performancepack®

Specialty Products Catalog

Simplot
TURF & HORTICULTURE

Welcome to Simplot Turf & Horticulture's PerformancePack® line of specialty products

PerformancePack® is our line of products designed for specialty applications on golf courses, athletic fields, landscapes, and numerous other turf and ornamental applications. The PerformancePack® line was developed to provide customers a variety of products to address typical as well as unique management challenges dealing with their growing conditions and turf and ornamentals performance demands.

Common Weights and Measures

1 gallon water = 231 cu in = 8.345 lbs

Area:

43,560 sq ft = 1 acre
640 ac = 1 sq mile (section)
9 sq ft = 1 sq yard
4,840 sq yards = 1 acre

Speed:

1 mile per hour = 88 feet per min

Length:

12 inches = 1 foot
3 feet = 1 yard
5,280 feet = 1 mile

Weight:

1 oz = 0.0625 lb
1 lb = 16 oz
1 ton = 2,000 lbs

Volume:

1 tsp = 0.17 fl oz
1 tbs = 3 tsp
1 fl oz = 2 tbs = 6 tsp
1 cup = 8 fl oz = 16 tbs
1 pt = 2 cups = 16 fl oz
1 qt = 2 pt = 32 fl oz
1 gal = 4 qt = 8 pt = 128 fl oz = 231 cu in

Concentration:

1 ppm = 0.00001 % = 0.013 oz in 100 gal of water
1 % = 10,000 ppm
0.1 % = 1,000 ppm
0.01 % = 100 ppm
0.001 % = 10 ppm

Metric Weights and Measures

1 cubic centimeter (cc) = 1 milliliter (ml) = 1 gram (g) @ 20° C (water)

Area:

1 square kilometer = 1,000,000 square meters
1 square meter = 10,000 square centimeters

Length:

10 millimeters = 1 centimeters
10 centimeters = 1 decimeters
10 decimeters = 1 meter = 100 centimeters
1,000 meters = 1 kilometers

Weight:

1 000 micrograms = 1 milligram
1,000 milligrams = 1 gram
1,000 grams = 1 kilogram
1,000 kilograms = 1 metric ton

Volume:

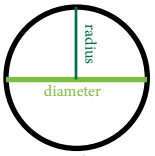
1 milliliter = 0.001 liter
1 centiliter = 0.01 liter
1 deciliter = 0.1 liter
1 kiloliter = 1000 liters

Concentration:

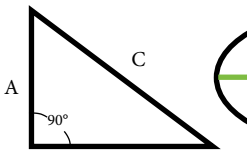
1 part per million (ppm) = 1 mg/L = 1 mg/Kg
1% = 10 g/L
0.1% = 1,000 mg/L
0.01% = 100 mg/L
0.001% = 10 mg/L

Useful Area Calculations:

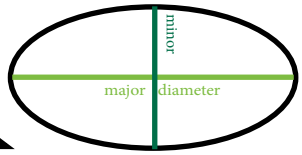
- Area of a square = length of side^2
- Area of a rectangle = side × width
- Area of a circle = π Pi (3.1416) × radius^2
- Area of an elipse = π Pi (3.1416) × (major ÷ 2) × (minor ÷ 2)
- Area of a right triangle = (side A × side B) ÷ 2
- Area of equilateral triangle = 1/4 (0.25) × √3 (1.732) × side^2



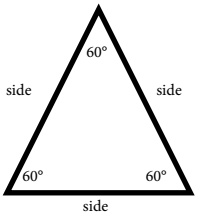
Circle



Right Triangle



Ellipse



Equilateral Triangle

Spray Tank Mixing Sequence:

Fill the spray tank with at least 50% of the desired finished carrier volume.
While the carrier is agitating, add tank mix ingredients in the following order:

1. Compatibility agent, pH/water hardness adjustment and/or antifoam, if needed
2. AMS, dry formulations (WP, DF, WDG, SP), and dry drift retardants
3. Dry soluble and suspension fertilizers/micronutrients
4. Liquid drift retardants and flowable formulations (F & FL)
5. Liquid concentrates, suspension concentrates, microencapsulated and capsule suspension (LC, SC, ME, CS)
6. Emulsifiable concentrates (E, EL or EC)
7. Solutions and soluble liquids (S or SL)
8. Liquid micronutrients and fertilizers
9. Spray adjuvants (COC, HSOC, MSO, NIS)
10. Finish filling to desired spray volume level and continue agitation

Metric to U.S. Customary System Conversions

Length:

1 ft = 0.3048 m ..... 1 m = 3.280 ft
1 mile = 1.609 km ..... 1 km = 0.621 mile
1 in = 2.54 cm ..... 1 cm = 0.393 in

Area:

1 sq in = 6.45 sq cm ..... 1 sq cm = 0.155 sq in
1 sq ft = 929 sq cm ..... 1 sq cm = 0.00108 sq ft
1 sq yd = 8,361 sq cm ..... 1 sq cm = 0.000119599 sq yd
1 sq yd = 0.8361 sq m ..... 1 sq m = 1.19599 sq yd = 10.76 sq ft = 1,550 sq in
1 ac = 4,050 sq m ..... 1 sq m = 0.000247105 ac
1 ac = 0.4046856 h ..... 1 h = 107,600 sq ft = 2.47 ac

Volume:

1 fl oz = 29.5 ml = 0.0295 L . 1 ml = 0.033814 fl oz = 0.002113 pt
1 pt = 437 ml = 0.437 L ..... 1 L = 33.814 fl oz = 2.113 pt = 1.0567 qt = 0.264 gal
1 qt = 945 ml = 0.945 L .....
1 gal = 3,785 ml = 3.785 L

Weight:

1 oz = 28.35 g ..... 1 g = 0.035 oz = 0.002205 lbs
1 lb = 454 g = 0.4536 kg ..... 1 kg = 35.274 oz = 2.2046 lbs

Abbreviations:

ac ..... acre
cc ..... cubic centimeter
cm ..... centimeter
fl oz ..... fluid ounce
fpm ..... feet per minute
ft ..... foot or feet
g ..... gram
gal ..... gallon
gpm ..... gallons per minute
h ..... hectare
in ..... inch
kg ..... kilogram
km ..... kilometer
L ..... liter
lb ..... pound
mi ..... mile
oz ..... ounce
ppm ..... part per million
pt ..... pint
m ..... meter
mg ..... milligram
min ..... minute
ml ..... milliliter
mm ..... millimeter
mph ..... miles per hour
psi ..... pounds per square inch
qt ..... quart
rpm ..... revolutions per minute
sq ..... square
sq ft ..... square foot (feet)
sq in ..... square inch
tbs ..... tablespoon
tsp ..... teaspoon
yd ..... yard

Temperature Conversions:

To convert degrees Celsius (C) to degrees Fahrenheit (F): multiply by 1.8 and add 32. Example: 20° C = (20 × 1.8) + 32 = 68° F
To convert degrees Fahrenheit (F) to degrees Celsius (C): subtract 32 and multiply by 0.56. Example: 100° F = (100 - 32) × 0.56 = 38° C

PerformancePack® labels and SDS can be found at: TH.Simplot.com
To contact a Salesperson or locate a Simplot Turf & Horticulture branch location please see inside back cover.

Always read and follow label directions. Confirm state registration prior to use.

performancepack®

colorpack®

Products that promote color by supplying nutrients that stimulate the plant to produce deep rich green color in the foliage 4

- Six Iron®
- Six Iron® Plus with UMAXX®
- Six Iron® Plus with 3% Mn
- Extreme Green® 20
- Extreme Green® 16
- Extreme Green® 4.1L
- Extreme Green® 6L

Products that add color to plants using pigment based colorants 5

- Ambient® Plus Turf Enhancer
- Lumen® Shadow
- Lumen Lux®
- Green Tee®
- SP Darken®
- SP Marking Paints

surfpack®

Recognized as some of the top-selling brands in the turf and horticulture industry, our soil surfactants are top performers season after season *6*

- Brilliance®
- Forté™
- Rely III™
- ReWet®
- CounterAct® Retain
- CounterAct® Firm
- Syringe® Ultra
- Compel®
- Compel® Plus
- Brilliance® & ReWet® Granular

growthpack®

Products that provide plant nutrition and enhanced growth using non-nutritional growth and development promoting components. 8

- AzoPro™ Turf
- BioKelp® 0-0-1
- BioKelp® Humic
- DuraPhite® 12
- Grid Iron® Plus 7-0-1
- MoCa™ 5-0-5
- Trident® with UMAXX
- VerdiMate®
- Zeitgeist™

nutripack®

High performance, liquid specialty fertilizers 10

- Turf & Ornamentals™ 18-3-6 with UMAXX®
- Super K™ 12-2-12 with UMAXX®
- Eco N+® with UMAXX® 24-0-0
- NutriPack™ 30-0-0
- Amino Calcium® 6-0-0
- Amino Foliar® 8-4-6
- Eco PowerMix® 3-30-3
- TranSorb™ K 0-0-25
- Eco K+® 1-0-23
- Eco Calex® 1-0-0
- Eco Mag®
- Eco MicroMix® 5-0-0 with Micronutrients
- Phoenix®

pestpack®

EPA registered pesticides for use in the turf, landscape, nursery and greenhouse markets. 13

- Despot™ Snail & Slug Bait
- SP 3WAY™ Broadleaf Herbicide

soilpack®

Amendment products that help to improve soil biological, physical and chemical properties 14

- BioPhase™ SBE
- BioPhase™ 2-0-3 WC
- RhizoMate® HLC
- TruGyp®
- TruLime™

SP EcoGreen® brand of products include naturally occurring renewable source ingredients that may enhance biological activity in the soil and promote green color in plants. 15

- SP EcoGreen® 5-3-2
- SP EcoGreen® 7-2-1 with Soil Surfactant
- SP EcoGreen® 12-4-6 with Micronutrients
- SP EcoGreen® 4-4-4

solupack®

Water-soluble plant nutrient formulations that provide an array of nutrient application options for turf and ornamental applications 16

- SP All Purpose® with UMAXX® 20-20-20
- SP Bentgrass Formula® with UMAXX® 28-8-18
- SP Rapid Green® 20-0-20
- Bermudagrass Special® 20-5-30
- SP 20-5-20 with UMAXX®
- Potassium Special® 10-20-30
- SP Root Enhancer® 12-31-14
- Summer Aid® with UMAXX® 25-0-25
- Super Cal Formula® 15-0-15
- Rapture® 4-0-4 with Micronutrients
- Iron Chelate (20% chelated Fe)
- Manganese Chelate (20% chelated Mn)

techpack®

Utility adjuvants designed to help the performance of your sprayer or address water conditions. 19

- S.W.A.T.™ (Soil & Water Acid Treatment)
- NutraWash®
- Terminator®
- Pigment Eraser™
- D-BOP™
- SP Foam Marker®

spraypack®

Spray adjuvant products to enhance the performance of pesticide, growth regulator, and fertilizer products mixed into your spray tank and applied to your turf and ornamentals 20

- Spray-007™
- Spray-Rite®
- Spray-Wet®
- Spray-Put®
- Spray-Mix®
- Spray-Fast®
- Spray-Slick®
- Right On® (Blue)
- Right On® (Green)
- Tracer® HD Blue
- Tracer® Green

waterpack®

Products that enhance the performance or appearance of water in your ponds and other water features 22

- Tahoe Blue®
- Tahoe Blue® WSP
- Sable™ Black
- Sable™ Black WSP
- Aquasphere® Pro

colorpack®

Products that promote color by supplying nutrients that stimulate the plant to produce deep rich green color in the foliage.

Six Iron®

Designed to drive plant tissue color by providing a readily available form of nitrogen and ferrous iron (Fe++). Special consideration was made in product formulation in order to maintain product stability on the shelf and compatibility in the spray tank. Once applied to plants, the color response occurs rapidly providing a deep green color in plant tissue along with a relatively high degree of safety when applied at the recommended application rate. Always use caution when applying product around sidewalks and driveways as the iron in Six Iron® will stain concrete.

GUARANTEED ANALYSIS:

Total Nitrogen (N)..... 12.00%
12.00% Urea Nitrogen
Sulfur (S)..... 3.50%
3.50% Combined Sulfur
Iron (Fe)..... 6.00%
6.00% Water Soluble Iron

Derived From: Urea and ferrous sulfate.

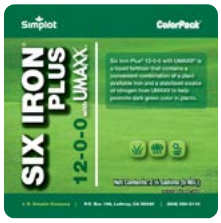
Recommended use rates

Apply 3-10 fl. oz. / 1,000 ft^2 (0.03-0.1 lbs. N / 0.015-0.03 lbs. Fe) on greens and tees or 6-12 fl. oz. / 1,000 ft^2 (0.06-0.12 lbs. N / 0.018-0.036 lbs. Fe) on fairways and other turf in 3-5 applications per growing season.
1 fluid ounce of Six Iron® 12-0-0 = 0.01 lbs. N, 0.005 lbs. Fe,0.003 lbs. S.
Weight per gallon ..... 11.2 lbs. / gal @ 68°F

Available in 2.5, 30, and 250 gallon containers

Six Iron® Plus with UMAXX®

Same effective formula as Six Iron® but with UMAXX® added to maximize nitrogen availability to the plant. A portion of the iron is citric acid chelated.



GUARANTEED ANALYSIS:

Total Nitrogen (N)..... 12.00%
12.00% Urea Nitrogen*
Sulfur (S)..... 3.50%
3.5% Combined Sulfur
Iron (Fe)..... 6.00%
1.2% Chelated Iron
4.8% Water Soluble Iron

Derived From: Urea, ferrous sulfate, and ferrous citrate.
*6.00% urea nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Recommended use rates

Apply 3-10 fl. oz. / 1,000 ft^2 (0.03-0.1 lbs. N / 0.015-0.03 lbs. Fe) on greens and tees or 6-12 fl. oz. / 1,000 ft^2 (0.06-0.12 lbs. N / 0.018-0.036 lbs. Fe) on fairways and other turf in 3-5 applications per growing season.
1 fluid ounce of Six Iron® Plus UMAXX® 12-0-0 = 0.01 lbs. N, 0.003 lbs. S, 0.005 lbs. Fe.

Weight per gallon ..... 11.2 lbs./gallon@68°F

Available in 2.5, 30, and 250 gallon containers

Six Iron® Plus with 3% Mn

This version of Six Iron® provides the added boost of a chelated Manganese source.

GUARANTEED ANALYSIS:

Total Nitrogen (N)..... 12.00%
12.00% Urea Nitrogen
Sulfur (S)..... 4.00%
4.00% Combined Sulfur
Iron (Fe)..... 6.00%
4.50% Chelated Iron
1.50% Water Soluble Iron
Manganese (Mn)..... 3.00%
2.25% Chelated Manganese
0.75% Water Soluble Manganese

Derived From: Urea, ferrous citrate, manganese citrate, ferrous sulfate, and manganese sulfate.

Recommended use rates

Apply 3-10 fl. oz. / 1,000 ft^2 (0.03-0.1 lbs. N / 0.015-0.03 lbs. Fe) on greens and tees or 6-12 fl. oz. / 1,000 ft^2 (0.06-0.12 lbs. N / 0.018-0.036 lbs. Fe) on fairways and other turf in 3-5 applications per growing season.
1 fluid ounce of Six Iron® Plus 3% Mn = 0.011 lbs. N, 0.0035 lbs. S, 0.0053 lbs. Fe, 0.0026 lbs. Mn
Weight per gallon ..... 11.3 lbs. / gal@68°F

Available in 2.5, 30, and 250 gallon containers

Extreme Green® 20

Extreme Green® products are sourced from a very pure and soluble source of ferrous sulfate. This soluble form of iron is the plant available ferrous iron (Fe++) which drives a dark green color when applied to plants. Great effort goes into handling and packaging this unique extremely soluble iron material while is it still fresh from the source. The extreme solubility of the product makes going into solution quick and easy.

Always use caution when applying product around sidewalks and driveways as the iron in Extreme Green® will stain concrete.

GUARANTEED ANALYSIS:

Sulfur (S)..... 12.0%
Iron (Fe)..... 20.0%

Derived from: Ferrous sulfate heptahydrate.

Recommended use rates

Apply Extreme Green® 20 at a rate of 0.125 - 0.5 lbs. (2-8 ounces-dry weight) per 1,000 ft^2 (5.5 - 22 lbs. / Acre).
Apply every 2 - 8 weeks based on desired color response.

Available in 50 lb. bags

Extreme Green® 16

Extreme Green® 16 is the same soluble, plant available Ferrous Iron (Fe++) with the addition of a soluble source of Manganese (Mn). The 4:1 ratio of Iron:Manganese is a desirable ratio to help drive a dark green color in plants.

GUARANTEED ANALYSIS:

Sulfur (S)..... 12.0%
12.0% Combined sulfur
Iron (Fe)..... 16.0%
16.0% Water soluble iron
Manganese (Mn)..... 4.0%
4.0% Water soluble manganese

Derived from: Ferrous sulfate heptahydrate and manganese sulfate.

Recommended use rates

Apply Extreme Green 16 at a rate of 0.125 - 0.5 lbs. (2-8 ounces-dry weight) per 1,000 ft^2 (5.5 - 22 lbs. / Acre).
Apply every 2 - 8 weeks based on desired color response.
Always use caution when applying product around sidewalks and driveways as the iron in Extreme Green® will stain concrete.

Available in 50 lb. bags

Products that add color to plants using pigment-based colorants.

Ambient® Plus Turf Enhancer

Ambient® Plus is a dark green pigment concentrate designed to enhance turf color. Ambient® Plus can be tank-mixed with any spray application, including fertilizers, plant growth regulators, wetting agents, fungicides, insecticides, and selective herbicides. Ambient® Plus can be utilized on greens, tees, and fairways. Ambient® Plus performs especially well on semidormant turf.

- Enhances turf quality and color
- Masks discoloration caused by phytotoxicity
- Creates uniform color among different cultivars/phenotypes
- Improves turf appearance during transition from overseeding
- Enhances turf color during semi-dormancy or after winter-kill
- Effective as Spray Pattern Indicator
- Can also help to mask issues dealing with poor nutrient availability

Recommended use rates

For greens, tees, fairways, athletic fields, sod farms, etc. - Apply at rate of 16 ounces per acre (0.37 ounces/1,000 ft²) in at least 50 gallons of water.
Use **CAUTION** as Ambient® Plus will stain metal and concrete surfaces.

Available in 1 gallon containers

Lumen® Shadow

Lumen® Shadow is a premium, long-lasting colorant concentrate designed to provide a rich dark green color to turfgrass.

Recommended use rates

General Turf Color Enhancement:
Apply at the rate of 3-5 gallons per acre (9-15 ounces / 1,000 ft2) in at least 45 gallons of water. Higher rates (up to 5 gallons per acre) may be necessary depending on the condition of the turf (nutrient deficient turf, diseased turf, etc.).

Dormant Turf (non-overseeded Bermudagrass):
Best results are achieved when an initial application of 5 gallons per acre (15 ounces/1,000 ft²) are applied to turf just prior to onset of complete dormancy. Follow-up applications at 2-3 gallons per acre applied every 3-6 weeks or as required based on traffic, rainfall, and/or desired color.

Available in 2.5 and 30 gallon containers

Lumen® Lux

Lumen® Lux contains a green colorant that provides an even deep color when applied to turf. Lumen® Lux can improve the visual appearance of turf and provides a lasting green color.

Recommended use rates

General Turf Color Enhancement:
Apply at the rate of 3-5 gallons per acre (9-15 ounces / 1,000 ft²) in at least 45 gallons of water. Higher rates (up to 5 gallons per acre) may be necessary depending on the condition of the turf (nutrient deficient turf, diseased turf, etc.)

Dormant Turf (non-overseeded Bermudagrass):
Best results are achieved when an initial application of 5 gallons per acre (15 ounces/1,000 ft²) are applied to turf just prior to onset of complete dormancy. Follow-up applications at 2-3 gallons per acre applied every 3-6 weeks or as required based on traffic, rainfall, and/or desired color.

Lumen® Lux is available in 2.5 and 30 gallon containers

GreenTee®

GreenTee® is a green concentrate pigment/paint for coloring turf where discoloration has occurred. Works well on dormant turf or in situations where turf has lost color due to such issues as damage caused by disease, insects, traffic, or environmental stress. GreenTee® is not a dye, therefore it will not wash off. GreenTee® can be applied to all types of grass including cool and warm season grasses.

Recommended use rates

Summer Applications (Discoloration):
Considering the variation in the grass, add 4-10 fl. oz./ gallon of water. Spray the solution at a rate of 2.5 gallons/1,000 ft². If mixing with fungicide, refer to fungicide label for manufacturer's recommendations.

Winter Applications (Dormant):
Add 10-18 fl. oz. of GreenTee® per gallon of water. Spray the solution at a rate of 3 gallons/1,000 ft².

Divot Mix Colorant:
Mix 1 pint of GreenTee® to 1 pint water for every 100 pounds (45 kg) of sand.
Use **CAUTION** as GreenTee® will stain metal and concrete surfaces.

Available in 1 qt, 1, 2.5, 30, and 275 gallon containers

SP Darken®

SP Darken® is a specially formulated black paint concentrate for treating turf. SP Darken® is not a dye, therefore it will not wash off. SP Darken® can be applied to all types of grass.

- Will Not Wash Off
- Safe to Use
- Intended to Use for Solar Absorption to Raise Soil Temperature
- Highly Concentrated Formula

Recommended use rates

Summer Applications (Discoloration):
Considering the variation in the grass, add 4-10 fl. oz. / gallon of water. Spray the solution at a rate of 2.5 gallons/ 1,000 ft². If mixing with fungicide, refer to fungicide's label for manufacturer's recommendations.

Winter Applications (Dormant):
Add 10-18 fl. oz. of SP Darken® per gallon of water. Spray the solution at a rate of 3 gallons/ 1,000 ft². Note: SP Darken® can be mixed with GreenTee® or SP Green® to create a dormant turf spray that can provide a dark green color during periods of turf dormancy.
Use **CAUTION** as SP Darken® will stain metal and concrete surfaces.

Available in 2.5 and 30 gallon containers

SP Marking Paints

High-performance aerosol marking paints that spray very crisp sharp lines. Nonclogging, fast drying from low VOC aerosol cans that empty completely. More durable than any marking paint on the market. SP Markings Paints have the lowest VOCs and the highest percent solids than any paint in its category but will not harm, kill, or brown any type of grass. Safe to use on all surfaces.

Available in the following colors:
White, Athletic White, Red, Yellow, Orange, Purple, Black, Blue, Fluorescent Orange, Fluorescent Pink, Fluorescent Green *(Athletic White comes with a striping spray tip all others have a marking [cylindrical] tip).* Can be applied with a marking gun or marking wand.

Available in 18 oz. by weight (20 oz. by volume) aerosol cans

Extreme Green® 4.1L

A superior quality ferrous sulfate heptahydrate liquid. Extreme Green® 4.1L is a liquid iron and manganese nutrient that is used to help promote dark green color in turf and foliage of plants.

GUARANTEED ANALYSIS

Sulfur (S) 3.5%
3.5% Combined Sulfur
Iron (Fe) 4.0%
4.0% Water Soluble Iron
Manganese (Mn) 1.0%
1.0% Water Soluble Manganese
Derived from: Iron (II) sulfate heptahydrate and manganese sulfate

Recommended use rates

Turf: Apply every 2 – 8 weeks based on desired color response. 3 – 5 applications per growing season usually produce the best results.

Landscape & Ornamental: Apply as a foliar, drench or during transplant based on label rates and dilutions.

Available in 2.5, 30, and 250 gallon containers

Extreme Green® 6L

A superior quality ferrous sulfate heptahydrate liquid. Extreme Green® 6L is a liquid iron fertilizer that is used to help promote dark green color in turf and foliage of plants.

GUARANTEED ANALYSIS

Sulfur (S) 3.5%
3.5% Combined Sulfur
Iron (Fe) 6.0%
6.0% Water Soluble Iron
Derived from: Iron (II) sulfate heptahydrate

Recommended use rates

Turf: Apply every 2 – 8 weeks based on desired color response. 3 – 5 applications per growing season usually produce the best results.

Landscape & Ornamental: Apply as a foliar, drench or during transplant based on label rates and dilutions.

Available in 2.5, 30, and 250 gallon containers

surfpack®

Recognized as some of the top-selling brands in the turf and horticulture industry, our soil surfactants are top performers season after season.

Brilliance®

Brilliance® is a safe and effective blend of soil surfactants designed for use on fine turfgrass. Once in the root zone, Brilliance® alleviates soil water repellency, the cause of localized dry spot. Brilliance® enhances the infiltration and overall movement of water in the root zone to provide enhanced turf performance. Apply Brilliance® early in the season prior to the onset of stress.

Active ingredient: 99% Alkoxylated Polyols

Suggested use rates:

Apply 4-6 fl. oz. / 1,000 ft² every 14-28 days.

Brilliance® can also be used as a long-term surfactant at 16 oz. / 1,000 ft² applied 8 oz. 10-14 days apart lasting 60 up to 90 days depending on the conditions.

Available in 2.5, 30, and 260 gallon containers

Forté™

A truly unique chemistry that takes the job of lowering interfacial surface tensions between water and soil to a whole new level. The chemistry is so effective that it performs at a much lower application rate than competitive products. The ability of Forté™ to promote infiltration and penetration of water into and through the soil is dramatic. It also enhances the performance of other soil moisture holding surfactants at roughly half their recommended use rates as demonstrated in University field trials. Forté™ is the surfactant's surfactant.

Active Ingredient: 35% Ethylhexyl esterified butane dioic surfactant

Suggested use rates:

Apply Forté™ at 0.37 fl. oz. / 1,000 ft² (16 fl. oz. / Acre) every 14-28 days depending on soil and environmental conditions.

Available in ½ and 2.5 gallon containers

Rely® III

Rely® III is a soil surfactant formulated to establish consistent water flow into and throughout the root zone. When used as directed, Rely® III can be applied at anytime of the year to avoid the detrimental impact of water repellency stress and localized dry spots on turf and to increase the vigorous appearance of turfgrass. For best performance it is recommended to apply Rely® III before the onset of severe drought stress and localized dry spot conditions. The blend of surfactants in Rely® III was designed to hold more moisture during heightened levels of drought stress.

Suggested use rates:

Apply Rely® III at 4-6 fluid ounces / 1,000 ft²

Active ingredient: 99% Propoxylated Polyethylene Glycols

Available in 2.5, 30, and 260 gallon containers

ReWet®

ReWet® is a soil surfactant treatment chemistry formulated to easily and effectively relieve existing water related problems such as localized dry spots or wet spots. ReWet® is easy to use and will not harm turf when used in accordance with product directions. When used as directed, ReWet® can be applied at any time of the year when water repellency and/or localized dry spots impact the vigorous appearance of turfgrass.

ACTIVE INGREDIENT: 40% Polyoxyalkylene glycol

Suggested use rates:

Treatment Program: Apply 5-8 oz per 1,000 ft² in 1 gal. of water weekly until turf conditions improve; then begin monthly treatment, or apply as needed at the above rates. Irrigate sufficiently to remove from leaf surfaces.

Following Topdress Applications: Apply 5-8 oz. per 1,000 ft² in 1 gal. of water. Reapply at above rates on a weekly basis as needed. Irrigate sufficiently after each application to remove ReWet® from leaf surfaces.

Sodding: Apply 5-8 oz. per 1,000 ft² in 1 gal. of water. Apply at above rates to newly laid sod. Irrigate well to distribute ReWet® throughout the rootzone, and to remove ReWet® from leaf surfaces.

Available in 2.5, 30, and 260 gallon containers

CounterAct® Retain

CounterAct® Retain combines multiple advanced polymers to achieve moisture infiltration with elevated moisture holding capacity to help increase volumetric moisture content in turfgrass soils. CounterAct® Retain was developed to address both the symptoms and direct causes of soil water repellency.

ACTIVE INGREDIENT: 100% Polyoxyalkylene polymers

Suggested use rates: Apply CounterAct® Retain at 6-9 fluid ounces / 1,000 ft² on turf areas every 14-28 days. Best results are achieved when applications begin prior to the onset of drought stress and localized dry conditions.

Available in 2.5, 30, and 260 gallon containers

CounterAct® Firm

CounterAct® Firm is a blend of advance polymers that provides the most active surfactant technology and greatest turf safety. CounterAct® Firm was developed to address both the symptoms and direct causes of soil water repellency. The unique combination of surfactants in CounterAct® Firm addresses the issue of hydrophobicity while maintaining a firm surface.

- Increases water infiltration and hydraulic conductivity
- Promotes firm, fast putting surfaces
- Deep, uniform soil moisture distribution

ACTIVE INGREDIENT: 100% Polyoxyalkylene polymers

Suggested use rates:

Apply CounterAct® Firm at 6 fluid ounces / 1,000 ft² on turf areas every 14-28 days. Best results are achieved when applications begin prior to the onset of drought stress and localized dry conditions.

Available in 2.5, 30, and 260 gallon containers

Syringe® Ultra

Syringe® Ultra is a unique chemistry designed to enhance infiltration of water into turfgrass soils. Utilizing the similar type of chemistry as the Forté, the ability of Syringe® to accelerate infiltration of irrigation or rain into the soil is dramatically increased. Ideal for use during heavy rain periods to help move excess moisture through the soil profile. Syringe® Ultra can be injected into the irrigation system or with a boom sprayer.

Suggested use rates:

Injection Application: Apply 0.5 - 1 quart per acre through the irrigation system injection system monthly. Can also be injected at a 3-5 ppm rate whenever irrigation injection system detects flow.

Ground Spray Equipment: Apply 16 - 32 ounces per acre in 90 gallons of water (0.37-.75 ounces/1,000 ft² in 2 gallons of water). Apply monthly.

Available in 2.5, 55, and 260 gallon containers

Compel®

Compel® Surfactant Syringing Pellet is designed to assist in better water infiltration into soils when applied through a hose end applicator.

GUARANTEED ANALYSIS

CONTAINS NON-PLANT FOOD INGREDIENTS:

ACTIVE INGREDIENTS:

55% Alkyl Ethoxylates

45% Polyoxyalkylenes

Directions For Use: Insert one Compel® pellet, with or without container, into the applicator jar and apply to 6,000 ft^2 during hand watering and/or syringing. Follow up with Compel® pellets as needed.

Available in a carton containing 16 pallets

Compel® Plus

Compel® Plus is a syringe pellet for application on water repellent soils with added Kelp seaweed extract for management of heat stress on fine turf. Surfactant and Kelp Formulation

GUARANTEED ANALYSIS

CONTAINS NON-PLANT FOOD INGREDIENTS:

ACTIVE INGREDIENTS:

55% Alkyl Ethoxylates

44% Polyoxyalkylenes

1% Kelp / Kelp extract (microbe food)

Directions for Use: Insert one Compel® Plus pellet, with or without container, into the applicator jar and apply to 12,000 ft^2 during hand watering and/or syringing once every month. Follow up throughout the month with Compel® Plus pellets as needed for localized dry spot and general garden and turf watering.

Available in a carton containing 16 pallets

Granular Surfactants

Granular soil surfactants formulated to establish water flow into and throughout the root zone. The surfactant is impregnated onto a greens grade sized porous ceramic clay granule.

Brilliance® Granular

ACTIVE INGREDIENTS

20.0% Blend of Propoxylated Polyethylene Glycol

80.0% Inert (Porous Ceramic Clay Granules)

Brilliance® Granular soil surfactant enhances the infiltration and overall movement of water in the root zone to provide enhanced turf performance.

ReWet® Granular

ACTIVE INGREDIENTS

15.8% Polyalkylene Glycol

84.2% Inert (Porous Ceramic Clay Granules)

ReWet® Granular contains a soil surfactant treatment chemistry formulated to easily and effectively relieve existing water related problems such as localized dry spots or wet spots. ReWet® Granular can be applied at any time of the year when water repellency and/or localized dry spots impact the vigorous appearance of turfgrass.

Available in 50 lb. bags

SurfPack® Soil Surfactants are developed to provide improvement in soil moisture management. Our surfactants are formulated with the highest quality surfactant polymers, which have been demonstrated in university trials to perform during challenging soil moisture management conditions. There are a variety of soil surfactants in the line to choose from that allow you to select the performance profile needed for your soil and growing conditions.

growthpack®

Products that provide plant nutrition and enhanced growth using non-nutritional growth and development-promoting components.

AzoPro™ Turf

AzoPro™ Turf is comprised of a bacterium that creates a mutually rewarding association with the root surface of plants. The bacterium is Azospirillum brasilense, which is a nitrogen fixing bacteria that also has the ability to stimulate healthy root growth and development. Well equipped to travel, the bacteria searches out and finds the root surface. Once on the root surface, the bacteria colonize the root surface relying on root exudates provided by the turf. In turn the bacteria provide beneficial functions benefitting the host plant such as fixing nitrogen and the production of root growth and development growth regulators. The result is a robust plant with a well-developed root system equipped to hold up to stress. AzoPro™ should be applied in the mid-to-late spring prior to onset of temperature and moisture stress. It can also be applied in a monthly program to ensure the maximum root development throughout the growing season. Ideal for use on new seedlings or areas that are sodded.

GUARANTEED ANALYSIS
CONTAINS NON-PLANT FOOD INGREDIENTS:
SOIL AMENDING INGREDIENT
ACTIVE INGREDIENT:
2.0 × 10^5 cfu per ml Azospirillum brasilense
99.999% Inert Ingredients (Water)
Recommended use rates
8 fl. oz. per 10,000 sq. / ft. (36 oz / Acre) Spray uniformly on established turf or newly planted seeds.
Available in 1 gallon containers

BioKelp® 0-0-1

BioKelp® 0-0-1 contains a concentrated extract harvested from North Atlantic kelp.

GUARANTEED ANALYSIS
Soluble Potash (K2O) 1.0%
Derived From: Kelp extract (Ascophyllum nodosum)
ALSO CONTAINS NON-PLANT FOOD INGREDIENTS
Soil amending ingredients
Active ingredients
36% Kelp extract (microbe food)
64% Total other inert ingredients (water)
DIRECTIONS FOR USE
Shake container before use!
BioKelp® 0-0-1 can be applied throughout the growing season to cool and warm season grasses, trees, and ornamentals. This product is intended to supplement a regular fertilization program. BioKelp® 0-0-1 will not, by itself, provide all the nutrients normally required by plants.
Available in 2.5, 30, and 250 gallon containers

BioKelp® Humic 0-4-6

BioKelp® Humic 0-4-6 provides a combination of North Atlantic Kelp (Ascophyllum nodosum) extracts and an activated humic acid source. The combination provides plants the benefits of both humic acid and seaweed for overcoming stresses such as heat, drought, and traffic.

GUARANTEED ANALYSIS
Available Phosphate (P_2O_5) 4.0%
Soluble Potash (K_2O) 6.0%
Derived From: Phosphoric acid, potassium hydroxide and Ascophyllum nodosum.
ALSO CONTAINS NON-PLANT FOOD INGREDIENTS:
4% Humic Acid from sub-butiminous coal
96% Inert Ingredients (water)
Recommended use rates
BioKelp® Humic 0-4-6 can be applied throughout the growing season to cool, transitional and warm season grasses, trees, and ornamentals. This product is intended to supplement a regular fertilization program.
GREENS / TEES / FAIRWAYS: Apply 6 fl. oz./1,000 ft2 to greens and tees each month throughout the growing season (4-6 applications / year). Apply 4-6 fl. oz./1,000 ft² monthly to fairways. Make the first application of BioKelp® Humic 0-4-6 during the initial stages of growth. Frequent light applications are more effective than infrequent heavy applications.
TREES / SHRUBS: Mix 64 fl. oz. of BioKelp® Humic 0-4-6 in 100 gallons of water and apply 5 gallons of mix per inch of trunk diameter at breast height. Tank mix should be injected in a circular grid pattern starting 1 ft from trunk and continuing 2 ft past the drip line.
ORNAMENTALS: Mix 3 fl. oz. of BioKelp® Humic 0-4-6 in 4 gallons of water and spray to runoff. 1 oz. of BioKelp® Humic 0-4-6 = 0.0021 lbs. P_2O_5 and 0.0014 lbs. K_2O.
Weight per gallon ..... 9.6 lbs./gal @ 68°F
Available in 2.5, 30, and 275 gallon containers

DuraPhite® 12 (Contains Phosphite)

DuraPhite® 12 is a phosphite product with the added benefit of manganese. Manganese is a commonly deficient or unavailable essential micronutrient in many soils especially those with a high pH (over 7). DuraPhite® 12 does contain potassium but at a lower amount that is balanced out with the manganese. Together the potassium and manganese can help plants achieve a healthy condition more capable of overcoming disease pressure in stressful growing environments.

0-0-12
GUARANTEED ANALYSIS
Soluble Potash (K_2O) 12.0%
Manganese (Mn) 2.0%
Derived From: Potassium phosphite and manganese phosphite.
0-27-12 (California label)
GUARANTEED ANALYSIS
Total Phosphoric Acid* (P205) 27.0%
Soluble Potash (K2O) 12.0%
Manganese (Mn) 2.0%
Derived From: Potassium phosphite and manganese phosphite.
*Phosphorus acid products are for use as a supplemental fertilizer treatment.
*Upon foliar application, the phosphite ions are taken up directly by the plant foliage and may undergo a degree of conversion to phosphate ions, or will be used directly by plants, as phosphite ions.
*As a soil application to annual crops, a lesser response from the initial crop, with a corresponding superior response from succeeding crops, may be observed. In addition, placement close to seeds or root zones may be injurious to crops. The effect may be aggravated by a soil pH below 6.5.
Recommended use rates
TURF: Foliar Application: General turfgrass areas: Apply DuraPhite® 12 at a rate of 3-5 fl. oz. per 1,000 ft² in a minimum of 1 to 2 gallons of water. Repeat application every 14 days or as needed. For best results do not irrigate or mow until area sprayed has completely dried.
Golf course greens and tees: Apply DuraPhite® 12 at the rate of 3-5 fl. oz. per 1,000 ft² in a minimum of 2 gallons of water. Repeat application every 14 days or as needed. For best results do not irrigate or mow until area sprayed has completely dried.
Soil Application: DuraPhite® 12 can be applied to soil through various types of irrigation systems. The application rate is 2 to 3 quarts per acre (5-6 liters/hectare). If possible, inject during the last half of the irrigation cycle. Repeat application every 14 days or as needed.
1 fluid ounce of DuraPhite® 12 = 0.011 lbs. K_2O, and 0.0018 lbs. Mn
Weight per gallon ..... 11.3 lbs. / gallon@68°F
Available in 2.5, 30, and 250 gallon containers

Grid Iron® Plus 7-0-1

Grid Iron® Plus 7-0-1 is a convenient liquid fertilizer with Kelp seaweed extracts for use on turf and ornamental plants. Contains chelated iron and manganese to help enhance rich green foliage color.

GUARANTEED ANALYSIS

Total Nitrogen (N) 7.0%
2.1% Nitrate Nitrogen
4.9% Urea Nitrogen
Soluble Potash (K_2O) 1.0%
Sulfur (S) 3.0%
Boron (B) 0.02%
Iron (Fe) 6.0%
5.0% Chelated Iron
Manganese (Mn) 0.5%
0.5% Chelated Manganese
Zinc (Zn) 0.5%
0.5% Chelated Zinc

Derived From: Ascophyllum nodosum Magnesium sulfate, magnesium nitrate, zinc nitrate, urea, potassium hydroxide, iron EDTA, iron citrate, zinc EDTA, zinc citrate, manganese EDTA, manganese citrate, boron EDTA, boron citrate, sea plant extracts.

ALSO CONTAINS NON-PLANT FOOD INGREDIENT:

1% Seaweed Extract (Ascophyllum nodosum)

Recommended use rates

Grid Iron® Plus 7-0-1 can be applied throughout the growing season to cool transitional and warm season grasses, trees, shrubs and ornamental plants.

GREENS/TEES/FAIRWAYS: Apply 1-2 fl. oz./1,000 ft^2 every 2-3 weeks or as needed. Dilute with a minimum of 1 gallon of water per ounce. More frequent applications may be necessary during periods of rapid growth. For best results, apply before 10:00 A.M. or after 4:00 P.M. The use of a nonionic wetting agent is recommended for uniform coverage.

TREES/SHRUBS: Mix 64 fl. oz. of Grid Iron® Plus 7-0-1 in 100 gallons of water and apply 5 gallons of mix per inch of trunk diameter at breast height. Tank mix should be injected in a circular grid pattern starting 1 ft from trunk and continuing 2 ft past the drip line.

ORNAMENTALS: Mix 3 fl. oz of Grid Iron® Plus 7-0-1 in 4 gallons of water and spray to runoff. 1 fluid ounce of Grid Iron® Plus 7-0-1 = 0.05 lbs. N, 0.007 lbs. K_2O, 0.03 lbs. Fe, 0.01 Mg, 0.02 lbs. S., 0.003 lbs. Mn, 0.003 lbs. Zn.

Weight per gallon ..... 11.0 lbs. /gal @ 68°F

Available in 2.5, 30, and 250 gallon containers

MoCa™ 5-0-5

MoCa™ 5-0-5 is intended for foliar application on turf, ornamental, and horticultural crops. The nutrient composition is designed to promote robust growth and development of plant root and shoot systems.

GUARANTEED ANALYSIS

Total Nitrogen (N) 5.0%
1.0% Nitrate Nitrogen
4.0% Urea Nitrogen
Available Potash (K_2O) 5.0%
Calcium (Ca) 1.0%
Copper (Cu) 0.05%
Iron (Fe) 0.1%
Manganese (Mn) 0.05%
0.05% Water Soluble Manganese
Molybdenum (Mo) 0.0005%
Zinc (Zn) 0.05%

Derived From: Urea, potassium acetate, calcium nitrate, manganese nitrate, copper nitrate, zinc nitrate, and sodium molybdate.

Recommended use rates

Commercial Turf (such as athletic fields, greens, tees, and fairways): Apply only to actively growing turf. Use 3-6 fl. oz. per 1,000 sq. ft. in sufficient water for thorough coverage (typically 2.5 gallons). Initiate spraying prior to seasonal stress cycles. Apply at least twice monthly and allow at least 6 hours before/after irrigation event for maximum benefits.

Ornamental and Horticultural (such as flowering ornamentals, landscaping, evergreens, shrubs, trees, and palms): Mix 1-2 gallons in 100 gallons of water (or 8 fl. oz. per 2 gallons water) and spray foliage to drip. For best results, apply on a regular schedule every other week. Do not pour on roots.

Volumetric Conversion Information:

1 oz. of MoCa™ 5-0-5 = 0.0038 lbs. N, 0.0038 lbs. K_2O, 0.00076 lbs. Ca, 0.000038 lbs. Cu, 0.000076 lbs. Fe, 0.000038 lbs. Mn, 0.00000038 lbs. Mo, 0.000038 lbs. Zn.

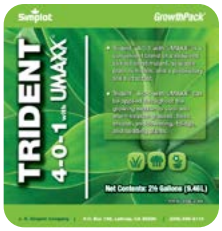
Weight per gallon ..... 9.7 lbs. / gallon@68°F (1.16 Kg/L)

Available in 2.5 gallon containers

Trident™ 4-0-1 with UMAXX®

Trident™ 4-0-1 with UMAXX® is a convenient blend of a seaweed extract biostimulant, plant available nutrients, and a proprietary soil surfactant. A great addition to any foliar nutrition program for periods of the growing season dealing with high temperatures and drought conditions.

GUARANTEED ANALYSIS



Total Nitrogen (N) 4.00%
1.1% Nitrate Nitrogen
2.9% Urea Nitrogen*
Soluble Potash (K_2O) 1.00%
Magnesium (Mg) 0.90%
0.90% Water Soluble Magnesium
Iron (Fe) 2.00%
2.00% Chelated Iron
Manganese (Mn) 0.25%
0.25% Chelated Manganese
Zinc (Zn) 0.20%
0.20% Chelated Zinc

Derived From: Urea, iron EDTA, magnesium sulfate, magnesium nitrate, potassium hydroxide, manganese EDTA, zinc EDTA and seaweed extracts (Ecklonia maxima).

ALSO CONTAINS NON-PLANT FOOD INGREDIENT:

1.5% Nonionic Soil Surfactant.

*1.45% urea nitrogen stabilized with dicyandiamide and N-(nbutyl) thiophosphoric triamide.

Recommended use rates

Greens/Tees/Fairways: Apply 6 fl. oz/1,000 ft^2 every two weeks in enough water to ensure adequate coverage.

Trees/Shrubs: Mix 1 gallon of Trident™ 4-0-1 with UMAXX® in 100 gallons of water and apply 5 gallons of mix per inch to trunk diameter at chest height. Tank mix should be injected in a circular grid pattern starting 1 ft. from trunk and continuing 2 ft. (600 mm) past the drip line.

Flowering/Foliage/Bedding Plants: Mix a 2% solution of Trident™ 4-0-1 with UMAXX® and water. Spray to runoff.

1 fluid ounce of Trident™ 4-0-1 with UMAXX® = 0.0032 lbs. N, 0.0008 lbs. K_2O, 0.0007 lbs. Mg, 0.0016 lbs. Fe, 0.0002 lbs. Mn, 0.0016 lbs. Zn.

Weight per Gallon ..... 10.4 lbs./Gal @68°F

Available in 2.5, 30, and 250 gallon containers

VerdiMate®

VerdiMate® is a very pure fulvic/humic acid liquid ideal for adding to spray mixes. Fulvic acid has been demonstrated to provide uptake assistance through leaf tissue of many nutrients and facilitates transport throughout certain portions of the plant.

GUARANTEED ANALYSIS

CONTAINS NON-PLANT FOOD INGREDIENTS
Soil Amending Ingredients:
Humic Acid (Sub-bituminous coal) 2%
Inert Ingredients: (Water) 98%

Recommended use rates

Proper timing, rate, and placement of VerdiMate® is important for desired results and highly dependent on stage of crop growth, soil fertility levels, and environmental conditions.

Available in 2.5, 30, and 250 gallon containers

ZeitGeist™

A water-suspendable dry powder containing a proprietary combination of IBA, mycorrhizae and beneficial microbes to promote root growth and development in most species of trees and shrubs.

APPLICATION INSTRUCTIONS

Transplants + Installations: Add 2 lbs of ZeitGeist™ per 100 gallons (4 tsp by volume per 1 gallon) of water. Apply the solution as a drench to the root ball at the time of planting prior to backfilling. Use 1 gallon of solution per each gallon of container or root ball size.

Maintenance: The arborist should choose the appropriate total volume (gallons) to be applied based upon their practices, injection equipment being used and DBH (diameter at breast height) of the tree. Add 1 tbsp ZeitGeist™ per 1" of DBH to the total liquid volume to be applied. For example, a 10" tree would get 10 tbsp (5 oz by volume) of ZeitGeist™.

Drench Application for Established Tree Maintenance: Add 1 lb ZeitGeist™ per 100 gallons of water and apply 2 gallons of diluted mixture per 1" DBH. Evenly distribute the drench around and within the drip line of the tree. Ensure that the drench is absorbed into the soil and that there is no runoff.

Available in 1 lb. containers

nutripack®

High-performance, liquid specialty fertilizers.

Turf & Ornamentals™ 18-3-6 with UMAXX®

Turf & Ornamentals™ 18-3-6 with UMAXX® is a general purpose, liquid fertilizer that contains UMAXX®, a stabilized form of nitrogen. This product is an excellent choice for a light-frequent feeding program on turf and ornamental plants.

GUARANTEED ANALYSIS

Total Nitrogen (N).....18.0%
18.0% Urea Nitrogen*
Available Phosphate (P_2O_5) 3.0%
Soluble Potash (K_2O) 6.0%
Iron (Fe) 0.1%
0.1% Chelated Iron

Derived From: Urea, potassium thiosulfate, potassium pyrophosphate and iron chelate (EDTA).

*9.0% urea nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Recommended use rates

TURFGRASS:

Turf & Ornamentals™ 18-3-6 with UMAXX® liquid fertilizer can be applied throughout the growing season on warm and cool season grasses. Application can be started in early spring and continued through late fall at rates of 0.10-0.25 lb N per 1,000 ft² (10-25 oz/1,000 ft²) every 4 weeks or as needed. Dilute with water according to desired nitrogen rate per 1,000 ft².

TEES/GREENS:

Apply on tees and greens at desired rate: 0.10-0.25 lb N with a spray unit applying 0.5 to 2 gallons of diluted mix per 1,000 ft². Turf & Ornamentals™ 18-3-6 with UMAXX® is compatible with most turf products. When mixing with other products, check dilution rates. Apply every 10 to 21 days, or apply along with a summer disease program.

TREES/SHRUBS:

For deep root feeding: Mix 1-5 gal of Turf & Ornamentals™18-3-6 with UMAXX® per 100 gal of water. Inject 1-5 gal per inch of trunk diameter at chest height.

Foliar feed: Mix 2-3 quarts of Turf & Ornamentals™ 18-3-6 with UMAXX® per 100 gal of water: spray until foliage is covered.

1 fluid ounce of Turf & Ornamentals™ 18-3-6 with UMAXX® = 0.015 lbs. N, 0.0024 lbs. P_2O_5, 0.005 lbs. K_2O, 0.00008 lbs. Fe

Weight per gallon .....10.37 lbs./gal.@68˚F

Available in 2.5, 30, and 250 gallon containers

Super K™ 12-2-12 with UMAXX®

Super K™ 12-2-12 with UMAXX® a general purpose, liquid fertilizer that provides a 1:1 ratio of nitrogen (N) to potassium (K_2O) to help plants prepare for and withstand the rigors of environmental stress.

GUARANTEED ANALYSIS

Total Nitrogen (N).....12.0%
12.0% Urea Nitrogen*
Available Phosphate (P_2O_5) 2.0%
Soluble Potash (K_2O) 12.0%
Iron (Fe) 0.1%
0.1% Chelated Iron

Derived From: Urea, potassium thiosulfate, potassium pyrophosphate and iron chelate (HEDTA).

*6.0% urea nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Recommended use rates

TURFGRASS: Super K™ 12-2-12 with UMAXX® can be applied throughout the growing season on warm and cool season grasses. Application can be started in early spring and continued through late fall. Apply 0.10-0.25 lb N & K_2O (10-25 oz. product) per 1,000 ft² every 10 days to 4 weeks or as needed. Dilute with water according to desired nitrogen rate per 1,000 ft².

TEES/GREENS: Apply on tees and greens at desired rate: 0.10-0.25 lb N & K_2O (10-25 oz. product) with a spray unit applying no less than 2 gal of diluted mix per 1,000 ft². Super K™ 12-2-12 with UMAXX® is compatible with most technical turf products. When mixing with other products, check dilution rates. Apply every 10 to 21 days, or apply along with a summer disease program.

1 fl. oz. of Super K™ 12-2-12 with UMAXX® = 0.01 lbs. N, 0.0017 P_2O_5, 0.01 lbs. K_2O, 0.00008 lbs. Fe

Weight per gallon .....10.6 lbs./gal (1.29 Kg/L)

Available in 2.5, 30, and 250 gallon containers

Eco N+® with UMAXX® 24-0-0

Eco N+® with UMAXX® 24-0-0 contains a combination of nitrogen fertilizer sources. The nitrogen sources include a readily available combination of urea and UMAXX® urea designed to increase nitrogen efficiency by minimizing nitrogen loss due to volatility. In addition, the remaining half of the nitrogen is in the slow release form of methylene urea.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 24.0%
12.0% Urea Nitrogen*
5.0% Water Insoluble Nitrogen**
7.0% Slowly Available Water Soluble Nitrogen**

Derived From: Urea and methylene ureas.

*6.0% urea nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

**12.0% slow release nitrogen derived from methylene ureas.

Recommended use rates

Use 6-8 fl.oz./1,000 ft² (0.1-0.15 lbs. N) per 1-2 weeks during growing season.

1 fluid ounce of Eco N+® 24-0-0 with UMAXX® = 0.019 lbs. N.

Weight per gallon ..... 10.29 lbs./gal@68°F

Available in 2.5, 30, and 250 gallon containers

NutriPack® 30-0-0

NutriPack® 30-0-0 is a blend of readily available and slow-release nitrogen sources (50% of the nitrogen is from triazone, a slow-release source). This combination of nitrogen sources is designed to provide a quick initial plant response from the readily available nitrogen continued by the slowly available nitrogen source. NutriPack® 30-0-0 is ideal for promoting plant growth and vigor on many turf and ornamental applications.

GUARANTEED ANALYSIS

Total Nitrogen (N).....
30.0%
7.5% Ammoniacal Nitrogen
7.5% Nitrate Nitrogen
15.0% Urea*

Derived From: Ammonium nitrate and urea-triazone.

*15.0% slow release nitrogen derived from urea-triazone.

Recommended use rate

Apply 30-0-0 at the rate of 4 - 42 oz. / 1,000 ft² (0.1-1lb N/1,000 ft²) every 2 to 6 weeks as needed throughout the growing season.

1 fluid oz. of 30-0-0 = 0.024 lbs. N.

Bulk Density .....10.2 lbs/gal@68°F (1.22 Kg/L@20°C)

Available in 2.5, 30, and 250 gallon containers

Amino Calcium™ 6-0-0 10% Ca

Amino Calcium™ 6-0-0 provides the advantage of having an amino acid-based fertilizer with the added benefit of calcium. This combination makes Amino Calcium™ 6-0-0 a superb fertilizer for use in situations where high sodium salts are prevalent in the irrigation water and soil. It is also ideal for use in times of high-temperature stress periods.

GUARANTEED ANALYSIS
Total Nitrogen (N)..... 6.00%
5.70% Nitrate Nitrogen
0.30% Other Water Soluble Nitrogen
Calcium (Ca) 10.00%
Boron (B)..... 0.20%
Derived From: Amino acids, calcium nitrate and boric acid.

Recommended use rates

Amino Calcium™ 6-0-0 can be foliar applied or injected through the irrigation system. When applying to foliage, it is important to uniformly wet the entire leaf surface to maximize foliar uptake potential. This product can be used to help prevent and manage calcium deficiency in plants and to maintain overall plant quality.
Turf: Apply 1-2 oz. per 1,000 ft^2 every 14-21 days, no less than once per month. Apply 3 oz. per 1,000 sq. ft. when needed to correct a known deficiency. Increase dosage of product and irrigation scheduling when dealing with unfavorable conditions.
1 fl. oz. of Amino Calcium™ 6-0-0 = 0.0046 lbs. N, 0.0076 lbs. Ca, 0.000015 lbs. B
Weight per gallon .....11.93 lbs/gallon@68ºF

Available in 2.5, 30, and 250 gallon containers

Amino Foliar™ 8-4-6

Amino Foliar™ 8-4-6 is an amino acid-based, foliar-applied liquid fertilizer. Using amino acids as a nitrogen carrier allows application to plants with minimal concern for phytotoxicity.

GUARANTEED ANALYSIS
Total Nitrogen (N)..... 8.00%
0.5% Ammoniacal Nitrogen
5.7% Urea Nitrogen
0.5% Nitrate Nitrogen
1.3% Other Water Soluble Nitrogen
Available Phosphate (P_2O_5) 4.00%
Soluble Potash (K_2O) 6.00%
Boron (B)..... 0.02%
Molybdenum (Mo) 0.02%
Derived From: Amino acids, ammonium nitrate, urea, dipotassium phosphate, boric acid, and ammonium molybdate.

Recommended use rates

Amino Foliar™ 8-4-6 can be sprayed or applied through fertigation. Apply Amino Foliar™ 8-4-6 anytime throughout the growing season. It is ideal for addressing nutritional needs of plants particularly at times of seed germination, root development, transplanting, and environmental stress periods.
Turf: Apply 3-6 oz. per 1,000 ft^2 every 10-15 days with water to ensure adequate coverage of the leaf and root zones. Water after 3-4 hours. During periods of increased environmental stress, heavy play, when top dressing or overseeding, spray 6 oz. of Amino Foliar™ 8-4-6 per 1,000 ft^2 to tees, greens, and fairways. Let stand for 3-4 hours and then water into the root zone. During periods of prolonged stress, increase the number of applications rather than the dosage amount.
1 fluid oz. of Amino Foliar™ 8-4-6 = 0.0062 lbs. N, 0.0031 lbs. P_2O_5, 0.0046 lbs. K_2O, 0.000015 lbs. B, 0.000015 lbs. Mo.
Weight Per Gallon.....9.84 lbs./gal@68°F

Available in 2.5, 30, and 250 gallon containers

Eco PowerMix® 3-30-3

Eco PowerMix® 3-30-3 is a safe blend of liquid nutrients and an integral part of a complete liquid fertility program. For maximum results, Eco PowerMix® 3-30-3 should be used along with other NutriPack® products. It is recommended that Eco PowerMix® 3-30-3 be applied along with Eco N+® 24-0-0 with UMAXX® to maximize performance. Eco PowerMix® 3-30-3 may be injected in small amounts on a regular basis into irrigation systems (fertigation).

GUARANTEED ANALYSIS
Total Nitrogen (N)..... 3.00%
3% Urea Nitrogen
Available Phosphate (P_2O_5) 30.00%
Soluble Potash (K_2O) 3.00%
Derived From: Orthophosphate, potassium phosphate, and urea.

Recommended use rates

GENERAL USE: Use 2-6 fl. oz./1,000 ft^2 per week during growing seasons.
Greens & Tees: Use 2-6 fl. oz/1,000 ft^2 bi-monthly.
Fairways, Parks, & General Turf: Use 2-6 fl. oz./1,000 ft^2 per month.
Seeding, Potted Plants, Trees, Shrubs, & General Nursery: Use 1-4 pints of Eco PowerMix® 3-30-3 to 100 gallons of water for 4,000 ft^2 of space. Depending on size, use 1-3 gallons of mix per tree or shrub.
1 fluid ounce of Eco PowerMix® 3-30-3 = 0.0026 lbs. N., 0.026 lbs. P_2O_5, 0.0026 lbs. K_2O
Weight per gallon ..... 10.43 lbs./gal @68ºF

Available in 2.5, 30, and 250 gallon containers

TranSorb™ K 0-0-25

Research shows that potassium acetate has the highest rates of potassium absorption through plant leaves. TranSorb™ K 0-0-25 is safe to use and produces great results. TranSorb™ K 0-0-25 is very soluble yet has a very low salt index.

GUARANTEED ANALYSIS
Soluble Potash (K_2O) 25.0%
Derived from: Potassium Acetate

Recommended use rates

Cool Season Turf (Greens &Tees):
Apply 4-6 oz. per 1,000 ft^2 (0.10 - 0.16 lb K_2O per 1,000 ft^2) as necessary. Dilute with 0.5 to 2 gallons of water per 1,000 ft^2 and apply every 7-14 days or as needed.
Warm Season Turf (Greens & Tees):
Apply 4-8 oz. per 1,000 ft^2 (0.10 - 0.20 lb of K_2O per 1,000 ft^2) as necessary. Dilute with a 0.5 to 2 gallons of water per 1,000 ft^2 and apply every 7-14 days or as needed.
Nursery & Ornamentals (Foliar/Drench/Transplant):
Apply 4-6 quarts per 100 gallons.
1 fluid oz. of TranSorb™ K = 0.02 lbs. K_2O
Weight per gallon .....10.86 lbs./gallon@68ºF

Available in 2.5, 30, and 250 gallon containers

Eco K+® 1-0-23

Eco K+® 1-0-23 is a liquid potassium fertilizer. This product allows the management of stress tolerance through preventative or curative Eco K+® application. Eco K+® contains potassium, which is essential for photosynthesis, stomatal opening, carbon dioxide uptake, water conservation, and leaf blade strength. Eco K+® should be mixed with other NutriPack® products to provide nutrition for any high-maintenance fertility program. Eco K+® is chloride free.

GUARANTEED ANALYSIS
Total Nitrogen (N).....1.00%
1.0% Urea Nitrogen
Soluble Potash (K_2O) 23.0%
Sulfur (S) 15.0%
15.0% Combined Sulfur
Derived From: Potassium thiosulfate and urea.

Recommended use rates

Turf: Apply in irrigation water or surface apply and water in.
Use 6-12 .oz./1,000 ft^2 3 to 4 times per month. Use 3-5 gallons of water per 1,000 ft^2 as a carrier. Use best management and practices when applying. Use additional fertilizers as needed based on soil and tissue testing.
1 fluid oz. of Eco K+® 1-0-23 = 0.00085 lbs. N, 0.020 lbs. K_2O, 0.013 lbs. S.
Weight per gallon ..... 11.93 lbs./gal@68ºF

Available in 2.5, 30, and 250 gallon containers

Eco Calex® 1-0-0 8%Ca

Eco Calex® 1-0-0 is an integral part of a complete liquid fertility program. Eco Calex® is a blend of calcium nitrate and calcium acetate. For maximum results, Eco Calex® should be used along with other NutriPack® products. It is recommended that Eco Calex® be mixed with Eco N+® and TranSorb® K for maximum performance.

GUARANTEED ANALYSIS:
Total Nitrogen (N).....1.0%
1.0% Nitrate Nitrogen
Calcium (Ca) 8.0%
Derived From: Calcium nitrate and calcium acetate.

Recommended use rates

Boom Spray Application:
Corrective rate (high sodium conditions): Use 16 fl. oz. / 1,000 ft^2.
Maintenance Rate: Use 6 fl. oz. / 1,000 ft^2 per week until condition improves.
Use best management and practices when applying. Use additional fertilizers as needed based on soil and tissue testing.
1 fluid oz. of Eco Calex® 1-0-0 = 0.0008 lbs. N and 0.006 lbs. Ca
Weight per gallon .....11.28 lbs/gal@68F

Available in 2.5, 30, and 250 gallon containers

Eco Mag® 4% Mg

Eco Mag® is a liquid magnesium source that is 100% water soluble and designed for enhanced foliar absorption. Once in the leaf tissue, Eco Mag® will provide an increase in enzyme and photosynthetic activity. For maximum results, Eco Mag® should be used along with other NutriPack® products. It is recommended that Eco Mag® be mixed with Eco N+® or Eco PowerMix® for maximum performance. Magnesium is an essential component of chlorophyll for activating plant enzyme systems, photosynthesis and the regulation of phosphorus uptake.

GUARANTEED ANALYSIS

Total Magnesium (Mg) 4.00%
4.0% Water Soluble Magnesium
Sulfur (S) 5.00%
5.0% Combined Sulfur
Derived From: Magnesium sulfate and magnesium glucoheptonate.

Recommended use rates

Apply in irrigation water or to the surface with boom sprayer to ensure even coverage. Use 2-4 fl. oz./1,000 ft^2), whenever needed based on soil and tissue testing. Use with 3-5 gallons of water per 1,000 ft^2 of turf area as a carrier.
1 oz. of Eco Mag® = 0.0031 lbs. Mg and 0.004 lbs. S.
Weight per gallon ..... 10.0 lbs. /gal@68°F

Available in 2.5, 30, and 250 gallon containers

Eco MicroMix® Plus 5-0-0 with Micronutrients

Eco MicroMix® Plus 5-0-0 is an integral part of a complete customized liquid and granular fertilizer program. For maximum results, Eco MicroMix® Plus 5-0-0 should be used along with other NutriPack® products. It is recommended that Eco MicroMix® Plus 5-0-0 be applied along with Eco N+® in order to maximize the performance of Eco MicroMix® Plus.

GUARANTEED ANALYSIS

Total Nitrogen (N) 5.00%
5.0 % Urea Nitrogen
Magnesium (Mg) 1.00%
0.5% Chelated Magnesium
Sulfur (S) 4.00%
4.0% Combined Sulfur
Boron (B) 0.02%
Copper (Cu) 0.05%
0.05% Chelated Copper
Iron (Fe) 5.00%
2.5% Chelated Iron
Manganese (Mn) 1.00%
0.5% Chelated Manganese
Molybdenum (Mo) 0.0025%
Zinc (Zn) 0.500%
0.5% Chelated Zinc
Derived From: Urea, sodium borate, sodium molybdate, copper citrate, ferrous citrate, manganese citrate, magnesium citrate, magnesium sulfonate, and zinc citrate.

CAUTION: Application of fertilizer materials containing molybdenum (Mo) may result in forage crops containing levels of molybdenum (Mo) that are toxic to ruminant animals.

Recommended use rates

General Use: 3-8 fl. oz./1,000 ft^2 per week during season.
Greens & Tees: Use 3-8 fl. oz./1,000 ft^2 twice per month.
Fairways, Parks & General Turf: Use 3-8 fl. oz./1,000 ft^2 per month.
Seeding, Potted Plants, Trees, Shrubs & General Nursery: Use 1-4 quarts /100 gallons of water for 4,000 ft^2 of space. Depending on size, use 1-3 gallons of mix per tree or shrub
1 oz. of Eco MicroMix® Plus 5-0-0 = 0.0042 lbs. N, 0.0008 lbs. Mg, 0.0034 lbs. S, 0.000017 lbs. B, 0.00004 lbs. Cu, 0.0042 lbs. Fe, 0.0009 lbs. Mn, 0.000002 lbs. Mo, 0.00042 lbs. Zn.
Weight per gallon ..... 11.79 lbs. /gallon@68°F.

Available in 2.5, 30, and 250 gallon containers

Phoenix®

Phoenix® 0-2-12 concentrate is a unique blend of silica, potassium and humic acids. Silica hardens the leaf, potassium builds carbohydrate reserves and humic acid may increase micronutrient uptake. The result is stronger leaf blades, better ball roll, reduced ball marks, and less wilting. Ideal for treatment of turf in preparation for tournament play

GUARANTEED ANALYSIS

Available Phosphate (P_2O_5) 2.00%
Soluble Potash (K_2O) 12.00%
Derived From: Potassium hydroxide and tetrapotassium pyrophosphate.

ALSO CONTAINS NON-PLANT FOOD INGREDIENTS:

1% Humic acid (derived from leonardite)
7% Potassium silicate.

Recommended use rates

Apply Phoenix® 0-2-12 at the rate of 3 fl. oz./1,000 ft^2. One 2 ½ gallon container will treat 2.5 acres of turf. Minimum dilution ratio is 1 to 100 parts water (see mixing instructions below). Application with low volume sprayers is not recommended. Phoenix® 0-2-12 may be applied every 2 weeks throughout the growing season. For tournament preparation, apply 3 to 4 days before the tournament date for maximum results. Phoenix® 0-2-12 does not have to be watered in. You can water it in lightly without affecting the results.
1 fluid ounce of Phoenix® 0-2-12 = 0.0017 lbs. P_2O_5, and 0.01 lbs. K_2O.
Weight per gallon ..... 11.68 lbs./gal@68°F

Available in 2.5 and 30 gallon containers

pestpack®

EPA-registered pesticides for use in the turf, landscape, nursery, and greenhouse markets.

Despot™ Snail & Slug Bait

Despot™ Snail & Slug Bait is an effective method of controlling snail and slugs in turf, landscape, and agricultural crops. This product has a nontoxic mode of action and can be used in areas where pet and wildlife protection is a concern. When slugs and snails ingest the bait, they stop feeding and crawl back to their shelter where they eventually die. It remains effective under varying weather and environmental conditions. The bait is ingested by slugs and snails when they travel from their hiding places to plants. Ingestion, even in small amounts, will cause them to cease feeding. This physiological effect of the bait gives immediate protection to the plants even though the slugs and snails may remain in the area. After eating the bait, the slugs and snails cease feeding, become less mobile and begin to die within three to six days. Dead slugs and snails may not be visible as they often crawl away to secluded places to die. Plant protection will be observed in the decrease in plant damage.

This product is effective against a wide variety of slugs and snails and will give protection to home lawns, gardens, greenhouses, outdoor ornamentals, vegetable gardens, fruits, berries, citrus, crop, and seed plants. The bait can be scattered on the lawn or on the soil around any vegetable or seed crops, flowers, or fruit trees or bushes to be protected.

The slugs and snails controlled by this product include (but are not limited to): Deroceras reticulatum (Gray field slug), Deroceras laeve (Marsh slug or meadow slug), Arion subfuscus (Dusky slug), Arion circumscriptus (Brown-banded Arion), Arion hortensis (Black field slug or Garden slug), Arion rufus (Large red slug), Arion ater (Large black slug), Limax flavus (Yellow cellar slug or yellow garden slug), Limax tenellus (Slender slug), Ariolimax columbianus (Banana slug), Helix spp. (snail species), Helicella spp. (snail species), and Cepaea spp. (snail species) The active ingredient is Sodium Ferric EDTA in a granular formulation. Snails and/or slugs feed on the bait then move to their location of cover at which point death occurs. Additionally the snail or slug will not leave a slime trail while moving to cover reducing residue on sidewalks, etc.

ACTIVE INGREDIENT: (% by weight)

Sodium Ferric EDTA 5.0%
Other Ingredients 95.0%
Total 100.0%

EPA Registration No. 67702-33-7001 EPA Establishment No. 48498-CA-1

Application Rates

Rate of application varies depending upon level of infestation and plants/area to treated. Refer to product label for specific rates and application instructions.

Available in 25 and 50 lb. bags

SP 3WAY™ Broadleaf Herbicide
(not available in CA)

Selective broadleaf weed control in turfgrasses including use on golf courses and sod farms to control clover, dandelion, henbit, plantains, wild onion, and many other broadleaf weeds. Also for highways, rights-of-way, and other similar noncrop areas as listed on this label. SP 3Way™ Broadleaf Herbicide is a Group 4 Herbicide.

ACTIVE INGREDIENTS

*Dimethylamine Salt of 2,4-D 30.89%
**Dimethylamine Salt of MCPA 8.23%
***Dimethylamine Salt of Dicamba..... 2.77%
OTHER INGREDIENTS:.....58.11%
TOTAL: 100.0%

Contains:

*2.38 lbs. 2,4-D acid per gallon or 25.65%.
**0.63 lbs. MCPA acid per gallon or 6.72%.
***0.22 lbs. Dicamba acid per gallon or 2.30%.

Application rates:

Refer to product label for specific rates and application instructions.

Available in 2.5, 30, 55, and 265 gallon containers

soilpack®

Soil amendment products that help improve soil biological, physical, and chemical properties.

BioPhase™ SBE

A truly unique organic liquid soil biology enhancer designed to elevate soil biology activity resulting in a noticeable improvement in plant vigor and stress tolerance and recovery. BioPhase™ SBE is sourced from a location that has undergone enhanced weathering of plant matter into a carbon rich (carbon content >92%) organic matter (OM content >52%) based soil biology enrichment product. Evaluations performed examining BioPhase™ SBE effects on soil microbial activity show both evidence of beneficial soil bacteria and fungi inherently in the product and an increase in population growth on treated soils. BioPhase™ SBE can be tank-mixed and applied with all liquid nutritional products, herbicides, and insecticides.
MAKE SURE ALL TANK-MIXED PRODUCT IS APPLIED ON THE SAME DAY WHEN ADDED TO THE SPRAYER. DO NOT ALLOW TO SIT OVERNIGHT.

Recommended use rates

Maintenance Program; apply 3-6 oz. / 1,000 ft^2 every 7-14 days.
Curative Program; apply 9-18 oz. / 1,000 ft^2 as needed.
Aerification recovery; apply 6-12 oz./1,000 ft^2, 2 days before or after aerification.
Sod establishment, apply a 5% solution every week until establishment.
Hydroseeding apply a 4% solution every week until established.

Available in 2.5 and 30 gallon containers

BioPhase™ 2-0-3 WC

Created from processing earthworm castings with added organic components, BioPhase™ 2-0-3 WC provides a biologically active source to spark life into soils. BioPhase™ 2-0-3 WC is a proprietary liquid fertilizer containing a worm casting extract, amino acids, and plant available nutrients. Ideal for addressing nutritional needs of plants particularly during periods of root development and abiotic stress. Suitable for all soils and spray apparatuses

Recommended use rates

Turf: Apply 3-6 fl. oz. per 1,000 ft^2 every 14-28 days diluted in 2 gallons of water to ensure adequate coverage of the root zone. Water into the rootzone with overhead irrigation after application. During periods of increased environmental stress or heavy play, spray 6 fl. oz. of BioPhase™ 2-0-3 WC per 1,000 ft^2 to tees, greens and fairways every 14 days.
For aerification recovery, apply 6 fl. oz. / 1,000 ft^2 2 days before or after aerification. In sod establishment, apply a 5% solution every week until establishment.
When hydroseeding apply a 4% solution every week until established.

Available in 2.5, 30, and 250 gallon containers

RhizoMate® HLC Humic Liquid Concentrate

RhizoMate® HLC is an organic liquid humic concentrate, derived from the finest, richest, and purest source of humic acid in North America and arguably the world. This humic acid source is a weathered type of oxidized sub-bituminous coal rich in humic substances. The source used in producing RhizoMate® HLC is similar to the commonly found Leonardite (lignite coal), but our source contains a higher concentration of humic substances and significantly lower levels of ash and heavy metals.

RhizoMate® HLC is blended with pure artesian water, which is drawn from deep below the earth and to ensure the highest quality water source. A wet chemistry alkaline extraction process is used to activate the humic substances that go into RhizoMate® HLC. This wet chemistry process enables the benefits of humic acid such as nutrient delivery to begin working immediately upon application (rather than the longer term release period when using the lignite [humic acid raw material], which could take up to 5 years or longer to see results.)

GUARANTEED ANALYSIS:
CONTAINS NON-PLANT FOOD INGREDIENTS
Soil Amending Ingredients
8% Humic Acid derived from sub-bituminous coal (CDFA Method)
92% Inert Ingredients (water)

Recommended use rates

Turf: 2-5 gallons of RhizoMate® Humic Liquid Concentrate per acre.
Ornamentals: 1-3 gallons of RhizoMate® Humic Liquid Concentrate per acre.
Spray Instructions: Apply directly to the soil every 2-4 weeks throughout the growing season.

Available in 2.5, 30, and 250 gallon containers

TruGyp®

A superior quality granulated gypsum product for use on golf courses, lawns, sports fields, ornamental beds, and any other location that needs calcium to address soil deficiencies or to combat high salt (sodium) content in irrigation water and soils. TruGyp® is sourced from some of the highest purity calcium sulfate dihydrate (gypsum) sources. No shortcuts are taken in processing with fineness reaching 180 mesh or finer resulting in enhanced solubility. The granulation quality allows for dustless, even spreading and a granule that dissolves quickly once irrigation water comes in contact moving the TruGyp® through the canopy into the soil. Available in Micro (90 SGN), Mini (160 SGN) and Standard (210 SGN) granulation sizes.

GUARANTEED ANALYSIS:
Calcium Sulfate Dihydrate
($CaSO_4 \cdot 2H_2O$) 95%
Calcium (Ca) 21%
Sulfur (S) 17%
Derived from: Gypsum

Recommended use rates

Apply TruGyp® at 5-10 lbs. / 1,000 ft^2 monthly throughout the growing season in areas that deal with high sodium content in the irrigation water and soils.

Available in 50 lb. bags and 2,000 lb. sacks

TruLime™

A granulated limestone product for use on golf courses, lawns, sports fields, ornamental beds, and any other location that needs calcitic limestone to address calcium soil deficiencies or to correct low pH soil conditions. TruLime™ is extracted from a very high purity source then processed with an ultra-fine grinding into an very fine powder before forming into a high-quality, low-dust granule. Available in Mini (160 SGN) and Standard (210 SGN) granulation sizes.

GUARANTEED ANALYSIS

Calcium (Ca) 36%
Calcium Carbonate ($CaCO_3$) 94%
Calcium Carbonate Equivalent (CCE) 98%

Fineness Before Prilling

Passing 100 Mesh Sieve 95%
Passing 60 Mesh Sieve 100%
Passing 40 Mesh Sieve 100%
Passing 20 Mesh Sieve 100%
Passing 10 Mesh Sieve 100%
Lime Score 97
Moisture content does not exceed 1%
Derived from: Limestone

Recommended use rates Apply 10 lbs. of TruLime™ per 1,000 ft² once a month. Soil pH 6.5-7 apply up to 12 lbs. / 1,000 ft², pH 6-6.5=12-25 lbs., pH 5.5-6=25-50 lbs. and pH below 5.5=consult with agronomist

Available in 50 lb. bags and 2,000 lb. sacks.

SP EcoGreen® brand of products include naturally occurring renewable source ingredients that may enhance biological activity in the soil and promote green color in plants.

SP EcoGreen® 5-3-2

GUARANTEED ANALYSIS

Total Nitrogen (N) 5.0%
3.75% Water Insoluble Nitrogen*
1.25% Slowly Available Water Soluble Nitrogen**
Available Phosphate (P2O5) 3.0%
Soluble Potash (K2O) 2.0%
Calcium (Ca) 7.0%
Derived From: dehydrated poultry manure.
*3.75% slowly available water-insoluble nitrogen from dehydrated poultry manure.

Recommended use rates

Apply SP EcoGreen® 5-3-2 at 10-20 lbs. / 1,000 ft² (0.5-1.0 lb. of N) every 4-12 weeks.

Available in 50 lb. bags

SP EcoGreen® 7-2-1 with Soil Surfactant

GUARANTEED ANALYSIS

Total Nitrogen (N) 7.0%
3.31% Ammoniacal Nitrogen
2.77% Water Insoluble Nitrogen*
0.92% Slowly Available Water Soluble Nitrogen**
Available Phosphate (P_2O_5) 2.0%
Soluble Potash (K_2O) 1.0%
Calcium (Ca) 6.9%
Sulfur (S) 3.7%
Iron (Fe) 3.0%
Derived From: Dehydrated poultry manure, ammonium sulfate, and iron sucrate.
*2.77% Water insoluble nitrogen from dehydrated poultry manure.

**0.92% Slowly available water soluble nitrogen from dehydrated poultry manure.

ALSO CONTAINS NON-PLANT FOOD INGREDIENT:

Active Ingredients:
00.45% Ethylhexyl esterified butane dioic surfactant
99.55% Inert Ingredients (dehydrated poultry manure, ammonium sulfate, and iron sucrate)

Recommended use rates

General Turf: Apply to general turf areas at 7-15 lbs. of the EcoGreen® 7-2-1 / 1,000 ft² (0.5-1.0 lbs. nitrogen / 1,000 ft²) based on the conditions of the turf (higher rates for lean or sparse turf). **Turf Plantings:** For establishment of new turf, incorporate 10 lbs. / 1,000 ft² into the top 2-3 inches prior to planting. **Gardens & Flower Beds:** Incorporate 1-2 lbs. / 100 ft² into the top 4 inches of flower beds and gardens. **Trees & Shrubs:** For each inch of trunk diameter, apply 1-2 lbs. of EcoGreen® 7-2-1 (do not exceed 10 lbs. material per tree). Distribute material from base to drip line evenly and incorporate if possible.

Available in 50 lb. bags

SP EcoGreen® 12-4-6 with Micronutrients

GUARANTEED ANALYSIS

Total Nitrogen (N) 12.0%
0.46% Ammoniacal Nitrogen
8.45% Urea Nitrogen
3.09% Water Insoluble Nitrogen*
Available Phosphate (P_2O_5) 4.0%
Soluble Potash (K_2O) 6.0%
Calcium (Ca) 5.0%
Copper 0.05%
Iron (Fe) 2.0%
Manganese (Mn) 0.5%
Zinc (Zn) 0.05%
Derived From: Dried poultry manure, urea, ammoniated phosphate, sulfate of potash, iron sucrate, manganese sulfate, copper sulfate, and zinc sulfate.
*3.09% water insoluble nitrogen derived from dried poultry manure

Recommended use rates

Apply SP EcoGreen® 12-4-6 with micronutrients at 5-10 lbs. / 1,000 ft² (0.5-1.0 lb. of N) every 5-12 weeks.

Available in 50 lb. bags

SP EcoGreen® 4-4-4 w/Mycorrhizae

GUARANTEED ANALYSIS

Total Nitrogen (N) 4.000%
Available Phosphate (P_2O_5) 4.000%
Soluble Potash (K_2O) 4.000%
Calcium (Ca) 9.000%
Iron (Fe) 0.200%

Recommended use rates

See label for use directions, applications, and other related information.

Available in 50 lb. bags

solupack®

Water-soluble plant nutrient formulations that provide an array of nutrient application options for turf and ornamental applications.

SP All Purpose® with UMAXX® 20-20-20

SP All Purpose® 20-20-20 with UMAXX® and micronutrients is a water-soluble fertilizer which dissolves easily in water, allowing nutrients to become plant-available through both leaves and roots. The starter / maintenance formulation is designed to promote uniform growth and development. Micronutrients are chelated to promote a sustained plant response. SP All Purpose® may be applied with fungicides, herbicides, insecticides, or miticides as a spray tank mix or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 20.00%
- 3.90% Ammoniacal Nitrogen
- 5.80% Nitrate Nitrogen
- 10.30% Urea Nitrogen*

Available Phosphate (P_2O_5) 20.00%
Soluble Potash (K_2O) 20.00%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Urea, ammonium phosphate, potassium nitrate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, zinc EDTA and sodium molybdate.
*5.15% urea nitrogen stabilized with dicyandiamide and N-(nbutyl)thiophosphoric triamide.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. P_2O_5 / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
1.25	.25	.07	.05	.13	.25	.25
2.50	.5	.14	.10	.26	.50	.50

Available in 25 lb. bags

SP Bentgrass Formula® with UMAXX® (28-8-18)

SP Bentgrass Formula® 28-8-18 with UMAXX® water-soluble fertilizer dissolves easily in water, allowing nutrients to become plant-available through both leaves and roots. The N-P-K ratio is an excellent choice for low- and high-maintenance turf areas. SP Bentgrass Formula® is compatible with most technical materials and can be applied through conventional spray equipment or through fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 28.00%
- 1.60% Ammoniacal Nitrogen
- 5.30% Nitrate Nitrogen
- 21.10% Urea Nitrogen*

Available Phosphate (P_2O_5) 8.00%
Soluble Potash (K_2O) 18.00%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Urea, ammonium phosphate, potassium nitrate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, zinc EDTA and sodium molybdate.
*10.55% urea nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N / 1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. P_2O_5 / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
0.9	.25	.047	.023	.180	.07	.16
1.8	.50	.094	.046	.360	.14	.32
2.7	.75	.141	.069	.540	.21	.48
3.6	1.00	.188	.092	.720	.28	.64

Available in 25 lb. bags

SP Rapid Green® 20-0-20

SP Rapid Green® 20-0-20 with micronutrients is a multipurpose fertilizer whose nutrients become plant-available when applied as a water-based solution to both leaves and roots. A balanced ammoniacal and nitrate feed will provide quick plant response even during cool, dry conditions. Micronutrients are chelated to promote a sustained plant response. SP Rapid Green® may be applied with fungicides, herbicides, insecticides, or miticides as a spray tank mix or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 20.0%
- 9.00% Ammoniacal Nitrogen
- 5.90% Nitrate Nitrogen
- 5.10 % Urea Nitrogen

Soluble Potash (K_2O) 20.00%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc..... 0.05%
- 0.05% Chelated Zinc

Derived From: Potassium nitrate, urea, ammonium nitrate, potassium sulfate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, sodium molybdate and zinc EDTA.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
1.25	.25	.07	.12	.065	.25
2.50	.50	.14	.24	.130	.50
3.75	.75	.22	.36	.200	.75
5.00	1.00	.30	.45	.250	1.00

Available in 25 lb. bags

Bermudagrass Special® 20-5-30

Bermudagrass Special® 20-5-30 with micronutrients is a multipurpose water-soluble fertilizer whose nutrients are readily available to turfgrass. Bermudagrass Special® can be applied safely to greens and fairways for both warm and cool season grasses. Bermudagrass Special® is used in areas of high traffic, closely mowed turf, and turf growing in heavier soils. The micronutrients are chelated to promote sustained nutrient plant response. Bermudagrass Special® analysis can be applied with fungicides, herbicides, insecticides, or miticides as a spray tank partner or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 20.00%
- 1.00% Ammoniacal Nitrogen
- 9.00% Nitrate Nitrogen
- 10.00% Urea Nitrogen

Available Phosphate (P_2O_5) 5.00%
Soluble Potash (K_2O) 30.00%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Ammonium phosphate, potassium nitrate, urea, sodium borate, copper EDTA, iron EDTA, manganese EDTA, zinc EDTA and sodium molybdate.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. P_2O_5 / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
1.25	.25	.11	.01	.13	.06	.37
2.5	.50	.22	.02	.26	.12	.75
3.75	.75	.33	.03	.39	.19	1.12
5.0	1.00	.44	.04	.52	.25	1.50

Available in 25 lb. bags

SP 20-5-20 with UMAXX®

SP 20-5-20 with UMAXX® provides an equal part nitrogen combination of ammoniacal, nitrate, and urea sources. Additionally the urea is comprised of 65% UMAXX® urea to provide additional stability to ensure availability to the plant and avoid nitrogen loss due to volatilization or leaching. Micronutrients are chelated to promote a sustained nutrient response. SP Root Enhancer® may be applied with fungicides, herbicides, insecticides, or miticides as a spray tank mix or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 20.0%
- 7.6% Ammoniacal Nitrogen
- 5.9% Nitrate Nitrogen
- 6.5% Urea Nitrogen*

Available Phosphate (P_2O_5) 5.0%
Soluble Potash (K_2O) 20.0%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Urea, ammonium phosphate, potassium nitrate, ammonium sulfate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, zinc EDTA, sodium molybdate.

*4.25 urea nitrogen stabilized with dicyandiamide and N-(nbutyl) thiophosphoric triamide.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. P_2O_5 / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
1.25	.25	.074	.095	.08	.0625	.25
2.5	.50	.15	.19	.16	.125	.50
3.75	.75	.22	.285	.195	.1875	.75
5.0	1.00	.295	.38	.325	.250	1.00

Available in 25 lb. bags

Potassium Special® 10-20-30

Potassium Special® 10-20-30 with micronutrients is a multipurpose soluble fertilizer whose nutrients become immediately plant-available when applied as a water-based solution to both leaves and roots. The fertilizer ratio is designed to provide superior plant stress conditioning. Micronutrients are chelated to promote a sustained nutrient response. Potassium Special® may be applied with fungicides, herbicides, insecticides, or miticides as a spray mix partner or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 10.0%
- 2.0% Ammoniacal Nitrogen
- 8.0% Nitrate Nitrogen

Available Phosphate (P_2O_5) 20.0%
Soluble Potash (K_2O) 30.0%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Ammonium phosphate, potassium nitrate, ammonium nitrate, potassium sulfate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, sodium molybdate and zinc EDTA.

DIRECTIONS FOR USE

Apply 0.6 - 1.2 lbs. of Potassium Special® 10-20-30 (1/16-1/8 lb. N) in 1-4 gallons (44-176 gallons / acre) of spray solution per 1,000 ft² through conventional spray equipment.

Rate Per Acre To Achieve		
1/16 lb. N / 1.000 ft²	1/8 lb. N / 1.000 ft²	No recommendations over 1/8 lb. N / 1,000 ft²
25 lbs.	50 lbs.	

Available in 25 lb. bags

SP Root Enhancer® 12-31-14

SP Root Enhancer® 12-31-14 with micronutrients is a multipurpose soluble fertilizer whose nutrients become plant-available when applied as a water-based solution to both leaves and roots. Ammonium phosphate has been added to promote root and shoot development and increase stress tolerance. Micronutrients are chelated to promote a sustained nutrient response. SP Root Enhancer® may be applied with fungicides, herbicides, insecticides, or miticides as a spray tank mix or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 12.0%
- 9.0% Ammoniacal Nitrogen
- 3.0% Nitrate Nitrogen

Available Phosphate (P_2O_5) 31.0%
Soluble Potash (K_2O) 14.0%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
- 0.05% Chelated Copper

Iron (Fe)..... 0.10%
- 0.10% Chelated Iron

Manganese (Mn)..... 0.05%
- 0.05% Chelated Manganese

Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
- 0.05% Chelated Zinc

Derived From: Ammonium phosphate, potassium nitrate, ammonium sulfate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, sodium molybdate and zinc EDTA.

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. P_2O_5 / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
2.0	.25	.06	.18	.62	.28
4.0	.50	.12	.24	1.24	.56
6.0	.75	.18	.54	1.86	.84
8.0	1.0	.24	.72	2.48	1.12

Available in 25 lb. bags

Summer Aid® with UMAXX® 25-0-25

Summer Aid® 25-0-25 with UMAXX® and micronutrients is a multipurpose fertilizer containing nutrients that become plant-available when applied as a water-based solution to both leaves and roots. The 1:1 N to K_2O ratio is an excellent choice for high-maintenance turf areas grown on sand based soils. The micronutrients in this product are chelated to ensure availability across a wide spray solution pH range. Summer Aid® with UMAXX® may be applied with fungicides, herbicides, insecticides, or miticides as a spray tank mix or through a proportioner for fertigation.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 25.00%
1.5% Ammoniacal Nitrogen
6.6% Nitrate Nitrogen
16.9% Urea Nitrogen*
Soluble Potash (K_2O) 25.00%
Boron (B) 0.02%
Copper (Cu) 0.05%
0.05% Chelated Copper
Iron (Fe) 0.10%
0.10% Chelated Iron
Manganese (Mn)..... 0.05%
0.05% Chelated Manganese
Molybdenum (Mo) 0.0005%
Zinc (Zn) 0.05%
0.05% Chelated Zinc

Derived From: Potassium nitrate, urea, ammonium nitrate, potassium sulfate, sodium borate, copper EDTA, iron EDTA, manganese EDTA, sodium molybdate and zinc EDTA

Recommended use rates

Total lbs. material / 1,000 ft²	Total lbs. Nitrogen / 1,000 ft²	Total lbs. Nitrate-N / 1,000 ft²	Total lbs. Ammoniacal-N /1,000 ft²	Total lbs. Urea-N / 1,000 ft²	Total lbs. K_2O / 1,000 ft²
1.0	.25	.066	.015	.0169	2.5
2.0	.50	.132	.030	.338	.50
3.0	.75	.198	.045	.507	.75
4.0	1.00	.264	.060	.676	1.0

Available in 25 lb. bags

Super Cal Formula® 15-0-15

Super Cal Formula® 15-0-15 with 9% Ca and micronutrients is a general use soluble fertilizer containing calcium nitrate to assist in situations where the plant can use an extra boost of calcium.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 15.00%
2.0% Ammoniacal Nitrogen
13.0% Nitrate Nitrogen
Soluble Potash (K_2O) 15.00%
Calcium (Ca) 9.00%
Magnesium (Mg)..... 0.50%
Boron (B)..... 0.02%
Copper (Cu) 0.05%
0.05% Chelated Copper
Iron (Fe)..... 0.10%
0.10% Chelated Iron
Manganese (Mn)..... 0.05%
0.05% Chelated Manganese
Molybdenum (Mo) 0.0005%
Zinc (Zn)..... 0.05%
0.05% Chelated Zinc

Derived From: Calcium nitrate, magnesium nitrate, potassium nitrate, ammonium nitrate, sodium borate, copper, EDTA, iron EDTA, manganese EDTA, sodium molybdate and zinc EDTA

Available in 25 lb. bags

APPLICATION RATES		
RATE PER ACRE OF PRODUCT TO ACHIEVE		
1/8 lb. N / 1,000 ft²	1/4 lb. N / 1,000 ft²	1/3 lb. N / 1,000 ft²
37 lbs.	Do not use higher rates	Do not use higher rates
SIMPLE RATE GUIDE		
Low Rate	Medium Rate	High Rate
1 ½ bags per acre (25 lb. bag)	Do not use higher rates	Do not use higher rates

Rapture® 4-0-4 with Micronutrients

Rapture® 4-0-4 is designed for use as a supplementary nutrient application product for turf and ornamental plants in a water-soluble powder formulation. The unique combination of citric acid and EDTA chelation optimizes uptake and utilization of the micronutrients by plants into rapidly observable color response. Plant response is evidenced longer than other nonchelated micronutrient sources providing up to 3-6 weeks of enhanced color when applied as a foliar application. The nonstaining formulation of the micronutrients in Rapture® 4-0-4 with micronutrients provide safe use around concrete and other nonplant items.

GUARANTEED ANALYSIS

Total Nitrogen (N)..... 4.0%
1.0% Nitrate Nitrogen
3.0% Urea Nitrogen
Soluble Potash (K_2O) 4.0%
Magnesium (Mg) 2.0%
2.0% Water Soluble Magnesium
Sulfur (S) 11.0%
Copper (Cu) 0.2%
0.2% Chelated Copper
Iron (Fe)..... 12.0%
12.0% Chelated Iron
Manganese (Mn)..... 3.0%
3.0% Chelated Manganese
Zinc (Zn)..... 0.5%
0.5% Chelated Zinc

Derived from: Urea, potassium nitrate, copper sulfate, ferrous sulfate, magnesium sulfate, manganese sulfate, and zinc sulfate. Chelating agents are ethylenediaminetetraacetic acid (EDTA) and citric acid.

Suggested use rates: Apply Rapture® 4-0-4 at a rate of 2.5–5 lbs. per acre (1-2 oz./1,000 ft²) in 45-90 gallons spray solution per acre (1-2 gal per 1,000 ft²).

Always add Rapture® 4-0-4 to the water first and then add other fertilizers. It is advisable to do a jar test before addition to any pesticides.

Available in 5 and 25 lb. bags

Iron Chelate 20% Chelated Fe*

GUARANTEED ANALYSIS

Iron (Fe)..... 20.0%
20.0% Chelated Iron

Derived from: Ferrous Sulfate, Sodium EDTA, and Citric Acid. Chelating agents are Citric Acid and Ethylenediaminetetraacetic Acid (EDTA).

Suggested use rates: Turf: Apply Iron Chelate 20% Fe at a rate of 1.25–5 lbs. per acre (0.5-2 oz./1,000 ft²) in 45-90 gallons spray solution per acre (1-2 gal per 1,000 ft2). Severe iron deficiency may require a higher application rate of 10 lbs. per acre (4 oz. / 1,000 ft²).

Always add Iron Chelate 20% Fe to the water first and then add other fertilizers. It is advisable to do a jar test before addition to any pesticides.

Available in 5 and 25 lb. bags

Manganese Chelate 20% Chelated Mn*

GUARANTEED ANALYSIS

Manganese (Mn)..... 20.0%
20.0% Chelated Manganese

Derived from: Manganese Sulfate, Sodium EDTA, and Citric Acid. Chelating agents are Citric Acid and Ethylenediaminetetraacetic Acid (EDTA)

Suggested use rates: Turf: Apply Manganese Chelate 20% Mn at a rate of 0.75–1.25 lbs. per acre (0.25-0.5 oz./1,000 ft²) in 45-90 gallons spray solution per acre (1-2 gal per 1,000 ft²). Severe manganese deficiency may require a higher application rate of 2.5 lbs. per acre (1 oz. / 1,000 ft²).

Always add Manganese Chelate 20% Mn to the water first and then add other fertilizers. It is advisable to do a jar test before addition to any pesticides.

Available in 5 and 25 lb. bags

* Available as SP Iron and SP Manganese in California and Florida.

techpack®

Utility adjuvant products designed to help the performance of your sprayer or address water conditions.

S.W.A.T.™ (Soil & Water Acid Treatment) Curative

For use in water to redissolve carbonate and oxide-based scales, chemically converting them to stable dissolved ions. Dissolved ions are more suitable for plant uptake and nutrition. The nutrient conversion and other chemical reactions, including the release of carbon dioxide, aid in the plants growth. Regular use of S.W.A.T.™ Curative will aid in reducing bicarbonate and sodium levels in the soil.

GUARANTEED ANALYSIS

Hydrochloric Acid.....30.0%
Quaternary Organic Soaps.....5.0%
Besylic Acid.....1.0%
Inert Ingredients (water).....64.0%
Weight Per Gallon: 9.71 lbs. / gallon @ 68°F
Apply S.W.A.T.™ Curative at 0.75-1.5 fl. oz / 1,000 ft^2 in a min of 2 gal water monthly

Available in 2.5, 30, 55, and 265 gallon containers

NutraWash®

NutraWash® is an effective cleaner for metal, fiberglass, and plastic spray systems. NutraWash® aids in the removal of dirt, grime, grease, chemical, and fertilizer residues from tanks and equipment. NutraWash® helps eliminate rust and scale and keeps costly equipment in ready-to-use condition.

Principal Functioning Agents

Cleaning agents in a proprietary transparent emulsion.....100.0%

Available in 1 gallon containers

Terminator® II

This product is a fast, effective defoamer for use in suppressing foam. Controlling foam reduces filling time and lessens overflow waste. This product improves spray performance. The combination of effective ingredients allows for very fast knockdown of troublesome foam if it should occur in the spray tank.

Available in 1 Quart containers (12 quarts / case)

Pigment Eraser™

Pigment Eraser™ II will clean most stains and residues, including pigments, spray pattern indicators, soap scum, oil, and many other stains on most surfaces. This new foaming formulation is ready to use without dilution and comes with a convenient trigger sprayer.

Available in 1 quart ready-to-use foaming trigger spray bottles

D-BOP™

D-BOP™ is a temporary, aerosol foam marker that can be conveniently applied from a standard marking paint applicator that accepts a standard UMA tip.

Available in an 18 oz aerosol can

SP Foam Marker®

SP Foam Marker® is specially formulated to deliver long-lasting foam in a range of weather and field conditions. SP Foam Marker® is a highly concentrated formula that, when used as directed, will produce a thick, white, and highly visible foam. This foam can be used with any foam marker equipment for fertilizer and pesticide applications, seed planting and general field cultivation.

Available in 1 gallon containers

spraypack®

Spray adjuvant products to enhance the performance of pesticide, growth regulator, and fertilizer products mixed into your spray tank and applied to your turf and ornamentals.

Spray-007™

Spray-007™ is a nonionic, low-foam surfactant that enhances the activity and effectiveness of pesticides. Spray-007™ provides more uniform coverage by decreasing surface tension of spray solutions, thus aiding in penetration. It may be used as an acidifying agent to lower pH of spray solutions, thus preventing alkaline hydrolysis of pesticides sensitive to high pH. Spray-007™ may be used on agricultural, aquatic, forestry, turf and ornamental, industrial, structural, and non-cropland sites.

PRINCIPAL FUNCTIONING AGENTS

Alcohol ethoxylate, Lecithin and Propanoic acid	82.5%
Constituents Ineffective as Spray Adjuvant	17.5%
Total	100.0%

Recommended use rates

Specific use rates will vary with conditions of application such as water hardness, application method, equipment, spray droplet size, condition of foliage, etc. Also, higher rates than those below may be used if recommended by pesticide labeling. Follow pesticide label directions. However, do not add this product at a rate which exceeds 5% of the finished spray volume.

Acidifier / Buffering Agent:

Highly alkaline water (pH 8 or higher): Use 8-16 ounces per 100 gallons of spray mixture. Mildly alkaline/acid water (pH 6.5 to 8): Use 4-8 ounces per 100 gallons of spray mixture.

NOTE: Spray-007™ is an acidifier and may be physically or chemically incompatible with alkaline spray mixtures.

GENERAL USE:

Defoliants, Desiccants, Herbicides: Use 1-4 pints per 100 gallons of spray mixture when used as a surfactant/penetrant. Use 12 oz.-2 pints per acre when used in place of crop oils. Acaracides, Fungicides, Insecticides, Plant Growth Regulators: Use ½-2 pints per 100 gallons of spray mixture.

Turf, Ornamental, and Industrial Spraying: Use 1-3 fl. oz. per 5 gallons (1-4 pints per 100 gallons) of spray mixture.

Handheld and Backpack Sprayers: Use 1 fl. oz. per gallon of water.

Plant sensitivities to this product have been found acceptable; however, not all species have been tested. Before treating a large area, test on a small area and observe prior to full scale application.

Available in 1 and 2.5 gallon containers

Spray-Rite®

Spray-Rite® is a specially formulated blend of water conditioning and acidifying agents intended for use with a variety of pesticide or nutrient applications that recommend lower pH water and ammonium sulfate as a tank mix additive. Spray-Rite® is a water-soluble powder that readily goes into solution. Spray-Rite® improves pesticide performance by conditioning and acidifying tank mix water. The ammonium sulfate ingredient prevents hard water antagonism from water impurities such as iron, calcium, and magnesium. Certain herbicides fungicides and insecticides perform more effectively at lower pH ranges. Spray-Rite® is compatible with all glyphosate formulations and with a range of drift retardants and nonionic surfactants. Spray-Rite® is approved for aquatic use.

PRINCIPAL FUNCTIONING AGENTS

Ammonium sulfate, 2-hydroxy-1,2,3-propanetricarboxylic acid	98.99%
Constituents ineffective as a spray adjuvant	1.01%
Total	100.00%

USE DIRECTIONS

Always add Spray-Rite® as the first component of the spray mixture. Always read and follow the label instructions indicated on the pesticide or nutrient label. Do not use Spray-Rite® if accompanying pesticide or nutrient label prohibits the use of water conditioners or acidifying agents.

Slowly pour Spray-Rite® into the spray tank at the point of maximum agitation. Continue filling while recirculating until all ingredients are thoroughly mixed. Maintain good tank mix agitation at all times until contents of tank are completely sprayed.

Recommended use rate: For use as an acidifying agent, use Spray-Rite® at 1/2 pound increments per 100 gallons of spray solution until the desired pH is achieved.

For hard water conditions or use with glyphosate herbicides that do not contain a surfactant ingredient a rate of 3 to 4 pound per 100 gallons may be required.

Available in 4 lb. containers

Spray-Wet®

Spray-Wet® is a highly concentrated low-foam, 90% active, nonionic spreader activator. Spray-Wet® increases the activity and effectiveness of pesticides, by breaking down the waxy cuticle on the leaf surface and improves adhesion between the pesticide and the plant surface.

PRINCIPAL FUNCTIONING AGENTS

Alkylphenol ethoxylate, propylene glycol, tall oil fatty aids	90%
Constituents ineffective	10%
TOTAL	100%

Recommended use rates (PER 100 GALLONS)

Agriculture, citrus, turf	½-2 pints (8-32 fl. oz.)
Utility and highway R.O.W.	½-4 pints (8-64 fl. oz.)
Forest Site Preparation	1-4 pints (16-64 oz.)
Insecticides, Fungicides, Miticides	¼-½ pints (4-8 oz.)
Herbicides (terrestrial), Defoliants, Desiccants	½-4 pints (8 to 64 fl. oz.)*

*In difficult wetting situations (such as hard water on mature waxy foliage) the higher rates may be required.

Available in 1 quart, 1, and 30 gallon containers

Spray-Put®

Spray-Put® is a concentrated liquid adjuvant for spray droplet management. Spray-Put® enhances the performance of spray applications by modifying the physical characteristics of the spray droplet, improving droplet retention while reducing off-target movement.

PRINCIPAL FUNCTIONING AGENTS

Polyethylene glycol, choline chloride, guar gum	43.18%
Constituents Ineffective As Spray Adjuvants	56.80%
TOTAL	100.00%

Recommended use rates

0.25%–0.50% v/v (2–4 pints) of Spray-Put® per 100 gallons of spray solution.

Available in 2.5 gallon containers

Spray-Mix®

Spray-Mix® is a concentrated compatibility agent formulated to eliminate incompatibility problems associated with tank mixing a wide range of crop protection products in water, suspension fertilizers, UAN or ATS solutions. Spray-Mix® can also demonstrate functionality as a spreader and buffering agent depending on the use rate

PRINCIPAL FUNCTIONING AGENTS

Alcohol ethoxylate phosphate ester,2-butoxyethanol	80%
Constituents Ineffective As Spray Adjuvants	20%
TOTAL	100%

All ingredients are approved for use under 40 CFR 180

Spray-Mix® can be used to either prevent or correct most incompatible tank mixes.

The concentration of Spray-Mix® in the spray tank cannot exceed 30% of the total amount of formulated pesticide(s).

Recommended use rates
Use 1–4 pints of Spray-Mix® per 100 gallons of spray solution to prevent antagonistic tank mixing conditions.
Use 3–6 pints of Spray-Mix® per 100 gallons of spray solution to correct tank mix incompatibilities..

Available in 2.5 gallon containers

Spray-Fast®

Spray-Fast® is a superior, nonionic wetting agent, designed for water-based pesticide applications in horticulture, industrial, turf, and forestry operations. It is designed for fast-spreading, uniform distribution, and absorption of spray on leaf and stem surfaces. Spray-Fast® may be used with most pesticides and fertilizer products.
Optimum application and consequent effects, can be influenced by many factors. It is recommended that the spray be observed, and adjuvant rates be adjusted accordingly. During application, insure thorough coverage without excessive runoff.

PRINCIPLE FUNCTIONING AGENTS (BY WT.)
Alkylphenol ethoxylate, polyether modified polysiloxane, propylene glycol .. 99%
Constituents ineffective as a spray adjuvant 1%
TOTAL 100%

RECOMMENDED use rates (with the various categories of chemicals)
Chemical Group
Insecticides, Miticides & Fungicides ..... 6 - 32 oz.
Herbicides. .....12 - 64 oz.
Glyphosate formulations w/o added surfactants.....12 - 64 oz.
Defoliants & Desiccants. .....12 - 64 oz.
Fertilizers & Micronutrients..... 4 - 32 oz.
NOTE: Carefully read and follow the specific directions contained on the label of the chemical used. Before adding Spray-Fast® to spray tank mixes or before using with a pesticide or fertilizer where a nonionic adjuvant is not specifically recommended but not prohibited by the manufacturer, the user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial of their own.

Available in 1 gallon containers

Spray-Slick®

Spray-Slick® is a unique blend, of highly refined and modified spray oil, and nonionic organosilicone. Spray-Slick® has a unique chemistry that allows for enhanced wetting, and absorption of those pesticides, or products which labels recommend the addition of a spray adjuvant, to improve performance. The addition of Spray-Slick® to a spray tank solution, will improve a spray application by physically modifying the wetting and spreading characteristics, the result being a more uniform spray deposit.

PRINCIPLE FUNCTIONING AGENTS
Proprietary blend of polyalkyleneoxide modified polydimethylsiloxane nonionic emulsifiers and methylated vegetable oil 99%
Constituents ineffective as spray adjuvant 1%
TOTAL 100%

Recommended use rates: Spray-Slick® is intended for use with pesticides that are labeled for agricultural and non-agricultural uses. Not for aquatic use. The use of Spray-Slick® can increase pesticidal activity where the following factors occur, but is not limited to: 1) when used in areas of the country with low relative humidity and high temperatures; 2) when used with low water volume rates of less than 15 gallons per acre; and 3) when target species are larger than label recommendations at time of application.
GROUND APPLICATION RATE: 3 to 5 pints per 100 gallons

Available in 1 gallon containers

Right On® (Blue)

Right On® (Blue) is a nonstaining blue liquid colorant designed to be used with pesticide, fertilizer and/or growth regulator tank mixes to assure that these products are applied uniformly, with minimum overlap and no missed areas. It also assures the correct operation on spraying equipment.

Available in 2.5 gallon containers

Right On® (Green)

Right On® (Green) is a nonstaining green liquid colorant for use with pesticide, fertilizer and/or growth regulator tank mixes to assure uniform application with minimum overlap and no missed areas. It also assures the correct operation of spraying equipment.

Available in 2.5 gallon containers

Tracer® HD Blue

Tracer® Blue is a very highly concentrated blue spray pattern indicator dye for identifying spray patterns and ensuring even spray applications.

Available in 1 quart and 2.5 gallon containers

Tracer® Green

Tracer® Green is a very highly concentrated green spray pattern indicator dye for identifying spray patterns and ensuring even spray applications. Tracer® Green can also provide temporary color enhancement on stressed turf.

Available in 1 quart containers

waterpack®

Products that enhance the performance or appearance of water in your ponds and other water features.

Tahoe Blue®

Tahoe Blue® Lake & Pond Color is a blended formulation of water-soluble dyes. Tahoe Blue® is designed for use in lakes, ponds, decorative water features, and other impounded bodies of water with limited outflow. Tahoe Blue® beautifies murky, cloudy, or off-colored water with a pleasing, natural aqua-blue color.

Available in a 1 gallon container

Tahoe Blue® WSP

Tahoe Blue® WSP is the same color formulation but in a convenient and easy to use water soluble packet.

Available in 6 oz. water soluble packets in a 4 carton case (8 WSP / re-closable plastic carton)

Sable™ Black

Sable™ Black beautifies murky, cloudy, or off-colored water by turning the water body into a dark backdrop thereby creating an appealing, reflective water surface. Sable™ Black is designed for use in lakes, ponds, decorative water features, and other impounded bodies of water with limited outflow.

Available in a 1 gallon container

Sable™ Black WSP

Sable™ Black WSP is the same color formulation but in a convenient and easy to use water soluble packet.

Available in 6 oz. water soluble packets in a 4 carton case (8 WSP / re-closable plastic carton)

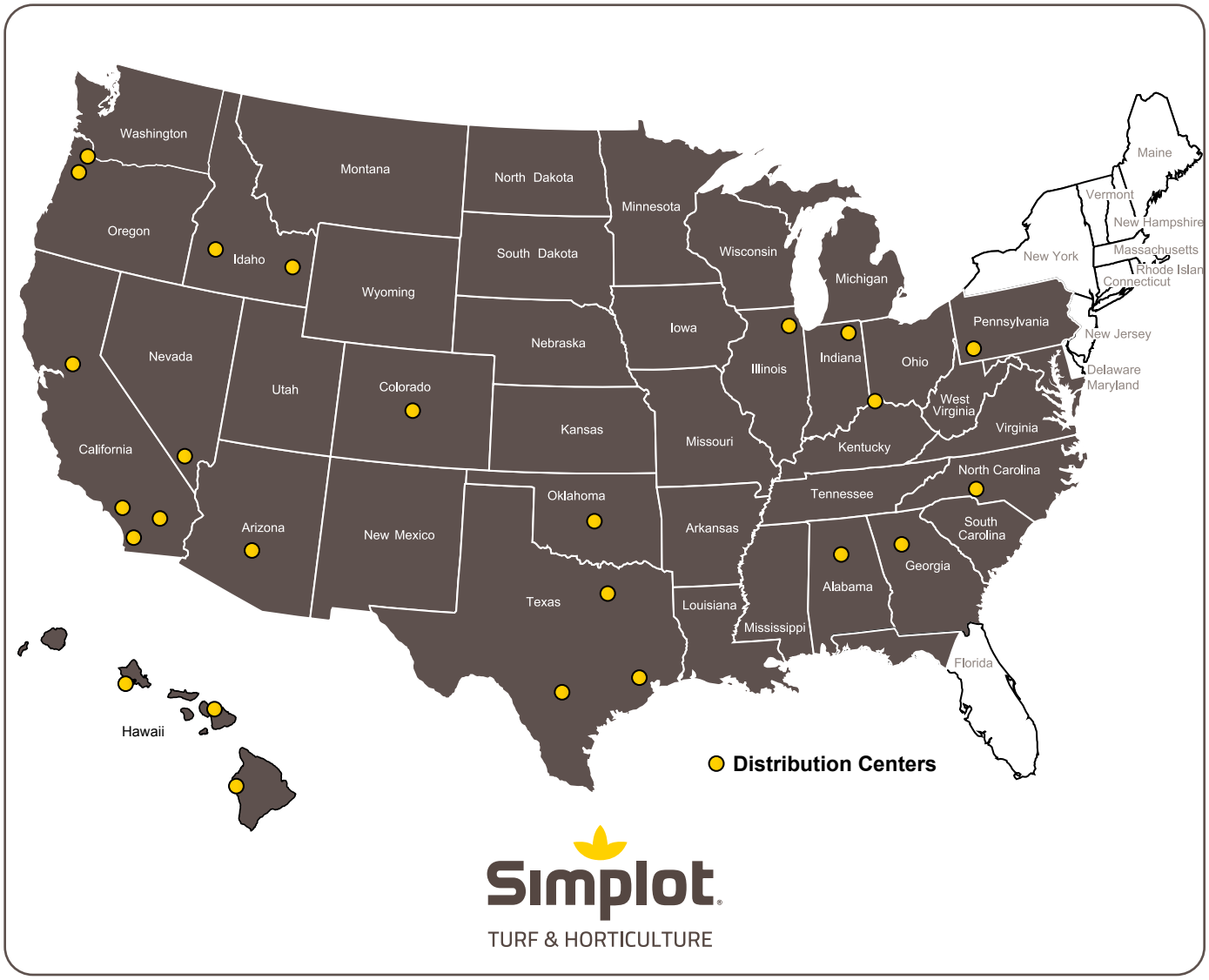
Aquasphere® Pro

The biodegradable Aquasphere® Pro is designed to prevent poor water clarity, odor, and floating or suspended organic matter by consuming the excess nutrients in the water for improved water quality and clarity. AquaSphere® Pro contains a proprietary blend of naturally occurring bacteria and enzymes that reduce the organic debris that collects in water. Just throw the AquaSphere® into the water and let it go to work. There is no need to remove the sphere after 30 days because the outer shell of the AquaSphere® Pro is made of a corn starch-based product and will completely biodegrade within your pond over time. The AquaSphere® Pro is safe for fish, animals, wildlife, people, and plants.

Available in biodegradable spheres that treat 500,000 or 250,000 gallons

Simplot Turf & Horticulture Branch Locations

Please check below for the location nearest you



WEST

PHOENIX, AZ
FULLERTON, CA (LOS ANGELES)
PALM DESERT, CA
SACRAMENTO, CA
SAN DIEGO, CA
DENVER, CO
CALDWELL, ID
IDAHO FALLS, ID
LAS VEGAS, NV
HUBBARD, OR
PORTLAND, OR
KAHULUI (MAUI)
KAILUA KONA (BIG ISLAND)
KAPOLEI (OAHU)

EAST

BIRMINGHAM, AL
ATLANTA, GA
CHARLOTTE, NC
OKLAHOMA CITY, OK
CARROLLTON, TX (DALLAS)
HOUSTON, TX
SAN ANTONIO, TX
CHICAGO, IL
LEESBURG, IN
CINCINNATI, OH
PITTSBURGH, PA

Simplot
TURF & HORTICULTURE

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