

ACTIVE HUMIC TECHNOLOGY



What are **Humic Substances**?

Humic Substances are very stable, organic compounds found in brown and oxidized black coal, peat, manure, compost, many upland streams, dystrophic lakes (brown, tea colored water) and ocean water. They were formed from decomposed plant and animal tissue over a long period of time, and make up much of the dark material found in soils, playing a remarkable role in the biosphere.

What are **Active Humic Compounds**?

The two most common fractions of humic substances are humic and fulvic acids. These molecules are extracted from raw humic substances using various technologies. If extracted properly, humic molecules become active, meaning their unique and beneficial characteristics are available for reactions. OrganoCat refers to these activated humics as Active Humic Compounds, which are biologically, geologically and chemically active.



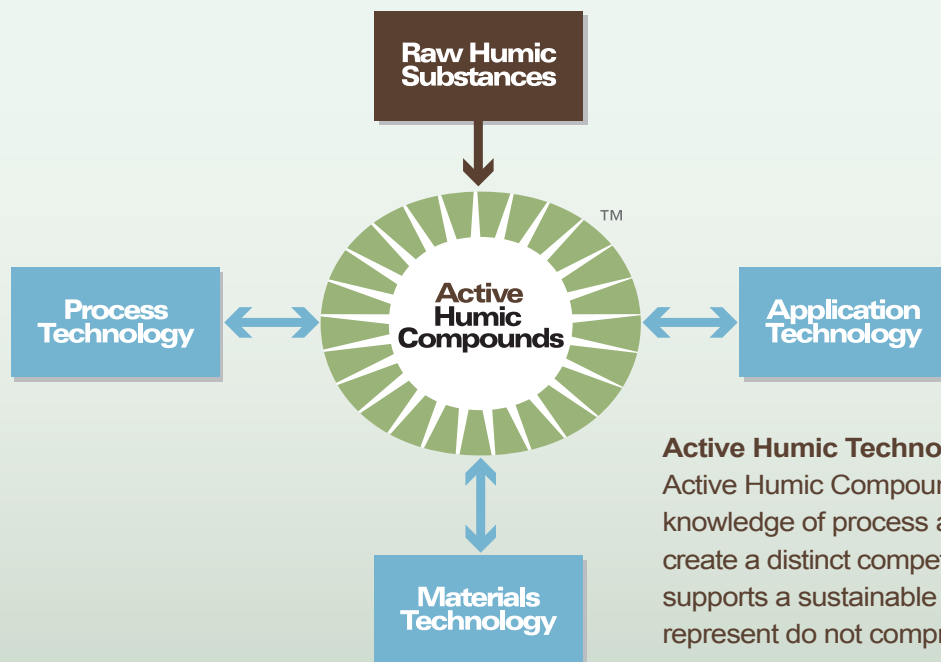
What is Active Humic Technology?

OrganoCat is a leader in the development of fundamental technology to produce Active Humic Compounds (AHC). Additionally, OrganoCat uses materials, process and application technology to develop more complex compounds for a wide-array of agricultural applications that are cost-effective and support new sustainability initiatives.

Some of these initiatives include:

- Environmentally responsible soil structure and fertility restoration
- Crop yield and quality optimization, increasing not only the total quantity, but also the nutritional quality of the produce in terms of sugar, starch, oil and protein content
- Soil and water detoxification and restoration from heavy metals, PCB's, PAH's, pesticides, radioactivity and pathogens
- Irrigation water treatment to reduce salt toxicity
- Fertilizer stabilization and buffering – reduces volatilization, leaching, leaf burn and soil organic and mineral dissolution

Active Humic Technology



Active Humic Technology combines the power of Active Humic Compounds with the deployment knowledge of process and application technology to create a distinct competitive advantage. This approach supports a sustainable mission where needs of the present do not compromise future opportunities.

Active Humic Technology

Sustainable technology for agriculture – in an environmentally safe way

Active Humic Technology enables farmers to optimize their crops in an environmentally safe way. This allows businesses to achieve their desired financial objectives in an ecologically responsible way without tearing up the current processes or infrastructure.

What makes our Humic Technology superior to other products in the market?

- **Pure:** Liquids won't clog nozzles
- **Active:** Designed for optimum bio, geo and chemical activity
- **Flexible:** Effective with most liquid fertilizers, herbicides and pesticides
- **Effective:** Across all soil and plant types
- **Comprehensive:** Positively affects all soil constituents, bio-geo-chemical processes and crops, resulting in higher yield and produce quality (protein, carbohydrates, vitamin contents, etc.)



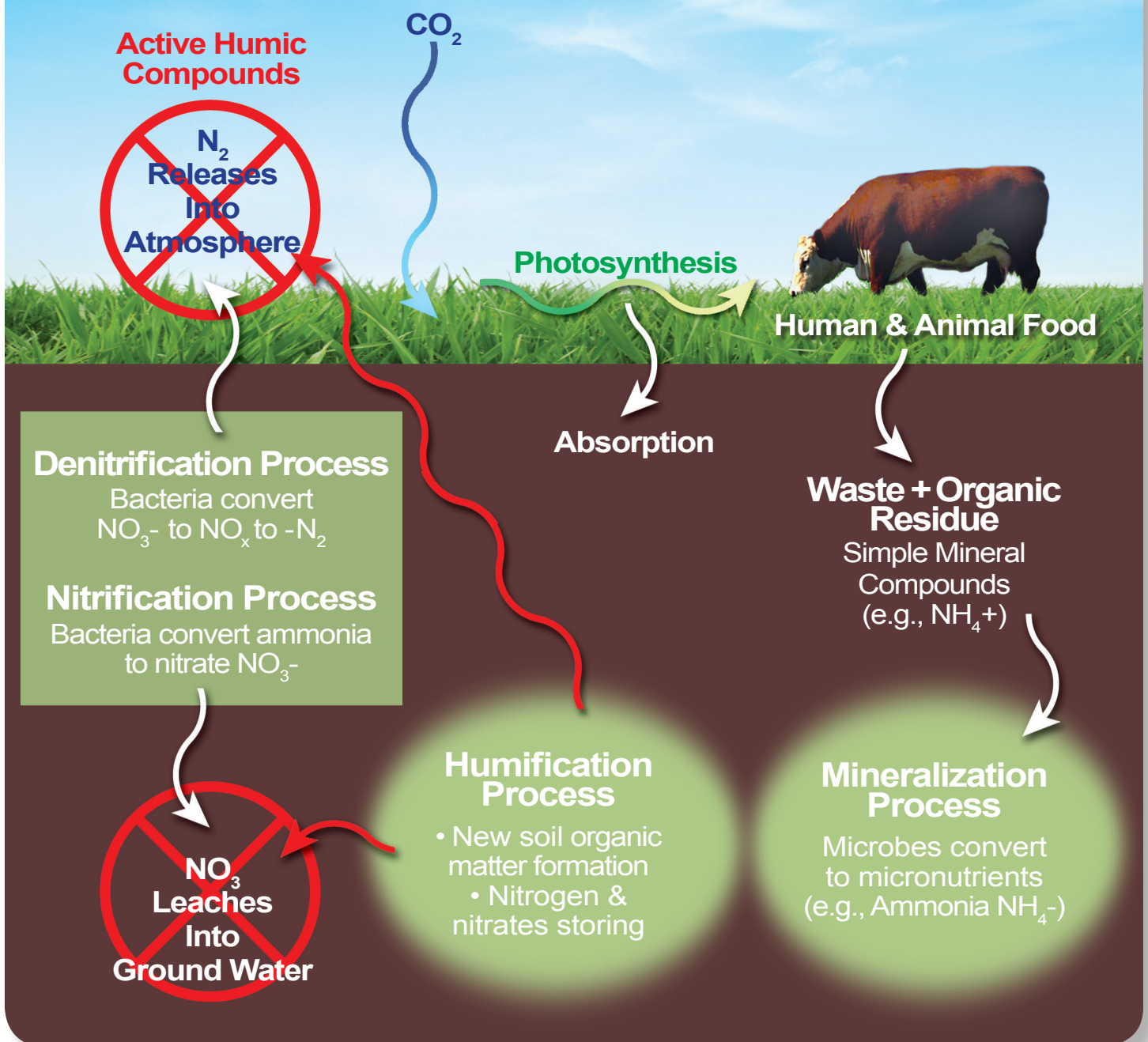
Versatility without compromise.

Active Humic Technology provides a core platform on which to optimize many types of raw materials, products and processes and solve multiple problems. Gone are the days of simply adding *more* agricultural inputs – in turn compromising soil, water and air. Everyone is under financial and environmental pressure to be more responsible with all available resources. Active Humic Technology utilizes Active Humic Compounds which are natural in origin and do not negatively impact the ecology of soil, water or air. In fact, Humic Substances are a desired and needed element for soil structure and fertility, biological stimulation and balancing, and chemical stabilization of agricultural nutrients. All of these important properties – geological, biological and chemical – work synergistically to produce lasting and often increasing benefits. (This approach supports a sustainable mission where needs of the present do not compromise future opportunities).

OrganoCat's family of Active Humic Compounds are a powerful and innovative solution.

The POWER of Active Humics to Optimize the Biological Cycle

- Reduced nitrate leaching into water sources
- Increased available nitrogen for plants
- Increased soil organic matter content



Material

The Power Of Green Chemistry

Active Humic Compounds are pure, powerful and environmentally beneficial.



Active Humic Compounds are beneficial biologically, geologically and chemically.



Active Humic Compounds (AHC) act as a biological stimulator, soil restorer and toxin binder and decomposer. When used by themselves or combined with synthetic fertilizers, AHC's:

- Re-establish & support natural environmental conditions
- Reduce toxicity
- Improve efficiency
- Reduce overall environmental impact

Active Humic Compounds: Benefits

The Power Of Active Humics For Soil & Plants



- Improves Available Nitrogen, Phosphorus, Potassium & Micronutrients For Plants
- Stimulates Beneficial Microbial Activity
- Binds & Speeds Toxin Decomposition
- Increases Water Holding Capacity
- Reverses Soil Compaction
- Increases Soil Potential & Fertility
- Enhances Breakdown Of Crop Residue
- Increases Potential Crop Yield & Quality

The Power Of Active Humics For Water



- Reduces Salt Toxicity Impact On Plants
- Immobilizes Heavy Metals & Organic Toxins
- Increases Phosphate Mobility
- Reduces BOD & COD
- Removes Pathogens
- Controls Algae In Ponds, Lakes, etc.



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Listed by the Organic Materials Review Institute (OMRI) for use in organic production.

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