



● NutraLime[®] DG

● NutraSoft[®] DG



TUNE UP YOUR SOIL[®]

PELLETIZED LIMESTONE & GYPSUM PRODUCTS

THE POWER OF NOW

THE ANDERSONS PELLETIZED LIMESTONE & GYPSUM PRODUCTS

Macronutrients are those nutrients required by the plant in large amounts to grow a successful crop. There are primary macronutrients (N, P, K) and secondary macronutrients (Ca, Mg, and S). The Andersons pelletized products provide in-season, plant available calcium and magnesium or sulfur.

The Andersons pelletized products are manufactured from natural, high quality calcitic and dolomitic limestones and gypsum that are pulverized to a flour-like powder, then granulated into fertilizer-sized, moisture dissolvable granules.

ALL-NATURAL

BLEND EASILY WITH FERTILIZER

LOW-DUST APPLICATION

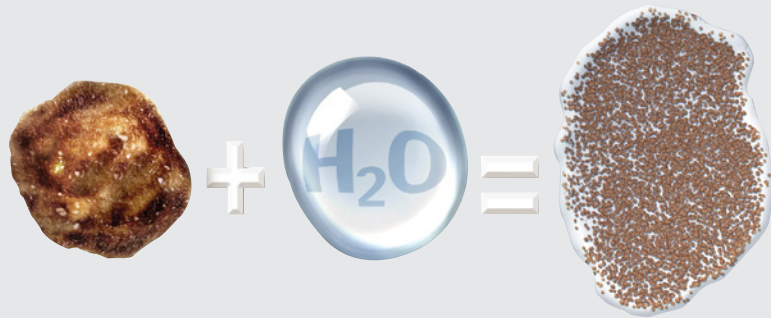
INCREASE NUTRIENT UPTAKE OF N-P-K & MICRONUTRIENTS

IMPROVE YIELD AND QUALITY



DG

DISPERSING GRANULE TECHNOLOGY



ENHANCED PARTICLE DISTRIBUTION

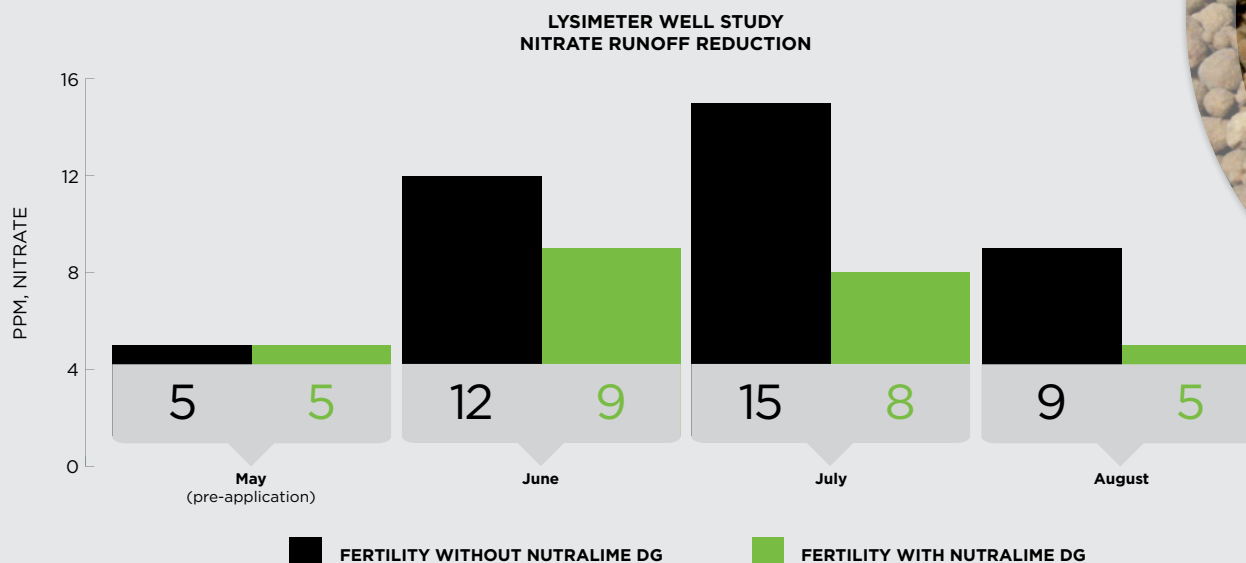
Our unique offering of pelletized limestone and gypsum products combine soil conditioning agents with our patented Dispersing Granule (DG) technology. DG technology creates a low dust, spherical, ultra dry particle that rapidly disperses upon contact with water, creating thousands of microparticles, resulting in improved coverage and solubility.

LOWER INPUTS & SMARTER MANAGEMENT

Agriculture is consistently shifting to increased efficiencies in nutrient technology. Feed the soil and plant when they need it most and gain more control over your pH with The Andersons pelletized limestone and gypsum products.

WHY IS PELLETTIZED LIMESTONE BETTER?

Pelletized limestone products are gaining popularity, but how do they compare to ag limestone? Most ag limestones are lower grade powders with poor particle size distribution, often becoming locked up and unavailable in the soil profile over time, not to mention their uneven, dusty application. The Andersons NutraLime[®] DG pelletized limestone is designed to be the most user-friendly pelletized limestone available, providing calcium and magnesium during the season of application to the crop. In a low cycle of commodity crop prices, or in high value specialty agriculture, this means you do not have to wait for these nutrients to become available to your crop.



THE “TRUCKER” OF ALL NUTRIENTS

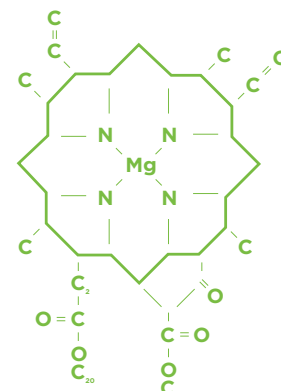
We are most familiar with the role calcium and magnesium play to increase pH, but calcium also facilitates the movement of N-P-K and all other nutrients into the plant. For this reason, it has been referred to as the “trucker” of all minerals. It can be argued that without plant-available calcium, a farmer cannot achieve maximum yield and test weights.

Calcium also improves soil structure, tilth and aeration, encourages root growth, builds strong cell walls, facilitates nitrogen-fixing bacteria, increases disease resistance, and stimulates beneficial soil microbes.



CENTER OF THE CHLOROPHYLL MOLECULE

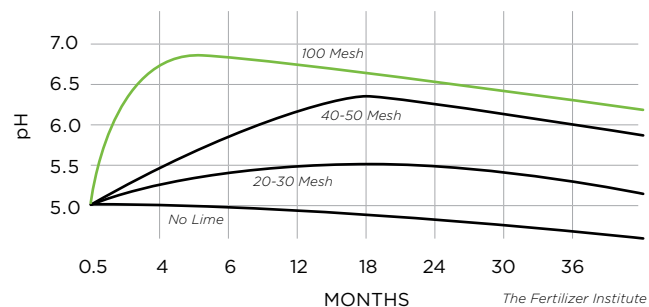
Did you know magnesium is the center of the chlorophyll molecule? Magnesium plays a central role in photosynthesis, protein synthesis and enzyme activation. It is also a phosphorus carrier. High applications of high calcium ag limestone without consideration of magnesium, can push magnesium out of reach in the soil profile.



WHY NOW?

THE DIFFERENCE OF IN-SEASON NUTRALIME DG AVAILABILITY

NutraLime[®] DG pelletized limestone is micro-ground so a majority of particles pass through a 100 mesh sieve before the pelletizing process. The finer the grind, the faster and more effective the limestone. Particles passing through a 100 mesh sieve dissolve and neutralize acidity in as little as two weeks after application. Due to the increased effectiveness of the NutraLime DG particles, lower rates may be used to provide in-season calcium and magnesium.



WHY NUTRALIME DG?

PRODUCT	CHARACTERISTICS	PERFORMANCE	TYPICAL RATES
Competitor's Ag Limestone	<ul style="list-style-type: none">Less soluble powderUneven, dusty applicationLower grade	<ul style="list-style-type: none">May take multiple years to adjust pHProvide calcium only	1000-2000 lbs/A
NutraLime DG (Hi-Cal) NutraLime DG (Hi-Mag)	<ul style="list-style-type: none">Pelletized limestoneExceptional spreadability and field coverageEasy to handleUniform sizing	<ul style="list-style-type: none">In-season pH neutralizationIn-season nutrient availabilityCalcium and magnesium formulation options	300-500 lbs/A

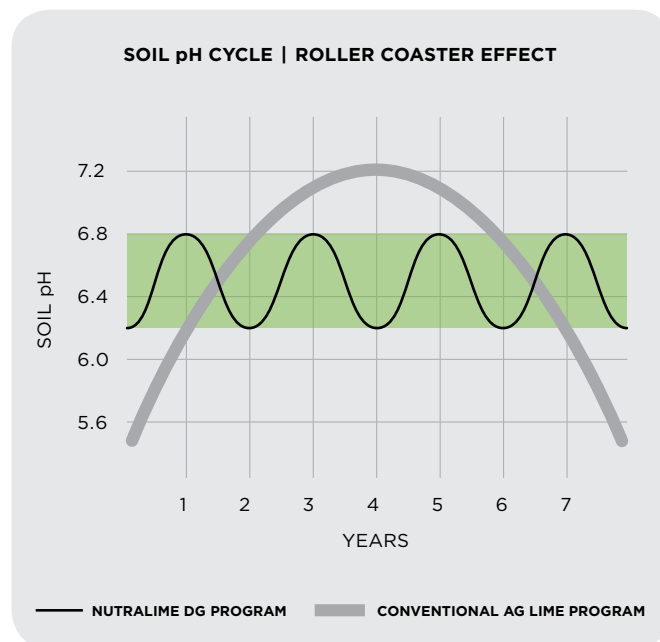


Right hand: The Andersons NutraLime DG
Left hand: Competitor's ag limestone powder

WHY ARE pH LEVELS IMPORTANT?

NutraLime[®] DG pelletized limestone is designed to maintain pH, rather than correct large imbalances. Using frequent, low rate applications of NutraLime DG pelletized limestone is an excellent tool for flattening the pH curve and preventing the “roller coaster” effect caused by high, less frequent applications of conventional ag lime.

Hydrogen ions are released due to the low pH of ammonia fertilizers and are the leading cause of soil acidity. It takes about two pounds of NutraLime DG pelletized limestone to quickly neutralize the acidity caused by one pound of ammonia nitrogen. This ratio will maintain soil pH at the most productive level and help to avoid multi-ton ag lime applications.



WHY SHOULD ACIDIC SOIL BE AVOIDED?

WHAT CAUSES ACIDIC SOIL?

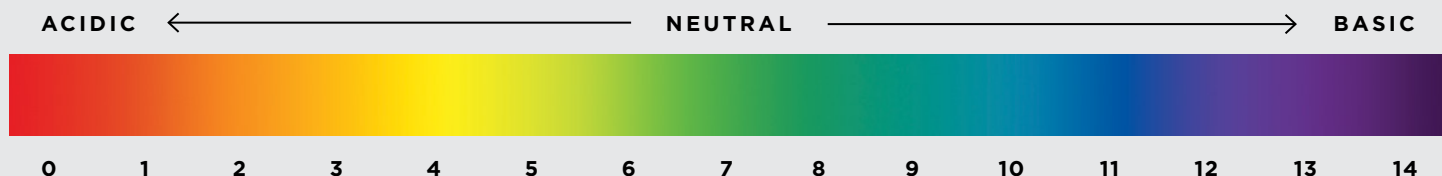
- Use of ammonia nitrogen fertilizer (including UAN)
- Applying acid-forming fertilizers
- Decomposing crop residue and organic matter
- Crop removal of calcium and magnesium

HOW DO ACIDIC SOILS REDUCE YIELD?

- Reduce nutrient availability
- Increase trace element toxicity
- Reduce nitrogen fixation in legume crops
- Reduce effectiveness of certain herbicides

HOW ARE ACIDIC SOILS MEASURED?

The acidity of soil can be measured with a pH test. The pH scale covers a range of 0-14 to measure the acidity or basicity of a solution. On the pH scale, the value 0 represents most acidic, 14 is the most basic, and a value of 7 is neutral.



NutraLime[®] DG

PELLETIZED LIMESTONE

NutraLime[®] DG Pelletized Limestone provides soil acidity adjustment in the application zone. It is available in both a high calcium (Hi-Cal) and high magnesium (Hi-Mag) formulation. Calcium and Magnesium are plant-available within the current growing season to produce top yields. Proper pH provides the most efficient environment for nutrient uptake.

FEATURES

- Premium pelletized limestone product
- Calcitic (Hi-Cal) and dolomitic limestone (Hi-Mag) options
- Easy to handle, exceptional spreadability and field coverage
- Low application rates influence this year's crop
- Can be blended with dry fertilizer

BENEFITS

- Neutralizes acidic soil in the application zone for optimal growing conditions
- Provides efficient source of plant-available calcium and magnesium — two essential secondary macronutrients that increase key crop functions
- Increases nutrient availability
- Increases yields

FAQ

Q: When should NutraLime DG pelletized limestone be used?

A: NutraLime DG can be applied any time that conventional dry fertilizer is applied. Early spring and fall applications are most common and will give adequate time for the NutraLime DG to optimize the soil.

Q: What is NutraLime DG pelletized limestone used for?

A: NutraLime DG is a cost-effective, pelletized limestone product that provides calcium and magnesium, while adjusting the pH in the growing zone for quick in-season results.

Q: How is NutraLime DG pelletized limestone different from other products?

A: NutraLime DG is first ground down to a fine powder, then granulated into a fertilizer sized granule. The granules are held together with a water-soluble binder that allows the product to disperse back into powder after contact with water (rain, irrigation, dew) after the product is applied. This allows the product to begin to modify the soil pH levels within two weeks.

Q: When should NutraLime DG (Hi-Cal) be used versus NutraLime DG (Hi-Mag) and vice versa?

A: NutraLime DG is available in two different formulations, one sourced from calcitic limestone (Hi-Cal) and one sourced from dolomitic limestone (Hi-Mag). Always refer to a soil sample to choose between products. When calcium is low, especially a low Ca:Mg ratio, NutraLime DG (Hi-Cal) should be used. When magnesium is low, especially below 50 ppm, use NutraLime DG (Hi-Mag). Consult with your local agronomist, or your Territory Manager at The Andersons for further guidance.



- Facilitates movement of all nutrients (including N-P-K) into the crop
- Improves soil structure for strong root growth
- Builds crop resilience



- Critical to optimize photosynthesis
- Activates enzymes and protein synthesis

GUARANTEED ANALYSIS (HI-CAL)

Calcium (Ca)30.0-34.0%
Magnesium (Mg)0.6-4.0%

GUARANTEED ANALYSIS (HI-MAG)

Calcium (Ca)20.0-21.0%
Magnesium (Mg)9.0-12.0%

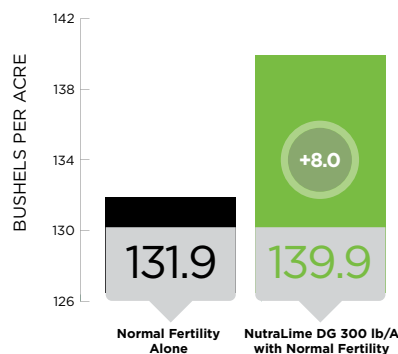
PHYSICAL PROPERTIES

Density.....70.0 lbs/ft³

APPLICATION

	Application	Typical Rate	Timing
Row crops, specialty crops, legumes	Soil	300-500 lbs/A	Post harvest up until planting

**NUTRALIME DG AVERAGE YIELD
ILLINOIS | CORN**

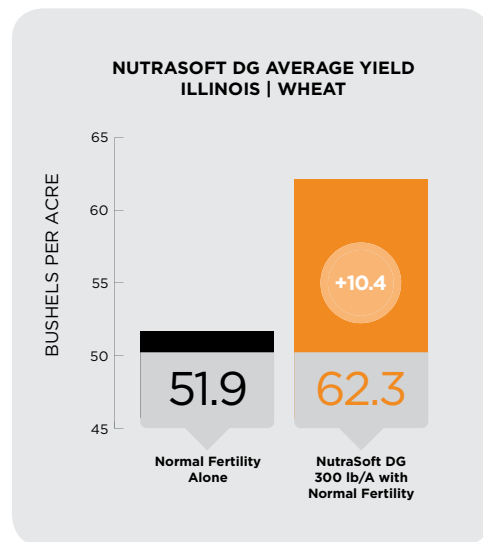


WHY INCLUDE PELLETIZED GYPSUM IN A NUTRIENT MANAGEMENT PLAN?

Gypsum contains calcium, which is key to building soil structure. Good soil structure increases aeration and water efficiency, which supports crop quality, root growth, and soil biological activity. Seed emergence is also improved. The use of gypsum ultimately boosts yields, as calcium facilitates the movement of N-P-K and all other nutrients into the plant.¹ For this reason, it has been referred to as the “trucker” of all nutrients. Calcium also stimulates beneficial soil microbes, which promote soil structure and make nutrients available to plants in the organic form.²

Gypsum is also a great source of sulfur, which is vital for many plant functions, such as photosynthesis, chlorophyll production, and nitrogen synthesis. In legumes, sulfur aids in seed production and allows efficient nitrogen fixation. Sulfur is often overlooked as a nutrient, but it is vital for healthy plants. In the past, sulfur has been deposited by the atmosphere in the form of acid rain.

More stringent environmental regulations have resulted in cleaner air, but a reduced sulfur content in rain and soil.³ For this reason, sulfur additions are critical for productive cropping systems.



The Andersons NutraSoft® DG pelletized gypsum is a high quality material mined from natural deposits. It is ground to a flour-like powder, then granulated into moisture dissolvable pellets. On contact with moisture, the pellets quickly disperse and release calcium and sulfur into the soil.

NutraSoft DG pelletized gypsum can be applied anytime on all soil types and pH ranges. It blends easily with fertilizer and has a low dust level. NutraSoft DG pelletized gypsum's calcium is 150 times more soluble than limestone. It is an excellent source of calcium and sulfur without raising the soil pH. The addition of NutraSoft DG pelletized gypsum will loosen compacted soils quickly and will help balance a soil's calcium:magnesium ratio.

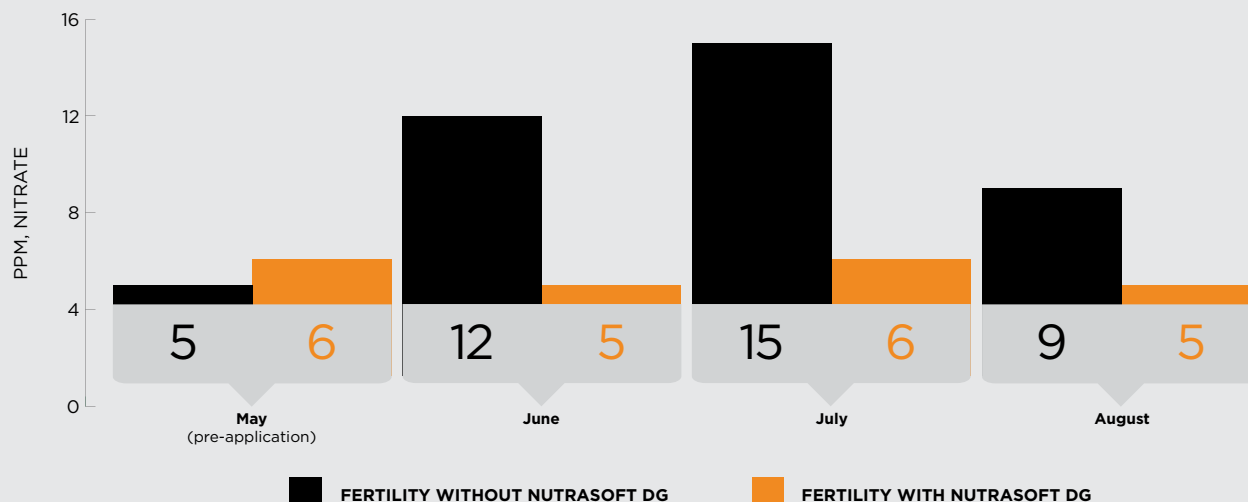
¹ The Biological Farmer by Gary Zimmer

² Principles and Applications of Soil Microbiology by David M. Sylvia, et al

³ CropNutrition.com



**LYSIMETER WELL STUDY
NITRATE RUNOFF REDUCTION | 2008**



NutraSoft[®] DG

PELLETIZED GYPSUM

NutraSoft[®] DG Pelletized Gypsum is a high quality material mined from natural deposits. It is ground to a flour-like powder, then granulated into pellets. On contact with moisture, the pellets disperse and release calcium and sulfur into the soil.

FEATURES

- All-natural, high-quality mined material
- Delivers calcium and sulfate sulfur with neutral pH

BENEFITS

- Promotes healthy root growth and seed emergence
- Helps loosen compacted soils quickly
- Decreases nitrate and phosphate runoff
- Increases drainage in conventional and no-till soils
- Decreases the toxic effect of soil salinity
- Improves water efficiency
- Helps balance calcium:magnesium ratio
- Minimizes heavy metal toxicity
- Improves yield



GUARANTEED ANALYSIS

Calcium (Ca)	21.0%
Sulfur (S)	16.0%
16.0%...Combined Sulfur	
Calcium Sulfate (CaSO ₄ • 2H ₂ O)	86.0%
Moisture	<1.0%
Binder.....	<2.0%

PHYSICAL PROPERTIES

Density.....	70.0 lbs/ft ³
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APPLICATION

	Application	Typical Rate	Timing
Row crops, specialty crops, legumes	Soil	300-500 lbs/A	Post harvest up until planting

FAQ

Q: When should NutraSoft DG pelletized gypsum be used?

A: NutraSoft DG can be applied any time conventional dry fertilizer is applied. Early spring and fall applications are most common and will give adequate time for the NutraSoft DG to begin to condition the soil. The production process of NutraSoft DG allows it to begin working quickly. NutraSoft DG is first ground down to a fine powder, then granulated into a fertilizer sized granule. The granules are held together with a water-soluble binder that allows the product to disperse back into powder after contact with water (rain, irrigation, dew) after the product is applied.

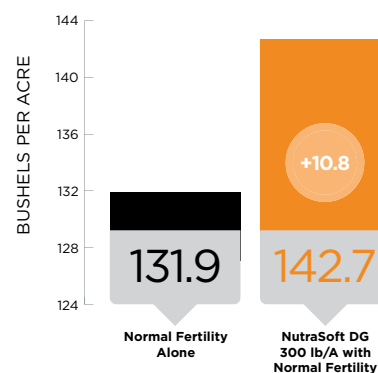
Q: What is NutraSoft DG pelletized gypsum used for?

A: NutraSoft DG will loosen hard-packed and heavy clay soils, allowing for better root growth and water penetration and retention. NutraSoft DG is an effective conditioner for soils with high sodium content, as it will remove harmful salts that prevent seed germination and are harmful to plant growth.

Q: Will NutraSoft DG pelletized gypsum modify the pH of the soil?

A: NutraSoft DG is a pH neutral product (it will neither raise nor lower soil pH levels). If existing soil pH levels are alkaline, neutral, or acidic, NutraSoft DG will not have any significant effect on soil pH.

NUTRASOFT DG AVERAGE YIELD ILLINOIS | CORN





PRODUCT SPECIFICATIONS

GUARANTEED ANALYSIS	TYPICAL RATE	DENSITY
NutraLime® DG (Hi-Cal) 30.0-34.0 Ca, 0.6-4.0 Mg*		
Calcium (Ca).....30.0-34.0% Magnesium (Mg).....0.6-4.0%	300-500 lbs/A (soil)	70.0 lbs/ft ³
NutraLime® DG (Hi-Mag) 20.0-21.0 Ca, 9.0-12.0 Mg*		
Calcium (Ca).....20.0-21.0% Magnesium (Mg).....9.0-12.0%	300-500 lbs/A (soil)	70.0 lbs/ft ³
NutraSoft® DG (Calcium Sulfate) 21.0 Ca, 16.0 S		
Calcium (Ca).....21.0% Sulfur (S).....16.0%	300-500 lbs/A (soil)	70.0 lbs/ft ³

* analysis varies by manufacturing location



RIGHT FERTILIZER SOURCE,
at the **RIGHT RATE,**
at the **RIGHT TIME,**
and in the **RIGHT PLACE.**

Use NutraLime DG pelletized limestone and NutraSoft DG pelletized gypsum as part of a 4R Nutrient Stewardship Program. They increase nutrient efficiency in the soil and decrease the potential of nutrient runoff.



FOR MORE INFORMATION

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