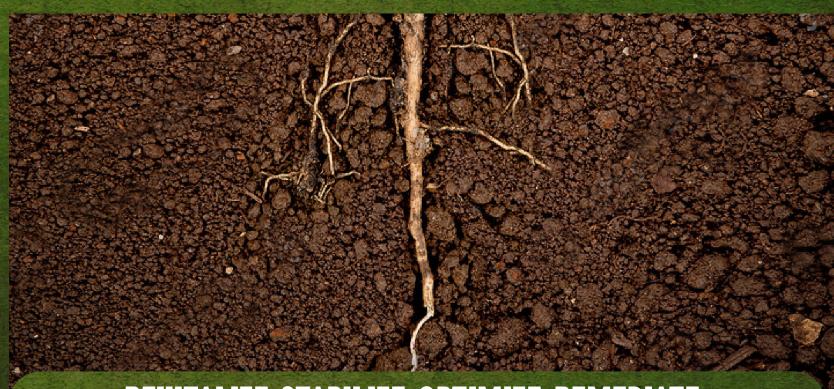


# MONTY'S FAMILY OF HUMICS & FULVICS



REVITALIZE. STABILIZE. OPTIMIZE. REMEDIATE.

# SUCCESS STARTS WITH HEALTHY SOIL!

The health of your soil will have a significant impact on the quality and quantity of your yield.

Poor imbalanced soil can negatively impact your crops and rob you of yield.

### WHAT IS IMBALANCED SOIL?

If you have imbalanced soil it means there is a biological, chemical, or geological imbalance in the soil. Our soils today are NOT as productive as they once were. Weather, insects, erosion, over-production, and high salt products have led to imbalanced soil robbing your yield potential.

#### Out of balance soil:

- Reduced biological life
- Erosion
- Crusting, cloddy, hard to work soil
- Little or no earthworm activity
- Water logging, poor drainage
- Compacted, poor root systems
- Insect and disease problems
- Poor organic matter decomposition
- High salt
- More fertilizer/chemicals needed
- High weed pressure



# THE KEY TO SUCCESSFUL ROI IS HEALTHY, BALANCED SOIL.

Three Soil Health Properties



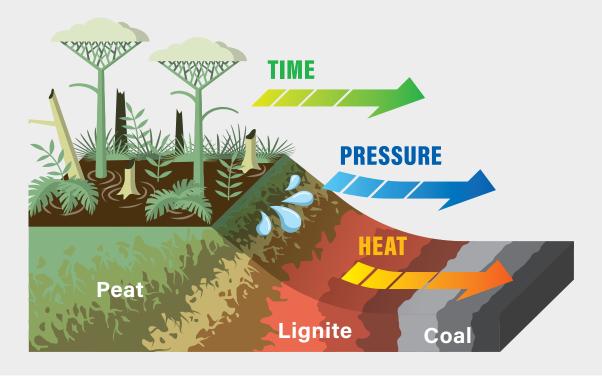
### WHAT ARE HUMIC SUBSTANCES?

Humic substances are the major organic components of soil (humus), peat, and coal.

Humic substances are formed by the microbial degradation and decomposition of organic (plant) matter.

Humic substances are extracted from humified materials such as brown coal (Lignite, Leonardite) or peat. The starting material is crushed, converted to granules, liquefied, and/or pelletized. In this state, the humic substances remain an inactive and insoluble humic product.

1 Decomposed matter (with time, pressure, and heat) forms brown coal



2 Brown coal (Lignite, Leonardite) is mined from the ground



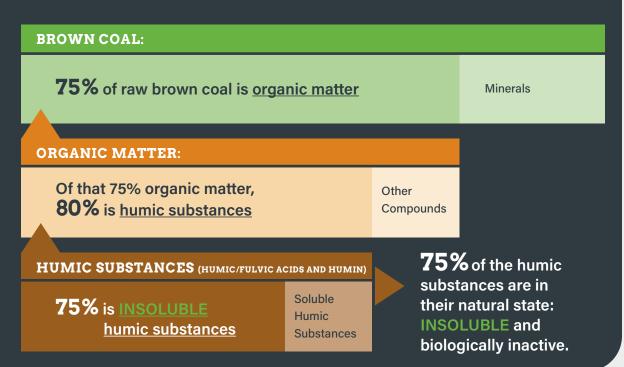
## 3 It is then dried, crushed and screened to form granules

Humics on the market today are mined, dried, crushed (or liquefied), and remain in their natural state.



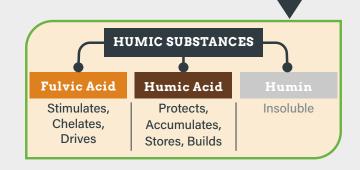


## Composition of Mined Brown Coal (Lignite, Leonardite)



#### What does INSOLUBLE mean?

Humic products remaining in their natural state are insoluble, meaning they do not dissolve in acids, water, or soil solutions, thereby having little impact on the health of the soil.





#### This is where many competitors stop!

Many competitive products are insoluble, inactive, and bio-inhibiting substances. When applied to the field, they have little to no impact on the soil and its biology.



# HOW ARE MONTY'S HUMICS AND FULVICS DIFFERENT?

Activated is the key! Monty's proprietary humic technology makes our product the most active and soluble available in the marketplace, and is formulated to the ideal humic to fulvic ratio to maximize yields and success.

#### Competition's Process

Some competitors process their material with an incorrect combination of chemicals, temperature, and/or other processes.

These processes can cause their humics to be bio-inhibitive and significantly less beneficial to the plant and soil.

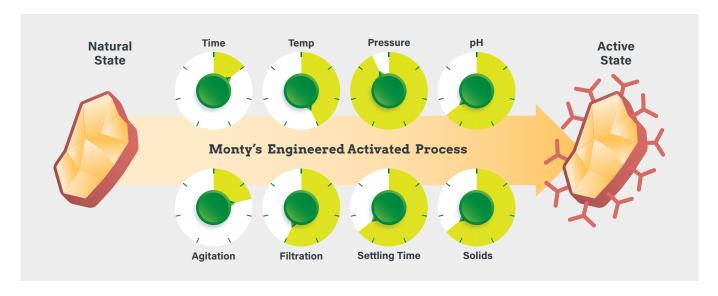


#### Monty's Engineered Process

Monty's takes the process even further with our proprietary humic technology. The unique, engineered process converts the inactive humic molecule to an open, activated soluble state.

This proprietary, patented process optimizes pH, temperature, pressure, time, solids, and agitation, creating a chemical reaction, converting humic substances to their active state. This results in a more soluble and biologically active humic product... maximizing efficiency and ultimately maximizing yields.





### Monty's Humic Substances Perform Better Than The Rest!



### Competition's humic molecule:

- X Insoluble
- X Inactive
- X Less effective
- X Prone to clog
- X Bio-inhibitive



Monty's open, activated humic molecule is now a natural catalyst which is:

- √ Highly Soluble
- √ Highly Active
- √ Highly Effective
- √ Reduces Clogging
- ✓ Purest Humic Form
- √ Clean Humic Catalyst

#### Compare Monty's to the Rest!

This competition's insoluble humics do not dissolve, and has little to no impact on the soil. Monty's activated humics go to work in the soil immediately!



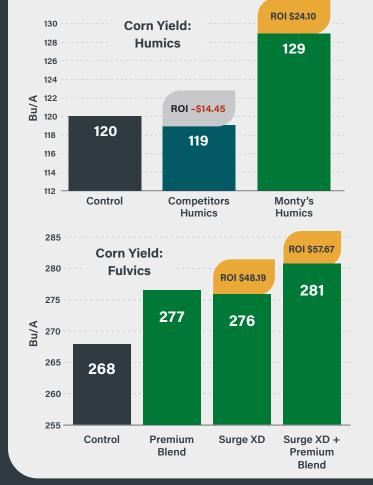




Monty's Activated Humics

### Farmers Can See The Difference In Their Fields!

See product information including trials starting on page 14



### What Differentiates Monty's Humic Substances from the Competition?

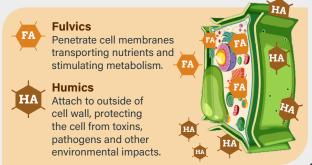
Monty's activated, proprietary humic and fulvic products are derived from ancient humified material (ex. lignite), not processed plant materials or manufacturing by-products. Competitors using these materials have products which are less pure and less bioactive –

resulting in significantly less impact on your crops. Always look to see what the humics and fulvics are derived from.

Some competitors may claim higher percentages. But, if they have not started with humified materials, they are not true humic products. Whatever Many competitive products are less pure and less bioactive... they have little to no impact on your soil!

percentage they claim does not reflect the actual humic and fulvic content. Some manufacturers use different methods for determining humic or fulvic content. Monty's uses the HPTA method (ISO 19822), the most accurate and most widely accepted method in use today. When comparing products, be sure to compare products using the same method of analysis. A higher percentage does not always mean better!

\* Look for the "HPTA Test Method Certified" seal.



### HOW DO MONTY'S HUMICS AND FULVICS IMPACT THE SOIL AND PLANT?

Our engineered humics allow for the selection of the optimum molecule size and humic to fulvic ratio for increased solubility and maximum performance.

Monty's engineered humics have the optimum concentration for peak biological, chemical, and geological activity (See page 3). This results in lower dosing rates, higher efficiency, and a wide variety of benefits to the soil and plant.

#### **PHYSICALLY**

- √ Decreases soil compaction
- ✓ Increases water holding capacity
- ✓ Increases aeration of soils

#### **CHEMICALLY**

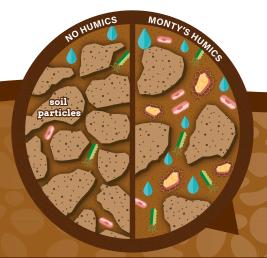
- √ Improves Cation Exchange Capacity (CEC)
- √ Buffers soil pH
- √ Makes nutrients available to the plant

#### **BIOLOGICALLY**

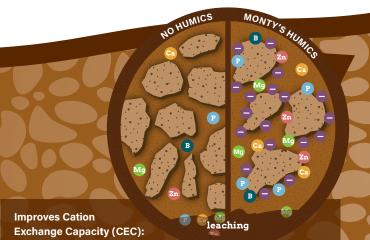
- √ Acts as catalyst in numerous biological processes
- √ Stimulates plant growth
- √ Stimulate root growth for increased nutrient uptake
- ✓ Increases soil microbial communities

HUMIC SUBSTANCES							
HU	MIC ACID	FULVIC ACID					
High	Molecula	Low					
Low	Plant Nutrie	High					
High	Soil Amendme	ent Properties	Low				

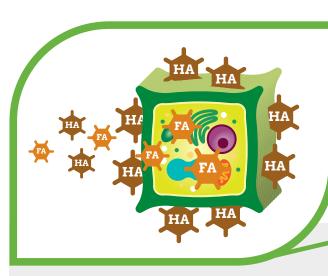
Monty's humics are unique in that we engineer each product with a specific humic acid to fulvic acid ratio dependent on desired functions. Fulvic acids have a lower molecular weight to help drive nutrients into the plant cells. Humic molecules have a higher molecular weight aiding soil microbe stimulation, increasing CEC, and chelating nutrients.



Decreases soil compaction and increases water holding capacity: Humics create space between soil particles allowing for increased water penetration and holding, aerate and increase oxygen content, and create a reservoir for nutrients. These benefits increase soil microbe populations and create an overall healthy soil structure.



Humics create clay particle complexes which are negatively charged. These complexes bind positively charged (cations) nutrients including Ca, Mg, K, Zn, Cu, Mn, Fe, and B. These nutrients are then released into the soil and delivered to the plant, preventing nutrient leaching.





#### HAT HUMIC ACIDS ARE ABLE TO:

- √ Attach to the outside of the cell wall
- √ Protect the cell from toxins, pathogens and other stressors



#### **FULVIC ACIDS ARE ABLE TO:**

√ Penetrate cell membranes due to their small molecular size

alkaline soil

√ Transport nutrients into the cell

Increases nutrient
availability to the plant
and buffers pH in alkaline soil:
In alkaline soils, calcium is bound
with phosphate. Humics form
complexes where phosphates are
released into the soil along with
other nutrients, making them readily
available for root uptake. This
process neutralizes soil pH.

Increases nutrient availability
to the plant and buffers pH in
acidic soil: Under acidic conditions,
humics bind heavy metals making
them immobile, promoting the formation
of the clay-humic complexes that aid in
neutralizing acidic soil.

Why is Monty's your trusted humics leader?

ECCO1

# MONTY'S: YOUR TRUSTED HUMIC SUBSTANCES LEADER

Monty's humics and fulvics can improve your soil and maximize your yields year after year. Once applied to the soil, our activated humics technology provides a catalyst that makes everything you apply work better.

#### **✓ PURITY**

Highly soluble and clean = No clogging of sprayers, nozzles, or hoses.

#### √ ACTIVITY

High efficacy, efficiency, and results = Lower dosing rates and higher yields.

#### √ CONCENTRATION

Peak biological, chemical, and geological activity = humic molecules actively preform their function quickly and effectively for maximum performance.

#### √ COMPATIBILITY

Tank mixable = Flexibility in mixing with nutrients, fungicides, herbicides, and pesticides.

#### **BALANCED SOIL:**

- Active biological life
- Reduced erosion
- Good tilth, loose soil
- Many earthworms
- Increased water intake & retention
- Reduced compaction
- Larger root systems
- Fewer pests & diseases
- Rapid organic matter conversion
- Reduced salt in the soil
- Fewer chemical inputs
- Fewer weeds





# The benefits of humic technology and why Monty's is the best in the industry

1. What are humic substances? Humic substances (Humics) are derived from ancient humified materials (e.g., lignite) and are broken into two main categories, Humic Acids and Fulvic Acids. They are major organic constituents of soil (humus), peat, and coal. They are also found in upland streams, lakes, and ocean water. Humic substances are produced by the decomposition of organic matter over millennia.

#### 2. How can humics and fulvics help to increase my yield?

Humics stimulate microbial activity in soil, help break up compacted soil, assist in transferring micronutrients from the soil to the plant, enhance water retention, increase seed germination, and improve the breakdown of plant residue. Humic acids can protect plant cells from toxins, pathogens, and other environmental impacts. Fulvic acids facilitate nutrient uptake through the plant tissue while also working as a chelator of nutrients, increasing the nutrients' bioavailability.

**3. Will I get an ROI?** It is widely recognized that by improving the soil and stimulating the plant, increased yields will follow. University and on-the-farm trials have shown significant improvements in the overall health of soil and plants, and therefore you should see a return on your investment.

4. Why do different humic products have different percentages? Some manufacturers use different methods for determining humic or fulvic content. Monty's is working with the Humic Products Trade Association (HPTA) to bring standardized testing to both state regulators and the agricultural industry. Monty's uses only the HPTA Method (ISO 19822) for determining our products' humic and fulvic acids levels. Other manufacturers may use less reliable methods. Monty's is a proud member of the HPTA which works to promote commercial trade of humic products through scientific cooperation while addressing regulatory issues.

**5.** Can you use too much? Application of Monty's Humic products at rates up to 50 times those recommended, are not toxic or harmful to the environment – including soil, plant, and native soil microorganisms. Monty's recommended application rates allow for maximum, cost-effective results.

#### 6. How can you apply two quarts to an acre and get results?

Our proprietary Humics are purified and activated, have the correct humic-to-fulvic ratio, and are applied at the optimum concentrations. Therefore, we have a lower rate of application and can achieve greater results by stimulating the plant and the soil's natural biology in the most effective way.

#### 7. How does your cost/acre compare to other humic products?

Our cost per acre is generally lower because our Humics are purified and activated, have the correct humic-to-fulvic ratio, and are applied at the optimum humic concentration. Although our cost/gallon may be greater, our cost/acre is generally less because of our lower application rates.

8. Can Monty's products be blended with dry fertilizer and spread in the field? Yes. Our field studies and university trials involving Dri-Carbon and Humihance have not shown any compatibility issues to date.



9. How do you show/know it's active? Activity is measured in the soil and plants. Soil testing will show the results: reduced soil compaction, improved overall soil health, enhanced micronutrient uptake, and enhanced breakdown of plant residue. Tissue testing will show a better balance of nutrients the plant needs. Results may include increased root mass, healthier plants and ultimately a higher yield. As an example, a recent study by North Carolina State University found a 12% average increase in yield over untreated soil.\*

10. What are the advantages of using Monty's products throughout the year? Monty's humic products are continuously working when used throughout the year. Monty's recommended programs can improve your plants and soil, and maximize your yields year after year, providing the most cost-effective solution available. Monty's activated humic and fulvic acids work throughout the year remediating your soil, revitalizing your soil, stabilizing nutrients, and stimulating plants.

11. Why are you telling me to add carbon, when I have plenty of carbon in my soil? Carbon has many forms, but stable, organic carbon is our priority. Monty's Liquid Carbon and Dri-Carbon are the product name for our active humic products. Monty's Liquid Carbon and Dri-Carbon contain highly purified and activated humic substances with carbon in their molecular structure. This type of carbon is stable and organic.

**12. Does Monty's activated humic technology work in all soil types?** Yes. Whether you have clay soils and compaction or sandy soils, Monty's humic-based products provide benefits to your soil.

13. Are there compatibility issues when mixing Monty's products with other products? Our field studies and university trials have shown few compatibility issues. Always follow all label instructions, and jar test first when mixing with other chemicals.

14. How do Humics raise/lower pH in my soil? Soils can be either acidic or alkaline due to excessive cations or anions in the soil. Because Humics have both positively and negatively charged locations on them, they are able to bring more balance to the acidic (positive/cations) or alkaline (negative/anions) conditions in the soil.

For more information about Monty's humic substances, contact your Monty's representative, visit montysplantfood.com, or call 800.978.6342.

 ${}^*$ NC STATE UNIVERSITY, DEPARTMENT OF CROP SCIENCE, COLLEGE OF AGRICULTURE AND LIFE SCIENCES.



# WHAT SOLUTIONS DOES MONTY'S OFFER ALL SEASON?

Successful farming requires year-round focus. Monty's harnesses the power of activated humics and fulvics to develop innovative solutions that target the specific needs of your soil and plants at each stage of the growing season.

#### (1) REVITALIZE YOUR SOIL

Success starts with a healthy soil. Healthy soil means healthier crops and higher ROI.

### 4 REMEDIATE YOUR SOIL

Get your soils ready now for the many challenges you will face next season!

#### (2) STABILIZE YOUR NUTRIENTS

Feed your plants and soil while controlling nutrient loss due to leaching.

#### (3) OPTIMIZE YOUR PLANTS

Maximize your foliar applications with Monty's unique fertilities and micronutrients.

#### Monty's has solutions to your growing challenges all season

Monty's humics and fulvic products provide a wide array of benefits to your plant and soil throughout the year. Each product's primary benefits are highlighted below with an overall focus on maximizing your ROI.

	① REVITALIZE			② STABILIZE			③ OPTIMIZE				4 REMEDIATE					
	Improves Overall Soil Health	Reduces Soil Compaction	Reduces Salt Toxicity	Supports Root Mass Development	Improves Moisture Retention	Enhances Seed Germination	Boosts Starter Applications	Enhances Fertilizer Nutrient Efficiency	Decreases Nutrient Loss	Enhances Nutrient Uptake	Decreases Nutrient Loss	Increases Nutrient Bioavailability	Relieves Crop Stress	Enhances Residue Digestion	Unlocks Valuable Nutrients	Helps Reduce Disease
Catalyzer	•	•	•	•	•											
Monty's Liquid Carbon	•	•	•	•	•											
Monty's Dri-Carbon	•	•	•	•	•											
Humihance						•	•	•	•							
Surge XD							•			•	•	•	•			
Drivas										•	•	•	•			
Humi-Till														•	•	•

# Revitalize your soil and energize your crops with proven solutions from Monty's.

#### 1 REVITALIZE

#### **STAGE: PRE-PLANT**

**PROBLEM:** Soil compaction, residue build-up, high salt levels, tied-up and imbalanced nutrients, and herbicide carry-over.

**SOLUTION:** Healthy soil is your plants' best resource. It's also your foundation for maximizing yield. Our range of humic and fulvic products boost your soil's potential by reducing salts, breaking down residue buildup, and correcting nutrient imbalances. As soil biology improves, compaction problems ease and moisture management improves, too: giving you a stronger, more resilient base for all your plants. Whatever you're growing, Monty's means healthier soils, healthier plants, and higher ROI.

Product Recommendation: MLC, Catalyzer, and MDC

#### (2) STABILIZE

#### STAGE: AT PLANTING

**PROBLEM:** All nitrogen (dry or liquid), as well as phosphorus and potash, have high salt indexes. These high indexes contribute to issues with germination and root development and negative impact on the soil and biology. Loss of nutrients, especially nitrogen, through the soil profile making them unavailable to the crop.

**SOLUTION:** Feed your plants and soil, while controlling nutrient release and reducing loss due to leaching. Humihance fertilizer coating blends with all granular fertilizers, and delivers all the natural benefits of humics, improving nutrient uptake and mitigating fertilizer salts. Leading growers count on Humihance to maximize their fertilizer program for a better start, and a better season, year after year.

Product Recommendation: Humihance and Surge XD

#### **3**

#### **OPTIMIZE**

#### STAGE: FOLIAR

**PROBLEM:** Some liquid foliar fertilizers are less effective delivering nutrients to the plant.

**SOLUTION:** Take advantage of your foliar applications to give your plants a nutrient boost. Whether you're applying nutrients, insecticide, herbicide, or fungicide, add the power of our humics and fulvics to your tank for a supercharged spray that goes right to plant tissue for extra growth support. Maximized nutrients mean healthier crops and higher ROI.

**Product Recommendation: Drivas, Surge XD** 



#### **STAGE: POST HARVEST**

**PROBLEM:** Residue build-up, especially from stacked hybrids; soil compaction; mold, fungi, and disease; high salt levels; tied-up and imbalanced nutrients; and herbicide carry-over.

**SOLUTION:** Solve next season's problems before they start. Our biologicals and activated humics speed up residue breakdown which helps eliminate mold, fungi, and any disease in your residue. They also help clear up herbicide carryover, while conditioning soil and helping make nutrients more readily available for planting next season. For added remediation benefits, include Monty's Liquid Carbon.

**Product Recommendation: Humi-Till and MLC** 

Monty's Liquid Carbon is a soil conditioner processed using Monty's patented, activated humic technology. It is designed to improve the health and vitality of your soil and plants while maximizing your yields. Monty's Liquid Carbon is easily applied during burn down, and is tank-mix flexible for year-round use.

#### What It Addresses:

Yield-robbing problems created by poor, imbalanced soil

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- √ Improves overall soil health
- ✓ Reduce soil compaction
- ✓ Improve moisture management
- √ Enhance micronutrient uptake
- √ Enhance breakdown of plant residue

Available in 2.5, 30, 275 gallon—and bulk sizes. Also available in dry format. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

**Soil Amending Ingredients:** 

#### **Application Rates**

GENERAL: Apply at varying rates depending on purpose or desired result. For general soil conditioning, apply 2 quarts per acre directly to soil in fall and early spring. May also be applied at the same rate at pre-plant, planting, or for Residue Management. Apply 1 quart per acre when foliar applying with liquid nitrogen or other fertility products. HIGH YIELD: Apply in-furrow, 2x2, or Y-drop at a rate of 1-2 gallons per acre directly to soil in fall and early spring. Monty's high yield program can vary for crops, application rates and timing. If you are interested in a high yield program, contact your Monty's representative.

Monty's uses only the HPTA Method for determining our humic and fulvic acids levels (ISO 19822). Other manufacturers may use less reliable methods. Ask your Monty's representative for more information.

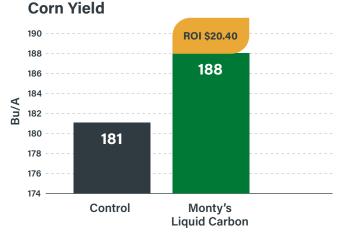
#### **Physical & Chemical Properties**

**pH**: 9.5 - 10.5

Net Weight: 8.51 lbs/gal
Freezing Point: <32°

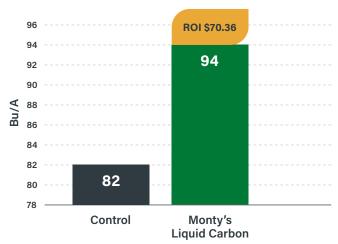






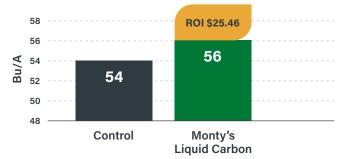
This graph represents over a dozen replicated field trials from across the US including: NE, ND, MD, NC, KY, IL, and OH. MLC applications resulted in significant increases in yield and ROI. A 7.62 bu/A yield increase average and an average ROI of \$20.40 was achieved.

#### **Wheat Yield**



Replicated field trials over 3 years resulted in significant increases in yield and ROI due to MLC application. A 12 bu/A yield increase average and an average ROI of \$70.36 was achieved.

#### Soybean Yield



Replicated field trials resulted in increases in yield and ROI due to MLC application. A 2 bu/A yield increase and ROI of \$25.46 was achieved.

#### A Closer Look:



MLC applied (Left) in-furrow shows an increased root mass providing higher nutrient uptake and better stand compared to untreated plant (Right). MLC results can be seen as early as V1.



MLC applied in-furrow (Left) increases root mass, plant height and vigor compared to untreated plots (Right). Corn treated with MLC matured faster (V5) compared to the untreated (V4).



MLC applied in furrow (Right) increases plant height, vigor, and root mass compared to the untreated (Left).



MLC applied in furrow increases potato plant height, vigor, and root mass.

Catalyzer is a concentrated soil conditioner containing Monty's patented, activated humic technology. It is designed to improve the health and vitality of your soil and plants. Catalyzer is easily applied during burn down, and is tank-mix flexible for year-round use. And because it is concentrated, it reduces application, storage, and transportation costs... increasing your ROI.

#### What It Addresses:

Yield-robbing problems created by poor, imbalanced soil.

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- √ Improves overall soil health
- √ Reduces soil compaction
- ✓ Improves moisture management
- √ Enhances micronutrient uptake
- √ Enhances breakdown of plant residue

Available in 2.5, 30, 275 gallon—and bulk sizes. Also available in dry format. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

#### **Soil Amending Ingredients:**

#### **Application Rates**

GENERAL: Can be used in-furrow, foliar, 2×2, and y-drop. Apply at varying rates depending on the purpose or desired result. For general soil conditioning, apply 2 quarts per acre directly to soil in fall and early spring. May also be applied at the same rate at pre-plant, planting, or for Residue Management. Apply 1 quart per acre when foliar applying with liquid nitrogen or other fertility products. HIGH YIELD: Apply at a rate of 1-2 gallons per acre directly to the soil in fall and early spring. Monty's high yield program can vary for crops, application rates, and timing. Best if used with other Monty's products including starters, foliars, micronutrients, and biologicals. See label for more detailed information. Click here to learn more about Monty's High Yield program.

Monty's uses only the HPTA Method for determining our humic and fulvic acids levels (ISO 19822). Other manufacturers may use less reliable methods. Ask your Monty's representative for more information.

#### **Physical & Chemical Properties**

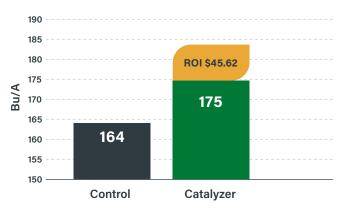
**pH**: 9.5 - 10.5

Net Weight: 8.60 lbs/gal

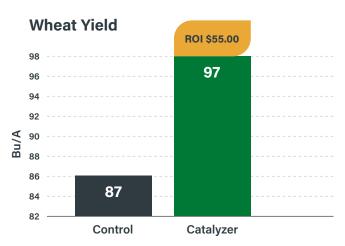




#### **Corn Yield**



An average ROI of \$45.62/A was achieved from 2 qt/A application of Catalyzer in-furrow.



Replicated field trials over 3 years resulted in significant increases in yield and ROI due to MLC application. A 10 bu/A yield increase average and an average ROI of \$55.00 was achieved.

# 80 ROI \$43.93 75 70 65 60 72

Soybean Yield

Control

55

Catalyzer increased ROI and yield by an average of 4 bu/A. An average ROI of \$43.93 was achieved with a 1 qt/A application of Catalyzer in-furrow.

Catalyzer

#### A Closer Look:



Catalyzer applied in-furrow shows an increased root mass providing higher nutrient uptake and better stand. Catalyzer results can be seen as early as V1.



Corn applied with Monty's Catalyzer (left) and without Monty's (right).



Catalyzer applied in-furrow (left) increases plant height, vigor, and root mass compared to the untreated (right).



Cornfield treated Monty's program utilizing Catalyzer.



**Monty's Liquid Carbon** offers the same benefits growers have relied on from Monty's Liquid Carbon, only in a granulated product.

#### What It Addresses:

Yield-robbing problems created by poor, imbalanced soil.

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- √ Enhance micronutrient uptake
- ✓ Improve soil-moisture retention
- √ Serve as catalyst for microbial activity

Available in 50 and 2,000 lb sizes. Also available in liquid format. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

#### **Soil Amending Ingredients:**

#### **General Application**

GENERAL: Apply at 10 pounds per acre. Can be applied with dry fertilizer. For crop specific application information, contact your representative.

HIGH YIELD: Apply at 20-30 pounds per acre. Can be applied with dry fertilizer. For crop specific application information, contact your representative.

Monty's uses only the HPTA Method for determining our humic and fulvic acids levels (ISO 19822). Other manufacturers may use less reliable methods. Ask your Monty's representative for more information.

#### **Physical & Chemical Properties**

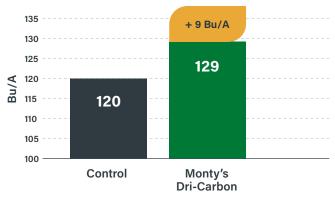
**pH**: 9.5 - 10.5

Net Weight: 8.51 lbs/gal Freezing Point: <32°



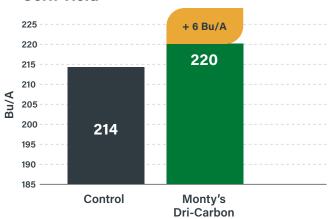


#### **Corn Yield**



Replicated field trials resulted in significant increases in yield due to Monty's carbon application. A 9 bu/A yield increase average was achieved.

#### **Corn Yield**



Replicated field trials resulted in significant increases in yield due to Monty's carbon application. A 6 bu/A yield increase average was achieved.

#### Alfalfa Yield

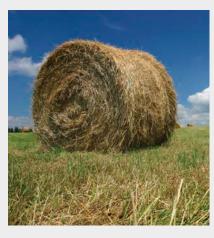


Replicated field trials resulted in significant increases in yield due to Monty's carbon application. A 23 bu/A yield increase average was achieved.

#### A Closer Look:



Soil and root view taken from corn field utilizing Monty's carbon.



Monty's Dri-Carbon is a staple among many hay and pasture growers, with greener, more vibrant fields resulting from better soil-moisture retention and enhanced nutrient uptake.



A 4th cutting of alfalfa after utilizing Monty's Dri-Carbon.



A healthy, vibrant alfalfa field utilizing Monty's program in Osage City, Kansas.



Humihance is a humic-based fertilizer coating that will quickly and efficiently provide nutrient management benefits without inhibiting the activity of the soil's natural bacteria. Humihance also provides all the natural benefits of Monty's proprietary, activated humic technology to the plant and soil. It is ideal for use when blending all granular fertilizers, and is compatible with a variety of micronutrients and pretreated fertilizers.

#### What It Addresses:

Poor nutrient management. All nitrogens (dry or liquid), as well as phosphorus and potash, have high salt indexes. These high indexes contribute to issues with germination and root development.

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- √ Can decrease nutrient loss, while increasing nutrient efficiency availability
- Does not inhibit the activity of the soil's natural bacteria
- ✓ Can help reduce fertilizer salt toxicity
- ✓ Can improve overall soil health with every granule
- ✓ Can improve organic matter conversion
- √ Can reduce soil compaction for better root development and planting conditions
- √ Can assist with moisture retention and improve nutrient uptake
- √ Is non-corrosive
- ✓ Can be used to stabilize Anhydrous Ammonia
- √ Can be used through Anhydrous Inductors

Available in 2.5, 55, 275 gallon — and bulk sizes. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

#### **General Application**

GENERAL: During the last step of the blending process, apply 1/2 gallon of Humihance per ton on the fertilizer. This product may be applied to fertilizer pretreated with Avail®, NutriSphere-N®, or Agrotain®. For crop specific application information, contact your representative. HIGH YIELD: Apply 1-2 gallons of Humihance per ton on fertilizer. Monty's high yield program can vary for crops, application rates and timing. If you are interested in a high yield program, contact your Monty's representative.

Avail and NutriSphere-N are registered trademarks of Verdesian Life Sciences, LLC. AGROTAIN is a trademarks of Koch Agronomic Services, LLC.

#### **Physical & Chemical Properties**

**pH**: 10 - 10.5

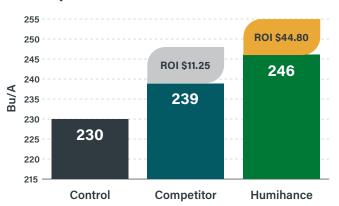
Net Weight: 8.66 lbs/gal

Freezing Point: <26.6°





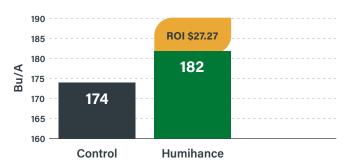
#### **Competitor Trials**



Four replicated trials were carried out in four different locations in NE and TN. Competitor trials resulted in Humihance outperforming competitor products in all studies. Coating Humihance on dry fertilizer inputs increased corn yield by an average of 16.20 bu/A compared to dry fertilizer inputs alone. An average ROI of \$44.80 was obtained due to Humihance application.

\* Calculated at \$4.00 Bu; Humihance at \$80.00/gal; Competitor at \$99.98.

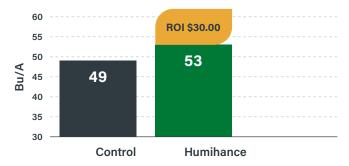
#### Corn



Three replicated trials were carried out in three different locations in MD and TN. Efficacy trials resulted in Humihance significantly increasing corn yield compared to the control plots across multiple locations and years. Humihance application increased yield by an average of 8 bu/A and had an average ROI of \$27.27/A.

\* Calculated at \$4.00 Bu; Humihance at \$80.00/gal.

#### Soybean



Humihance increases soybean yield and ROI compared to the control plots. Adding Humihance to dry fertilizer inputs increased yield by 4 bu/A compared to dry fertilizer inputs alone and had an ROI of \$30.00/A.

\* Calculated at \$10.00 Bu/A; Humihance at \$80.00/gal.

#### A Closer Look:



Applying Humihance-coated NPK in the field.



Applying Humihance with Monty's proprietary humic technology can effectively increase the fertilizer's efficiency. Trial data shows as much as 20% more efficiency out of their fertilizer application.



Humihance is convenient and easy to blend at the dealer.



An early season application of fertilizer treated with Humihance.



**Humi-Till Activator** is a unique blend of specific microbes designed to decompose cellulose, lignin, and keratin in crop residue. Humi-Till breaks down crop residue—significantly reducing your planting problems and making the nutrients in crop residue available. It's convenient and flexible... ready to go when you are!

#### What It Addresses:

Residue build-up, especially from stacked hybrids; soil compaction; mold, fungi, and disease carry-over; high salt levels; tied-up and imbalanced nutrients; and herbicide carry-over.

#### Features and benefits:

- √ Works to decompose cellulose, lignin, and keratin in crop residue
- √ Can be applied pre-plant or post-harvest, and with fall herbicide
- ✓ Minimize planting issues due to crop residue
- Works great on all types of residue including corn, wheat, soybeans, cotton, peanuts, and canola
- √ Also available as a non-organic liquid

Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

#### **SOIL AMENDING ACTIVE INGREDIENTS:**

Bacillus Amyloliquefaciens	.2.2 x 107 CFU/ml
Bacillus Pumilis	. 2.2 x 10 <sup>7</sup> CFU/ml
Bacillus Megaterium	.2.2 x 107 CFU/ml
Bacillus Subtilis	.2.2 x 10 <sup>7</sup> CFU/ml
Bacillus Licheniformis	.4.4 x 107 CFU/ml

#### **General Application**

GENERAL: Add entire packet to 275 gallons of Monty's Liquid Carbon and agitate until well mixed. Apply at the rate of 2 quarts per acre mixed in a minimum 15 gallons of water. Application rates and the number of applications necessary varies with soil conditions and the amount of crop residue. For faster results, apply with 1-3 gallons of liquid nitrogen per acre. If soil temperature is below 45°F, performance is significantly reduced.

HIGH YIELD: Monty's high yield program can vary for crops, application rates and timing. If you are interested in a high yield program, contact your Monty's representative.

#### **Physical & Chemical Properties**

**pH**: 6.0 - 7.05

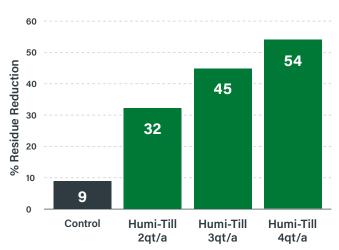
Net Weight: 8.67 lbs/gal Freezing Point: <30°



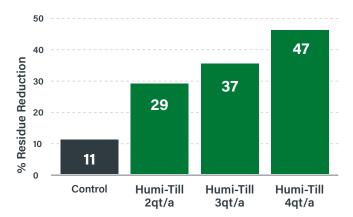


Replicated field studies show that Humi-Till applied post-harvest significantly reduces plant residue within 45 days after application.

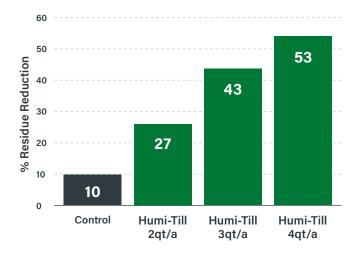
#### Corn



#### Soybean



#### Wheat



#### A Closer Look:



Farmer applying Humi-Till for corn residue management at season's end.



Humi-Till is designed to address residue build-up and prepare your soil for next season.



See the difference! Corn stalks on the right were treated with Monty's Humi-Till.



Applying Humi-Till for residue management can actively assist in conditioning the soil – increasing microbial and earthworm populations needed for nutrient delivery.



**Surge XD** is designed for use with liquid fertilizers to facilitate nutrient uptake through the plant tissues.

#### What It Addresses:

Some liquid foliar fertilizers are less effective delivering nutrients to the plant.

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- Designed to enhance nutrient uptake into the plant
- √ Works as a chelator for nutrients
- √ Foliar apply with liquid nutrients
- √ Foliar apply with herbicides, fungicides, and insecticides
- ✓ OMRI-listed
- √ Tank-mix flexible

Available in 2.5, 30, 275 gallon—and bulk sizes. Not available in all states. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

 Fulvic Acids
 0.45%

 Humic Acids
 1%

 Derived from Brown Coal

#### **General Application**

GENERAL: Foliar apply at a rate of 1-2 quarts per acre. Surge XD may be mixed with any grade of liquid fertilizer. Consult your local dealer for recommended rates for your particular region, soil type, fertilizer type and grade, and specific usage.

HIGH YIELD: Apply in-furrow, 2×2, or Y-drop at a rate of 1-2 quarts per acre. Monty's high yield program can vary for crops, application rates and timing. If you are interested in a high yield program, contact your Monty's representative.

#### **Physical & Chemical Properties**

**pH**: 6.7 - 7.5

Net Weight: 8.67 lbs/gal Freezing Point: <30°



### Surge XD: A unique ratio of fulvic to humic acids

#### Humic acids are able to:

- √ Penetrate cell walls
- √ Attach to the outside of cell membranes
- √ Protect the cell from toxins, pathogens and other stressors

#### Fulvic acids are able to:

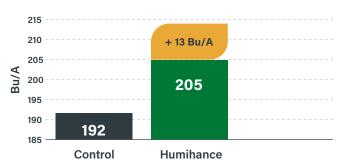
- ✓ Penetrate cell membranes due to their small molecular size
- √ Transport nutrients into the cell

~Look for the "HPTA Test Method Certified" seal.



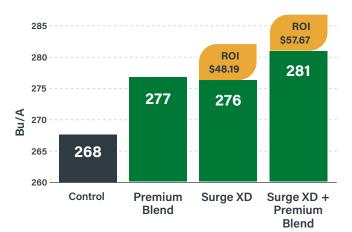


#### **Corn: In-Furrow**

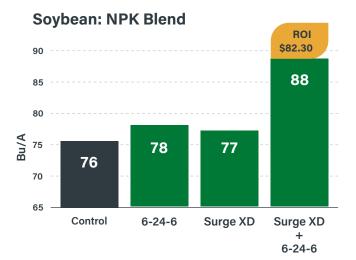


Henderson, KY corn trials testing the efficacy of Monty's Surge XD for improving corn yields showed a 13 Bu/A increase over control.

#### Corn: Foliar



All Monty's foliar products increased yield and ROI compared to the control plots. An additive effect in terms of yield was measured when Surge XD was added to Premium Blend (PB) at V5, with a yield increase of 3.4 bu/A compared to PB alone. Premium Blend + Surge XD had the highest impact on yield and ROI, increasing yield by 12.8 Bu/A compared to the control and having an ROI of \$57.67.



Multiple field trials across different states show that Surge XD combined with liquid fertility products significantly increases yield compared to liquid fertilizer application alone. The addition of Surge XD increases yield by 8.8 bu/A average and had an average ROI of \$82.30.

#### A Closer Look:



Surge XD applied in-furrow to a Galveston, Indiana corn crop shows increased root mass (right) compared to untreated (left).



Nutrient uptake review of corn stalk after Surge XD application.



Growers rave about Surge XD's ability to effectively increase moisture retention and nutrient uptake, while reducing soil compaction.



High yield growers depend on the benefits Surge XD provides to their overall growing program.



**Drivas** is designed for use with liquid fertilizers to facilitate nutrient uptake through the plant tissues.

#### What It Addresses:

Some liquid foliar fertilizers are less effective delivering nutrients to the plant.

#### Features and benefits:

- √ Features Monty's proprietary, activated humic technology
- Pure fulvics means more nutrient driving power
- Designed to significantly enhance nutrient uptake into the plant
- √ Works as a chelator for nutrients
- √ Supports plant growth and flowering
- √ Foliar apply with liquid nutrients
- √ Foliar apply with herbicides, fungicides, and insecticides
- √ Tank-mix flexible regardless of pH

Available in 2.5, 30, 275 gallon—and bulk sizes. Not available in all states. Please check with your dealer for availability and application rates or visit www.montysplantfood.com.

#### **Active Ingredients**

Hydrophobic Fulvic Acids......0.7%

Derived from Lignite

#### **General Application**

GENERAL: Foliar apply at a rate of 1-2 quarts per acre. Drivas may be mixed with any grade of liquid fertilizer. Consult your local dealer for recommended rates for your particular region, soil type, fertilizer type and grade, and specific usage.

HIGH YIELD: Apply in-furrow, 2x2, or Y-drop at a rate of 1-2 gallons per acre. Monty's high-yield program can vary for crops, application rates, and timing. If you are interested in a high-yield program, contact your Monty's representative.

#### **Physical & Chemical Properties**

**pH**: 3.5 - 4.5

Net Weight: 8.37 lbs/gal

Freezing Point: <32°





Monty's Drivas is a true fulvic derived from ancient humified material (lignite). Some competitors use processed plant materials or manufacturing by-products which are less pure and less bioactive. Some competitors claim a higher percentage of fulvics. But if their product is not a true fulvic, whatever percentage they claim does not matter.

Some manufacturers use different methods for determining fulvic content. Monty's uses the HPTA method. When comparing

using the same method of analysis. A higher percentage does not always mean better! Look for the "HPTA Test Method Certified" seal.

products, be sure to compare products





# MONTY'S...YOUR TRUSTED ADVISORS WITH PROVEN SOLUTIONS.

One of Monty's primary goals has always been to help farmers be more successful. We achieve this goal by first testing and evaluating our products through research—both in the lab and on the farm. Next, we take our products to Certified Crop Advisors, agronomists, universities, and growers nationwide for further testing and evaluation. Finally, our progressive products are made available to farmers throughout the country!

Our Trusted Advisors are there for you at every step. No matter the issue, we'll always provide options that fit your needs and provide solutions to your farming challenges.

















## TRUSTED ADVISORS. PROVEN SOLUTIONS.

www.montysplantfood.com 800.978.6342 4800 Strawberry Lane Louisville, KY 40209



