



Your Hub for Innovative Biostimulants



Not All Humates Are the Same

SELECT BIOAG FUL-HUMIX TODAY!

WWW.BIOAG.COM



Not All Humates Are the Same

WHY CHOOSE BIOAG FUL-HUMIX?

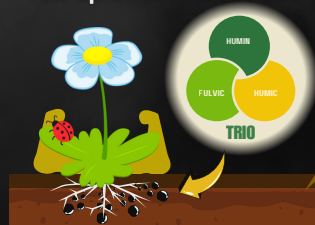
Not all humic acids provide the same level of effectiveness. If you're frustrated with inconsistent results, unexpected expenses, and complicated applications, consider switching to BioAg Ful-Humix the humic acid that offers greater support for both your crops and your budget.

The Most Effective & Cost-Efficient Humic Acid on the Market

WHAT MAKES FUL-HUMIX THE TOP CHOICE FOR GROWERS?

1

Full-Spectrum Humic Acids

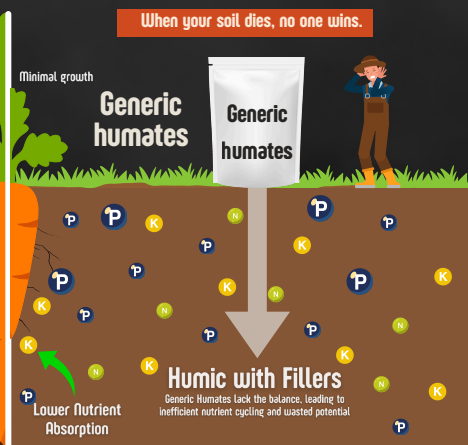


Unlike watered-down alternatives, Ful-Humix packs **humin**, **humic**, and **fulvic acids** in perfect balance. This **trio** supercharges root development, nutrient absorption, and soil structure.

when your soil wins, everyone wins.

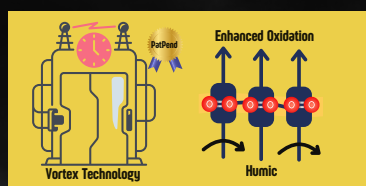


When your soil dies, no one wins.



2

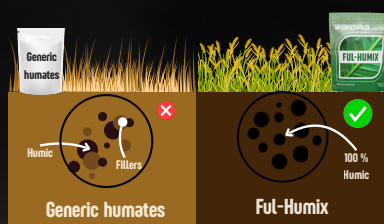
Vortex & Enhanced Oxidation Process



Dr. Robert Faust's **Vortex Technology (PatPend)** and **oxidation** process unlock humic acids at their peak potency. The **result?** Consistent performance, season after season.

3

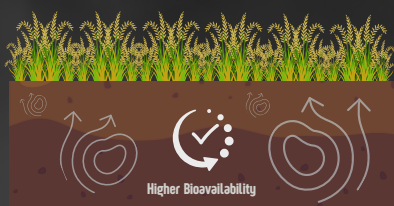
100% Pure, Zero Fillers



Generic humates often strip out minerals or add synthetic **fillers**. Ful-Humix stays **true to nature**—nothing removed, nothing artificial. Just raw, mineral-rich humic goodness.

4

Lowest Cost per Pound of Active Humic Acid



Cheaper isn't better when bioavailability is low. Ful-Humix's **advanced formula** ensures every penny you spend goes further, thanks to rapid plant uptake and long-lasting **soil benefits**.

5

OMRI Listed & HPTA Certified



OMRI-Listed and **HPTA-certified**, Ful-Humix meets the strictest organic standards. Safe for your **soil**, your crops, and your peace of mind.

WHAT MAKES OTHER HUMATES INFERIOR?



HUMIC ACIDS

The Key to Soil Prosperity or Poverty

WHY HUMIC ACIDS ARE ESSENTIAL FOR A HEALTHY SOIL ECOSYSTEM

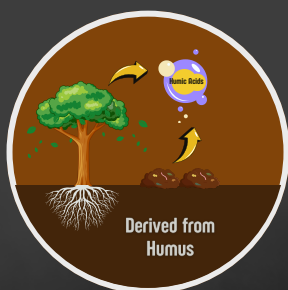
The presence or absence of humic acids in soil determines whether a farm flourishes or struggles. These organic molecules are the building blocks of soil fertility, playing a crucial role in nutrient absorption, microbial activity, and soil structure.

If your soil lacks humic acids, it loses productivity, structure, and the ability to support plant growth—leading to higher input costs and lower yields.

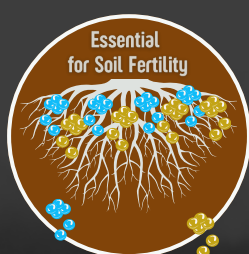


What Are Humic Acids?

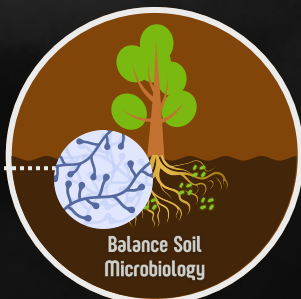
The formation of **humic acids** results from the long process of **organic matter decomposition** over **thousands of years**. Microorganisms **break down** plant and animal residues, creating complex **organic compounds** that enhance **soil health and fertility**. This biochemical transformation leads to **humic substances**, which improve **nutrient availability and soil structure**.



The result of organic matter decomposition over thousands of years



Improve nutrient cycling, root health, and moisture retention



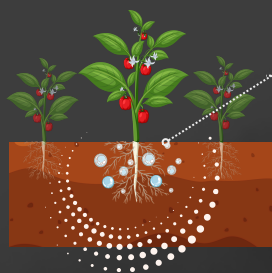
Promote fungal dominance for stronger, more resilient soils

fungi
Dominance



Most soils today are depleted of humic acids due to over-farming, chemical overuse, and erosion. Reintroducing humic acids is critical to restoring soil function.

How Humic Acids Impact Soil Health



● Chelated minerals

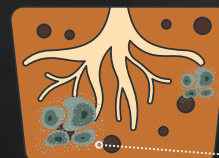
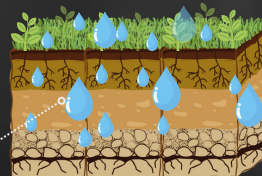
1 Increase Nutrient Uptake & Efficiency

Chelate minerals like **phosphorus**, **iron**, and **zinc**, making them more available to plants. Reduce **nutrient leaching**, ensuring fertilizers stay in the soil instead of washing away.

2 Improve Soil Water Retention & Structure

Act like a **sponge**, holding moisture in the root zone. Loosen compacted soil, **improving aeration** and root penetration.

water droplets
easily penetrating into the soil



3 Boost Microbial & Fungal Activity

Fosters **beneficial fungi dominance**, crucial for nutrient exchange. Provides a direct food source for microbes, **increasing soil biodiversity**.

fungi



Without humic acids, soils lose their ability to sustain healthy microbial life. Adding microbes alone isn't enough—they need humic acids to thrive.

How Much Humic Acid Does Your Soil Need?

Soil Condition	Humic Acid Needed
Healthy Soil	10-20 lbs/acre/year
Moderate Degradation	20-40 lbs/acre/year
Severely Depleted Soils	40-100 lbs/acre/year



Applying humic acids without knowing their actual concentration leads to inconsistent results. Reliable testing = Better soil management.

How Can You Measure Humic Acids in Soil?



HPTA-Certified Testing

- Standardized method for measuring humic & fulvic acids
- Provides **accurate & reliable** soil health data



Soil Food Web Analysis

- Assesses **fungal-to-bacterial** ratio for microbial balance
- Evaluates organic matter **levels & soil biology**



Failing to maintain humic acid levels leads to declining yields, increased fertilizer costs, and poor soil health over time.



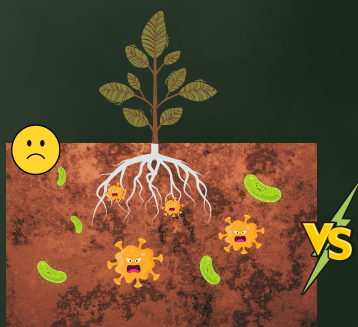
FUL-HUMIX

LET'S BUILD ORGANIC MATTER

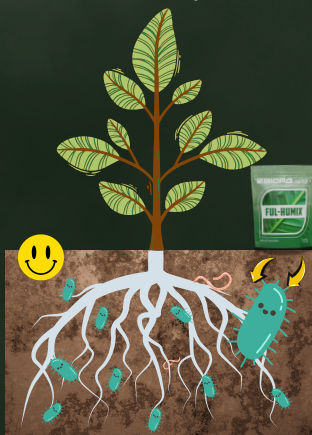
Healthy soil starts with **Ful-Humix** – the missing link between **microbes** and **organic matter**!

Why Microbes Alone Fail

Microbes alone cannot improve soil health effectively because they **require humic acids** as an **energy source** to thrive and function. Without humic acids, microbes compete for **limited nutrients**, leading to **imbalanced soil biology**, **poor nutrient cycling**, and **reduced plant growth**.



No Humic Acids = Microbes Compete for Food



Ful-Humix Feeds Microbes = Better Nutrient Cycling

How Ful-Humix Supports Organic Matter

Ful-Humix enhances **organic matter** by accelerating **decomposition**, enriching soil with stable **humic substances**, and creating a thriving **environment** for **beneficial microbes** and **fungi**.

Feeds Microbes



Ful-Humix feeds microbes by providing a rich carbon source, fueling their growth and activity.

Strengthens Soil



It strengthens soil by improving structure, aeration, and water retention, reducing erosion and compaction.

Boosts Fungi



It boosts fungi by creating a balanced microbial environment, enhancing nutrient cycling and root symbiosis.



Annual Application → Sustained Organic Matter

Steps to Enrich Soil with Ful-Humix



1

Apply Ful-Humix

Provides essential carbon and humic substances to the soil.

2

Microbes Multiply

Beneficial microbes thrive, accelerating nutrient cycling.

3

Organic Matter Builds

Decomposed material enriches soil structure and fertility.

FUL-HUMIX

Fueling microbes, Building organic matter

4

Healthy Soil & Crops

Improved soil leads to stronger plants and higher yields.

Worms

What Happens Without Humic Acids?



Compaction, Leaching, Dead Soil

Without humic acids, soil becomes **compacted**, nutrients **leach away**, and **microbial life declines**, resulting in **lifeless, unproductive soil**.



Aeration, Nutrient Retention, Living Soil

With **humic acids**, soil stays **aerated**, retains **nutrients** efficiently, and fosters a thriving **microbial ecosystem**, ensuring **long-term fertility** and **plant health**.

THE SCIENCE BEHIND HUMIC ACIDS

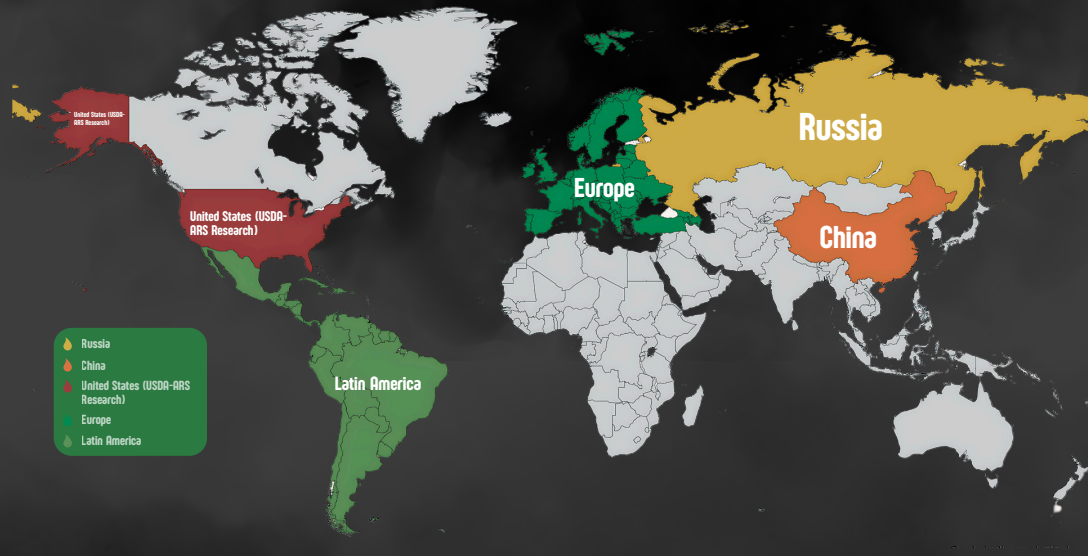
What Global Research Says

Proven by Science, Trusted by Farmers

For decades, scientists and agronomists worldwide have studied humic acids and their effects on soil health, plant productivity, and sustainable agriculture.

The results?

Unquestionable proof that humic acids are essential for healthy soils and high-yielding crops.



Scientific Findings from Around the World

America	Latin America	China	Europe	Russia
Humic substances increase shoot and root growth by up to 35%	Soils enriched with humic acids retain 50% more water, reducing irrigation needs	Fulvic acids enhance drought resistance, keeping crops alive in harsh conditions	Humic acid applications reduce fertilizer dependency by 40%	Humic acids increase crop yields by up to 30%
Improve soil structure, reducing erosion and nutrient loss	Strengthens plant immune systems, lowering disease risk	Boost root growth, helping plants absorb more nutrients	Enhance microbial activity, improving long-term soil fertility	Improve soil fertility & water retention

How Do Humic Acids Work in Plants & Soil?

Improve Nutrient Availability & Uptake



Chelate essential nutrients like phosphorus, potassium, and iron, making them more bioavailable

Reduce nutrient leaching, ensuring fertilizers stay in the soil

Enhance Root & Shoot Development



Stimulate natural plant hormone activity (auxins & cytokinins)

Increase root biomass, improving drought tolerance

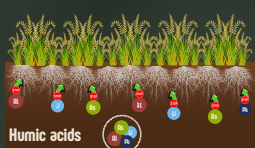
Strengthen Soil Microbiology



Create a healthy microbial balance, promoting beneficial fungi & bacteria

Provide a carbon source for microbes, increasing biodiversity

Reduce Soil Toxicity & Stress Resistance



Bind heavy metals, preventing toxic buildup in crops

Improve water retention, reducing plant stress in extreme weather

The Role of Standardized Testing – Ensuring Humic Acid Quality

Not all humates are **created equal!**

Many products on the market **lack potency and bioactivity.**

How Do You Know What You're Getting?



HPTA-Certified Testing:
The gold standard for humic & fulvic acid measurement



Bioavailability Testing:
Ensures humic acids are active & effective



Full-Spectrum Analysis:
Ensures humic acids are active & effective



Why BioAg Full-Humix Leads the Industry



Scientifically Verified



100% Active & Bioavailable



OMRI Listed & HPTA Certified

Backed by global research & independent testing

Ensuring maximum efficiency per pound

Meeting the strictest industry standards

Farmer Tips



Apply Annually with Compost



Reduce Tillage to Protect Organic Matter



Test Soil Health with HPTA Methods

