

## PROFESSIONAL TURF SOLUTIONS



A complete product line for turf  
and grounds management.



## THE HYDRETAIN DIFFERENCE

Hydretain is designed to reduce watering frequency by helping plants utilize soil moisture that would otherwise be lost to evaporation. A proprietary blend of hygroscopic humectant compounds, Hydretain attracts water molecules in the soil to create plant usable water droplets in the root zone.

- Converts soil humidity into plant usable water droplets
- Not a wetting agent or superabsorbent polymer
- Lasts for up to 3 months

### Hydretain

Hydretain attracts moisture vapor in the soil & condenses that vapor back into plant usable water droplets.



### Wetting agents

Wetting agents or surfactants improve the penetration and dispersion of liquid water down to and throughout the soil.

### Superabsorbent Polymers

Superabsorbent polymers or hydrogels swell up as they absorb and hold liquid water.

## BENEFITS OF HYDRETAIN

- Maximize Irrigation Efficiency
- Reduce Hand Watering
- Decrease Irrigation Costs
- Conserve Water
- Protect Against Drought Stress
- Survive Watering Restrictions
- Minimize Wilt
- Eliminate Dry Spots
- Improve Landscape Health
- Increase Nutrient Uptake
- Improve Sod Establishment
- Enhance Seed Germination
- Increase Seedling Survival
- Accelerate Grow-In
- Improve Transplant Establishment
- Reduce Replacement Cost

## FOR SOIL MOISTURE MANAGEMENT, HYDRETAIN IS YOUR PERFECT PARTNER

Hydretain is a unique soil moisture management solution used to minimize drought stress and control dry spots while considerably reducing watering requirements and costs.



UNTREATED FAIRWAY



AFTER ONE TREATMENT

By converting soil humidity into microscopic droplets that plant roots can use, Hydretain protects turf from drying out for longer periods between irrigation cycles. A single Hydretain treatment increases watering efficiency by managing root zone moisture throughout the day. In independent tests Hydretain has reduced watering by up to 50%.

## HYDRETAIN WORKS

From tee to green and goal to goal, Hydretain manages soil moisture to help you maintain healthier turf and landscapes with less water.



### REDUCE WATERING

Maximize soil water availability to reduce irrigation frequency and hand watering



### SEEDING/OVERSEEDING

Accelerate seed hydration for improved germination rates and faster establishment



### HIGH TRAFFIC AREAS

Increase moisture and nutrient uptake to improve wear tolerance and reduce damage



### GREEN SPEED

Allow soil to dry down further to increase green speed with minimal stress



### LOCALIZED DRY SPOTS

Maximize soil moisture efficiency to reduce and repair localized dry spots



### RECOVERY

From tournaments to aeration, Hydretain reduces stress to speed regrowth



*Beyond turf management, Hydretain is also effective for trees, shrubs, bedding plants, containers and hanging baskets.*

## HYDRETAIN SUCCESS



We get a lot of rain here which causes roots to rot off. My greens usually can't go a day without watering. If we tried to go two days they'd burn up. Since applying Hydretain we can go two, even three days without watering.



**Dan Jones, Golf Course Superintendent**

Banyan Golf Club of Palm Beach

# HYDRETAIN PRODUCTS

## HYDRETAIN ES PLUS

Combines the Hydretain technology with an advanced non-ionic surfactant for improved soil penetration.

## HYDRETAIN ES PLUS II

Combines the Hydretain technology with an advanced non-ionic surfactant for improved soil penetration and potassium humate for enhanced performance.

**Turf: Apply 9 oz. / 1,000 sq. ft. (3 gallons per acre)**

**Ornamentals: Dilute 2 oz. per gallon of water and drench**

## HYDRETAIN GRANULAR OC

Puts the power of Hydretain ES Plus in a free-flowing organic compost carrier that can be applied through any traditional dry spreader equipment.

## HYDRETAIN GRANULAR QD

Puts the power of Hydretain ES Plus in a quickly dissolving, free-flowing carrier for dry spreader applications.

**Turf: Apply 2.7 lbs per 1,000 sq. ft. (120 lbs per acre)**

**Ornamentals: Apply 1 lb per 100 sq. ft.**

# COMBINATION PRODUCTS

## FOURPLAY™ MADE WITH Hydretain

Unique blend of four proven technologies that maximize water efficiency, improve water penetration, and increase nutrient availability to collectively eliminate the most severe localized dry spots.

**Apply 3 gallons per acre as the initial application and repeat monthly at a 1/3 rate**

## MULTI-PURPOSE PLUS™ (4-0-2) MADE WITH Hydretain

Includes seaweed extracts and micronutrients for use as part of a regular maintenance program to enhance color, improve soil water performance, and promote healthy roots.

**Apply 2 gallons in 40-80 gallons of water per acre every two weeks**

Hydretain products are also available under the brand H3O Plus. Hydretain products are available in a multiple sizes. Please visit [www.hydretain.com](http://www.hydretain.com).

FourPlay and Multi-Purpose Plus are available in multiple sizes. Not all products are available in all states. Please visit [www.ecogel.com](http://www.ecogel.com).



## THE RESULTS ARE MEASURABLE...

Whether you're battling dry spots, labor challenges, irrigation costs or water availability, Hydretain provides results you can see.



## THE BIOPRO DIFFERENCE

The BioPro line originated as an early leader in liquid fertilization solutions. Today, that legacy of agronomic excellence has expanded and evolved into a complete line of superior quality, yet affordable turf management products.

- Foliar and soil applied solutions to address soil health and nutritional deficiencies
- Chelated nutrients for increased availability and plant uptake
- Individual nutrient solutions and combination products provide flexibility for any agronomic program or budget

## BIOSTIMULANTS

### CYTOGRO®

EPA registered hormone biostimulant designed to increase root mass, speed grow-in, and improve stress tolerance.

- Promotes deeper, denser root systems
- Increases stress tolerance
- Speeds turf recovery and establishment
- Effective for all turf and plants

**Apply 0.8 fl. oz. per 1,000 sq. ft. (2 pints per acre) initial application. Follow-up monthly at 0.4 oz. per 1,000 sq. ft. (1 pint per acre)**



*Sod transplant 6 days after treatment*

## CYTOGRO® SUCCESS



It's awesome when you can actually see the results of a product. We did a side by side - half a green with CytoGro and half without. We pulled profiles and saw results within 3 weeks. The product works!



**Matt Lean, Director of Agronomy**  
Monterey Yacht & Country Club

## ROOT & SOIL ENHANCEMENT

### BIO MP™ (5-3-2)

High carbohydrate, molasses-based soil builder designed to stimulate soil biological activity by providing a food source for soil microbes.

### NA-X™ (5-0-0) WITH 12% CALCIUM

Soluble calcium solution to allow for the rapid flush of excess sodium from soils to restore soil structure and increase water infiltration.

### NUTRALYZ™ (12-0-0) WITH 26% SULFUR

Premium ammonium thiosulfate solution designed to breakdown excessive bicarbonate buildup in the soil and reduce the pH of alkaline soils.

### ENVIROPLEX™

Contains 22% humic acids from Leonardite ore.

## SPECIALTY NPK BLENDS

### GREENS PLUS™ (14-4-10) 65% SRN

Soil applied NPK blend consisting of nitrogen from controlled release urea-triazone, a stable and highly available phosphorus source and a less caustic source of potassium for superior turf management.

*Phosphorus Free Alternative:*

### GREENS PLUS™ (12-0-12) 70% SRN

### TURFPLEX™ (20-2-3) WITH SEAXTRA

True foliar nutrient blend for excellent turf color and quality. Ideal for spoon-feeding green, tees, and other high traffic areas.

*Phosphorus Free Alternative:*

### TURFPLEX NOPHOS™ (20-0-3) WITH SEAXTRA

*Additional NPK Blends:*

### ENIVRO N™ (28-0-0)

### ENIVRO P™ (7-21-0)

### ENIVRO K™ (0-0-30)

### ALL K™ (0-0-25) WITH 17% SULFUR

### TURF STARTER™ (8-16-5) WITH SEAXTRA

## SEAWEED EXTRACTS

### SEAXTRA™ NUTRITIONAL SUPPLEMENT (1-0-3)

Superior seaweed extract derived from *Ascophyllum nodosum*.

### SEAXTRA™ WATER PENETRATING PELLETT

Non-ionic surfactant blend enhanced with seaweed extracts to recover localized dry spots. Safe for all types of turf.



*SeaXtra products contain seaweed extract sourced from the cold nutrient rich waters of the Bay of Fundy.*

## MICRONUTRIENTS

### NUTRISOLVE™ WITH SEAXTRA

Foliar micronutrient blend of boron, copper, iron, manganese, molybdenum, and zinc designed to correct or prevent a wide range of micronutrient deficiencies without additional nitrogen.

### SPECTRUM™ (8-0-0) WITH SEAXTRA

Blend of iron, manganese, magnesium, and sulfur with nitrogen designed to provide fast, deep, and extended color without causing a surge in top growth.

### TUFF GREENS™ (0-0-13)

Unique solution of potassium, calcium, silica, and iron designed to promote green-speed, turf uniformity, wear tolerance, and stress resistance.

*Additional Micronutrients:*

### BORON PLUS™ 5% BORON

### CALCIUM PLUS™ (8-0-0) 10% CALCIUM

### IRON PLUS™ (15-0-0) 6% IRON WITH SEAXTRA

### IRON PLUS MN™ (12-0-0) 6% IRON AND 2% MANGANESE WITH SEAXTRA

### MANGANESE PLUS™ 5% MANGANESE WITH SEAXTRA

### MAGNESIUM PLUS™ (7-0-0) 6% MAGNESIUM

### SILICA (0-0-2) 5% SILICA

BioPro products are available in multiple sizes. Not all products are available in all states. For more product information visit [www.ecogel.com](http://www.ecogel.com).

# ARBORJET®

Revolutionary Plant Health Solutions

## THE ARBORJET DIFFERENCE

Initially developed by arborists, for arborists, Arborjet products have also been used on some of the finest golf courses and sports complexes around the country. Trees provide your guests with protection from the elements, as well as aesthetic beauty. Arborjet protects these valuable assets without disrupting the game.

- Injections are sealed in the tree, limiting exposure to guests and the environment
- No lost rounds: treat while players are on the course

## DRILL, PLUG, AND INJECT METHOD

The Drill, Plug, and Inject method injects or infuses treatments directly into the tree's vascular system assuring the dose is rapidly carried to the target area.



DRILL



PLUG



INJECT

## ARBORJET SUCCESS



We chose to use the Arborjet treatment methodology to protect the health of the trees on our historic course. Mature trees are valued by the members and add to their overall experience on the course.



**Corey Kuhl**, *Golf Course Superintendent*

Riverside Golf Club, IL

## INJECTABLE INSECT CONTROL

### TREE-ÄGE® G4 & TREE-ÄGE® R10

General use & restricted use, provides two-year control for listed insects and mites. Available in 4% and 9.7% formulations.

**Effective For:** Emerald Ash Borer, Invasive Shot Hole Borer; Western, Southern, and Mountain Pine Beetles; Leaf feeding caterpillars, Bagworms, Webworms, Leafminers, Conifer mites, and more

**1 quart of G4 treats 27 trees (10" DBH) at the medium rate**

**1 pint of R10 treats 24 trees (10" DBH) at the medium rate**

### IMA-JET® & IMA-JET 10®

Particularly effective on piercing/sucking insects. Provides season long control. Available in a 5% and 10% formulations.

**Effective For:** Adelgids, Scale Insects, Whiteflies, Borers (including Emerald Ash Borer, Asian Longhorned Beetle and Bronze Birch Borer), Leaf Beetles, and more

**1 liter of IMA-jet treats 25 trees (10" DBH)**

### ACE-JET™

Water soluble granular provides a fast knockdown of a broad spectrum of insects and mites with a shorter residual.

**Effective For:** Leaf feeding Caterpillars, Armored and Soft Scales, Adelgids, Leafminers, Spider Mites, and more

**One 15 gram packet treats 2 trees (10" DBH)**

## INJECTABLE NUTRIENTS

### MN-JET FE™

Balanced source of micronutrients for injection or foliar spray; works for chlorosis caused by micronutrient deficiency or as a good choice for general tree nutrition.

**Effective For:** Micronutrient deficiencies in hardwoods, conifers, palms, and ground covers

**1 liter treats 20 trees (10" DBH)**

### PALM-JET MG™

Specially formulated to alleviate iron and manganese deficiencies in palms and hardwoods.

**Effective For:** Iron & Manganese Deficiencies, Nutrient Deficiencies, Leaf Yellowing, Interveneal Chlorosis, Alkaline Soils, Sandy Soils, and Arid Soils

**1 liter treats approximately 66 medium sized palms or 25 hardwoods**

Arborjet formulations and equipment are available in multiple sizes and kits. Not all products are available in all states. Please visit [arborjet.com](http://arborjet.com).

## INJECTABLE DISEASE CONTROL

### PROPIZOL®

For suppression and control of various diseases. Can be used as trunk injection or spray on trees, grasses, shrubs, and flowers.

**Effective For:** Oak Wilt, Anthracnose, Diplodia Tip Blight, Fusarium Dieback, Pitch Canker, Bur Oak Blight, and more.

**1 liter treats 10 trees (10" DBH), up to 1.5 acres for turfgrass applications, and makes up to 1,700 gallons**

### PHOSPHO-JET™



A plant resistance activator for the suppression of various diseases. Can be used as trunk injection, spray, or soil drench.

**Effective For:** Sudden Oak Death, Anthracnose, Phytophthora, Black Spot, Scab, Fire Blight in Apple, Root Rot and more

**One liter treats 20 trees (10" DBH)**

### ARBOR-OTC®

Water soluble, systemic antibiotic for the treatment of bacterial infections of trees and palms.

**Effective For:** Ash Yellows, Bacterial Leaf Scorch, Fire Blight, Leaf Spot, Lethal Bronzing (Texas Phoenix Palm Decline), and more

**1 oz. (28 g.) container treats 10 trees (10" DBH)**

## PLANT GROWTH REGULATOR

### SHORTSTOP® 2SC

Systemic, soil applied, plant growth regulator that slows above ground vegetative growth in trees.

**Effective For:** Slowing tree growth, reducing pruning frequency, drought stress, and construction damage, and enhancing fine root hair growth

**1 gallon treats approximately 52 trees (10" DBH) at the medium rate**

## EQUIPMENT

### QUIK-JET AIR®

Lightweight, air-powered injection system, featuring a one-thumb switch operation, precise dose measuring in a rugged aluminum body weighing less than 2 pounds.

### FSERIES® TREE I.V.

The first ever 120 psi micro-infusion system, designed for injecting trees with maximum speed, accuracy, and ease. Comes with two bottle sizes and an easy fill cap, giving you both flexibility and safety on the job.

## TREE & ORNAMENTAL FERTILIZERS

### NUTRIROOT® (2-2-3) MADE WITH Hydretrain

Unique blend of nutrients, seaweed extract, humic acid, surfactants, and humectants designed to increase root development and reduce water stress in trees, shrubs, bedding plants, installs, and transplants.

**32 fl. oz. makes up 25 gallons**

### ARBORPLEX™ (14-4-5) 50% SRN

Blend of slow-release nitrogen with macro and micronutrients to provide consistent, extended feeding for trees and shrubs.

**1 gallon contains 1.48 lbs N. May be applied through root injection, soil drench, or foliar spray**

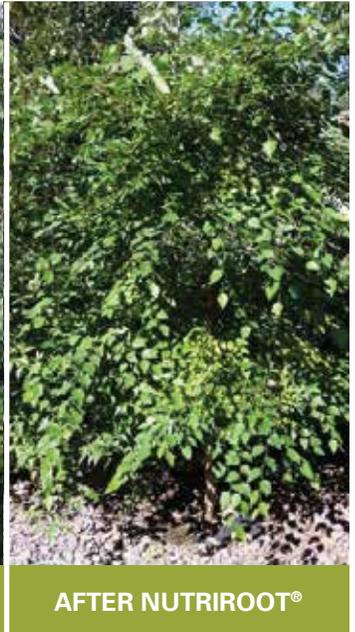
### BLOOMPLEX™ (8-16-5)

Specially formulated with high quality sources of phosphorus and chelated micronutrients to promote flowering and fruiting.

**1 gallon contains 1.69 lbs P<sub>2</sub>O<sub>5</sub> and 0.85 lbs N. May be applied through fertigation, soil drench, or foliar spray**



BEFORE NUTRIROOT®



AFTER NUTRIROOT®

## ORGANIC INSECT & DISEASE CONTROL

### AZASOL®

Broad spectrum, botanical, systemic insect growth regulator, derived from Neem. A non-oil based water soluble powder that can be used as a spray, soil drench, tree injection, or through chemigation.

**Effective For:** *Whiteflies, Leafminers, Scale, Mealybugs, Thrips, Aphids, Psyllids, Caterpillars, and more*

**6 oz. treats approximately 43 trees (10" DBH) as a trunk injection and makes up to 168 gallons**



TREATED WITH AZASOL®

“I’m amazed at the results. No odor, no petal burn and best of all...NO THRIPS. I’m a believer.”

– Keith F. Denver, CO

### ECO-1® GARDEN SPRAY

Broad spectrum, contact insecticide, miticide, and fungicide, made from Linseed, Thyme, and Peppermint oils for use on edible to ornamental plants.

**Effective For:** *Aphids, Mites, Mealybugs, Whiteflies, Thrips, Powdery Mildew, Black Spot, Early and Late Blight, and more*

**1 quart of concentrate treats up to 8,000 square feet and makes up to 8 gallons**



UNTREATED

TREATED WITH ECO-1®

## SPECIALTY EQUIPMENT

### ACCUFLO®

Durable and lightweight flow rate meter, attaches to the user’s wrist, offering consistent and repeatable bark and soil applications of plant growth regulators, liquid nutrients, insecticides, and fungicides.



## POND CLARIFIER

### AQUA-T™

Special blend of naturally-occurring bacteria that digests organic waste and excess nutrients to clarify the water, reduce sludge, and eliminate pond odors.

**Apply 6 bags per acre foot of water as the initial application and maintain with 1 bag per acre foot every two weeks**



## PROTECTIVE BARRIER TREATMENT

### FUNGISHIELD®

Clear barrier treatment that provides long term protection against the unsightly adhesion of mold, mildew, fungus, and algae.

**SPF 5+ - 1 gallon covers 200-300 sq. ft., last up to 5+ years**



## DUST SUPPRESSANT

### GELTRAK®

Environmentally responsible solution designed to reduce dust by keeping soils nominally damp for extended periods between watering or rainfall.

**Dilute with water at rate of 25:1, apply diluted material at a rate of 55 gallons per 1,000 sq. ft.**



*Perfect for use on walls, walkways, patios, drives, fences, roofs, decks - Most any hard surface.*

NutriRoot, AzaSol & Eco-1 Garden Spray are available in multiple sizes. Not all products are available in all states. Please visit [www.arborjet.com](http://www.arborjet.com).

Arborplex, Bloomplex, Aqua-T, GelTrak, and FungiShield are available in multiple sizes. Please visit [www.ecogel.com](http://www.ecogel.com).

## GELTRAK SUCCESS

“

We were faced with numerous complaints associated with dust from construction traffic while using a temporary roadway from the nearby residential community. This product reduced the amount of dust created to virtually zero, and greatly reduced the number of complaints received.

”

**Andy Jorgensen, Director of Golf Maintenance Operation**

On Top of the World Communities & Related Entities

# 2-STEP PLANT HEALTHCARE PROGRAM

COLDER CLIMATES	Maple	Pear	Crab Apple	Ash	Elm	
						
	<b>Issue</b>	Galls, Gypsy Moth, Winter Moth, Caterpillars, <b>Bacterial Leaf Scorch</b> , Anthracnose	Aphid, <b>Bacterial Leaf Scorch</b> , Gypsy Moth Winter Moth, <b>Fire Blight</b> , Chlorosis	Aphids, <b>Fire Blight</b> , Apple Scab	Emerald Ash Borer, Clear Wing Borer, Galls, <b>Fire Blight</b> , <b>Ash Yellow</b> s, Anthracnose	Scale, Dutch Elm Disease, Elm Leaf Beetle
	<b>Step 1</b>	TREE-äge®	IMA-jet®	IMA-jet®	TREE-äge®	IMA-jet®
	<b>Step 2</b>	Propizol®	PHOSPHO-jet	Propizol®	Propizol®	Propizol®
<b>Comments*</b>	<i>Substitute Arbor-OTC in Step 2 for Bacterial leaf scorch</i>	<i>Substitute Arbor-OTC in Step 2 for Fire Blight and Bacterial Leaf Scorch</i>	<i>Substitute Arbor-OTC in Step 2 for Fire Blight</i>	<i>Substitute Arbor-OTC in Step 2 for Fire Blight and Ash Yellow</i> s		

COMMON TO MOST CLIMATES	Various Oaks	Sycamore	Pine/Spruce	Eucalyptus	Magnolia	
						
	<b>Issue</b>	Galls, Gypsy Moth, Winter Moth, Oak Wilt, Caterpillars, Bur Oak Blight, <b>Bacterial Leaf Scorch</b>	Invasive Shot Hole Borer, Anthracnose	Pine Bark Beetles, Mites, Diplodia, Hemlock Woolly Adelgid	Red Gum Lerp Psyllid, Tortoise Beetle, Eucalyptus Beetle, Phytophthora	Scale, Mealybug
	<b>Step 1</b>	TREE-äge®	TREE-äge®	TREE-äge®	IMA-jet®	IMA-jet®
	<b>Step 2</b>	Propizol®	Propizol®	Propizol®	PHOSPHO-jet	PHOSPHO-jet
<b>Comments*</b>	<i>Substitute Arbor-OTC in Step 2 for Bacterial Leaf Scorch</i>					

HOT TO TROPICAL CLIMATES	Palm	Ficus/Banyan	Crape Myrtle	Monkey Pod	Plumeria	
						
	<b>Issue</b>	Whitefly, Scale, Skeletonizer, Palm Weevils, Bud Rot, <b>Lethal Bronzing</b> , <b>Lethal Yellowing</b>	Whitefly, Scale, Twig Gall, Leaf Gall, Root Rot	Scale, Aphid, Mealybug	Monkey Pod Caterpillar, Root Rot	Whitefly, Mealybug
	<b>Step 1</b>	IMA-jet®	IMA-jet®	IMA-jet®	TREE-äge®	IMA-jet®
	<b>Step 2</b>	PHOSPHO-jet	PHOSPHO-jet	PHOSPHO-jet	PHOSPHO-jet	PHOSPHO-jet
<b>Comments*</b>	<i>Substitute Arbor-OTC in Step 2 for Lethal Bronzing and Lethal Yellowing</i>					

©2019 Arborjet, Inc. 99 Blueberry Hill Rd. Woburn MA 01801. **Important: Always read and follow label instructions. Some crop protection products may not be registered for sale or use in all states or counties. Please check with your state or local extension service to ensure registration status.** TREE-äge® Insecticide is a Restricted Use Pesticide and must only be sold to and used by a state certified applicator or by persons under their direct supervision. TREE-äge® is a registered trademark of Arborjet, Inc.

\*Bark beetles listed on the TREE-äge® label include: Scolytids (bark beetles), Ips Engraver Beetles, Mountain Pine Beetle, Southern Pine Beetle, Spruce Beetle and Western Pine Beetle

# BIOPRO APPLICATION GUIDE

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 H2O / 1,000 SQ. FT.	GALLONS PRODUCT / ACRE	GALLONS H2O / ACRE
<b>Seaweed Supplements</b>					
SeaXtra™ Nutritional Supplement (1-0-3)	9.0	0.8 / 0.4 initial / maintenance	1	32 oz. / 16 oz. initial / maintenance	40
SeaXtra™ Water Penetrating Pellets	N/A	1 Pellet per 12,000 sq. ft.	N/A	N/A	N/A
<b>Soil Conditioners</b>					
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
<b>Soil Remediation</b>					
Na-X™ (5-0-0)	11.68	32-64	2	10-22	80
Nutralyz™ (12-0-0)	11.0	13	2	4.3	80
<b>Specialty NPK Blends</b>					
Enviro N™ (28-0-0)	10.56	4.3 (0.1 lbs. N / 1,000 sq. ft.)	2	1.5 (0.1 lbs. N / 1,000 sq. ft.)	80
Enviro P™ (7-21-0)	10.58	14.4 (0.25 lbs. P <sub>2</sub> O <sub>5</sub> / 1,000 sq. ft.)	2	4.9 (0.25 lbs. P <sub>2</sub> O <sub>5</sub> / 1,000 sq. ft.)	80
Enviro K™ (0-0-25)	12.26	8.6 (0.25 lbs. K <sub>2</sub> O / 1,000 sq. ft.)	2	2.9 (0.25 lbs. K <sub>2</sub> O / 1,000 sq. ft.)	80
All K (0-0-25-17S)	12.21	10.5 (0.25 lbs. K <sub>2</sub> O / 1,000 sq. ft.)	2	3.6 (0.25 lbs. K <sub>2</sub> 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	2.0 (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	2.0 (0.1 lbs. N / 1,000 sq. ft.)	40
Turf Starter™ (8-16-5)	10.94	18.2 (0.25 lbs. P <sub>2</sub> O <sub>5</sub> / 1,000 sq. ft.)	2	6.2 (0.25 lbs. P <sub>2</sub> O <sub>5</sub> / 1,000 sq. ft.)	80
<b>Micronutrients</b>					
Boron Plus™	8.55	0.5-1	1	22-44 oz.	40
Calcium Plus™ (8-0-0)	11.85	12	2	4	80
Iron Plus™ (15-0-0)	10.78	3-6* / 6-12**	1	2	40
Iron Plus Mn™ (12-0-0)	11.46	3-6* / 6-12**	1	2	40
Magnesium Plus™ (7-0-0)	11.06	6	2	2	80
Manganese Plus™	10.47	3	1	1	40
Silica (0-0-2)	8.96	0.1	1	4.4 oz.	40
NutriSolve™	10.21	3-6* / 6-12**	1	2	40
Spectrum™ (8-0-0)	10.78	3-6* / 6-12**	1	2	40
Tuff Greens™ (0-0-13)	10.23	3-6	1	1-2	40

\*Greens and Tees \*\*Fairways, Lawns, Athletic Fields 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:** 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 ÷ 2.97 = 0.033; 0.033 X 128 = 4.3 oz. of product per 1,000 sq. ft. For the amount of product for one acre at 0.1 lbs. N/1,000 sq. ft. rate: 0.1 ÷ 2.97 = 0.033; 0.033 X 43.56 = 1.5 gal. of product per acre.

## FERTILIZER & HELPFUL CONVERSIONS

### Fertilizers:

P to P<sub>2</sub>O<sub>5</sub> - multiply by 2.30  
P<sub>2</sub>O<sub>5</sub> to P - multiply by 0.44  
K to K<sub>2</sub>O - multiply by 1.20  
K<sub>2</sub>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 m<sup>2</sup>  
1 metric ton = 1,000 kg = 2205 lbs.  
1 gallon of water = 8.34 lbs. = 3.78 kg

### Fluid Volume:

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 pint = 1/2 quart = 16 fluid ounces = 473 milliliter  
1 quart = 1/4 gallon = 32 fluid ounces = 946 milliliter  
1 gallon = 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

### Temperature

°F = (°C x 1.8) + 32 °C = (°F - 32) / 1.8

# WATER MANAGEMENT & NUTRITION PROGRAMS

These programs are designed to provide superior drought stress protection while maintaining optimal nutrition throughout the entire playing season.

## WARM SEASON TURF

		MARCH				APRIL				MAY				JUNE	
		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2
GOLD PROGRAM	CytoGro							0.4oz/M					0.4oz/M		
	Hydretain ES Plus							9oz/M					3oz/M		
	Turf Starter			18oz/M											
	Greens Plus (14-4-10)*							21oz/M					21oz/M		
	TuffGreens												6oz/M		
	EnviroPlex			6oz/M											
	NutriSolve														
SILVER PROGRAM	CytoGro			0.8oz/M				0.4oz/M							
	Hydretain ES Plus							9oz/M					3oz/M		
	Enviro P			15oz/M				15oz/M							
	Greens Plus (12-0-12)												25oz/M		
	Silica												0.1oz/M		
	Spectrum												12oz/M		
STANDARD PROGRAM	CytoGro			0.8oz/M				0.4oz/M					0.4oz/M		
	Hydretain ES Plus							9oz/M					3oz/M		
	Enviro N							11oz/M					11oz/M		
	Enviro P			15oz/M											

## COOL SEASON TURF

		APRIL				MAY				JUNE				JULY	
		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2
GOLD PROGRAM	CytoGro					0.8oz/M									
	Hydretain ES Plus					9oz/M				3oz/M				3oz/M	
	Turf Starter	9oz/M													
	Greens Plus (14-4-10)*					21oz/M				21oz/M				21oz/M	
	TuffGreens					6oz/M				6oz/M				6oz/M	
	EnviroPlex	6oz/M				3oz/M				3oz/M				3oz/M	
	NutriSolve									12oz/M				12oz/M	
SILVER PROGRAM	CytoGro	0.8oz/M				0.4oz/M				0.4oz/M				0.4oz/M	
	Hydretain ES Plus					9oz/M				3oz/M				3oz/M	
	Enviro P	14oz/M													
	Greens Plus (14-4-10)*					42oz/M				21oz/M				21oz/M	
	Silica									0.1oz/M				0.1oz/M	
STANDARD PROGRAM	CytoGro					0.8oz/M				0.4oz/M				0.4oz/M	
	Hydretain ES Plus					9oz/M				3oz/M				3oz/M	
	Enviro N					11oz/M				11oz/M				11oz/M	
	Enviro P	14oz/M													

\*Greens Plus™ (12-0-12) may be used as a substitute in Phosphorus restricted areas.

Additional programs are available. Email [info@ecologel.com](mailto:info@ecologel.com) for a complete list of program options.

		JULY				AUGUST				SEPTEMBER				OCTOBER			
WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4
3oz/M				3oz/M				3oz/M				3oz/M				3oz/M	
																18oz/M	
21oz/M				21oz/M				21oz/M				21oz/M		Continue based on field use, sport and season			
6oz/M				6oz/M				6oz/M				6oz/M					
																6oz/M	
12oz/M				12oz/M				12oz/M				12oz/M					

											0.4oz/M						
3oz/M				3oz/M				3oz/M			3oz/M					3oz/M	
											15oz/M					15oz/M	
25oz/M				25oz/M				25oz/M									
0.1oz/M				0.1oz/M				0.1oz/M									
12oz/M				12oz/M				12oz/M				12oz/M					12oz/M

0.4oz/M					0.4oz/M												
3oz/M				3oz/M				3oz/M				3oz/M					3oz/M
11oz/M				11oz/M				11oz/M				11oz/M					
								15oz/M				15oz/M					15oz/M

		AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4
										0.4oz/M				0.4oz/M			
		3oz/M				3oz/M				3oz/M				3oz/M			
						9oz/M											
		21oz/M				21oz/M				42oz/M				42oz/M			
		6oz/M				6oz/M											
		3oz/M				3oz/M				3oz/M							
		12oz/M				12oz/M											

		0.4oz/M															
		3oz/M				3oz/M				3oz/M				3oz/M			
		21oz/M				42oz/M				42oz/M				42oz/M			
		0.1oz/M				0.1oz/M											

		0.4oz/M				0.4oz/M				0.4oz/M							
		3oz/M				3oz/M				3oz/M							
		11oz/M				11oz/M								11oz/M			
						14oz/M				14oz/M							

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# ABOUT US

**OUR HISTORY** - Arborjet technology was developed in 2000 by arborists, for arborists, in order to effectively manage and control exotic and native insects and diseases threatening our natural and urban forests. Today, as the leading developer of tree care solutions, Arborjet has partnered with Ecologel Solutions to offer an expanded lineup of environmentally responsible plant healthcare products which broaden our expert resources.

Ecologel Solutions LLC. is a long-standing, premier developer and manufacturer of innovative products for water conservation, dust mitigation, plant nutrition, pond and lake management, and protective barrier treatments.

Together, both companies are backed by years of research and provide the most effective and environmentally responsible treatment options available anywhere. As premier solutions providers, we are committed to advancing the industries we serve through thought leadership, product and technology development, scientific research, and exceptional customer service.

**OUR RESEARCH** - Our unique method of developing formulations includes a pairing process which matches the active ingredient and application method with the physiology of the plant. Our products are backed by university research, field trials, and years of use by industry professionals. Whether treating ash trees in Chicago, palms in Miami, tomatoes in Fresno, or turf in Atlanta, this holistic approach delivers significantly longer residual control and superior overall product performance. Our ability to improve plant quality occurs with maximized uptake efficiency while utilizing sustainable methods and formulations.

**OUR TEAM** - At Arborjet and Ecologel, we care about you and your success. Many of our staff are Certified Arborists, Agronomists, Pest Control Advisors, and hold board positions in major industry associations. Our decades of technical experience in this industry mean that you benefit from sound advice, environmental responsibility, and creative solutions. Your successful plant health care program helps us realize our mission.



To speak with a customer service representative,  
call 781-935-9070 or visit us online at [www.arborjet.com](http://www.arborjet.com)