

# 2023 TURF AND AMENITY





DISPERSING GRANULE NUTRITION

FOLIAR NUTRITION

**HUMIC PRODUCTS** 

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, freeflowing granules deliver nitrogen and humic acid simultaneously. Select CarbonCoat products also utilize a polymer coating to extend their nutrient release.



#### THE CARBONCOAT FAMILY

**COMING SOON!** 



44-0-0

**Urea granules** with a potassium humate coating

2% Humic Acid (A&L Method)

7-14 day release



20-0-0-23S

Ammonium sulfate granules with a potassium humate coating

> 2% Humic Acid (A&L Method)

7 day release

PCHCU.

40-0-0

Urea granules with a potassium humate coating + a polymer coating

> 2% Humic Acid (A&L Method)

70 day release

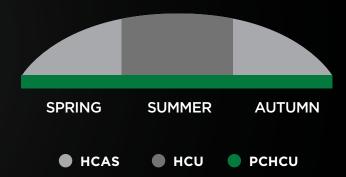
#### **APPLICATION TIMING**

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

#### **COOL SEASON TURF**

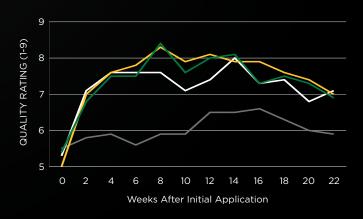


#### WARM SEASON TURF



#### **POLY-COATED HUMIC FERTILIZERS**

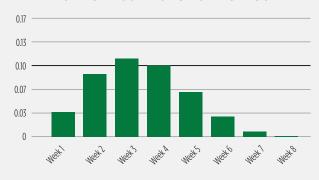
**AVERAGE TURF QUALITY** 



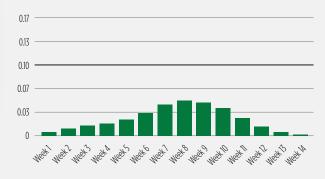


Research Summary: Showing data averaged over two years, average turf quality of PCHCU was equal to or better than a standard stabilized nitrogen source. Turfgrass evaluated was Kentucky bluegrass at 3" height of cut.

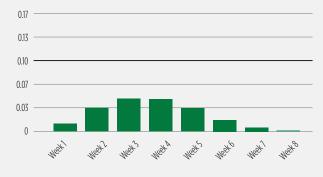
#### **TURFGRASS RESPONSE TO HCU®**



#### **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 6)

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 10)

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 18)

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 10)

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

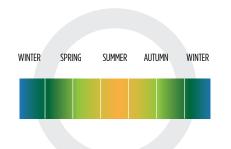
#### **MAXIMIZE**

by creating a turf nutrition plan



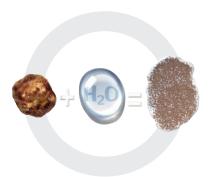
#### **CUSTOMIZE**

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.

#### PRODUCT USE BASED ON SEASONAL GROWTH HABITS

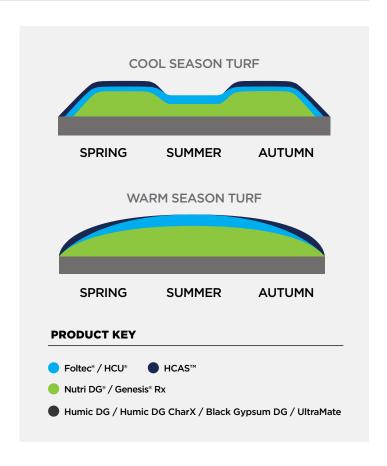
#### COOL SEASON TURF

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.

#### WARM SEASON TURF

Warm season turf generally requires a higher percentage of its nutrition to be delivered during the period of late spring through early autumn. A baseline turf nutrition plan includes soil-based granular applications throughout the growing season. Foliar nutrition is then applied to complement granular baseline nutrition.

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



# lutri

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 dryapplied 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 areens and fairways products: 17+0+17, 18+9+18, 28+0+6. 6+0+12. and 12+3+12 For product listings see page 8.

#### 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<sup>TM</sup> 0+0+12, Kal-tec<sup>B</sup> 0+0+13, 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.

# HUMIC ACID PRECURSOR BIOCHEMICAL REACTIONS IN THE SOIL FULVIC ACIDS HUMIC ACIDS

#### **DISPERSING GRANULE NUTRITION**

NPK*	Description		K Source	Application Rates g/m²	<b>Nitrogen</b> g/m²	2000 SR Spreader Settings'''	Cone Setting	Pkg. Wt. kg
NUTRI DG® GRI	EENS - SGN 75 - FOR GREENS, TEES,	SPORTS	FIELDS & OTHE	R FINE TU	₹F			
0+0+12 (O+O+10)	Mag-tec™, 24% Mg	-	Sulfate of Potash Magnesia	10 - 20	1.20 - 2.40 K₂O	I - K 1/2	9	25
<b>0+0+13</b> (0+0+10.8)	Kal-tec*, 9.2% Ca, 2.0% Mg, 1.5% Mn	-	Sulfate of Potash Magnesia, Potassium Sulfate	25-40	3.25 - 5.2 K₂O	L 1/4 - O 3/4	9	25
<b>0+0+25</b> (0+0+20.8)	3.0% Mn, 4.0% Mg, Bio-enhanced with Amvital™	-	Sulfate of Potash Magnesia, Potassium Sulfate	15 - 30	3.74 - 7.50	I - K 3/4	9	20
<b>6+0+12</b> (6+0+10)	<b>GEN 3</b> 5.0% Mn, 2.0% Mg	-	Sulfate of Potash Magnesia, Potassium Sulfate	15 - 30	0.90 - 1.80	I 3/4 - M	9	20
<b>9+0+18</b> (9+0+14.9)	65% MUtech*, 0.3% Fe, 6.0% Mn	-	Potassium Sulfate	15 - 30	1.35 - 2.70	J - M 1/2	9	20
<b>10+5+20</b> (10+2.2+16.6)	50% MUtech*, 0.3% Fe, 0.5% Mn, 0.5% Mg	MAP	Potassium Sulfate	15 - 30	1.50 - 3.00	I 1/2 - L 1/4	9	20
<b>12+3+12</b> (12+1.3+10)	<b>GEN 3</b> 0.3% Fe, 0.5% Mn, Bio-enhanced with Amvital™	MAP	Potassium Sulfate	15 - 25	1.80 - 3.00	I 3/4 - L	9	20
<b>12+24+8</b> (12+10.5+6.6)	50% MUtech*, 0.3% Fe, 0.5% Mn	MAP	Potassium Sulfate	15 - 30	3.60 - 7.20 P <sub>2</sub> O <sub>5</sub>	I 3/4 - L 1/2	9	20
<b>13+0+26</b> (13+0+21.6)	100% MUtech®	-	Potassium Sulfate	15 - 25	1.95 - 3.25	I 1/2 - K 1/2	9	20
<b>14+7+14</b> (14+3.1+11.6)	60% MUtech*, 0.3% Fe, 0.14% Mn	MAP	Potassium Sulfate	15 - 30	2.10 - 4.20	I 3/4 - L 1/2	9	20
<b>17+0+17</b> (17+0+14.1)	<b>GEN 3</b> 50% MUtech*, 0.5% Fe, 0.25% Mn	-	Potassium Sulfate	15 - 30	2.55 - 5.10	I 3/4 - L 1/2	9	20
<b>18+3+18</b> (18+1.3+14.9)	93% MUtech®	MAP	Potassium Sulfate	15 - 30	2.70 - 5.40	I 3/4 - L 1/2	9	20
<b>18+9+18</b> (18+4+14.9)	<b>GEN 3</b> 60% MUtech*, 0.3% Fe, 0.14% Mn	MAP	Potassium Sulfate	15 - 30	2.70 - 5.40	I 3/4 - L 1/2	9	20
NUTRI DG® SPO	DRTS - SGN 150 - FOR FAIRWAYS, SP	ORTSFIE	ELDS & OTHER F	INE TURF				
<b>20+0+16</b> (20+0+13.3)	100% MUtech*-M	-	Potassium Sulfate	15 - 30	3.00 - 6.00	K 1/2 - N 1/2	5	20
<b>28+0+6</b> (28+0+5)	GEN 3 59% MUtech*	-	Potassium Sulfate	15 - 25	4.20 - 7.00	K 3/4 - M 3/4	5	20
DG SOIL ENHA	NCERS - SGN 75-100 - FOR GREENS,	, TEES, S	PORTSFIELDS 8	OTHER FI	NE TURF			
5+7+5 Genesis Rx* (5+3+4.1)	49% MUtech*, 21.3% Humic DG <sup>™</sup> , 0.9 Fe, 3.2 Mg, 0.5 Mn, 3.7 Ca, 6.5 S, SGN 75	Struvite/ MAP	Sulfate of Potash	25 - 100	1.75 - 7.0 P <sub>2</sub> O <sub>5</sub>	K 1/2 - W 3/4	9	20
DG Lime™	Dispersible Limestone, 30% Ca, 4% Mg, SGN 100	-	-	10 - 20****	-	I-R	8	25
DG Gypsum™	Dispersible Gypsum, 21% Ca, SGN 100	-	-	25 - 500****	-	K 1/2 - R 1/4	9	25

#### PRODUCT/TEMPERATURE USE GUIDE

**Warm** > 27°C

Cool < 10°C

Moderate 10°C - 27°C

All Season

<sup>\*</sup> NPK - The first line of NPK is analysis as N +  $P_2O_5$  +  $K_2O$ . The second line is analysis as N + P + K.

<sup>\*\*</sup> P Source: MAP = Monoammonium phosphate DAP = Diammonium phosphate

<sup>\*\*\*</sup> Spreader settings are not intended to replace spreader calibration or bag label spreader settings.

Always check the bag label for additional spreader setting information and calibrate your spreader before applying product.

<sup>\*\*\*\*</sup> See label for additional details

#### **DISPERSING GRANULE NUTRITION**



The process of mechanical aerification is a necessary management tool to improve airflow, nutrient and water movement through the soil profile. Following this destructive process, it is vital to jumpstart turfgrass recovery to a quality level necessary to resume play. **Determining the right fertility** approach for your aerification program can be a difficult task. Applying fertilizer before, during, and after mechanical aerification all provide unique options for ensuring quick turf recovery.

#### **GenesisR**\* 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 25-100 g/m². 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.

### **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 1 2 3 4 5 TMPU Water Soluble Nitrogen Slowly Available Water Soluble Nitrogen Nitrogen MDU: Methylene Diurea DMTU: Dimethylene Triurea TMTU: Trimethylene Tetraurea TMPU: Tetramethylene Pentaurea

#### **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.



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 of soluble granules 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 and sea plant extract.

We are changing 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.



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



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**

Product	Package	<b>Delivers</b> kg of Nutrient per hectare			Othe	r Nutrient	UltraMate* SG	Sea Plant Extract				
										kg/ha	kg/ha	
<b>Foltec® SG 24-0-8</b> 3 x 6.16 kg case	6.16 kg	1.5	-	0.5	0.0	1.0	0.5	0.07	0.1	0.22	0.07	
<b>Foltec® SG 16-0-16</b> 3 x 6.16 kg case	6.16 kg	1.0	-	1.0	0.5	1.0	0.5	0.07	0.07	0.22	0.07	
<b>Foltec® SG 8-24-8</b> 3 x 6.16 kg case	6.16 kg	0.5	1.5	0.5	0.5	1.0	0.5	0.07	0.07	O.11	0.07	
Foltec® SG Minors 10 x 1 kg case	1.00 kg	-	-	-	3.0	4.7	3.5	0.15	0.34	0.03	0.03	



Foltec LQ Ultra is a foliar feeding nutritional line derived from the highest quality ingredients intended for use on premium cut turfgrass. Foltec LQ Ultra formulations are designed to boost turf pre-stress conditioning and improve overall nutrient efficiency. Select formulations contain value added ingredients including: amino acids, sea plant extracts and micronutrients.

#### **AMINO ACIDS**

Under the myriad of stressful conditions turfgrass may face it may be difficult for the plant to produce ample levels of essential amino acids. Foliar applications of L-amino acids translocate through the leaf and help the plant maintain healthy growth during stressful conditions.

#### **SEA PLANT EXTRACTS**

Sea plant extracts are derived from the most biologically active sea plant species in the world. They contain a complex array of organic and mineral compounds which include vitamins, sugars, enzymes and proteins that help promote turf health and improve drought tolerance. See the picture below comparing turfgrass treated with sea plant extracts vs untreated plants subject to abiotic stress from drought.



#### **FOLTEC LQ ULTRA MINORS**

#### POWERED BY KEYPLEX®

KeyPlex is more than a minor element package. KeyPlex provides a complex of essential plant nutrients and bio-enhancements and utilizes the most efficient delivery system to supply them.



#### **INTRODUCING SEATHRU®**

Unlike other sea plant extracts, which can bring foul odors and lack solubility, SeaThru clear sea plant extract delivers a highly-soluble formulation without the unwelcome smells. Featured in select Foltec LQ formulations, SeaThru has been shown to improve root growth, soil microbial activity, stress tolerance, and overall plant quality.

#### **FOLTEC® LQ ULTRA** 2 x 9.46 liter cases

Product	Cool Season Warm Season Turf Turf		Spray Volume	Other Nutrients (%)						рН	kg/L	Bio-Enhancements			
	liters/ha	liters/ha	liters/ha	Ca								<b>P</b>	g/ =	J.o Emiancement	
6-0-0 (Hi-Cal)	10 - 20	10 -20	400 - 800	6.0	-	0.5	0.5	-	-	-	0.3	3.0	1.300	Seaplant Extract	
6-0-0 (Hi-Mg, Mn)	10 - 12	13 - 25	400 - 800	-	2.0	-	5.0	-	-	-	-	3.5	1.249	SeaThru® (Kelp)	
0-0-27	4 - 16	4 - 16	400 - 800	-	-	-	-	-	-	-	-	8.0	1.480	-	
29-2-3	6 - 32	6 - 24	400 - 800	-	-	-	-	-	-	-	-	11.0	1.320	-	
Minors POWERED BY KEYPLEX*	5 - 10	5 - 10	400 - 800	-	1.5	3.5	0.75	0.75	-	0.16	-	5.0	1.340	Humic and Alpha-Keta Acids	





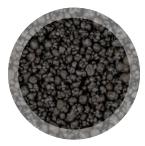
#### **HUMIC DG™**

Dispersing Granules

**Broadcast Applied** 

70% Humic Acid (A&L Method)

75 or Standard SGN



#### **HUMIC DG™ CHARX®**

Dispersing Granules

**Broadcast Applied** 

**30% Humic Acid** (A&L Method)

**SGN 200** 



#### **BLACK GYPSUM DG®**

Dispersing Granules

**Broadcast Applied** 

10% or 21% Humic Acid (A&L Method)

75 or Standard SGN 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).

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



HCU® 44-0-0 (HUMIC COATED UREA)

> Soluble Granules

Broadcast or Spray Applied

2% Humic Acid (A&L Method)

Standard SGN

7-14 Day Release



HCAS™ 20-0-0-23S (HUMIC COATED AMMONIUM SULFATE)

Dry or Soluble Granules

Broadcast or Spray Applied

2% Humic Acid (A&L Method)

Standard SGN or Soluble

7 Day Release



FERTILIZER + HUMIC BLENDS

Granules

**Broadcast Applied** 

**Humic Acid Varies** 

SGN 150-240

**Release Varies** 

# 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





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 9.0 Visual Turfgrass Quality (1-9) 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 Urea Urea 75% Rate Urea 50% Rate Non-Treated Full Rate + Humic DG + Humic DG Control 2019 2020

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 49 kg N per hectare; reduced rates were relative to full rate. Four applications were made (April, May, Sept, Oct). Humic DG was applied at 44 kg N per hectare.

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 @ 49 kg per ha).



Fulvic Acid









#### **CONTAINS NON-PLANT FOOD INGREDIENT**

Soil Amending Ingredient Humic Acid\*......70.0% Total Other Ingredients\*\*.....30.0%

#### PRODUCT SPECIFICATIONS

**Product Type:** Dispersing granule humic acid

Humic Acid Content: 70% (A&L method)

**Humic Acid** 

**Bulk Density:** 

**Precursor Content:** 10%

Particle Size: 75 SGN, 240 SGN

**Moisture Content:** 7-9%

Package Size: 20 kg poly bag

1,000 kg bulk bag

640 kg/m<sup>3</sup>

**Typical Turf Rate:** 50-225 kg/ha



Humic DG granules contain 62% humic acid and 10% humic acid precursor. DG Technology creates a dust-free, spherical, ultra dry particle that rapidly disperses into thousands of microparticles upon contact with moisture. Humic DG granules' increased surface area, when compared to screened humate, creates greater availability to the plant. It performs in a wide range of conditions and soil types, independent of application method, and features dual carbon sources that are unique to The Andersons granular humic products. Humic DG contains the full spectrum of humic substances: fulvic acid, humic acid, and humin, as well as humic acid precursor.

#### **FEATURES & BENEFITS**

- Flexible application allows for use as a stand alone product or in blends with granular fertilizers
- 4X more efficient than screened humate
- Enhances nitrogen and phosphorus efficiency
- Promotes good soil structure and increases water holding capacity
- Enhances root system development
- Easy to handle and spread through all types of application equipment
- Economical application cost per acre compared to liquid and screened humates

APPLICATION RATES								
Crops (Broadcast)	45 kg/ha							
Crops (In-furrow/banded)	4.5 - 11.2 kg/ha							
Turf	50 - 225 kg/ha							
Trees, Shrubs (per tree or shrub)	57 - 226 g							
Ornamentals & Bedding Plants	0.5 - 1.0 kg/100 m²							
Potting Soils (of potting mix)	0.9 - 4.5 kg/m³							

<sup>\*</sup>Derived from leonardite

<sup>\*\*</sup>Inactive components of leonardite, proprietary binding agent, water

# Humic DG<sup>™</sup> CharX<sup>®</sup>

Fulvic Acid

W Humic Acid

**Humin** 

Humic Acid Precursor



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. Powered by Dispersing Granule (DG) Technology, Humic DG CharX takes soil health to the next level.

#### WHY BIOCHAR?

Having a soil that is high in organic matter has a wide range of benefits for a turfgrass manager. Soil organic matter provides nutrient holding capacity, water holding capacity, and stable aggregates to the soil. Some of the most fertile soils in the world are located in the Amazon region. In this region, these fertile soils, known as 'Terra Preta', were created by Amazonian inhabitants via the addition of a variety of organic soil amendments including biochar.

Biochar is the result of burning wood byproducts (feedstock) at high temperatures with little to no oxygen present. The resulting byproducts (biochar) are high in carbon and provide excellent physical structures for microbial development. Biochar works to build soil profiles, lasting for hundreds of years. Biochar also contains karrikins, a family of bioactive compounds that stimulate roots to boost new seedlings.

#### WHAT SETS HUMIC DG CHARX APART?

For peak effectiveness, biochar needs to migrate through the turf and down into the root system. This can be tricky with many products, which bring application difficulties and poor efficacy. While crumbled or micronized biochar products move well through the turf canopy, they do present challenges in allowing the product to properly flow through a standard broadcast spreader. Other biochar products contain larger chunks, which causes the product to remain in the thatch layer on top of the soil for long periods of time.

Humic DG CharX features DG Technology, which allows each spherical, low-dust granule to disperse into smaller microparticles when watered. This helps both the humic

acid and biochar to move quickly through the turf canopy and down to the root zone, where they can begin to go to work.



#### NON-PLANT FOOD INGREDIENTS

Soil Amending Guarantees Analysis Humic Acids\* ...... 30.0% Wood Biochar\*\*.....30.0% 

\*Derived from leonardite

\*\*Derived from 90% softwood and 10% hardwood/nutshells

\*\*\*Inactive components of leonardite, proprietary binding agent, water

#### PRODUCT SPECIFICATIONS

Product Type: Dispersing granule

humic acid + biochar

**Humic Acid Content:** 30% (A&L method)

**Humic Acid** 

**Precursor Content:** 10%

Particle Size: 200 SGN **Moisture Content:** 3-6% **Bulk Density:** 593 kg/m<sup>3</sup>

Package Size: 20 kg poly bag **Typical Turf Rate:** 50-225 kg/ha

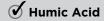


APPLICATION RATES								
Crops (Broadcast)	45 kg/ha							
Crops (In-furrow/banded)	4.5 - 11.2 kg/ha							
Turf	50 - 225 kg/ha							
Trees, Shrubs (per tree or shrub)	57 - 226 g							
Ornamentals & Bedding Plants	0.5 - 1.0 kg/100 m²							
Potting Soils (of potting mix)	0.9 - 4.5 kg/m³							

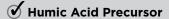


# Black Gypsum DG®









**Black Gypsum DG granules are homogenous and combine natural gypsum and humic substances to form a unique bio-amendment.** DG Technology creates a dust-free, spherical, ultra-dry granule that rapidly disperses into thousands of microparticles upon contact with moisture. These microparticles deliver calcium, sulfur, and carbon directly into the soil.

#### **FEATURES & BENEFITS**

- Contains calcium sulfate dihydrate (CaSO<sub>4</sub> 2H<sub>2</sub>O)
  - » Water soluble
  - » Increases calcium and sulfur without changing soil pH
- · Humic acid from oxidized lignite (leonardite)
- Improves root development, nutrient uptake, and phosphorus stability
- Provides secondary nutrients (calcium and sulfur)
- Enhances soil health by stimulating soil microbial populations and relieving compaction and salinity
- · Blends with fertilizer or can be used alone

APPLICATION RATES								
Established Turf	150 - 600 kg/ha							
Newly Seeded Turf	292 - 584 kg/ha							
Hydroseeding	292 - 584 kg/ha							
Damaged Salt Areas	584 - 975 kg/ha							
Garden & Crops	225 - 560 kg/ha							
Containers/Topdressing	See label							









#### **BLACK GYPSUM DG - 21% HUMIC ACID**

#### **GUARANTEED ANALYSIS**

Calcium Sulfate Dihydrate (CaSO <sub>4</sub> •	2H <sub>2</sub> O)48.0%
Humic Acid	21.0%
Calcium (Ca)	12.0%
Sulfur (S)	8.9%

8.9%...Combined Sulfur

Plant nutrients derived from calcium sulfate, humic acid derived from leonardite, and mined gypsum.

Contains non-plant food ingredient: 12% plant based organic acids

#### PRODUCT SPECIFICATIONS

Product Type: Dispersing granule humic acid + gypsum

Humic Acid Content: 21% (A&L method)

**Humic Acid** 

Precursor Content: 10%
Gypsum Content: 60%

Particle Size: 75 SGN, 240 SGN

Moisture Content:3-7%Bulk Density:785 kg/m³Package Size:20 kg poly bagTypical Turf Rate:150-600 kg/ha

#### **BLACK GYPSUM DG - 10% HUMIC ACID**

#### **GUARANTEED ANALYSIS**

Calcium Sulfate Dihydrate (CaSO <sub>4</sub> •	2H <sub>2</sub> O)70.0%
Humic Acid	10.0%
Calcium (Ca)	17.0%
Sulfur (S)	13.0%

13.0%...Combined Sulfur

Plant nutrients derived from calcium sulfate, humic acid derived from leonardite, and mined  $\ensuremath{\mathsf{gypsum}}$ 

Contains non-plant food ingredients: 3% plant based organic acids

#### PRODUCT SPECIFICATIONS

Product Type: Dispersing granule humic acid + gypsum

Humic Acid Content: 10% (A&L method)

**Humic Acid** 

Precursor Content: 3%

Gypsum Content: 80%

Particle Size: 240 SGN

Moisture Content: 3-7%

Bulk Density: 897 kg/m³

Package Size: 20 kg poly bag

Typical Turf Rate: 150-600 kg/ha









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.

SPRAY APPLICATION RATES											
NITROGEN RATE		PRODUCT RATE	HUMIC ACID*	SUGGESTED MIN. SPRAY VOLUME	BAG RATE (22.68 kg)						
g/m²		kg/ha	kg/ha		bags/ha						
0.50	5.00	11.50	0.23	280.00	0.50						
1.00	10.00	23.00	0.46	375.00	1.00						
2.00	20.00	46.00	0.92	375.00	2.00						
3.00	30.00	69.00	1.38	560.00	3.00						
4.00	40.00	92.00	1.84	560.00	4.00						
5.00	50.00	115.00	2.30	750.00	5.00						

DRY APPLICATION RATES										
NITROGI	EN RATE	PRODUCT RATE	HUMIC ACID*	BAG RATE (22.68 kg)						
g/m²	n² kg/ha kg/ha		kg/ha	bags/ha						
3.75	37.50	85.00	1.70	3.75						
5.00	50.00	114.00	2.30	5.00						
6.25	6.25 62.50		2.84	6.25						
7.50	75.00	170.00	3.40	7.50						

<sup>\*</sup>Equivalent to liters/hectare rate of 12% liquid humic acid.

#### SPRAY APPLICATION

HCU granules completely solubilize when added to water and can be spray applied at nitrogen rates of 0.05 - 0.50 kg/100 m<sup>2</sup>. To mix HCU granules for spray application, refer to the label for application rates, water volume, dilution, and mixing instructions. HCU granules can be mixed and added to the spray tank using industry standard practices including: pouring into the strainer basket at the top tank opening and running water over the granules to solubilize, preparing a bucket slurry mixture, adding granules through the spray tank inductor system, or preparing a solution in a mix batch tank system. The time required to solubilize HCU granules is reduced by using warm or hot water.

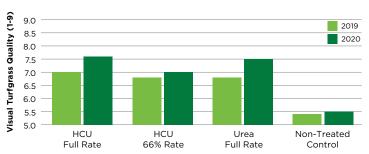
HCU granules are compatible with the most widely used control products for finely maintained cool and warm season turf. For peak product performance we recommend only tank mixing HCU with chelated iron (Fe) micronutrients such as Iron EDTA, HEDTA, etc. Mixing HCU with iron sulfate may potentially cause interaction issues within the tank mix. As always, we recommend a jar test prior to product mixing and application.

#### DRY SPREAD APPLICATION

Urea-humate fusion technology produces a clean, dry, dust-free, spherical HCU granule that is ideal for dry spread application. HCU granules can be applied through all types of granular spreading equipment including The Andersons Professional rotary spreaders, and larger scale broadcast spreaders such as Lely and Vicon models. Typical application rates range from 0.375-0.750 kg/100 m<sup>2</sup>.

#### **HCU® TURFGRASS QUALITY**

IOWA STATE UNIVERSITY | CREEPING BENTGRASS

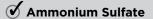


At Iowa State University, field trials were conducted to determine if humic products could improve soil biological activity and allow for reducing nitrogen (N) rates without compromising turfgrass quality and performance.

The reduced N rate treatment was equal in turfgrass quality and percent green cover to full N HCU rates. The HCU full rate was equal to the HCU 66% rate, and both were equal to full rate of Urea. This positions HCU as a cost-effective and nutrient load-reducing option for large-area, bentgrass fertility applications.

















#### **GUARANTEED ANALYSIS**

Total Nitrogen (N)	20.0%
20.00% Ammoniacal Nitrogen	
Sulfur (S)	23.0%
Derived from ammonium sulfate	

#### Contains non-plant food ingredients: 3% plant based organic acids **ALSO CONTAINS NON-PLANT FOOD INGREDIENT:**

Guaranteed Analysis - Soil Amending Ingredients

#### **ACTIVE INGREDIENTS**

2.00% Humic Acids (derived from humic substances)

#### **INERT INGREDIENTS**

98.00% Total Other Ingredients (from fertilizer material)

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

#### **HCAS (SPREADABLE GRANULES)**

#### PRODUCT SPECIFICATIONS

**Product Type:** Standard particle size,

spreadable granules

**Humic Acid Content:** 2% (A&L method)

Particle Size: 240 SGN

Bulk Density: 929 kg/m³

Package Size: 25 kg poly bag

Typical Rate: 100-250 kg/ha



#### **HCAS SG (SOLUBLE GRANULES)**

#### PRODUCT SPECIFICATIONS

**Product Type:** Small particle, soluble granules

**Humic Acid Content:** 2% (A&L method)

Particle Size:100 SGNBulk Density:929 kg/m³Package Size:15 kg poly bagTypical Rate:12.5-125 kg/ha



# **Ultra**Mate®

**√** Fulvic Acid



**UltraMate** is a potassium humate available in two forms—a highly-concentrated (70% humic acid) soluble granule and a liquid (12% humic acid). It forms a complete solution when added directly to liquid fertilizer, micronutrient, or pesticide formulations over a wide range of pH values. UltraMate is highly compatible, allowing application methods which are unacceptable for conventional humic products, including tank mixing. It allows turf to utilize applied N, P, and micronutrients more efficiently, reducing leaching and improving soil structure.

#### **FEATURES & BENEFITS**

- Stabilizes nitrogen, reducing volatility while increasing utilization
- · Increases seed germination and nutrient availability
- Promotes phosphorus utilization and decreases leaching
- Contains fulvic and humic acid components
- Compatible with liquid fertilizer, micronutrient or pesticide formulations
- Wide range of pH compatibility (2-12)
- Wide range of application methods including foliar spray, soil application, drip irrigation, or hydroponically



#### **ULTRAMATE LQ**

#### PRODUCT SPECIFICATIONS

Product Type: Liquid humic acid
Humic Acid Content: 12% (A&L method)

 pH:
 8.0-10.0

 Specific Gravity:
 1.08 @ 20°C

 Density:
 1.08 g/mL

 Equilibrium Temp:
 0°C

Package Size:2 x 9.46 litersTypical Rate:9.4-14.0 liters/ha



#### **ULTRAMATE SG**

#### PRODUCT SPECIFICATIONS

**Product Type:** Soluble granule humic acid

Humic Acid Content: 70% (A&L method)

Particle Size: 75 SGN Moisture Content: 4%

Bulk Density:657 kg/m³Package Size:13.6 kgTypical Rate:0.6-3.4 kg/ha

#### TEE TIME®

Tee Time® products are high quality SGN 100 & 125 blended fertilizers for greens, tees & fairways. Key ingredients include MUtech® slow release nitrogen and potassium sulfate.

	NPK*	Description	P Source**	K Source	Application Rates g/m²	<b>Nitrogen</b> g/m²	2000 SR Spreader Settings'''	Cone Setting	Pkg. Wt.
TEE TIME® - BLENDED SGN 100 - FERTILIZERS FOR GREENS & TEES									
	<b>8+0+16</b> (8+0+13.3)	100% AS, 2% Fe, 3% Mg, 5% Mn	-	Potassium Sulfate	15 - 30	1.20 - 2.40	I 3/4 - M	9	20
	<b>10+0+24</b> (10+0+19.9)	65% MUtech*, 35% AS, 2% Fe, 5% Mn	-	Potassium Sulfate	15 - 30	1.50 - 3.00	I 3/4 - M	9	20
	<b>10+5+25</b> (10+2.2+20.8)	50% MUtech®, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 30	1.50 - 3.00	J 1/4 - L 1/2	9	20
	<b>13+2+13</b> (13+0.9+10.8)	100% AS, 2% Fe, 0.1% Mn. 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 25	1.95 - 3.25	J - L 1/4	9	20
	<b>14+0+9</b> (14+0+7.5)	100% Ammonium Sulfate	-	Potassium Sulfate	15 - 30	2.10 - 4.20	J - M 1/4	9	20
	<b>14+28+10</b> (14+12.2+8.3)	50% MUtech®, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 25	4.20 - 7.00 P <sub>2</sub> O <sub>5</sub>	J - L 1/4	9	20
	<b>15+0+29</b> (15+0+24.1)	100% MUtech®, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	-	Potassium Sulfate	15 - 25	2.25 - 3.75	I 3/4 - L	9	20
	<b>18+6+15</b> (18+2.6+12.5)	65% MUtech*, 2% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 30	2.70 - 5.40	I 1/2 - L 1/4	9	20
	<b>19+5+19</b> (19+2.2+15.8)	25% MUtech*, 2% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 25	2.85 - 4.75	I 3/4 - L	9	20
	<b>21+3+16</b> (21+1.3+13.3)	97% MUtech*, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	MAP	Potassium Sulfate	15 - 25	3.15 - 5.25	I 3/4 - L	9	20
	TEE TIME® - I	BLENDED SGN 125-135 - FERTILIZERS	FOR GR	EENS, TEES, FAI	RWAYS & SI	PORTSFIEI	_DS		
	<b>16+4+8</b> (16+1.7+6.6)	100% AS	DAP	Potassium Sulfate	15 - 30	2.40 - 4.80	J 1/4 - M 1/4	7	20
	<b>19+26+5</b> (19+11.3+4.2)	18% MUtech*, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	DAP	Potassium Sulfate	15 - 25	3.90 - 6.50 P <sub>2</sub> O <sub>5</sub>	J 1/2 - L 1/2	7	20
	<b>20+5+20</b> (20+2.2+16.6)	50% MUtech*, 2% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	DAP	Potassium Sulfate	15 - 25	3.00 - 5.00	J 1/2 - L 1/2	7	20
	<b>25+5+15</b> (25+2.2+12.5)	50% MUtech®, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu	DAP	Potassium Sulfate	15 - 25	3.75 - 6.25	J 1/2 - L 1/2	7	20
	SPECIALTY N	NUTRIENTS - PRODUCTS THAT SUPPL	Y HIGH L	EVELS OF K AN	D MICRONU	TRIENTS			
	A-TEP	12% Mg, 8% Fe, 3% Mn, 0.1% Zn, 0.1% Cu, SGN 100	-	-	7 - 11	N/A	H 1/2 - I 1/4	9	20
	<b>0+0+30</b> (0+0+24.9)	KSO <sub>4</sub> , 3% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu, SGN 100	-	Potassium Sulfate	15 - 25	4.50 - 7.50 K₂O	I 3/4 - L	9	20
	<b>0+0+50</b> (0+0+41.5)	Sulfate of Potash, SGN 100	-	Potassium Sulfate	10 - 15	5.00 - 7.50 K <sub>2</sub> O	I 1/2 - J 1/4	8	22.68

<sup>\*</sup> NPK - The first line of NPK is analysis as N +  $P_2O_5$  +  $K_2O$ . The second line is analysis as N + P + K.

<sup>\*\*</sup> P Source: MAP = Monoammonium phosphate DAP = Diammonium phosphate

<sup>\*\*\*</sup> Spreader settings are not intended to replace spreader calibration or bag label spreader settings. Always check the bag label for additional spreader setting information and calibrate your spreader before applying product.

NPK*	Description		P Source**	K Source	Application Rates g/m²	<b>Nitrogen</b> g/m²	2000 SR Spreader Settings <sup></sup>	Cone Setting	Pkg. Wt. kg			
FERTILIZERS WITH HUMIC SGN 150-240												
<b>10+18+10</b> (10+7.8+8.3)	30% NS-54™, 23% Humic DG™, SGN 150		DAP	Potassium Chloride	20 - 30	3.60 - 5.40 P <sub>2</sub> O <sub>5</sub>	L 3/4 - O	6	20			
<b>16+0+8</b> (16+0+6.6)	50% MUtech*, 19% Humic DG™, 2% Fe, SGN 150		-	Potassium Sulfate	15 - 30	2.40 - 4.80	K 1/2 - O	6	20			
<b>18+0+7</b> (18+0+5.8)	50% NS-54™, 20% Humic DG™, SGN 240		-	Potassium Sulfate	15 - 30	2.70 - 5.40	K 3/4 - O 3/4	4	20			
MU-SPORTS™ MU-Sports™ are SGN 150-240 fertilizers that include MUtech® slow release nitrogen and are designed for higher cut turf such as fairways & sportsfields.												
MU-SPORTS™ - SGN 150-240 - FEATURING MUTECH® SLOW RELEASE NITROGEN												
<b>24+2+10</b> (24+0.9+8.3)	50% MUtech®, 2% Fe, 2% M	lg, 0.5% Mn, SGN 240	-	Potassium Sulfate	15 - 25	3.60 - 6.00	K 1/4 - M 1/4	5	25			
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 the following polymer coated technologies: NS-54™ polymer coated sulfur coated urea and Extend™ polymer coated urea.									1			
POLYSPORTS™ MINI - SGN 150 - FEATURING NS-54™												
<b>23+2+10</b> (23-0.9-8.3)	65% NS-54™, 5% Fe		DAP	Potassium Sulfate	15 - 25	3.45 - 5.75	K 1/2 - N	7	25			
POLYSPORTS	PREMIUM - SGN 240	O - FEATURING N	IS-54™ O	R EXTEND™								
<b>18+24+12</b> (18+10.5+10)	48% NS-54™		DAP	Potassium Sulfate	15 - 30	3.60 - 7.20 P <sub>2</sub> O <sub>5</sub>	K 1/2 - N 1/2	4	25			
<b>25+5+15</b> (25+2.2+12.5)	32% NS-54™		DAP	Potassium Sulfate	15 - 25	3.75 - 6.25	K 1/2 - M 1/2	4	25			
<b>26+0+10</b> (26+0+8.3)	75% Extend™, 3% Fe		-	Potassium Sulfate	20-30	5.20 - 7.80	L 1/2 - N 1/2	4	25			
<b>28+3+10</b> (28+1.3+8.3)	96% NS-54™		DAP	Potassium Sulfate	15 - 25	4.20 - 7.00	K 1/2 - M 1/2	4	25			
POLYSPORTS <sup>TI</sup>	M GENERAL PURPOSE	- SGN 240 - FE	ATURING	i NS-54™								
<b>20+4+20</b> (20+1.7+16.6)	60% NS-54™, 5% Fe		DAP	Potassium Chloride	20 - 30	4.00 - 6.00	L 1/2 - N 1/2	4	25			
<b>21+3+21</b> (21+1.3+17.4)	75% NS-54™		DAP	Potassium Chloride	20 - 30	4.20 - 6.30	L 1/2 - N 1/2	4	25			
<b>28+3+10</b> (28+1.3+8.3)	50% NS-54™		DAP	Potassium Chloride	15 - 25	4.20 - 7.00	K 1/2 - M 1/2	5	25			
<b>32+3+10</b> (32+1.3+8.3)	30% NS-54™, 2% Fe		DAP	Potassium Chloride	15 - 20	4.80 - 6.40	K 1/2 - L 1/2	4	25			
ORNAMENTAL & LANDSCAPE FERTILIZERS - SGN 240 - FEATURING NS-54 AND MUTECH®-XL™												
<b>14+14+14</b> (14+6.1+11.6)	60% NS-54™, 1% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu		DAP	SOP	Various	See label	Various		20			
<b>18+6+12</b> (18+2.6+10)	78% MUtech*-XL, 2% Fe, 0.1% Mn, 0.1% Zn, 0.1% Cu		TSP	SOP	Various	See label	Various		25			

# **CastAway DG**

CastAway DG is a natural fertilizer featuring high protein content and nutrients derived from tea seed meal. Dispersing Granule (DG) Technology simplifies application and more rapidly moves granules through the canopy and into the root zone.

<sup>\*</sup> NPK - The first line of NPK is analysis as N +  $P_2O_5$  +  $K_2O$ . The second line is analysis as N + P + K.

<sup>\*\*</sup> P Source: MAP = Monoammonium phosphate DAP = Diammonium phosphate

<sup>\*\*\*</sup> Spreader settings are not intended to replace spreader calibration or bag label spreader settings. Always check the bag label for additional spreader setting information and calibrate your spreader before applying product.

#### **PROFESSIONAL SPREADERS**









#### MODEL 2000 SR™ PROFESSIONAL **ROTARY SPREADER**

**MODEL 2000™ PROFESSIONAL ROTARY SPREADER** 

**MODEL SSD PROFESSIONAL** DROP SPREADER

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

#### **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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