



2024 CANADA

GRANULAR NUTRITION

FOLIAR NUTRITION

HUMIC PRODUCTS

FUNGICIDES

FERTILIZERS

SPREADERS

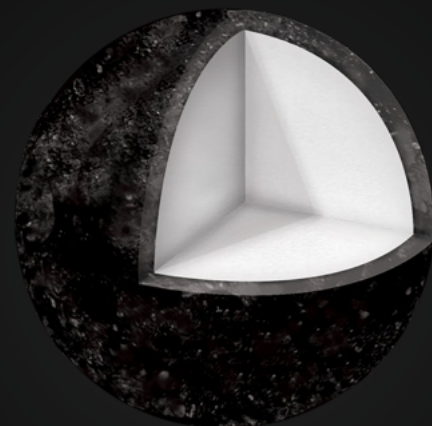


INTRODUCING CARBONCOAT™ TECHNOLOGY

For decades, the industry has faced significant manufacturing challenges in attempting to coat nutrients with humic acid. This has resulted in the reliance on blended fertilizers containing granular or screened humates, or separate applications of fertilizer and humic material.

WITH CARBONCOAT, WE'VE SHIFTED THE STANDARD.

CarbonCoat utilizes a patented manufacturing process to bond urea granules with a potassium humate coating. These clean, spherical, free-flowing granules deliver nitrogen and humic acid simultaneously. Select CarbonCoat products also utilize a polymer coating to extend their nutrient release.

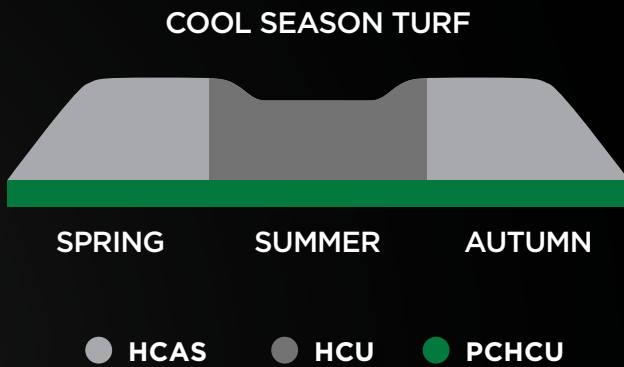


THE CARBONCOAT FAMILY

	NEW!	NEW!
HCU	H^CAS	PCH^CU
44-0-0	20-0-0-23S	40-0-0
Urea granules with a potassium humate coating	Ammonium sulfate granules with a potassium humate coating	Urea granules with a potassium humate coating + a polymer coating
2% Humic Acid (A&L Method)	2% Humic Acid (A&L Method)	1.8% Humic Acid (A&L Method)
7-14 day release	7 day release	70 day release

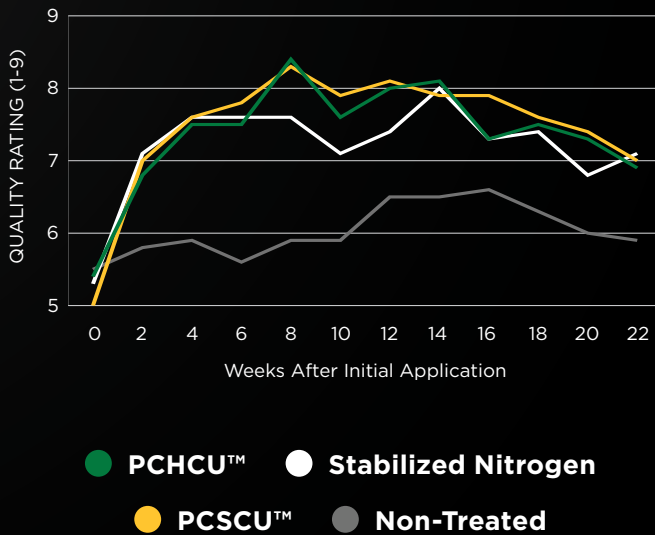
APPLICATION TIMING

HCU and PCHCU can be combined with HCAS to deliver nutrition and humic acid throughout the growing season.



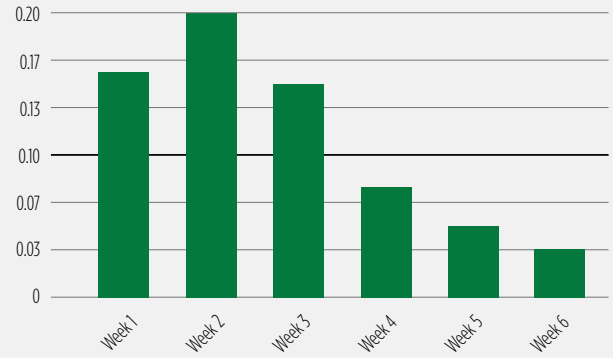
POLY-COATED HUMIC FERTILIZERS

AVERAGE TURF QUALITY

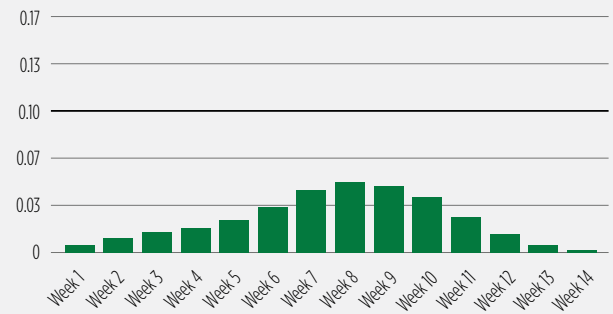


Research Summary: Showing data averaged over two years, average turf quality of PCHCU was equal to or better than a standard stabilized nitrogen source. Turfgrass evaluated was Kentucky bluegrass at 3" height of cut.

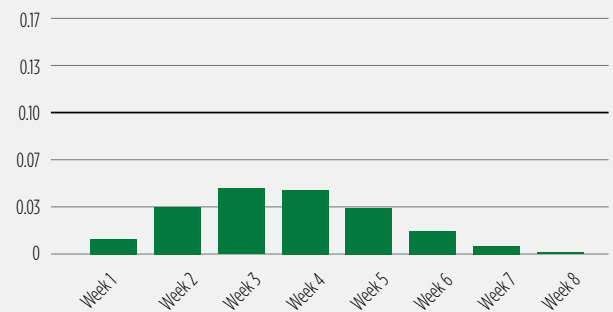
TURFGRASS RESPONSE TO HCU®



TURFGRASS RESPONSE TO PCHCU®



TURFGRASS RESPONSE TO HCAS™



■ GRANULAR N TURF RESPONSE — TARGET N

All graphs represent a release rate of the respective technology applied on May 7th at 1 lb. N/1000 sq. ft. The designated USDA climate zone for these graphical representations was region 5b.

BETTER TOGETHER

TRY THE PRODUCT COMBINATIONS BELOW FOR MAXIMUM RESULTS!

HIGH-PERFORMANCE TURF NUTRITION

The combination of Nutri DG® - Gen 3 dispersing granules and Foltec® SG soluble granules provides ideal premium nutrition for greens, tees, sports turf, and other fine turf.

NUTRI DG - GENERATION 3 *(see page 8)*

Gen 3 represents the latest evolution of the Nutri DG product range. Featured on select products, these granules are easy to spread and easy to see, saving turf managers both time and money. Gen 3 granules are completely homogeneous, allowing for a consistent spread pattern. The granules also stand out against turf, making it easy to see where product has been applied.

FOLTEC SG *(see page 14)*

Foltec SG is an innovative foliar nutrient technology utilizing a proprietary combination of dry, 100% soluble nutrient granules that quickly solubilize in the spray tank. Each Foltec SG product contains a specific N-P-K ratio along with essential micronutrients, UltraMate® SG (humate/carbon) and sea plant extract. Packaged in resealable, foil-lined bags with easy-open tear strips to save time and effort, Foltec SG truly allows you to spray smarter.



SPRAYABLE FAIRWAY & SPORTSFIELD NUTRITION, REDEFINED.

Combining HCU® and Foltec® SG Minors creates an ideal tank mix of nitrogen, humic acid, and minor elements and delivers exceptional performance with strong economics in use.

HCU - HUMIC COATED UREA *(see page 21)*

HCU granules represent a sensible approach to nitrogen application, combining urea and humic acid in a 100% soluble granule. While providing equal or better performance than leading stabilized nitrogen products, HCU granules also offer strong economics in use.

FOLTEC SG MINORS *(see page 14)*

Foltec SG Minors is a proprietary combination of dry, 100% soluble granules that contains selected secondary and minor elements, along with sea plant extract and humate. With easy to understand coverage and application rates, Foltec SG truly allows you to spray smarter.



BASELINE NUTRITION

An essential component in developing an effective nutrition plan to maintain healthy turf

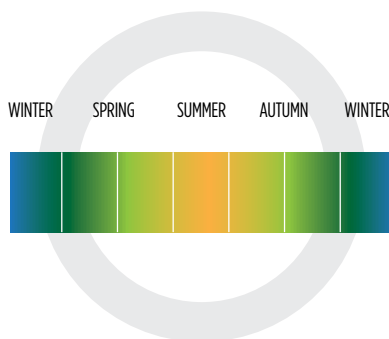
MAXIMIZE

by creating a turf nutrition plan



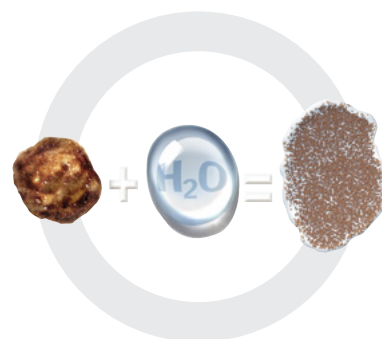
CUSTOMIZE

nutrient applications during the growing season



DELIVER

precise and efficient turf nutrition



Baseline turf nutrition is considered to be a basic level of nutrition that helps the turf plant withstand the pressures of disease, insects, traffic, and stressful weather conditions. Granular nutrient applications ensure adequate levels of plant nutrition throughout the growing season.

Soil testing and plant tissue analysis are valuable tools that can be used to develop a turf nutrition plan.

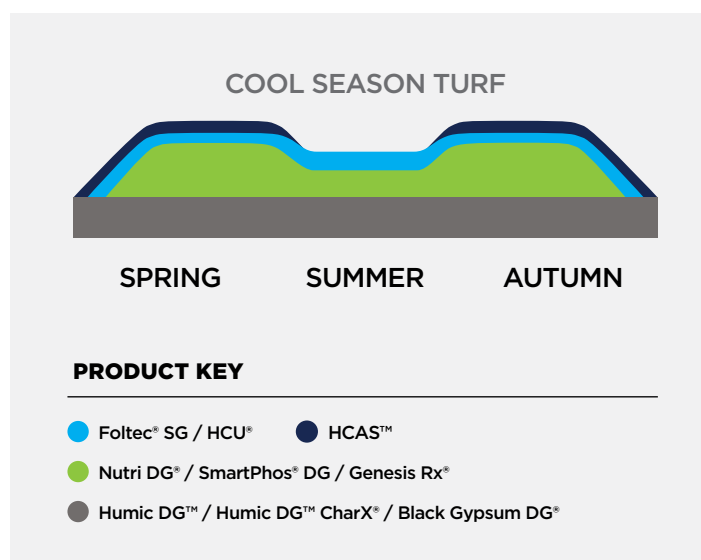
Determining the correct amount and balance of nutrients is essential to turf health. Other factors to take into consideration are the turf type, the length of growing season, climatic conditions, and the amount of wear the turf is exposed to.

The timing and levels of turf nutrition depend on the type of turf being grown.

COOL SEASON TURF

Cool season turf generally requires a higher percentage of its nutrition to be delivered in the spring and autumn, with moderate needs during the summer months. A baseline turf nutrition plan includes soil-based granular applications throughout the growing seasons. Foliar nutrition is then applied to complement granular baseline nutrition, especially during the summer, when turf can be under stress.

HUMIC DG™, **HUMIC DG CHARX®**, and **BLACK GYPSUM DG®** can be used throughout the growing season to improve soil health and increase uptake and utilization of soil and applied nutrients.



PREMIUM NUTRITION

HIGH-PERFORMANCE TURF NUTRITION

The Andersons advanced granule technologies provide a complete approach to efficient granular and sprayable turf nutrition and plant health.

DG (Dispersible Granule) products quickly disperse into thousands of micro particles upon contact with water. This provides a more efficient nutrient application because DG particles move quickly through the turf canopy and into the root zone where they can be taken up by the plant. With DG technology you can be assured of optimized turf nutrition and improved playing conditions. The Andersons provides a wide range of DG nutrition products that include Nutri DG®, SmartPhos® DG, Genesis Rx®.

Foltec® SG is innovative foliar technology that provides complete foliar turf nutrition and eliminates the need for complex tank mixes. Each Foltec SG product is a combination of dry soluble granules that contain N-P-K and chelated micronutrients along with UltraMate® SG (potassium humate) and sea plant extract for increased nutrient efficiency and maximum health benefits. Foltec SG is packaged in easy-to-use, resealable, foil-lined bags.



NUTRI DG®

Dispersible Granules

Dry Applied

**14 different
formulations**

SGN 75-150



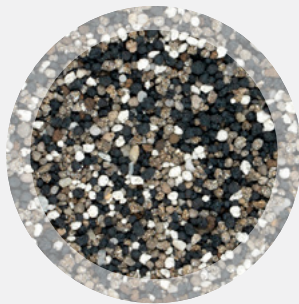
SMARTPHOS® DG

Dispersible Granules

Dry Applied

Slow release
phosphorus

SGN 75



GENESIS RX®

Dispersible Granules

Dry Applied

5-7-5 + secondary
and micronutrients
and Humic DG

SGN 100



FOLTEC® SG

Soluble Granules

Spray Applied

N-P-K, chelated
micros, UltraMate® SG
and seaplant extract

Convenient, easy
to use packaging

NutriDG®

Patented. Proven. Guaranteed.

Nutri DG combines premium turf nutrients and our patented Dispersing Granule Technology into a homogenous granule designed to optimize granular applied turf nutrition.

INTRODUCING NUTRI DG GENERATION 3

EASY TO SPREAD. EASY TO SEE.

Gen 3 represents the latest evolution of the Nutri DG product range. Gen 3 granules are easy to spread and easy to see, saving turf managers both time and money. Gen 3 granules are dust free and completely homogeneous, allowing for a consistent spread pattern. The granules also stand out against turf, making it easy to see where

product has been applied, and decreasing the possibility of over-application. Gen 3 products feature the same patented Dispersing Granule (DG) Technology found in all Nutri DG products, which allows for a firmer, residue-free playing surface with less downtime.

THE EVOLUTION

For more than a decade, Nutri DG has been the industry leader in dry-applied greens and tees nutrition. Over that same period, we have worked to continually refine the product, advancing formulations, color and physical characteristics. Gen 3 Technology represents the finest granular product we have ever produced, designed to provide the highest-quality nutrition and the most efficient user experience.



A MORE EFFICIENT USER EXPERIENCE

- Lighter in color, Nutri DG is easy to see and spread
- Allows for a consistent spread pattern
- Makes it easy to see where product has been applied
- Decreases over-application
- Saves time and money

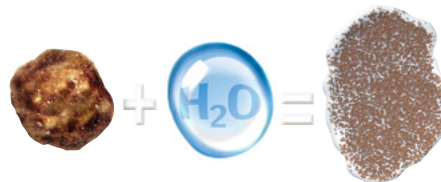


Gen 3 Technology is featured on select Nutri DG greens and fairways products: 17-0-17, 18-9-18, 28-0-6, and 12-3-12.

ENHANCED NUTRIENT DISTRIBUTION

PATENTED DISPERSING GRANULE TECHNOLOGY

Upon contact with water, each granule disperses into thousands of micro particles that quickly move through the turf canopy into the root zone.



IMPROVED PLAYING CONDITIONS

LESS INTERRUPTION OF PLAY

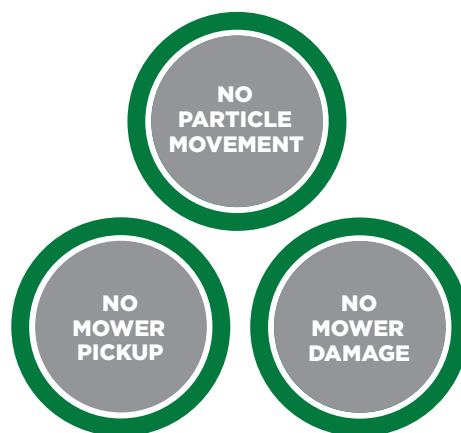
Nutri DG requires less watering to disperse the nutrient granules allowing for less downtime and a drier and firmer playing surface.

NO STICKY RESIDUE

Nutri DG melts into the turf canopy. The result is no sticky fertilizer residue which can accumulate on shoes, balls, and equipment.

OPTIMIZED NUTRITION

Nutri DG is designed to optimize granular turf nutrition by combining premium nutrients with our Dispersing Granule Technology, minimizing mower pickup and delivering more fertility for the plant.



AGRONOMIC ADVANTAGES

DISPERSIBILITY

Because Nutri DG is homogenous and disperses into thousands of micro particles, turf managers have the ability to apply Nutri DG at low rates and still get complete nutrient coverage without speckling.

FORMULATIONS

With over twenty different formulations, Nutri DG is designed to meet a wide variety of turf and soil conditions. Refer to the Product/Temperature Use Guide on page 15 for optimum temperatures for applications of Nutri DG products.

ZERO NITROGEN PRODUCTS

There are times when a turf manager may need specialty nutrient applications that do not contain nitrogen. The

following Nutri DG products have been designed with this in mind: Mag-tec™ 0-0-12 and 0-0-25.

NUTRIENT SOURCES

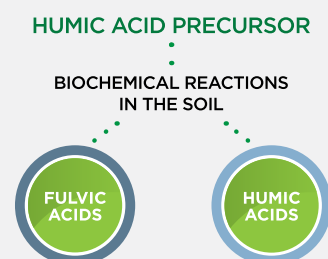
Nutri DG is formulated using the safest and highest quality nutrient sources.

- Nutri DG products have variable amounts of slow and quick release nitrogen depending on the formulation.
- Phosphorus, potassium, calcium and magnesium sources are found in the Nutri DG product list.
- Micronutrients are sulfate based for quick and efficient nutrient response.





















THE CARBON COMPONENT OF NUTRI DG

HOW DOES HUMIC ACID PRECURSOR WORK?




Humic acid precursor contains a soluble form of organic carbon which releases into the soil as Nutri DG granules disperse. Through biochemical reactions in the soil, humic acid precursor is transformed into humic and fulvic acids which help chelate nutrients in the soil. The optimum rate of humic acid precursor is applied when Nutri DG is applied at label rates.



GRANULAR NUTRITION

NPK	Description	N Composition (%)				P Source	K Source	Rates kg/100 m²	Rates lb/1000 ft²	Pkg. Wt. kg
		Amm N	Urea N	WIN	WSN					
NUTRI DG® GREENS - SGN 75 - FOR GREENS, TEES, SPORTSFIELDS & OTHER FINE TURF										
 0-0-12	Mag-tec™, 24% Mg	-	-	-	-	-	Sulfate of Potash Magnesia	1.02 - 2.04	2.08 - 4.17	25
 0-0-25	3.0% Mn, 4.0% Mg, Bio-enhanced with Amvital™	-	-	-	-	-	Sulfate of Potash Magnesia, Potassium Sulfate	0.98 - 2.44	2.00 - 5.00	20
 9-0-18	65% MUtech®, 6.0% Mn, 0.3% Fe	3.15	0.87	2.05	2.93	-	Potassium Sulfate	0.88 - 2.73	1.80 - 5.60	20
 12-3-12	GEN 3 0.3% Fe, 0.5% Mn, Bio-enhanced with Amvital™	12.00	-	-	-	MAP	Potassium Sulfate	0.85 - 2.05	1.70 - 4.20	20
 12-24-8	50% MUtech®, 0.3% Fe, 0.5% Mn	6.00	0.90	2.10	3.00	MAP	Potassium Sulfate	1.53 - 3.05	3.13 - 6.25	20
 13-0-26	100% MUtech®	-	1.95	4.55	6.50	-	Potassium Sulfate	0.95 - 1.86	1.90 - 3.80	20
 14-7-14	60% MUtech®, 0.3% Fe, 0.14% Mn	5.60	1.26	2.94	4.20	MAP	Potassium Sulfate	1.74 - 3.94	3.57 - 7.15	20
 17-0-17	GEN 3 50% MUtech®, 0.5% Fe, 0.25% Mn	5.31	4.46	2.98	4.25	-	Potassium Sulfate	1.44 - 2.87	2.94 - 5.88	20
 18-0-5	75% MUtech®, 6.85% S, 7.0% Mn	4.50	2.02	4.73	6.75	-	Potassium Sulfate	0.85 - 2.45	1.7 - 5.00	20
 18-3-18	93% MUtech®	1.26	2.45	5.88	8.41	MAP	Potassium Sulfate	1.00 - 2.50	2.05 - 5.12	20
 18-9-18	GEN 3 60% MUtech®, 0.3% Fe, 0.14% Mn	4.17	4.73	3.75	5.35	MAP	Potassium Sulfate	1.36 - 2.71	2.78 - 5.56	20
 19-0-15	100% MUtech®, 1.0% Mg, 0.5% Fe, 0.05% Mn, 0.05% Zn, 0.05% Cu	-	2.26	6.89	9.85	-	Potassium Sulfate	1.27 - 2.59	2.60 - 5.30	20
NUTRI DG® SPORTS - SGN 150 - FOR FAIRWAYS, SPORTSFIELDS & OTHER FINE TURF										
 18-24-5	35% MUtech®	4.80	7.84	2.21	3.15	MAP	Potassium Sulfate	1.53 - 3.05	3.13 - 6.25	20
 20-0-16	100% MUtech®-M	-	2.81	9.10	8.09	-	Potassium Sulfate	1.22 - 3.05	2.50 - 6.25	20
 28-0-6	GEN 3 59% MUtech®	7.60	6.00	6.90	7.50	-	Potassium Sulfate	0.87-2.62	1.79-5.36	20
DG SOIL ENHANCERS - SGN 75-100 - FOR GREENS, TEES, SPORTSFIELDS & OTHER FINE TURF										
 5-7-5 Genesis Rx®	49% MUtech®, 21.5% Humic DG™, 0.9% Fe, 3.2% Mg, 0.5% Mn, 3.7% Ca, 6.5% S, SGN 75	1.86	1.07	0.86	1.22	Struvite/ MAP	Potassium Sulfate	2.44-9.77	5.0-20.0	20
 4-22-0	SmartPhos® DG, 8% Mg, SGN 75	4.0	-	-	-	Struvite	-	1.13 - 3.43	2.30 - 7.00	18.14
 DG Lime™	Dispersible Limestone to correct or maintain soil pH 30% Ca, 4% Mg, SGN 100	-	-	-	-	-	-	0.98 - 19.60	2.00 - 4.00	22.68
 DG Gypsum™	Dispersible Gypsum for adding Ca and reducing Na 21% Ca, SGN 100	-	-	-	-	-	-	2.94 - 49.00	6.00 - 100.00	25
DG PRO® FUNGICIDES - SGN 100 - FOR GREENS, TEES, SPORTSFIELDS & OTHER FINE TURF										
 Prophecy®	0.72% Propiconazole	Prevents and controls pink snow mold, fusarium patch, gray snow mold, dollar spot, anthracnose, brown patch, summer patch, yellow patch, leaf spot, and melting out.						0.56 - 4.46	1.14 - 9.10	18

PRODUCT/TEMPERATURE USE GUIDE

 **Warm** > 27°C/80°F  **Moderate** > 10°C/50°F  **Cool** < 10°C/50°F  **Moderate** All temps

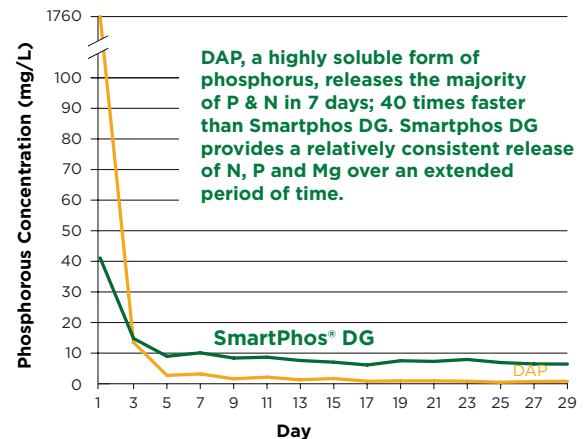
SmartPhos DG

Season-Long Feeding with High Efficiency, Recycled Phosphorous.

- Features Dispersing Granule (DG) Technology
- Contains "Struvite," a unique combination of recycled phosphorous and magnesium
- Provides season-long phosphorus feeding
- Safe for use on seedlings and established plants and turf
- Use SmartPhos DG at half the rate of traditional starter fertilizers and get the same results



PHOSPHOROUS MOVEMENT THROUGH SAND



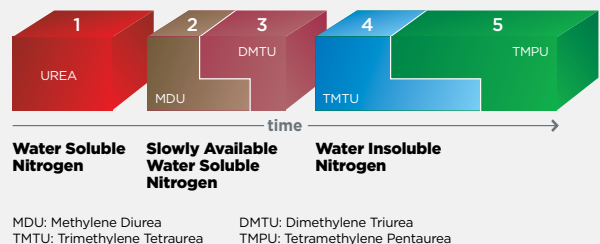
Summary (Right): SmartPhos DG's unique slow release properties make it a perfect match for golf course greens. In a leaching study conducted at The Ohio State University, columns of sand were treated with SmartPhos DG or DAP. Water was then leached through the sand twice a day for 30 days and was analyzed for nutrient content. The results indicate that the movement of soluble phosphate is very even for SmartPhos DG, as compared to DAP (diammonium phosphate), whose phosphate was exhausted after just 7 days of testing. SmartPhos DG provides your turf with balanced, slow release nutrition.

MUtech

MUtech methylene urea is highly engineered to deliver steady, predictable nitrogen release.

MUtech helps professionals get the most predictable and favorable results by providing them with the greatest flexibility in tailoring turf nutrition programs. MUtech is available in our Nutri DG®, Tee Time®, and MU-Sports™ products.

RELEASE PROFILE OF MUTECH



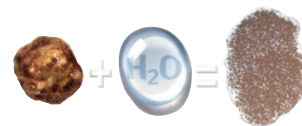
PROVEN PRODUCT BENEFITS

- Nitrogen is released through the naturally occurring action of soil microbial activity, helping nutrient performance and soil structure.
- MUtech allows consistently predictable feeding, turf color, and growth.
- Nitrogen release rate is not altered by physical damage to particles or by dispersion.
- Low salt index equals extremely low burn potential with NO fragile coating.
- Nitrogen release slows as temperatures rise above 32°C, rather than increasing like coated nutrition.

PROPHECY® FUNGICIDE

Disease control with DG Pro® Technology

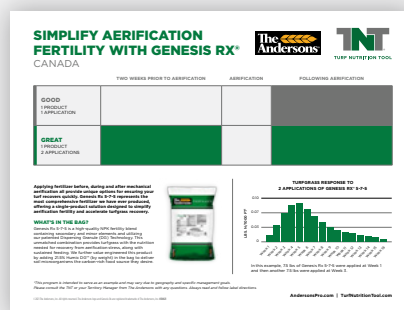
Prophecy fungicide delivered to your turf via fast acting DG Pro Technology provides prevention of Snow Mold and other common turf diseases. Because it is a DG (Dispersible Granule) Pro product, Prophecy is the ideal product for greens, tees and low-cut bentgrass fairways. With light watering, the product immediately dissolves into the target areas, eliminating any chance of mower pickup, runoff, or ball/shoe pickup.



PREMIUM AERIFICATION PRODUCTS

Mechanical aerification is a necessary management practice used to improve air, nutrient, and water movement through the soil profile. Following this destructive process, it is vital to jumpstart turfgrass recovery to quickly resume play. Our portfolio includes a broad range of solutions designed for application before, during, and after aerification, each helping to ensure rapid turf recovery.

SIMPLIFY AERIFICATION FERTILITY WITH GENESIS RX



GenesisRx® 5-7-5

Genesis Rx 5-7-5 is an all-in-one fertility and soil amendment product for easy application in conjunction with aerification. This product is a high-quality NPK fertility blend containing secondary and minor elements and utilizing our patented Dispersing Granule (DG) Technology. This unmatched combination provides turfgrass with the nutrition needed for recovery from aerification stress, along with sustained feeding. We further value engineered this product by adding 21.5% Humic DG™ (by weight) in the bag to deliver soil microorganisms the carbon-rich food source they desire.

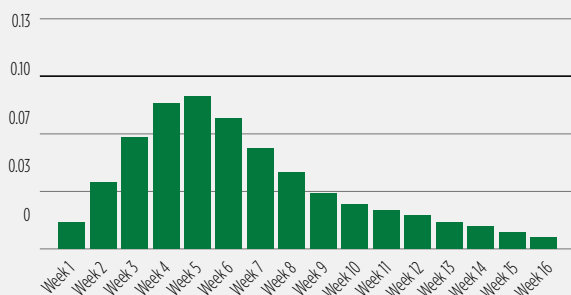
APPLICATION

Genesis Rx is recommended for application following your normal aerification program. Typical application rates range from 5-20 pounds of product per 1000 ft². Product may be broadcast applied and placed into aerification holes via drag mat or broadcast applied in conjunction with sand topdressing. For complete application instructions, consult product label.



Get your Aerification Fertility Guide at **AndersonsPro.com**

TURFGRASS RESPONSE TO 2 APPLICATIONS OF GENESIS RX® 5-7-5



In this example, 7.5 lbs of Genesis Rx 5-7-5 were applied at Week 1 and then another 7.5 lbs were applied at Week 3.



Humic[®]DG™ CharX[®]

Humic DG CharX harnesses the power of humic acid and biochar in a 50/50 blend, providing the benefits of the more quickly-available humic acid and the long-term soil building qualities of biochar. This product is designed to enhance the efficiency of applied nutrients while improving soil moisture retention. Along with carbon, biochar also contains karrikins, a family of bioactive compounds that stimulate root growth. DG Technology improves coverage and enhances the efficiency of recovery efforts.

APPLICATION

Humic DG CharX is recommended for application after aerification as a stand-alone topdress treatment or incorporated with topdressing sand or fertilizer applications. Apply 1-2 lbs per 1,000 ft² per application, up to 4.5 lbs per 1,000 ft² per year. For complete application instructions, consult product label.

Humic[®]DG™

Humic DG is a powerful humic acid-based soil amendment perfect for application following aerification or other intensive maintenance practices. Its patented dispersing granules are the perfect counterpart for sand topdressing or in conjunction with other premium aerification products such as Genesis Rx 5-7-5. Humic DG contains all three humic fractions: fulvic acid, humic acid and humins. Humic DG also contains 10% humic acid precursor, a plant-based carbon source which aids in stress recovery.

Humic acid is a natural soil conditioner, organic chelator, and microbial stimulator that provides the following benefits:

- Supplies an oxidized, soluble carbon source, leading to improvement in long-term soil pH
- Enhances efficiency of applied nutrients and increases availability of soil phosphorus
- Retains soil moisture and enables better water penetration in the soil, resulting in reduced water requirement
- Chelates soil micronutrients, increasing their availability

APPLICATION

Humic DG is recommended for application after aerification as a top-dress treatment. Typical application rates range from 1-2 lbs. of product per 1000 ft² and can be mixed directly in with sand for easy application. For complete application instructions, consult product label.

Black Gypsum[®]DG™

Black Gypsum DG 21% is a unique soil amendment containing gypsum and humic acid in a homogenous dispersible granule. In past years, gypsum applications made with the anhydrite (CaSO₄) form of calcium (one water molecule) could take weeks to become available for plant uptake. This prolonged uptake process severely limited a turfgrass manager's ability to jumpstart the soil remediation process. The gypsum source in Black Gypsum DG 21% is calcium sulfate dihydrate (CaSO₄·2H₂O). With two extra water molecules, this form is more water soluble than the anhydrite form (CaSO₄). This improved solubility means that uptake into the turfgrass plant occurs much quicker. The dihydrate form of gypsum also provides increased application flexibility for year-round soil remediation versus standard anhydrite forms of gypsum.

APPLICATION

Black Gypsum DG 21% is recommended for application after aerification as a top-dress treatment. The product is typically applied at 6 lbs. per 1000 ft² and can be mixed directly in with sand for easy application. For complete application instructions, consult product label.

DG Lime™ DG Gypsum™

DG Lime and DG Gypsum are premium specialty soil amendments. DG Lime provides plant-essential calcium and magnesium while increasing soil pH. In addition to calcium, DG Gypsum also provides sulfur, which stimulates soil microbiology while reducing soil pH. Both products feature Dispersing Granule Technology, which ensures quick breakdown of the granules with no residual left behind for potential mower pickup.

APPLICATION

DG Lime and DG Gypsum are recommended for application after aerification as a top-dress treatment. Typical application rates range from 25-40 lbs. per 1000 ft² and can be mixed directly in with sand for easy application. For complete application instructions, consult product labels.

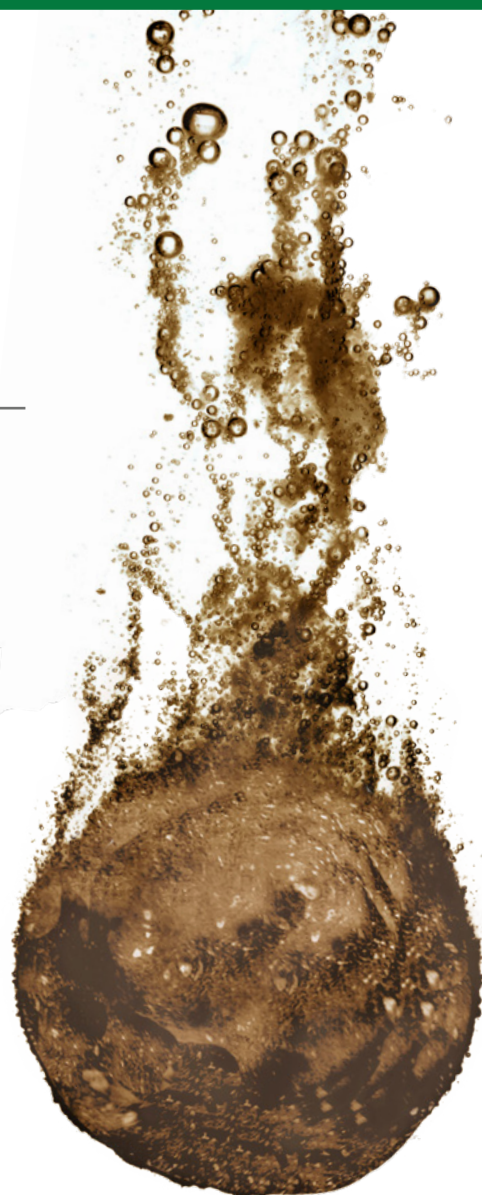


DIFFERENT BY DESIGN

Foltec SG is an innovative foliar nutrient technology from The Andersons. Designed to be different, Foltec SG has changed the way superintendents and turf managers think about complex foliar nutrition programs.

Unlike industry standard liquid fertilizers consisting of numerous formulations and packaged in cumbersome plastic jugs, Foltec SG is a proprietary combination of dry Soluble Granules (SG) that quickly solubilize in the spray tank. This combination creates a complete nutrition product that reduces the need for a complex tank mix using a wide variety of products. Each Foltec SG product contains a specific N-P-K ratio along with essential micronutrients, UltraMate® SG sulfonated potassium humate, and sea plant extract.

Foltec SG can be introduced into the spray tank through an inductor, or by removing the basket strainer and pouring Foltec SG directly into the spray tank, with adequate water and agitation. Foltec SG solubilizes thoroughly and is compatible with many commonly used control products.



WHY PAY FOR WATER?

Foltec SG has changed the way turf managers think about complex foliar nutrition programs with complete soluble granule nutrition, transportation and storage benefits, and easy-to-understand coverage and application rates.



Shipping Foltec SG's dry, 100% soluble granules saves on transportation costs compared to heavier, liquid products.



Dry product removes the potential for freezing, as Foltec SG does not become liquid until it is ready to be used.



Foltec SG's resealable, foil-lined bags eliminate the need to triple-rinse plastic jugs in preparation for disposal.



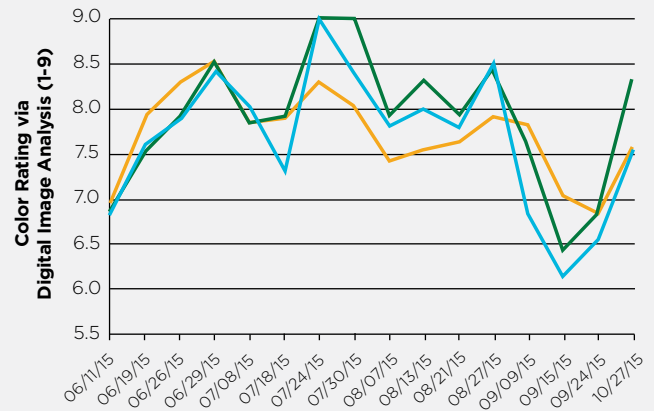
Foltec SG's thin, lightweight packaging eliminates the need to stockpile a collection of plastic jugs slated for the landfill.

REAL WORLD PERFORMANCE

Foltec SG has been developed and field tested to ensure maximum solubility and superb agronomic performance. Replicated testing at Michigan State University (upper right graph) and the University of Arkansas (middle right graph) confirms excellent performance on varieties of bentgrass and ultradwarf bermudagrass. When compared to a leading competitor's program, treatments that included Foltec SG had superior quality and color. Foltec SG provided exceptional greening of the turf canopy within a very short period of time following application. This quick green up surpassed the performance of the leading competitor and impressed the researchers at both universities. For more specific information on field testing, please visit FoltecSG.com.

MICHIGAN STATE UNIVERSITY

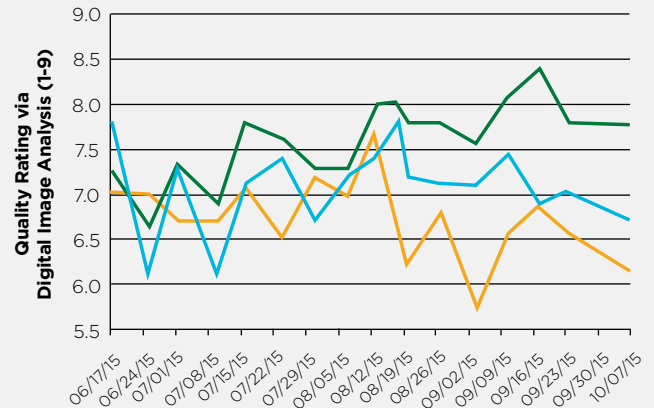
AVERAGE TURF COLOR — T1 BENTGRASS



The decrease in color observed in late August through mid-September was due to high dollar spot pressure on all test plots.

UNIVERSITY OF ARKANSAS

AVERAGE TURF QUALITY — TIFEAGLE BERMUDAGRASS



- Foltec SG
- Foltec SG + Foltec Minors
- Leading Competitor



SOLUBLE FERTILIZERS

FOLTEC® SG

Product	Delivers lbs of Nutrient per M			Other Nutrients (%)					UltraMate® SG lbs/acre	Sea Plant Extract lbs/acre	Package	Case
	N	P	K	Mg	Fe	Mn	Cu	Zn				
Foltec® SG 24-0-8	0.075	0.000	0.025	0.0	1.0	0.5	0.07	0.1	0.5	0.16	13.6 lbs	3 x 13.6 lbs
Foltec® SG 8-0-24	0.025	0.000	0.075	0.5	1.0	0.5	0.07	0.07	0.5	0.16	6.8 lbs	6 x 6.8 lbs
Foltec® SG 8-24-8	0.025	0.075	0.025	0.5	1.0	0.5	0.07	0.07	0.25	0.16	13.6 lbs	3 x 13.6 lbs
Foltec® SG 16-0-16	0.05	0.000	0.05	0.5	1.0	0.5	0.07	0.07	0.5	0.16	13.6 lbs	3 x 13.6 lbs
Foltec® SG Minors	-	-	-	3.0	4.7	3.5	0.15	0.34	0.028	0.028	2.25 lbs	10 x 2.25 lbs

FOLTEC SG SUGGESTED PRODUCT COMBINATIONS

Blend Name	Product Combinations	Delivers lbs of nutrient per M			UltraMate® SG lbs/acre	Sea Plant Extract lbs/acre	Package 13.6 lbs
		N	P	K			
Turf Foundation	24-0-8 & 8-0-24	0.100	0.000	0.100	1.0	0.32	1 each formula/acre
Aerification	24-0-8, 8-0-24, & 8-24-8	0.125	0.075	0.125	1.25	0.48	1 each formula/acre

HUMIC BASED SOLUBLE FERTILIZERS

Product Product Code	Feature	Typical Rates		Lbs Nutrient/M			N Sources (%)			SGN*	Density	Pkg. Wt.
		Lbs/M	Lbs/A	N	P	K	Amm N	Urea N	Nitrate			
HCU® 44-0-0	2% Humic Acid	2.27	43.5	1.0	-	-	-	44.00	-	215	46.0	50 lb
HCAS™ SG 20-0-0	2% Humic acid	0.25 - 2.5	11 - 109	0.05 - 0.5	-	-	20.0	-	-	100	58.0	25 lb

NEW AND IMPROVED



TURF NUTRITION TOOL

The Turf Nutrition Tool (TNT) is a web-based platform that allows turf managers to create custom nutrition programs and model the nitrogen release of many of our most popular granular and foliar products.

Perfect for building season-long nutrition programs or comparing approaches for in-season practices like aerification, the TNT simplifies both product selection and application scheduling.

GET STARTED TODAY AT [TURFNUTRITIONTOOL.COM](https://turfnutritiontool.com)



HUMIC PRODUCTS

HUMIC SUBSTANCES

Humates, or humic substances, are a naturally occurring, mined material. Like coal, humates occur as a result of the compression and degradation of nutrient-rich deposits of plant and animal remains. This produces a highly reactive, carbon-rich material that serves as a powerful addition to a turf management program.

Humates make up 60-80% of soil organic matter.¹ This soil organic matter provides substantial benefit to both

soil and plants, increasing nutrient holding capacity, water holding capacity, and stable aggregates.

We utilize the highest quality humates in a complete range of products designed to improve plant nutrient uptake, efficacy, and rooting capacity, which yields an increased tolerance to many environmental stressors (drought, temperature, traffic).

				
HUMIC DG™	HUMIC DG™ CHARX®	BLACK GYPSUM DG®	HCU® 44-0-0 (HUMIC COATED UREA)	HCAS™ 20-0-0-23S (HUMIC COATED AMMONIUM SULFATE)
Dispersing Granules	Dispersing Granules	Dispersing Granules	Soluble Granules	Dry or Soluble Granules
Broadcast Applied	Broadcast Applied	Broadcast Applied	Broadcast or Spray Applied	Broadcast or Spray Applied
62% Humic Acid (A&L Method)	30% Humic Acid (A&L Method)	21% Humic Acid (A&L Method)	2% Humic Acid (A&L Method)	2% Humic Acid (A&L Method)
75 or Standard SGN	SGN 200	75 or Standard SGN	Standard SGN	Standard SGN or Soluble

1. Brady, Nyle C, and Ray R Weil. The Nature and Properties of Soils. 14th ed., Pearson Education, 2008

WHY HUMIC ACID?

Humic acid is a natural soil conditioner, organic chelator, and microbial stimulator that provides the following benefits:

- Supplies an oxidized, soluble carbon source, leading to improvement in long-term soil pH
- Enhances efficiency and availability of applied nutrients
- Chelates soil micronutrients, increasing their availability
- Improves cation exchange capacity
- Enhances soil structure and biology
- Reduces water requirements by increasing water holding capacity and enabling better water penetration in the soil

THE THREE HUMIC FRACTIONS

NATURALLY DERIVED BIO-ORGANIC CARBON SOURCES



Foliar Uptake



Soil Uptake

Humates are composed of three major fractions: fulvic acids, humic acids, and humins. Each of these fractions has some similar and some unique physical and chemical properties that contribute to their effectiveness and complement fertilizer programs. Our products contain all three forms of humic substances, maximizing the product benefits.

FULVIC ACIDS are highly soluble and readily absorbed by leaves, making them well-suited for foliar application. Fulvic acids enhance the absorption of nutrients and the efficiency of plant metabolic reactions.



HUMIC ACIDS are moderately soluble. They have a high cation exchange capacity (CEC), which helps increase a soil's nutrient holding capacity. Humic acid molecules chelate many essential nutrients and help stimulate soil microbiology.



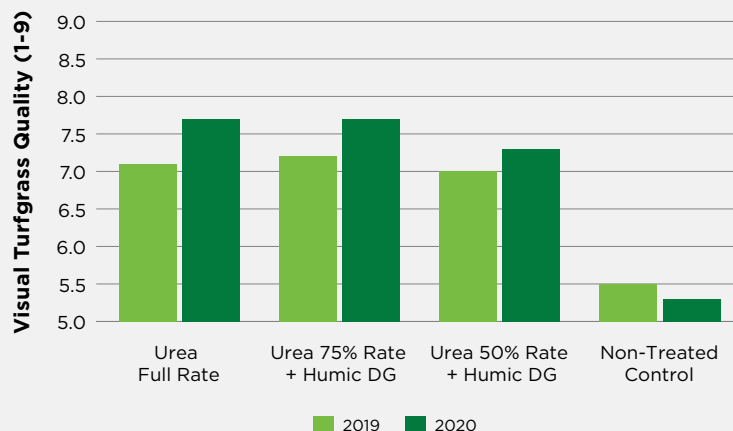
HUMINS are the least soluble form of humic substances. They contain high levels of carbon and have large nutrient holding capacity. Humins persist in soils for very long periods of time.



In addition to the three humic fractions, humic products utilizing The Andersons Dispersing Granule (DG) Technology contain a unique and powerful ingredient we call humic acid precursor. **HUMIC ACID PRECURSOR** contains a soluble form of organic carbon that releases into the soil as DG granules disperse. Through biochemical reactions, it is transformed into humic and fulvic acids, enhancing nutrient uptake and improving soil health.

HUMIC DG™ TURFGRASS QUALITY

IOWA STATE UNIVERSITY | KENTUCKY BLUEGRASS

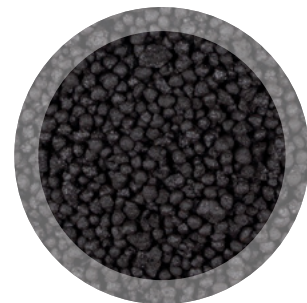


At Iowa State University, field trials were conducted to determine if reduced nitrogen (N) fertilizer rates coupled with humic substances could provide comparable turfgrass quality as compared to full N rates without humic substances. Full fertilizer rate was 1 lb N per M; reduced rates were relative to full rate. Four applications were made (April, May, Sept, Oct). Humic DG was applied at 0.9 lb product per M. (M = 1000 ft²).

Treatments with reduced N rates and a humic component (Urea @ 75% + Humic DG, urea @ 50% + Humic DG) were similar in turfgrass quality and percent green cover to full N rate treatments (Urea @ 1.0 lb per M).

Humic[®]DG™ | 62% HUMIC ACID

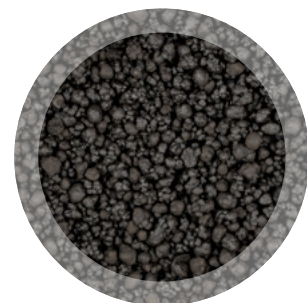
Humic DG consists of a full spectrum of soil-nourishing humic substances including: fulvic acid, humic acid, humin, and humic acid precursor. Dispersing Granule (DG) Technology creates a dust-free, dry particle that rapidly disperses into thousands of microparticles upon contact with moisture. The dust-free, rapidly-dispersing nature of Humic DG is in stark contrast to traditional screened humate products that are dusty and slower to break down.



Humic[®]DG™ CharX® | 30% HUMIC ACID

Humic DG CharX is a 50/50 blend of humic acid and biochar in a dust-free, spherical and dispersible granule. The Andersons Dispersible Granule (DG) technology provides hundreds of thousands of small particles of humic acid and biochar after being exposed to water. The list of benefits that can be derived from using biochar is very similar to humic acid products like Humic DG. Both humic acid and biochar are reported to improve soil characteristics in the following capacities:

- Enhances nutrient efficiency, retention and cation exchange capacity
- Enhances soil structure, porosity and water holding capacity
- Reduces potential nutrient leaching in soils
- Aids in amending acidic soils, due to biochar's pH of 7.0
- Provides a habitat and carbon food source for soil microorganisms

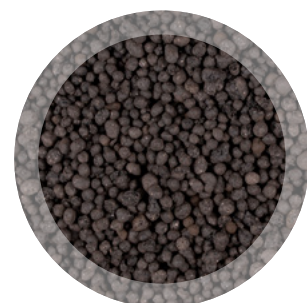


Black Gypsum[®]DG™ | 21% HUMIC ACID

It is common for turfgrass managers combating sodic soil conditions to utilize gypsum products to help leach sodium (Na^+) from the rootzone and to improve soil structure. In past years, gypsum applications made with the anhydrite (CaSO_4) form of calcium (one water molecule), could take weeks to become available for plant uptake. This prolonged uptake process severely limited a turfgrass manager's ability to jumpstart the soil remediation process.

The gypsum source in Black Gypsum DG is calcium sulfate dihydrate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$). With two extra water molecules, this version is more water soluble than its anhydrite counterpart (CaSO_4). This improved solubility means that uptake into the turfgrass plant occurs much quicker. The dihydrate form of gypsum also provides increased application flexibility for year-round soil remediation versus standard anhydrite forms of gypsum.

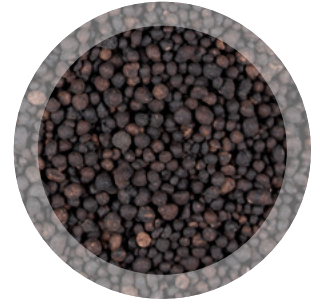
- Utilizes The Andersons Dispersing Granule (DG) Technology
- Delivers humic acid in all forms (fulvic acid, humic acid, and humin)
- Provides humic substances containing carbon, giving soil microbes a food source and habitat, and allowing microbial populations to flourish
- Allows essential macro and micronutrients in the soil to become more plant available
- Enhances the soil's ability to hold nutrients



HCU | 44-0-0 + HUMIC ACID

HUMIC COATED UREA

This proprietary technology from The Andersons produces a cost-effective 44-0-0 nitrogen granule that is bonded with potassium humate. Clean, spherical, free flowing granules are 100% soluble for use in both liquid and dry applications. HCU (Humic Coated Urea) granules can be applied to all types of cool and warm season turf, landscape and nursery ornamentals, and specialty crops.

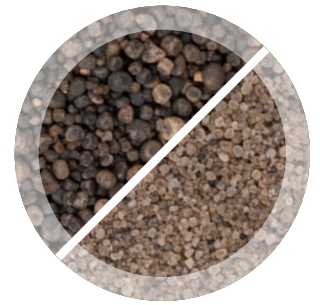


HCAS | 20-0-0-23S + HUMIC ACID

HUMIC COATED AMMONIUM SULFATE

Utilizing proprietary technology to produce clean, spherical, free-flowing granules bonded with potassium humate, HCAS (20-0-0-23S) is a versatile fertility product that can be used in many turfgrass, nursery, ornamental, or specialty crops applications.

- Provides an ideal nitrogen source for the cooler months of the growing season
- Complementary to HCU or PCHCU applications in the warmer months of the growing season
- Available in two formulations:
 - *Large particle, spreadable granules for broadcast applications*
 - *Small particle, soluble granules for foliar applications*



HUMIC PRODUCTS

Product	Humic Acid Content (A&L Method)	Analysis (%)			SGN	Use Rates on Turf	Bulk Density (kg/m ³)	Pkg. Size
		Calcium Sulfate Dihydrate (CaSO ₄ • 2H ₂ O)	Calcium (Ca)	Sulfur (S)				
Humic DG™	62%	-	-	-	75 or 240	45-225 kg/ha 40-200 lbs/ac	640	20 kg poly bag 907 kg bulk bag
Humic DG™ CharX®	30%	-	-	-	200*	45-225 kg/ha 40-200 lbs/acre	593	20 kg poly bag
Black Gypsum DG®	21%	48.0	12.0	8.9	75 or 240	150-600 kg/ha 130-250 lbs/acre	785	20 kg poly bag 907 kg bulk bag
HCU® 44-0-0	2%	-	-	-	215	Spray: 11.5-115.0 kg/ha Dry: 85-170 kg/ha	737	22.68 kg bag
HCAS™ 20-0-0	2%	-	-	23.0	240	98-245 kg/ha 87-218 lbs/acre	929	22.68 kg bag
HCAS™ SG 20-0-0	2%	-	-	23.0	100	12.4-122.4 kg/ha 11-108 lbs/acre	929	11.34 kg bag

FERTILIZERS WITH HUMIC

Product	Feature	SGN	Typical Rates			Sources		Use Rates on Turf	Pkg. Wt.
			Products Lbs/M	Nutrients Lbs/M	Black Gypsum DG Lbs/Acre	P	K		
22-0-4	50% of N from HCU 43% Black Gypsum DG	240	4.0	0.88 N	74	-	SOP	1.7-2.20 kg/100m ² 3.5-4.5 lb/1000ft ²	20 kg

*SGN size can range from 180-240 SGN depending on raw material supply and sizing

FERTILIZERS / LIQUID ICE MELT

NPK	Description	N Composition (%)				P Source	K Source	Rates kg/100 m ²	Rates lb/1000 ft ²	Pkg. Wt. kg
		Amm N	Urea N	WIN	WSN					

TEE TIME®

Tee Time® products are high quality SGN 100 blended fertilizers for greens, tees & fairways. Key ingredients include MUTECH® slow release nitrogen and potassium sulfate.

TEE TIME® - BLENDED SGN 100 - FERTILIZERS FOR GREENS & TEES

13-2-13	2% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	13.00	-	-	-	MAP	Potassium Sulfate	0.98 - 1.96	2.00 - 4.00	22.68
14-28-10	50% MUTECH®, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	5.92	2.13	2.45	3.50	MAP	Potassium Sulfate	0.88 - 2.65	1.80 - 5.40	20

SPECIALTY NUTRIENTS - SGN 100

0-0-30	3% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	-	-	-	-	-	Potassium Sulfate	1.23 - 2.03	2.50 - 4.15	20
A-TEP	Micro Package / 12% Mg, 8% Fe, 3% Mn, 0.1% Zn, 0.1% Cu	-	-	-	-	-	-	0.69 - 1.13	1.40 - 2.30	22.68

POLYSPORTS™

PolySports® products are high quality SGN 150-240 blended fertilizers designed for higher cut turf such as fairways & sportsfields. Slow release nitrogen comes from NS-54® polymer coated sulfur coated urea.

POLYSPORTS™ MINI - SGN 150 - FERTILIZERS FOR FAIRWAYS & SPORTSFIELDS WITH NS-54®

21-0-20	100% NS-54®	-	21.00	-	-	-	Potassium Sulfate	1.76 - 2.93	3.6 - 6.0	20
23-2-10	65% NS-54®, 5% Fe	0.78	22.22	-	-	DAP	Potassium Sulfate	1.59 - 2.67	3.25 - 5.45	20
25-2-9	96% NS-54®, 2% Fe	0.78	24.22	-	-	DAP	Potassium Sulfate	1.45 - 2.45	3.0 - 5.0	20

POLYSPORTS™ - BLENDED SGN 240 FERTILIZERS FOR FAIRWAYS & SPORTSFIELDS WITH NS-54®

33-3-6	96% NS-54®	1.17	31.83	-	-	DAP	Potassium Chloride	1.46 - 2.25	3.0 - 4.6	20
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LIQUID ICE MELT



OUTPERFORMS THE COMPETITION
Ice Vise melts over 35% more ice at -20°C than the leading liquid deicer.

- NO TRACKING INDOORS
- PROFESSIONAL GRADE
- SAFE FOR TURF AND PLANTS

Ice Vise is a professional grade, chloride-free liquid ice melt designed to be applied to high traffic areas around commercial or residential locations including sidewalks, ramps, and steps. Applying Ice Vise during or after a winter weather event will help to deice these surfaces, providing a safer environment for walking. Ice Vise's chloride-free formula is the safest ice melt option for interior surfaces.

Available packaging sizes: 2x2.5 gallon (9.46 L), 35 gallon (132.48 L) drum, and 275 gallon (1,041.88 L) tote

For more information, visit AndersonsPlantNutrient.com/IceVise

PROFESSIONAL SPREADERS



MODEL 2000 SR™
PROFESSIONAL
ROTARY SPREADER



MODEL 2000™
PROFESSIONAL
ROTARY SPREADER



MODEL SSD
PROFESSIONAL
DROP SPREADER

Patented "Helical Cone" technology	✓	✓	—
Durable, stainless steel frame	✓	—	—
Heavy duty frame tubing for extra rigidity	✓	✓	✓
Quick open gear housing	✓	✓	—
Limited lifetime gear warranty	✓	✓	—
21-inch wheel base	✓	✓	—
Extra-large (80-lb) hopper capacity	✓	✓	—
13" turf saver pneumatic tires	✓	✓	✓
Integrated front lift handle	✓	✓	✓
Hopper cover	✓	✓	✓
Side deflector	✓	Available	—

EXCLUSIVE HELICAL CONE TECHNOLOGY

The Andersons Model 2000 and Model 2000 SR professional spreaders include our innovative helical cone technology. The helical cone, located above the impeller, can be adjusted to place the fertilizer at the correct location on the impeller to provide an even spread pattern. The helical cone allows for even spreading of all sizes of fertilizer granules, and it is only available from The Andersons.

PRIZELAWN® ARC 1 ACCURATE CALIBRATOR

The Prizelawn Calibrator attaches to the spreader and collects granular materials or seeds, which can then be easily removed for weighing to determine the accuracy of the spreader setting with a given product. The ARC 1 Calibrator will fit most professional rotary spreaders.



▶ For more information on our line of professional-grade spreaders, visit The Andersons Pro YouTube channel: [YouTube.com/AndersonsPro](https://www.youtube.com/AndersonsPro)

ABOUT THE ANDERSONS, INC.

The Andersons, Inc. is a diversified company rooted in agriculture that conducts business in the commodity merchandising, ethanol biofuels, and plant nutrient sectors. Guided by its Statement of Principles, The Andersons strives to provide extraordinary service to its customers, help its employees improve, support its communities, and increase the value of the company.

Founded by Harold Anderson and his family in 1947 in Maumee, Ohio, and privately owned until 1996, the premise of the original organization was to make it as easy as possible for regional farmers to take their grain to market. The business model of serving others is the foundation on which the company was built. Today, The Andersons' more than 2,400 employees conduct business from over 150 locations and continue to be committed to providing extraordinary service with the utmost integrity.



Our Mission:

We firmly believe that our Company is a powerful vehicle through which we channel our time, talent, and energy in pursuit of the fundamental goal of serving God by serving others. Through our collective action, we greatly magnify the impact of our individual efforts to:

- Provide extraordinary service to our customers
- Help each other improve
- Support our communities
- Increase the value of our Company



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