



### Introducing...

# THE NEXT GENERATION OF HUMIC ACID

DISPERSIBLE | BIOLOGICAL | SPREADABLE | BLENDABLE







# DISPERSING GRANULE TECHNOLOGY ENHANCED HUMATE DISTRIBUTION

Upon contact with water, each Humic DG granule disperses into thousands of micro particles that move directly into the root zone and provide immediate benefits to the soil and plant.



## Humic DG FEATURES





Contains four biologically active components; humic acid precursor, fulvic acid, humic acid and humin

Uniform, spherical granules are easy to handle and evenly applied

Ultra dry granules are engineered to be compatible with all fertilizers including urea



# WHAT IS HUMIC ACID?

Humic acid is a natural soil conditioner that
acts as an organic chelator and microbial
stimulator. It has a unique carbon matrix
which includes a high concentration of trace
minerals and organic acids. Humic acid
enhances the plant's ability to take in essential
nutrients and improves soil structure.

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#### PROVEN HUMIC ACID BENEFITS

- Increases soil carbon
- Improves germination and viability of seeds
- Chelates macro and micro nutrients to increase availability to the plant for a longer period of time
- Increases cation exchange capacity (CEC)
- Improves soil structure for better aeration and water movement
- Stimulates beneficial microorganisms, which can improve long-term soil pH.

#### DUAL CARBON SOURCES MAKE HUMIC DG UNIQUE

Humic acid precursor (plant based carbon) + Humate (Bio-organic based Carbon)



#### HUMIC ACID PRECURSOR

#### PLANT BASED ORGANIC CARBON SOURCE

Humic acid precursor contains a soluble form of organic carbon which releases into the soil as Humic DG granules disperse. Research has shown that organic carbon holds nitrogen in the soil and binds readily with carbon based acids. This increases the amount of dissolved organic carbon in the soil water.

Through biochemical reactions, humic acid precursor is transformed into humic and fulvic acids which help chelate nutrients in the soil. This enhances plant nutrient uptake of applied fertilizers and soil nutrients.

#### **BENEFITS OF HUMIC ACID PRECURSOR**

- Increases soluble carbon in the soil
- Prevents nutrient loss by helping balance the carbon to nitrogen ratio
- Highly effective in carbon depleted soils and other sand based growing systems



#### "BIOLOGICALLY ACTIVE" COMPONENTS OF HUMIC DG

Humic DG is comprised of four biological components that range from very soluble to completely insoluble in soil media. These four components work together to provide the soil with a broad range of biological benefits, from highly soluble plant available fulvic acids to the insoluble, high nutrient holding capacity of Humin.

#### HUMIC ACID PRECURSOR is the highly soluble portion of

Humic DG that quickly release 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 root tissue and provide hormone–like stimulation to the plant. It also aids in the efficiency of other plant metabolic reactions.

**HUMIC ACIDS** can be insoluble or soluble. It has a high cation exchange capacity (C.E.C.) and helps chelate nutrients and stimulate soil microbes.

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





#### HUMIC DG APPLICATION RATES\*

| CROPS (BROADCAST):        | 45 kg/ha   | 40 lbs/acre   |
|---------------------------|------------|---------------|
| CROPS (IN-FURROW/BANDED): | 11.2 kg/ha | 5-10 lbs/acre |

\*Refer to label for complete use instructions



#### ENGINEERED FOR SUPERIOR HANDLING IN THE SPREADER OR AT THE BLENDER

Humic DG utilizes patented technology to create uniform, spherical dispersing granules. Highly engineered DG granules have a low moisture content and are resistant to breakage during handling resulting in a dust free, free flowing product. Humic DG's granules are unique among dry humate products in their ability to be blended with most fertilizer components Humic DG is clean and easy to handle.

Competitor's dry humic acid product is dusty, non uniform and contains up to 20% moisture; making it hard to spread and difficult to blend.

#### **TYPICAL PHYSICAL PROPERTIES**

| Product  | SGN | Bag<br>Size        | Bulk<br>Density          | UI  | <u>Moi</u><br>Target | <u>sture</u><br>Maximum | Resistance<br>to Attrition | Humic Acid<br>Content<br>(A&L Method) | Humic Acid<br>Precursor<br>Content | Total Humic Acid<br>Precursor + Humic<br>Substances |
|----------|-----|--------------------|--------------------------|-----|----------------------|-------------------------|----------------------------|---------------------------------------|------------------------------------|---|
| Humic DG | 240 | 500 kg<br>1,000 kg | 640<br>kg/m <sup>3</sup> | 40+ | 7%                   | 9%                      | 90%                        | 62%                                   | 10%                                | 72%   |

Established in 1924, Thompsons is an integrated supplier of value-added agricultural products and services to growers in Ontario, nesota and North Dakota and to food processing customers worldwide. Thompsons owns and operates 12 elevators, 11 retail farm ters, 2 seed processing plants, 5 bean processing plants and a wheat processing plant.

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