of Boron for ornamentals and palms

Problems Addressed:

- Boron deficiency in highly leached soils
- Relief of boron deficiency symptoms including stunted, distorted growth

Guaranteed Analysis:

Boron (B)......5.00%

Derived From:

Boric Acid.

This product also contains organic acids.

Physical Characteristics:

9.75 lbs/gal.; pH 8.3

Container Sizes & Model Numbers:

Model #57200 1 Quart Bottle



Boron Plus is a formulation of boron and organic acids derived from a proprietary extraction process designed to correct boron deficiencies identified by tissue analysis. The organic acids increase the availability and uptake of nutrients. Boron influences calcium utilization, cell membrane integrity, and nucleic acid synthesis. It is particularly important in the development and function of meristems. Boron deficiencies most often occur in soils that are alkaline, highly leached, contain low organic matter or those that are commonly dry. Deficiency symptoms, which usually appear in new growth first, include stunted and somewhat distorted leaves resulting in a rosette appearance, and interveinal chlorotic streaks.

Application Instructions:

Boron Plus can be applied through foliar spray or soil drench. It may be applied alone or tank mixed with other products. It should be used on an "as needed" basis to correct boron deficiencies.

Turf:

Foliar Spray: Apply 0.5 to 1 oz. of Boron Plus diluted in a minimum of 1 gallon of water per 1,000 sq. ft. (22 to 44 oz. of Boron Plus in 40 gallons of water per acre).

Ornamentals:

Foliar Spray: Mix 0.5 to 1 oz. of Boron Plus per 1 gallon of water and spray foliage to the point of runoff.

Soil Drench: Mix 1.6 oz. of Boron Plus per 100 gallons of water and apply around the base of the plant within the dripline to thoroughly saturate the root zone of the affected

Palms:

Soil Drench: Mix 8 to 16 oz. of Boron Plus in 5 gallons of water and drench into the soil under the canopy of a single palm. Do not repeat this application for at least five months as it will take that long to see results from the previous application.

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Increases stress tolerance
- Strengthens cell wall structure
- Improves root and shoot growth
- Promotes proper cell elongation
- Supplemental nitrogen fertility
- Rapid absorption of calcium and nitrogen
- Reduces excess sodium build-up
- Improves regulation of the stomata
- Enhanced nutrient uptake from organic acids

Problems Addressed:

- Calcium deficiency induced by high bicarbonate irrigation water or other
- Drought or stress prone turf and landscapes
- Poor flower set
- High sodium salt conditions
- Improper water infiltration

Guaranteed Analysis

Total Nitrogen (N)......8.00% 7.48% Nitrate Nitrogen (N) 0.52% Ammoniacal Nitrogen (N) Calcium (Ca)......10.00%

Derived From:

Calcium Nitrate, Ammonium Nitrate. This product also contains organic acids.

Physical Characteristics:

11.85 lbs./gal. (0.95 lbs. N/gal. and 1.19 lbs. Ca/gal.), pH 6.44

Container Sizes & Model Numbers:

2.5 Gallon lug Model #57189 30 Gallon Drum Model #57190



Calcium Plus (8-0-0-10Ca) is a chloride free, economical source of calcium and nitrate nitrogen readily available for plant utilization. Calcium is critical to the function and integrity of cell walls and cell membranes. It is commonly associated with stress resistance. Deficiency symptoms include reddish-brown discoloration in young leaves, and reduced or deformed growth in new leaves, followed by necrosis. This unique source of water soluble calcium eliminates the time and labor necessary to dissolve dry sources of calcium into solution. Calcium Plus is an excellent product to correct calcium deficiencies in ornamental plants, turfgrasses, trees and vegetable crops.

As an added benefit, the calcium in Calcium Plus may also help address high sodium salt conditions by replacing sodium on the soil colloid with calcium, allowing the sodium to be leached from the soil system.

Application Instructions:

Calcium Plus (8-0-0-10Ca) may be applied through fertigation, soil drench or conventional spray. It may be applied alone or tank mixed with other products.

Apply 12 oz. of Calcium Plus diluted in 2 gallons of water per 1,000 sq. ft. of turf (4 gallons in 80 gallons of water per acre) monthly or as needed. To maximize performance of fine turf, the rates may be split into weekly or bi-weekly applications.

Ornamental Shrubs, Trees and Flowers:

Mix 2 to 4 quarts of Calcium Plus per 100 gallons of water, and apply around the base of the plant within the dripline to thoroughly saturate the root zone.

Compatibility:

Do not mix with fertilizers containing phosphorus. Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Superior color without significant nitrogen
- Rapid response from foliar uptake
- Enhanced root uptake from organic acids
- Increased turf vigor
- Optimizes natural root development
- Improved stress tolerance

Problems Addressed:

- Off-color or chlorotic turf due to iron deficiency
- · Landscape situations that necessitate rapid color response
- Chlorotic landscape ornamentals

Guaranteed Analysis:

Total Nitrogen (N)	15.00%
15.00% Urea Nitrogen (N)	
Iron (Fe)	6.00%
6.00% Chelated Iron (Fe)	
Combined Sulfur (S)	4.00%

Derived From:

Urea, Ferrous Citrate.

This product contains also contains organic acids and seaweed extracts.

Physical Characteristics:

10.78 lbs./gal. (1.62 lbs. N/gal. and 0.65 lbs. Fe/gal.), pH 6.3

Container Sizes & Model Numbers:

2.5 Gallon lug Model #57195 30 Gallon Drum Model #57196 275 Gallon Tote Model #57197



Iron Plus (15-0-0-6) with SeaXtra is a formulation of essential iron, sulfur, and nitrogen, enhanced with seaweed extracts. Iron is one of the most commonly deficient micronutrients in turf. The deficiency is often caused by insolubility rather than a lack of iron in the soil. Soil characteristics causing this condition include alkalinity, high organic matter, poor drainage, or high levels of Mn, P, Zn or As. Symptoms include interveinal chlorosis (yellowing) of young leaves turning white in advanced stages and resulting in thin, weak growth. Iron Plus is designed for foliar application to correct or prevent iron deficiencies in turfgrasses, trees, shrubs and woody ornamentals. It contains organic acids to keep each nutrient available longer in the soil for improved uptake.

Application Instructions:

Iron Plus (15-0-0-6) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products. Shake well before using.

Greens and Tees:

Apply 3 to 6 oz. of Iron Plus diluted in 1 gallon of water per 1,000 sq. ft. (1 to 2 gallons in 40 gallons of water per acre) every two weeks. To maximize performance, rates may be split into weekly applications.

Fairways, Lawns, Athletic Fields and Other Turf:

Apply 6 to 12 oz. of Iron Plus diluted in 1 gallon of water per 1,000 sq. ft. (2 to 4 gallons in 40 gallons of water per acre) per month. To maximize performance, rates may be split into weekly or bi-weekly applications.

Evergreens, Deciduous Shrubs, Trees & Palms:

Mix 1 gallon of Iron Plus in 100 gallons of water and spray foliage to the point of runoff. Best results will occur when applied to actively growing foliage during periods of high humidity and low plant stress (early mornings, late afternoons and cloudy days are preferable to hot, dry conditions).

Note:

6 oz. of Iron Plus per 1,000 sq. ft. per month will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Do not mix with high phosphate fertilizers. Perform a standard "jar test" to check compatibility with other products before mixing.

Iron Sulfate may discolor surfaces such as tile, rock, masonry, etc. Avoid contact with these surfaces. If contact is made, immediately wash with large volumes of water.

Handling and Storage:



Benefits of Use:

- Superior color without significant nitrogen
- Rapid response from foliar uptake
- Enhanced root uptake from organic acids
- Increased turf vigor
- Optimizes natural root development
- Reduced severity of take-all patch on newer bentgrass turf

Problems Addressed:

- Off-color or chlorotic turf due to iron deficiency
- Landscape situations that necessitate rapid color response.

12 000/

Chlorotic landscape ornamentals

Guaranteed Analysis:

iotai Nitrogen (N)12.00%
12.00% Urea Nitrogen (N)
Iron (Fe)6.03%
6.03% Chelated Iron (Fe)
Manganese (Mn)2.00%
2.00% Chelated Manganese (Mn)
Combined Sulfur (S)3.46%

Derived From:

Urea, Ferrous Citrate, Manganese Citrate. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

11.46 lbs./gal. (1.38 lbs. N/gal. and 0.69 lbs. Fe/gal.), pH 2.92

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57198 Model #57199 30 Gallon Drum 275 Gallon Tote Model #57205



Iron Plus Mn (12-0-0-6-2) with SeaXtra is a formulation of essential iron, manganese, sulfur, and nitrogen, enhanced with seaweed extracts. Iron and manganese deficiencies are some of the most common micronutrient deficiencies. Iron deficiency is often caused by insolubility rather than a lack of iron in the soil. Soil characteristics causing this condition include alkalinity, high organic matter, poor drainage, or high levels of P, Zn or As. Deficiency symptoms include interveinal chlorosis (yellowing) of young leaves turning white in advanced stages and resulting in thin, weak growth.

Manganese is important in the synthesis of chlorophyll and many other physiological functions. Its function is closely related to iron in plants. Manganese is most commonly deficient in alkaline or highly leached sandy soils. Deficiency symptoms include interveinal chlorosis with veins remaining green, distinct necrotic spots on leaves, and drooping leaves.

Iron Plus Mn is designed for foliar application to correct and prevent iron and manganese deficiencies in turfgrasses, trees, shrubs, and woody ornamentals. Iron Plus Mn also contains organic acids to keep each nutrient available longer in the soil for improved uptake.

Application Instructions:

Iron Plus Mn (12-0-0-6-2) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products. Shake well before using.

Greens and Tees:

Apply 3 to 6 oz. of Iron Plus Mn diluted in 1 gallon water per 1,000 sq. ft. (1 to 2 gallons in 40 gállons of water per acre) every two weeks. To maximize performance, rates may be split into weekly applications.

Fairways, Lawns, Athletic Fields and Other Turf:

Apply 6 to 12 oz. of Iron Plus Mn diluted in 1 gallon of water per 1,000 sq. ft. (2 to 4 gallons in 40 gallons of water per acre) per month. To maximize performance, rates may be split into weekly or bi-weekly applications.

Evergreens, Deciduous Shrubs, Trees & Palms:

Mix 1 gallon of Iron Plus Mn in 100 gallons of water and spray foliage to the point of runoff. Best results will occur when applied to actively growing foliage during periods of high humidity and low plant stress (early mornings, late afternoons and cloudy days are preferable to hot, dry conditions).

6 oz. of Iron Plus Mn per 1,000 sq. ft. per month will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Do not mix with high phosphate fertilizers. Perform a standard "jar test" to check compatibility with other products before mixing.

Iron Sulfate will discolor surfaces such as tile, rock, masonry, etc. Avoid contact with these surfaces. If contact is made, immediately wash with large volumes of water.



Benefits of Use:

- Enhanced turf color
- Rapid response
- Increased nutrient uptake from organic acids
- Increased turf vigor
- Nitrate nitrogen eliminates competition for magnesium uptake

Problems Addressed:

- Magnesium deficiency induced by high bicarbonate irrigation water, low pH, low temperature, dry soils or other factors
- Magnesium deficiency symptoms including interveinal chlorosis and reduced root growth
- Base saturation imbalances
- Unavailable soil magnesium

Guaranteed Analysis:

Total Nitrogen (N)	7.00%
7.00% Nitrate Nitrogen (N)	
Magnesium (Mg)	6.00%
6.00% Water Soluble Magne	esium (Mg)

Derived From:

Magnesium Nitrate.

This product also contains organic acids.

Physical Characteristics:

11.06 lbs./gal. (0.77 lbs. N/gal. and 0.66 lbs. Mg/gal.), pH 6.6

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57186 30 Gallon Drum Model #57187



Magnesium Plus (7-0-0-6) is a solution of magnesium and nitrate nitrogen readily available for plant uptake. Magnesium is an essential component of chlorophyll, and is a cofactor in many enzyme systems involved in photosynthesis, respiration, and nucleic acid synthesis. Magnesium deficiencies often occur in acidic soils or those with cation imbalances, particularly those with exceptionally high calcium or potassium levels. Deficiency symptoms include interveinal chlorosis in older leaves, white leaf tips in extreme cases, and reduced root growth. With a rapid response rate, Magnesium Plus is an excellent product to correct or prevent magnesium deficiencies.

Application Instructions:

Magnesium Plus (7-0-0-6) can be applied through fertigation, soil drench, conventional or foliar spray. It can be applied alone or tank mixed with other products.

Apply 6 oz. of Magnesium Plus diluted in 2 gallons of water per 1,000 sq. ft. (2 gallons in 80 gallons of water per acre) every two weeks or as needed. To maximize performance, the rates may be split into weekly applications.

Trees and Woody Ornamentals:

Mix 1 pint to 1 quart of Magnesium Plus in 100 gallons of water and spray foliage to the point of runoff.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Rapid response from foliar uptake
- Increased nutrient uptake from organic
- Increased turf vigor
- Improved color
- Optimizes natural root development
- Reduces severity of take-all patch in young bentgrass

Problems Addressed:

- Manganese deficiency in alkaline or highly leached sandy soils
- Manganese deficiency symptoms including chlorosis
- Take-all patch in newly established bentgrass

Guaranteed Analysis:

Iron (Fe)	0.50%
0.50% Chelated Iron (Fe)	
Manganese (Mn)	5.00%
5.00% Chelated Manganese	(Mn)
Combined Sulfur (S)	3.20%

Derived From:

Ferrous Citrate, Manganese Citrate. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

10.47 lbs./gal., pH 1.45

Container Sizes & Model Numbers:

2.5 Gallon Jug Model #57201 30 Gallon Drum Model #57202 275 Gallon Tote Model #57203



Manganese Plus (0-0-0-5) with SeaXtra is a formulation of manganese and iron chelated with a proprietary combination of organic acids which stabilize micronutrient elements and enhance their uptake. Manganese is involved in the synthesis of chlorophyll, in oxidation-reduction reactions, and as a cofactor in various enzyme systems. The function of manganese is closely related to iron in plants. It is most commonly deficient in alkaline or highly leached sandy soils. Deficiency symptoms include interveinal chlorosis with veins remaining green, and distinct necrotic spots on leaves. Manganese Plus is designed for foliar application to correct and prevent manganese deficiencies in turfgrasses and ornamental plants. It may also be used to reduce the severity of take-all patch in bentgrass.

Application Instructions:

Manganese Plus (0-0-0-5) can be applied through fertigation, soil drench, conventional or foliar spray. It can be applied alone or tank mixed with other products. Shake well before using.

Turf:

Apply 3 oz. of Manganese Plus diluted in 1 gallon of water per 1,000 sq. ft. (1 gallons in 40 gallons of water per acre) every two weeks or as needed. To maximize performance, the rates may be split into weekly applications.

Evergreens, Deciduous Shrubs, Trees and Palms:

Foliar Application: Mix 1 to 2 gallons of Manganese Plus in 100 gallons of water and spray foliage to the point of runoff. Best results will occur when applied to actively growing foliage during periods of high humidity and low plant stress (early mornings, late afternoons and cloudy days are preferable to hot, dry conditions).

Soil Drench: Mix 4 to 5 gallons of Manganese Plus in 100 gallons of water and drench around the base of each plant within the dripline. Approximately 1 to 2 gallons of finished solution will be adequate for most ornamentals.

Take-all Patch Suppression:

University studies show that an application of 2 lbs. of Mn per acre in the spring or fall will suppress take-all patch by as much as 70%. To achieve this rate apply 12 oz. of Manganese Plus in 2 gallons of water per 1,000 sq. ft. (4 gallons of Manganese Plus in 80 gallons of water per acre). Water into the root zone following the application.

Note:

6 oz. of Manganese Plus per 1,000 sq. ft. per month will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Handling and Storage:

In its concentrated form, Manganese Plus is very acidic. Care and safety should be taken during handling. Gloves, goggles and protective clothing should be worn. Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.



Benefits of Use:

- Increased wear tolerance during heavy
- Upright growth produces a more uniform putting surface
- Applicable for all high-traffic turf areas
- Increased green speed at higher mowing heights
- Promotes upright stand for improved mow-ability, "quality of cut"
- Increased rigidity and reduced grain for a more uniform putting surface
- Strengthened cell wall tissue
- Improved stress tolerance for greenhouse plants

Problems Addressed:

- Heavy traffic resulting in reduced vigor
- Slow green speed
- Inconsistent playing surfaces

Guaranteed Analysis:

Soluble Potash (K ₂ O)	2.00%
Silica (Si)	5.00%

Derived From:

Potassium Silicate.

This product also contains organic acids.

Physical Characteristics:

8.96 lbs./gal.; pH 11.95

Container Sizes & Model Numbers:

1 Gallon Jug Model #57676



Silica (0-0-2) is a formulation of silicon and organic acids derived from potassium silicate. It is used to increase the leaf strength and rigidity of turf. When added to the fertility program for greenhouse plants, potassium silicate has shown to reduce root rot, increase strength and improve post-harvest stress resistance. The organic acids in Silica improve the availability and uptake of nutrients. Although it is not classified as an essential nutrient, silicon is a beneficial substance that is known to be present in the plant tissue of various species. Some plants grown in soils with low levels of soluble silicon, the plantavailable portion of silica, are more susceptible to disease, drought and other plant stresses. Silica is designed for foliar application to help increase wear tolerance, playability and disease resistance. By strengthening cell wall tissue, Silica also promotes an upright stand for a more consistent cut and increased green speed at higher mowing heights. Increased leaf blade rigidity reduces grain for a more uniform putting surface and enhanced ball roll.

The American Association of Plant Food Control Officials recognizes silicon as beneficial for greenhouse crops as it will increase a plant's tolerance to stresses. Studies have shown increased stem diameter, reduced time to flower, increased drought tolerance, elevated defense responses and an overall better crop. Some research has also indicated that silicon can help reduce the severity of some diseases while improving post-harvest plant survival. Applications prior to stress have shown the greatest benefit.

Application Instructions:

Silica (0-0-2) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products.

Apply 0.1 oz. of Silica diluted in 1 gallon of water per 1,000 sq. ft. (4.4 oz. in 40 gallons of water per acre) bi-weekly or as needed. Silica may be mixed with CytoGro to enhance performance.

Greenhouse Applications:

0.1 oz. of BioPro Silica is equal to 43.95 ppm (parts per million)

Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:



Benefits of Use:

- Balanced supply of micronutrients (B, Cu, Fe, Mn, Mo, Zn)
- Rapid response from foliar uptake
- Increased nutrient uptake from organic acids
- Increased turf vigor
- Enhanced color without additional nitrogen
- Improves overall turf and plant quality
- More vibrant foliage

Problems Addressed:

- Wide range of micro nutrient deficiency symptoms
- Sand based systems where micronutrients are inherently low.
- Lack of nutrient availability due to extremes in soil pH

Guaranteed Analysis:

Boron (B)	0.08%
Copper (Cu)	0.25%
0.25% Chelated Copper (Cu)	
Iron (Fe)	2.00%
2.00% Chelated Iron (Fe)	
Manganese (Mn)	2.00%
2.00% Water Soluble Mangan	ese (Mn)
Molybdenum (Mo)	0.001%
Combined Sulfur (S)	2.79%
Zinc (Zn)	0.75%
0.75% Chelated Zinc (Zn)	

Derived From:

Sodium Borate, Copper Citrate, Ferrous Citrate, Manganese Citrate, Sodium Molybdate, Zinc Citrate. This product also contains organic acids and seaweed extracts

Physical Characteristics:

10.21 lbs./gal., pH 1.28

Container Sizes & Model Numbers:

 2.5 Gallon Jug
 Model #57180

 30 Gallon Drum
 Model #57181

 275 Gallon Tote
 Model #57182



NutriSolve with SeaXtra is a complete blend of micronutrients formulated in the same ratio as they occur naturally in the plant. It is chelated with a combination of citric and other organic acids, which stabilize nutrients and enhance their uptake. NutriSolve is designed as a foliar spray to correct or prevent a range of micronutrient deficiencies without the addition of nitrogen. It is an excellent product for sand based systems with low CEC's and nutrient holding capacity. NutriSolve has also been engineered to address the lack of nutrient availability associated with pH extremes.

Application Instructions:

NutriSolve can be applied through fertigation, foliar spray, soil drench, or deep root injection. It can be applied alone or tank mixed with other products. Shake well before using.

Greens and Tees:

Apply 6 oz. of NutriSolve diluted in 1 gallon water per 1,000 sq. ft. (2 gallons in 40 gallons of water per acre) every two weeks. To maximize performance, rates may be split into weekly applications.

Fairways, Lawns, Athletic Fields and Other Turf:

Apply 6 to 12 oz. of NutriSolve diluted in 1 gallon of water per 1,000 sq. ft. (2 to 4 gallons in 40 gallons of water per acre) per month. To maximize performance, rates may be split into weekly or bi-weekly applications.

Ornamental Shrubs and Evergreens:

Mix 2 gallons of NutriSolve in 100 gallons of water and spray foliage to the point of runoff. Best results will occur when applied to actively growing foliage during periods of high humidity and low plant stress (early mornings, late afternoons and cloudy days are preferable to hot, dry conditions).

Trees and Palms:

Mix 1 pint to 1 quart of NutriSolve in 100 gallons of water. Apply 5 gallons of finished solution per inch DBH (Diameter at Breast Height). The solution may be applied through deep root injection or soil drench.

Note:

6 oz. of NutriSolve per 1,000 sq. ft. per month will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Perform a standard "jar test" to check compatibility with other products before mixing.

Handling and Storage:

In its concentrated form, NutriSolve is very acidic. Care and safety should be taken during handling. Gloves, goggles and protective clothing should be worn. Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.



Benefits of Use:

- Balanced supply of Mg, Mn and Fe
- Rapid response from foliar uptake
- Increased nutrient uptake from organic acids
- Increased turf vigor
- Enhanced color without promoting top growth
- Provides excellent color for tournaments, special events, and for lawn/landscape
- Improves overall turf and plant quality

Problems Addressed:

- Wide range of nutrient deficiency symptoms
- · Lack of nutrient availability due to extremes in soil pH

Guaranteed Analysis:

Total Nitrogen (N)8.00%
8.00% Urea Nitrogen (N)
Iron (Fe)3.00%
3.00% Chelated Iron (Fe)
Total Magnesium (Mg)1.50%
1.50% Water Soluble Magnesium (Mg)
Total Manganese (Mn)1.00%
1.00% Chelated Manganese (Mn)
Combined Sulfur (S)2.00%

Derived From:

Urea, Ferrous Citrate, Magnesium Nitrate, Manganese Citrate. This product also contains organic acids and seaweed extracts.

Physical Characteristics:

10.78 lbs./gal. (0.86 lbs. N/gal.); pH 1.87

Container Sizes & Model Numbers:

Model #57183 2.5 Gallon Jug 30 Gallon Drum Model #57184 275 Gallon Tote Model #57185



Spectrum (8-0-0) with SeaXtra is a blend of micronutrients with nitrogen designed to provide fast, deep and extended color without promoting top growth. It is formulated with the nutrients critical for the formation and function of chlorophyll in the plant. It is chelated with a combination of citric and other organic acids, which stabilize nutrients and enhance their uptake. Spectrum is designed as a foliar spray to correct or prevent a range of micronutrient deficiencies including those associated with extremes in soil pH.

Application Instructions:

Spectrum (8-0-0) can be applied through fertigation or foliar spray. It can be applied alone or tank mixed with other products. Shake well before using.

Greens and Tees:

Apply 6 oz. of Spectrum diluted in 1 gallon water per 1,000 sq. ft. (2 gallons in 40 gallons of water per acre) every two weeks. To maximize performance, rates may be split into weekly applications.

Fairways, Lawns, Athletic Fields and Other Turf:

Apply 6 to 12 oz. of Spectrum diluted in 1 gallon of water per 1,000 sq. ft. (2 to 4 gallons in 40 gallons of water per acre) per month. To maximize performance, rates may be split into weekly or bi-weekly applications.

Ornamental Shrubs and Evergreens:

Mix 2 gallons of Spectrum in 100 gallons of water and spray foliage to the point of runoff. Best results will occur when applied to actively growing foliage during periods of high humidity and low plant stress (early mornings, late afternoons and cloudy days are preferable to hot, dry conditions).

Trees and Palms:

Mix 1 pint to 1 quart of Spectrum in 100 gallons of water. Apply 5 gallons of finished solution per inch DBH (Diameter at Breast Height). The solution may be applied through deep root injection or soil drench.

Note:

6 oz. of Spectrum per 1,000 sq. ft. per month will provide the monthly maintenance rate of SeaXtra Seaweed Extract. Higher application rates will provide additional SeaXtra benefits.

Compatibility:

Do not mix with high phosphate fertilizers. Perform a standard "jar test" to check compatibility with other products before mixing.

Handling and Storage:

In its concentrated form, Spectrum is very acidic. Care and safety should be taken during handling. Gloves, goggles and protective clothing should be worn. Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.



Benefits of Use:

- Increases strength and resiliency of turf, especially under heavy play
- Reduces ball and spike marks
- Improves playability of golf greens (may increase green speed)
- Creates a more consistent surface
- Increases turf tolerance to multiple
- Enhanced color without top growth
- Improves tolerance to temperature extremes

Problems Addressed:

- Reduced turf vigor due to heavy traffic or excessive wear
- Periods of heavy play such as tournaments
- Golf greens with sub-optimum ball-roll characteristics due to texture differences, "grain", etc.
- Uneven turf
- Slow healing ball marks or spike marks

Guaranteed Analysis:

Soluble Potash (K ₂ O)	13.00%
Calcium(Ca)	
Iron (Fe)	0.50%
0.50% Chelated Iron (Fe)	
Silica (Si)	5.00%

Derived From:

Potassium Hydroxide, Potassium Silicate, Iron Glucoheptonate, Calcium EDTA. This product also contains organic acids.

Physical Characteristics:

10.23 lbs./gal. (1.33 lbs. K₂O/gal.); pH 13.47

Container Sizes & Model Numbers:

Model #57502 2.5 Gallon Jug



Tuff Greens (0-0-13) is a unique blend of potassium, calcium, silica, iron, and organic acids formulated to create a more playable and stress resistant turf. Plants develop a compact, upright, and rigid growth habit which increases overall turf uniformity and resistance to wear. Tuff Greens can reduce "grain" and minimize the effects of spike and ball marks on golf greens. It may also maintain favorable green speed at higher mowing heights. Tuff Greens is particularly effective when used on greens, tees, fairways and other high use turf areas prior to and during tournaments and other periods of heavy traffic. It can also be used as part of a regular turf fertility program. On athletic turf it will help with wear tolerance and allow for truer ball roll. Tuff Greens will also help highly maintained lawns endure heavy traffic and wear.

Application Instructions:

Tuff Greens (0-0-13) can be applied through fertigation or foliar spray as part of a regular fertility program or as a supplement during periods of high traffic. It can be applied alone or tank mixed with other products. Apply 3 to 6 oz. in 1 gallon of water per 1,000 sq. ft. of turf (1 to 2 gallons in 40 gallons of water per acre) every two weeks. To maximize performance rates may be split into weekly applications.

For Tournament Preparation:

Apply 3 oz. of Tuff Greens in 1 gallon of water per 1,000 sq. ft. (1 gallon in 40 gallons of water per acre) every week, beginning six weeks prior to the start of the event.

Compatibility:

Do not mix with acid or acid producing chemicals. Perform a standard "jar test" to check compatibility with other products before mixing.

Mixing Instructions:

- 1. Shake well before using
- 2. Partially fill the tank with water and start agitation
- 3. Slowly add products to the circulating mix one at a time
- 4. Fill the tank to the desired level and continue to agitate thoroughly

Handling and Storage:

In its concentrated form Tuff Greens (0-0-13) is very alkaline. Care and safety should be taken during handling. Goggles, gloves, and protective clothing should be worn. Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.



About our Soil Moisture Management Line

The BioPro Soil Moisture Management line is comprised of unique technologies to maximize irrigation efficiencies, reduce overall water use and protect plants from the harmful effects of drought stress. Water is important in all aspects of landscape management. Water availability plays a critical role in plant health. Lack of available moisture can cause daily drought stress cycles, resulting in wilted or weak plants that are more susceptible to opportunistic diseases and pests. Left unchecked, daily wilt cycles can lead to plant decline and eventual death.

In recent years, water management and conservation has become a critical issue. Irrigation costs have increased dramatically in some regions, while others have experienced scarcity or restrictions that are not conducive to effectively managing plant health. BioPro Soil Moisture Management products help assure that superintendents, sports turf managers, landscape and plant professionals can maximize the availability and effective utilization of applied irrigation or rainfall.

Benefits of Use:

- Increased irrigation efficiency. Water loss due to runoff and evaporation is reduced, resulting in increased irrigation efficiency and improved plant health.
- Cost benefits. By improving the efficient use of water, overall irrigation demands are decreased, leading to lower irrigation costs, diminished wear on irrigation hardware, reduced labor from hand watering, and minimal plant replacement costs.
- Water conservation. By effectively managing subsurface soil moisture, overall watering requirements are reduced, conserving water while minimizing drought stress and maintaining plant health.
- Seed, sod, and plant establishment. The unique ability to manage moisture between scheduled watering protects plants from drying out during the critical establishment phase.
- Enhanced nutrient uptake. Nutrient ions require a film of water in order to move from the nutrient source to the plant root for uptake. BioPro water management products effectively maintain that film of water allowing for more efficient nutrient absorption.
- Reduced plant stress. Well hydrated plants can better withstand a broad range of environmental stresses.



Benefits of Use:

- Minimizes localized dry spots
- Increases watering efficiency
- Delays wilt and extends retail shelf life
- Increases seed germination
- Improves sod establishment
- Improves transplant survival for trees, shrubs and bedding plants
- Increases fertilizer and pesticide efficiency
- Optimizes winter dormancy recovery
- Maximizes crop production
- Reduces irrigation requirements and hand watering

Problems Addressed:

- Poor irrigation coverage
- Water restrictions and high water costs
- Localized dry spots
- Drought stress and wilt
- Poor turf establishment due to insufficient watering
- Winter desiccation

Composition:

54% Humectants*, 10% Surfactants, 36% Inert Ingredients
*Sugar alcohols, polysaccharides and neutral salts of alpha-hydroxypropionic acid

Not a plant food product

Physical Characteristics:

10.44 lbs./gal.; pH 5.5

Container Sizes & Model Numbers:

 1 Quart Bottle
 Model #1401

 2.5 Gallon Jug
 Model #57280

 30 Gallon Drum
 Model #57281

 275 Gallon Tote
 Model #57283





Reduce watering, eliminate dry spots and improve the overall health of turf, trees, shrubs, ornamental plants, flowers and even agriculture.

H3O Plus is a revolutionary soil moisture management product that combines the proprietary Hydretain technology with an advanced naturally derived soil surfactant for improved penetration and soil distribution. Hydretain is a unique formulation of hygroscopic and humectant compounds, making it the only water management technology that actually captures moisture in the soil, which would otherwise be lost to evaporation. Captured vapor molecules accumulate to form usable water droplets that are passed to the roots of plants, minimizing drought stress, extending the time between required watering and reducing overall water usage by as much as 50% or more. In addition to reducing irrigation demands, H3O Plus is also an excellent adjuvant that helps improve the performance of many other products, including fertilizers and pesticides.

Application Instructions:

H3O Plus can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products.

Turf Maintenance, Seeding, Sodding, or Sprigging:

General Application Rate: Apply 9 oz. per 1,000 sq. ft. (3 gallons per acre) by spray or drench once every three months, or as needed.

Monthly Program: Make an initial application of 9 oz. per 1,000 sq. ft. (3 gallons per acre). Make subsequent monthly applications at 3 oz. 1,000 sq. ft. (1 gallon per acre). For Best Results: Apply H3O Plus to wet soil. Irrigation immediately after application is recommended, particularly in arid climates; however, within 24 hours is acceptable. When watering in, it is important to irrigate thoroughly, allowing H3O Plus to completely penetrate and saturate the root zone. This product will not become functional until it is properly watered in.

Trees, Shrubs, & Individual Plants:

Mix 2 oz. with 1 gallon of water and apply as a drench until root zone is thoroughly saturated. Trees should receive 4 to 8 oz. of H3O Plus per diameter inch (DBH).

Potted and Containerized Plants:

Mix 2 oz. with 1 gallon of water and apply as a drench until root zone is thoroughly saturated. Media should be dry enough to hold as much solution as possible.

Flower and Vegetable Beds:

Mix 2 oz. with 1 gallon of water and apply solution as a drench to achieve a total of 1 gallon of H3O Plus concentrate per 4,000 sq. ft. of beds.

Handling and Storage:

Store between 40° - 120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.

For additional information, refer to the H3O Plus flyer, label, and/or SDS.



Benefits of Use:

- Minimizes localized dry spots
- Increases watering efficiency
- Delays wilt and extends retail shelf life
- Increases seed germination
- Improves sod establishment
- Improves transplant survival for trees, shrubs and bedding plants
- Increases fertilizer efficiency
- Optimizes winter dormancy recovery
- Maximizes crop production
- Reduces watering requirements and hand watering
- Easy-to-use granular formula
- Gypsum carrier

Problems Addressed:

- Poor irrigation coverage
- Localized dry spots
- Drought stress and wilt
- Poor turf and ornamental establishment due to insufficient watering
- Winter desiccation

Composition:

54% Humectants*, 10% Surfactants, 36% Inert Ingredients

*Sugar alcohols, polysaccharides and neutral salts of alpha-hydroxypropionic acid

Granular Carrier Composition:

Natural Complex Cellulose and Mineral Binder

Not a plant food product

Container Sizes and Model Numbers:

40 Pound Bag Model #57286

A 40lb bag covers up to 14,800 sq. ft.





H3O Plus Granular QD takes the drought fighting power of H3O Plus to an entirely new level of ease and flexibility by incorporating the liquid technology into a quickly dissolving, environmentally friendly, and free-flowing granular carrier that can be broadcast by using any standard spreader equipment.

Application Instructions:

H3O Plus will help plants survive periods of low moisture by capturing and converting free water molecules into micro-droplets of water and making them available to plant roots. Application prior to plant stress is recommended for optimum plant protection; however, H3O Plus can be used anytime during the plant's life cycle. Applications performed at the time of planting, seeding, sodding or transplanting will also improve plant establishment.

For use on all types of plants: Turf, trees, flowers, shrubs, fruit and vegetable gardens and agricultural crops, etc. - field grown and containerized.

Turf

H3O Plus Granular QD can be applied to established turf, or at the time of seeding, sodding, or sprigging. The recommended application rate of H3O Plus Granular QD is 120 pounds per acre (2.7 pounds per 1,000 sq. ft.) and repeated every three months or as needed. For greater efficiency or exceptionally difficult soils, reapply every six weeks at a 1/2 rate following the initial full rate application.

Large Planters & Gardens (where plants are planted close together):

Apply H3O Plus Granular QD at a rate of 1 pound per 100 sq. ft. of planter bed. Apply topically for existing beds. For new plantings, H3O Plus Granular QD may be mixed into the soil prior to planting or spread topically after planting.

Shrubs, Individual Plants, Potted or Containerized Plants:

Apply H3O Plus Granular QD at a rate of 1 pound per cubic foot of planting media either topically or mixed into planting media at time of planting.

Trees

Apply H3O Plus Granular QD at a rate of 1.5 to 2 pounds per caliper inch. Apply evenly from the base of the tree just past the drip line for existing trees. H3O Plus Granular QD may be mixed with the planting medium for transplanting trees or applied topically after planting and then watered in.

For Best Results: Irrigation immediately after application is recommended; however, within 3-5 days is acceptable. When watering in, it is important to irrigate thoroughly, allowing H3O Plus to completely penetrate and saturate the root zone. This product will not become functional until it is properly watered in. Reapply H3O Plus Granular QD if reduction in watering is not apparent within the first two weeks.

Handling and Storage:

Store in a cool dry place. Avoid direct heat or fire. Keep bags closed. Avoid exposure to humidity. Keep out of reach of children.

For additional information, refer to the H3O Plus Granular QD flyer, label, and/or SDS.

BIOPRO SOIL MOISTURE MANAGEMENT



Seaweed Supplements
Soil Conditioners
Soil Remediation
Specialty NPK Blends
Micronutrients
Soil Moisture Management
Combination Products
Pond & Lake Management

Benefits of Use:

- Minimizes localized dry spots
- Increases watering efficiency
- Delays wilt and extends retail shelf life
- Increases seed germination
- Improves sod establishment
- Improves transplant survival for trees, shrubs and bedding plants
- Increases fertilizer efficiency
- Optimizes winter dormancy recovery
- Maximizes crop production
- Reduces watering requirements and hand watering
- Easy-to-use granular formula
- Organic compost carrier

Problems Addressed:

- Poor irrigation coverage
- Localized dry spots
- Drought stress and wilt
- Poor turf establishment due to insufficient watering
- Winter desiccation

Composition:

54% Humectants*, 10% Surfactants, 36% Inert Ingredients

*Sugar alcohols, polysaccharides and neutral salts of alpha-hydroxypropionic acid

Granular Carrier Composition:

Organic Compost

Not a plant food product

Container Sizes and Model Numbers:

15 Pound Bag Model #57288 40 Pound Bag Model #57287

A 40lb bag covers up to 14,800 sq. ft.





H3O Plus Granular OC takes the drought fighting power of H3O Plus to an entirely new level of ease and flexibility by incorporating the liquid technology into a rapidly releasing, free-flowing, organic compost granular carrier that can be broadcast by using any standard spreader equipment.

Application Instructions:

H3O Plus will help plants survive periods of low moisture by capturing and converting free water molecules into micro-droplets of water and making them available to plant roots. Application prior to plant stress is recommended for optimum plant protection; however, H3O Plus can be used anytime during the plant's' life cycle. Applications performed at the time of planting, seeding, sodding or transplanting will also improve plant establishment.

For use on all types of plants: Turf, trees, flowers, shrubs, fruit and vegetable gardens and agricultural crops, etc. - field grown and containerized.

Turf:

H3O Plus Granular OC can be applied to established turf, or at the time of seeding, sodding, or sprigging. The recommended application rate of H3O Plus Granular OC is 120 pounds per acre (2.7 pounds per 1,000 sq. ft.) and repeated every three months or as needed. For greater efficiency or exceptionally difficult soils, reapply every six weeks at a 1/2 rate following the initial full rate application.

Large Planters & Gardens (where plants are planted close together):

Apply H3O Plus Granular OC at a rate of 1 pound per 100 sq. ft. of planter bed. Apply topically for existing beds. For new plantings, H3O Plus Granular OC may be mixed into soil prior to planting or spread topically after planting.

Shrubs, Individual Plants, Potted or Containerized Plants:

Apply H3O Plus Granular OC at a rate of 1 pound per cubic foot of planting media either topically or mixed into planting media at time of planting.

Trees

Apply H3O Plus Granular OC at a rate of 1.5 to 2 pounds per caliper inch. Apply evenly from the base of the tree just past the drip line for existing trees. H3O Plus Granular OC may be mixed with the planting medium for transplanting trees or applied topically after planting and then watered in.

For Best Results: Irrigation immediately after application is recommended; however, within 3-5 days is acceptable. When watering in, it is imperative to irrigate thoroughly, allowing H3O Plus to completely penetrate and saturate the root zone. This product will not become functional until it is properly watered in. Reapply H3O Plus Granular OC if reduction in watering is not apparent within the first two weeks.

Handling and Storage:

Store in a cool dry place. Avoid direct heat or fire. Keep bags closed. Avoid exposure to humidity. Keep out of reach of children.

For additional information, refer to the H3O Plus Granular OC flyer, label, and/or SDS.

About our Combination Products

It is not uncommon to find that multiple problem conditions can occur in tandem because they have similar causative factors. It is also common for one initial problem to evoke two or three more. Treating each condition individually is sometimes expensive or problematic due to compatibility issues between products. BioPro recognizes that there are certain key product synergies that form the basis of a broader spectrum solution that is capable of effectively treating multiple problem conditions simulateously.

Benefits of Use:

- System approach. Rather than simply treating soil or plant roots alone, we offer the ability to treat soil, water, and plants in a synergistic manner that is greater than the sum of its parts.
- Time and cost savings. Our combination products have the
 potential for substantially reducing the manpower you
 devote to treating problem areas with multiple products.
 By providing a "one and done" solution, you can enjoy
 hassle-free scheduling of treatments.
- Product compatibility is built in. You are relieved of the burden of testing the compatibility of divergent products from different manufacturers. We've done the work for you by providing a seamless and integrated solution that is formulated specifically for compatibility and effectiveness.



Benefits of Use:

- Minimize or eliminate LDS
- Reduce hand watering
- Maximizes the natural potential for root development
- Improves nutrient uptake
- Reduces surface tension
- Optimizes conditions for improved knitting of new sod

Problems Addressed:

- Localized dry spots
- Shallow, weak root structures
- Hydrophobic soil conditions
- Poor water penetration and infiltration

Formulation:

SeaXtra Water Penetrating Pellets are a non-toxic, non-ionic formulation of wetting agents and surfactants enhanced with SeaXtra Seaweed Extract. They are 100% active and contain no binders, salts or insoluble materials. Non-phytotoxic. Not a plant food product.

Active Ingredients:

Polyoxyalklenes, and SeaXtra Seaweed Extract

Physical Characteristics:

Each SeaXtra Water Penetrating Pellet weighs 8 oz.

Container Sizes & Model Numbers:

Box of 12 Pellets Model #57329 Case of 96 Pellets Model #57330

Made with





Localized Dry Spots (LDS) caused by hydrophobic soil conditions can result in more than just wilting, browning, and the decline of turf quality. As the signs of drought stress become apparent, additional damage is being done below the surface. When hydrophobic conditions persist, root desiccation occurs resulting in weaker plants that may struggle to recover even after water re-enters the soil system.

Going beyond traditional wetting agent pellets, SeaXtra Water Penetrating Pellets contain a unique formulation of non-ionic, non-toxic surfactants enhanced with SeaXtra Seaweed Extract. Designed for use on all types of turf grasses, annuals and perennials, SeaXtra Water Penetrating Pellets effectively combat persistent hydrophobic conditions while simultaneously providing beneficial bioactive substances to help plants maximize their natural potential for root development.

Application Instructions:

SeaXtra Water Penetrating Pellets are non-phytotoxic and can be applied any time of year. The application of 1 SeaXtra Water Penetrating Pellet per 12,000 sq. ft. applies enough active ingredients to equal the monthly maintenance rate of liquid SeaXtra.

General Application:

Using a standard hose-end tablet or pellet applicator, apply SeaXtra Water Penetrating Pellets at monthly intervals anytime throughout the growing season. May be used as needed on "hot spots" or localized dry spots as they occur.

Turf:

Apply SeaXtra Water Penetrating Pellets monthly at 1 pellet per 12,000 sq. ft. during hand watering and/or syringing.

Sod:

Apply SeaXtra Water Penetrating Pellets at 1 pellet per 8,000 sq. ft. at sod installation. Maintain monthly at the above turf rate.

Annuals, Perennials, Vegetables, and Bulbs:

Apply SeaXtra Water Penetrating Pellets at 1 pellet per 8,000 sq. ft. of planter bed at transplant, at bud set, monthly as part of a maintenance program or as need needed to relieve dry spots.

Handling and Storage:

Store in a cool dry place. Avoid direct heat or fire. Decomposition may occur at high temperatures. Keep out of reach of children. Refer to product SDS for additional safety instructions.





Benefits of Use:

- Improves environmental stress tolerance
- Optimizes natural root development
- Improves water use efficiency
- Minimizes localized dry spots
- Delays wilt
- Increases seed germination
- Increases nutrient uptake and efficiencies
- Provides rapid, lasting color
- Optimizes winter dormancy recovery and accelerates spring green up

Problem Conditions Improved:

- Shallow, weak root structure
- Localized dry spots
- Drought stress and wilt
- Poor turf establishment due to insufficient watering
- Winter desiccation
- Micronutrient deficiencies

Guaranteed Analysis:

Iotal Nitrogen (N)4.00%
3.50% Nitrate Nitrogen (N)
0.50% Urea Nitrogen (N)
Soluble Potash (K ₂ O)
Calcium (Ca)3.00%
Iron (Fe)2.12%
2.12% Chelated Iron (Fe)
Magnesium (Mg)0.80%
0.80% Soluble Magnesium (Mg)
Manganese (Mn)0.55%
0.55% Chelated (Mn)
Chlorine (Cl)not more than 1.00%

Derived From:

Urea, Calcium Nitrate, Potassium Hydroxide, Magnesium Nitrate, Iron Citrate, Manganese Citrate. This product also contains seaweed extracts.

Physical Characteristics:

11.13 lbs./gal. (0.45 lbs. N/gal.); pH 3.1

Container Sizes & Model Numbers:

 2.5 Gallon Jug
 Model #57614

 30 Gallon Drum
 Model #57615

 275 Gallon Tote
 Model #57616



Multi-Purpose Plus (4-0-2) is the next generation of combination liquids for turf and ornamentals. It contains SeaXtra™ Seaweed Extract, H3O Plus soil moisture management technology, a natural based surfactant, and micronutrients with superior chelation. This affordable, non-burning formulation is designed with the highest quality standards to assure consistent, long-lasting, fast performance. When applied at recommended rates Multi-Purpose Plus will supply enough SeaXtra and H3O Plus to achieve maintenance levels under their respective programs. Used as part of a regular maintenance program Multi-Purpose Plus will enhance color, improve soil water performance, and optimize natural root development for superior quality turf.

Made with H3O Plus – a proprietary blend of hygroscopic and humectant compounds that attracts and holds free water molecules from the air within the soil matrix, and efficiently transfers them to the roots of plants. This mechanism makes more water available to the roots, reducing overall watering requirements.

Made with SeaXtra – a superior quality seaweed extract that provides a blend of beneficial bioactive substances to help plants maximize their natural potential for root development and stress tolerance. As a unique source of organic content, SeaXtra also improves nutrient availability.

Application Instructions:

Multi-Purpose Plus (4-0-2) can be applied through fertigation or conventional spray. It can be applied alone or tank mixed with other products.

Turf:

4.000/

Apply 6 oz. of product in 1 to 2 gallons of water per 1,000 sq. ft. of turf every 2 weeks, or 2 gallons of product in 40-80 gallons of water per acre every 2 weeks. Use large droplet nozzles and water lightly to assure movement into the soil.

Greenhouse, Nurseries, Ornamentals:

Dilute with water at a rate of 3.75 to 6 oz. per gallon of water. Drench or saturate growing media.

Note

For maximum performance start the program with an application of H3O Plus and either SeaXtra Nutritional Supplement or CytoGro Hormone Biostimulant at their respective initial application rates. This will get the active ingredients to critical levels immediately, and then Multi-Purpose Plus will maintain them throughout the season.

Handling and Storage:

Store between 40°-120° F. Avoid direct heat or fire. Decomposition may occur at high temperatures. Avoid freezing. Keep out of reach of children. Refer to product SDS for additional safety instructions.

For additional information, refer to the Multi-Purpose Plus flyer, label, and/or SDS.



About our Pond and Lake Management Line

Ponds and lakes are a critical feature in the landscape. In addition to contributing to the aesthetic beauty of a property, many ponds and lakes also provide irrigation water or recreational enjoyment. Keeping these bodies of water clean is important to their function. BioPro's Pond and Lake Management product helps assure clean and beautiful water features.

Benefits of Use:

- Clean-up problem ponds. Problem ponds can be kept clean and clear without the harmful side-effects of algaecides.
- Reduce excess nutrients: By digesting excess nutrients, ponds remain clear and healthy.
- Eliminate foul odors. Unhealthy ponds and lakes can give off noxious fumes, particularly during hot, dry summer conditions.
 The unique combination of beneficial bacteria strains in Aqua-T attack these odor sources and break them down naturally without the use of potentially harmful chemicals.
- Clarity and beauty. Ornamental ponds and water features are meant to be a visually pleasing asset to the property. This appeal is quickly lost when a water feature suffers from murky, nutrient-heavy conditions. By restoring the health of the water column naturally, spectators can enjoy an unobstructed view of aquatic plants and ornamental fish.
- Ease of maintenance. It is far easier to maintain a healthy pond or water feature than it is to recover an unhealthy one. Our product offers an effective, easy-to-apply solution to help you maintain a stable aquatic environment.
- No license or permit required. Safe for use in recreational and irrigation ponds, Aqua-T Pond Bacteria is a natural, environmentally friendly pond and lake treatment that does not require a permit or applicator's license to apply.

Benefits of Use:

- Eliminates excess nutrients
- Improves water clarity and quality
- Eliminates odors
- Reduces sludge build-up and organic sediment
- Increases dissolved oxygen
- Reduces biological oxygen demand (BOD), hydrogen sulfide, and ammonia
- Remediates effluent water
- Environmentally friendly
- No permits or license required
- Safe for irrigation and swim ponds

Problem Conditions Improved:

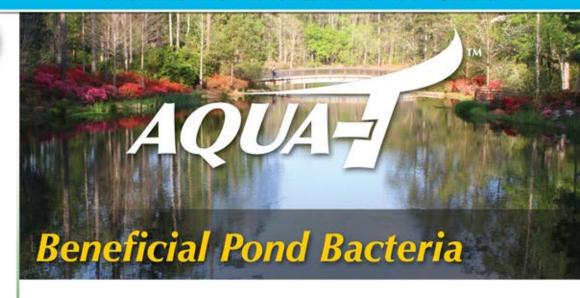
- Increased organic load from grass clippings and tree leaves
- Ecologically out-of-balance ponds
- Turbidity caused by suspended organics
- Thick sludge layers
- Foul pond odors

Physical Characteristics:

1/2 lb. Water Soluble Packs

Container Sizes & Model Numbers:

10 Pound Pail
 25 Pound Pail
 Model #57212
 Model #57229



Aqua-T Pond Bacteria uses a revolutionary method of bioaugmentation to reduce sludge and foul odors that commonly plague lakes and ponds. A special blend of naturally occurring bacteria, Aqua-T is designed to clean ponds, lakes and other bodies of water. Aqua-T works through the entire water column and sludge layer to digest organic waste from aquatic plant and animal life; organic loading from grass clippings and leaf debris; and contamination from runoff or effluent water. By digesting these excess nutrients, Aqua-T promotes cleaner, more attractive lakes, ponds and water features.

Aqua-T is not an algaecide and is therefore ideal for use in recreational and irrigation ponds, in particular, those where water quality is an issue. This includes ponds receiving effluent water. Aqua-T also reduces the level of plant-harming contaminants such as ammonia, carbon dioxide, hydrogen sulfide, and methane that may exist in irrigation pond water. As a natural, environmentally friendly pond and lake treatment, Aqua-T does not require a permit or applicator's license to apply. The program consists of simple regular treatments of Aqua-T Pond Bacteria, which is packaged in half-pound water-soluble bags for ease of application.

Application Instructions:

Aqua-T is meant to be used as part of a regular pond and lake maintenance program. For optimal performance, applications should begin in the spring; however, the program may be started at any time of the year given the conditions below are met.

Initial Application:

Apply 6 bags per acre foot of water when average day time water temperature reaches 50°F (10°C).

Maintenance Application:

Apply 1 bag per acre foot of water every two weeks until average day time water temperature falls below 50°F (10°C). One acre foot of water is equal to approximately 326,000 gallons (1,254,000 liters, 1,254 cubic meters).

Condition	Optimum	Minimum	Maximum
рН	7.0	5.0	9.8
Dissolved O ₂	2.0+ ppm	1 ppm	N/A
C/N/P Ratio	100/10/1	100/5/1	100/20/1
Temp C/F	30/86	4/39	63/145
Toxic Metals	0 ppm	0 ppm	2 ppm

Note:

For best results distribute Aqua-T around the edge of the pond. DO NOT use Aqua-T within 3 days of an algaecide treatment. Contains 3×10^6 cfu/gm or 1.4 trillion bacteria per pound. For additional information, refer to the Aqua-T flyer, label, and/or SDS.

Handling & Storage:

Store product in its original container in a cool dry place out of direct sunlight. Avoid heat or fire. Avoid freezing temperatures. Protect from moisture. Keep out of reach of children. Refer to product SDS for additional safety instructions.

A Legacy of Agronomic Excellence

In 1994, The Toro[®] Company developed the original BioPro[®] product line as collection of specialty, liquid, organic-based nutrients that offered superior performance at a lower cost.

Over the years, the BioPro line has changed hands, grown, and evolved, but it has always remained true to its roots as a superior quality, affordable, organic-based line of plant management products.

Now owned by BioPro Technologies, LLC, the product line has continued to improve with the latest developments in fertilizer technology, and respond to customers' needs with new, innovative products.

The BioPro offering now includes fertilizers developed by Dr. Max Brown (considered by some to be the father of fertigation), CytoGro Root Hormone Biostimulant, H3O Plus™ soil moisture management technologies, and Aqua-T™ Pond Bacteria.

Beyond our current product line, BioPro Technologies offers custom blending options as well as consulting services. For more information please contact us at info@bioprotechnologiesllc.com.



BioPro Technologies, LLC
Phone: 352-390-6502 • Toll Free: 888-269-0123 • Facsimile: 352-620-0312
4060 SE 45th Court • Ocala, Florida 34480 • www.bioprotechnologiesllc.com