**Humic DG™ - Physical Characteristics**

<table>
<thead>
<tr>
<th>Product</th>
<th>Available SGN</th>
<th>Packaging</th>
<th>Bulk Density</th>
<th>UI</th>
<th>Moisture</th>
<th>Resistance to Attrition</th>
<th>Humic Acid Content (A&amp;L Method*)</th>
<th>Humic Acid Precursor Content</th>
<th>Total Humic Acid + Humic Acid Precursor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humic DG</td>
<td>75</td>
<td>40 lb bag</td>
<td>40</td>
<td>40+</td>
<td>7%</td>
<td>90%</td>
<td>70%</td>
<td>10%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>240</td>
<td>2000 lb bulk bag*</td>
<td></td>
<td></td>
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</tbody>
</table>

*All, method, for states that utilize the California testing method

**Also available in our line of Humic products**

**Black Gypsum DG™ – Gypsum + Humate**

Black Gypsum DG is a unique bio-amendment that combines natural, dihydrate gypsum and humate in a homogenous dispersing granule.

- Delivers calcium, sulfur and humate (a rich source of carbon) directly to the soil utilizing Dispersing Granule (DG) Technology
- Humic substances enhance the plant’s ability to take in essential nutrients and improve soil structure
- Gypsum acts as a soil conditioner, loosening hard packed soils and enhancing the flushing of harmful salts and excess sodium

**UltraMate SG™ – Soluble Humic Acid Granules**

UltraMate SG is a highly concentrated (70%) sulfonated potassium humate in a unique, dry soluble granule form.

- Dissolves quickly and is soluble in a wide range of fertilizer solutions with pH from 2 - 12
- 70% humic acid concentration
- 14% Potassium and 6% Sulfur
- Concentrated soluble granules reduce freight costs and are easy to handle.

For more information, call your local distributor, visit www.andersonshumates.com, or contact us at 800-253-5296.

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Humic DG™ and Air Drill Seeders - A Perfect Match

Air drill seeder technology is the easiest, most efficient and cost effective method for incorporating humates at the time of seeding. Humic DG’s combination of superior handling characteristics with Dispersing Granule (DG) technology make it the ideal humic acid delivery method for your crops.

Wheat Leaf Count at 62 DAT (grown in a sand medium)

**EFFICIENT**
Humic DG features patented Dispersing Granule Technology. Upon contact with water, Humic DG granules disperse into tens of thousands of micro particles which greatly increases surface area and allows for faster breakdown and availability of the humic materials.

**COST EFFECTIVE**
Humic DG is a highly concentrated product delivering 70% humic acid. This high concentration combined with precision placement next to the seed allows for lower application rates, typically in the 5-10 lb per acre range, depending on crop and soil type.

A 5 lb. per acre rate of Humic DG provides 3.3X more humic acid than 1 gallon of a typical 12% humic acid solution.

Greater leaf count in wheat treated with 25#/Acre Humic DG compared to those treated with 100#/Acre screened humate.

**Why Humic DG?**

- **Humic DG is an ultra dry, spherical, dust free granule** that provides the following benefits to your soils and crops:
  - Chelates soil micronutrients, increasing their availability to the plant
  - Increases CEC and improves productivity of low organic matter soils
  - Retains soil moisture and enables better water penetration in the soil, resulting in reduced water requirement
  - Enhances efficiency of applied nutrients and increases availability of soil phosphorus

Humic DG Offers More Benefits Than Liquids

Most liquid humic products contain only humic and/or fulvic acid, but do not contain the humin fraction—the least soluble fraction—which has high carbon content and significant nutrient holding capability.

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. Below is a description of each fraction and the benefit it provides.

- **HUMIC ACID PRECURSOR** is the highly soluble portion of Humic DG that quickly releases into the soil upon contact with water. Beneficial soil microbes feed on humic acid precursor, transforming it into soluble fulvic and humic acids.

- **FULVIC ACIDS** can be absorbed by roots and provide hormone-like stimulation to the plant. Also aid in plant metabolic functions.

- **HUMIC ACIDS** chelate nutrients and stimulate soil microbes.

- **HUMINS** are large, high carbon, insoluble molecules that last thousands of years in the soil and have great nutrient holding power.

The Benefits of Humic Acid

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

- **Provides an oxidized carbon source, biologically affecting the soil both chemically and physically, leading to improvement in long term soil health**

- **Retains soil moisture and enables better water penetration in the soil, resulting in reduced water requirement**

**Humic DG provides more than 3X the humic acid content at half the cost,** resulting in a 6.5X better value versus typical liquid humic acid products.

**Product** | **% Humic Acid Content** | **Actual Humic Acid Per Unit** | **Typical Rate/Acre** | **Product Cost Per Unit** | **Applied Cost/Acre** | **Actual Humic Acid Per Acre** | **Humic Acid Value Index**
---|---|---|---|---|---|---|---
6% Liquid Humic Acid | 6% | 0.54 lbs./gallon | 2 gallons | $5/gallon | $10 | 1.08 lbs. | 1X
12% Liquid Humic Acid | 12% | 1.08 lbs./gallon | 1 gallon | $10/gallon | $10 | 1.08 lbs. | 1X
Humic DG | 70% | 0.70 lbs./pond | 5 pounds | $1/lb. | $5 | 3.50 lbs. | 6.5X

**Humic acid per unit calculated using 9 lbs. per gallon weight.**
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- **HUMIC ACIDS** chelate nutrients and stimulate soil microbe.
- **HUMINS** are large, high carbon, insoluble molecules that last longest in the soil and have great nutrient holding power.

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The Benefits of Humic Acid

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

- Provides an oxidized carbon source, biologically affecting the soil both chemically and physically, leading to improvement in long term productivity.
- Retains soil moisture and enables better water penetration in the soil, resulting in reduced water requirement.
- Chelates soil micronutrients, increasing their availability to the plant.
- Increases CEC and improves productivity of low organic matter soils.
- Enhances efficiency of applied nutrients and increases availability of soil phosphorus.
- Increases soil phosphorus availability, significantly improving plants uptake to the plant.
- Retains soil moisture and increases availability of micronutrients.
- Increases CEC and improves productivity of low organic matter soils.
- Enhances efficiency of applied nutrients and increases availability of soil phosphorus.

Why Humic DG?

- Humic DG is an ultra dry, spherical, dust free granule that provides equal to, or better results at 1/4 the rate, based on a 2013 rate study conducted at Ohio State University (chart on left).
- Humic DG’s uniform granules are clean, dust free and easy to handle and apply. They can be applied straight, or can be easily blended with fertilizer.
- Humic DG features patented Dispersing Granule Technology. Upon contact with water, Humic DG granules disperse into thousands of micro particles which greatly increases surface area and allows for faster breakdown and availability of the humic materials.
- Humic DG is the highly concentrated product delivering 70% humic acid. This high concentration combined with precision placement next to the seed allows for lower application rates, typically in the 5-10 lb per acre range, depending on crop and soil type.
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**Humic DG™ is a powerful soil conditioner. Its patented dispersing granules are the perfect match for an air drill seeder. The uniform sized particles provide precision placement of humic acid into the seed bed. It can also be blended with fertilizer.**

For more information, call your local distributor, visit www.andersonshumates.com, or contact us at 800-253-5296.