



MPFBV101909

Monty's Plant Food Co.

Sustainable Agriculture Products

Humic Substances

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 the 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. Monty's refers to these active humics as Active Humic Compounds, which are biologically, geologically and chemically active.



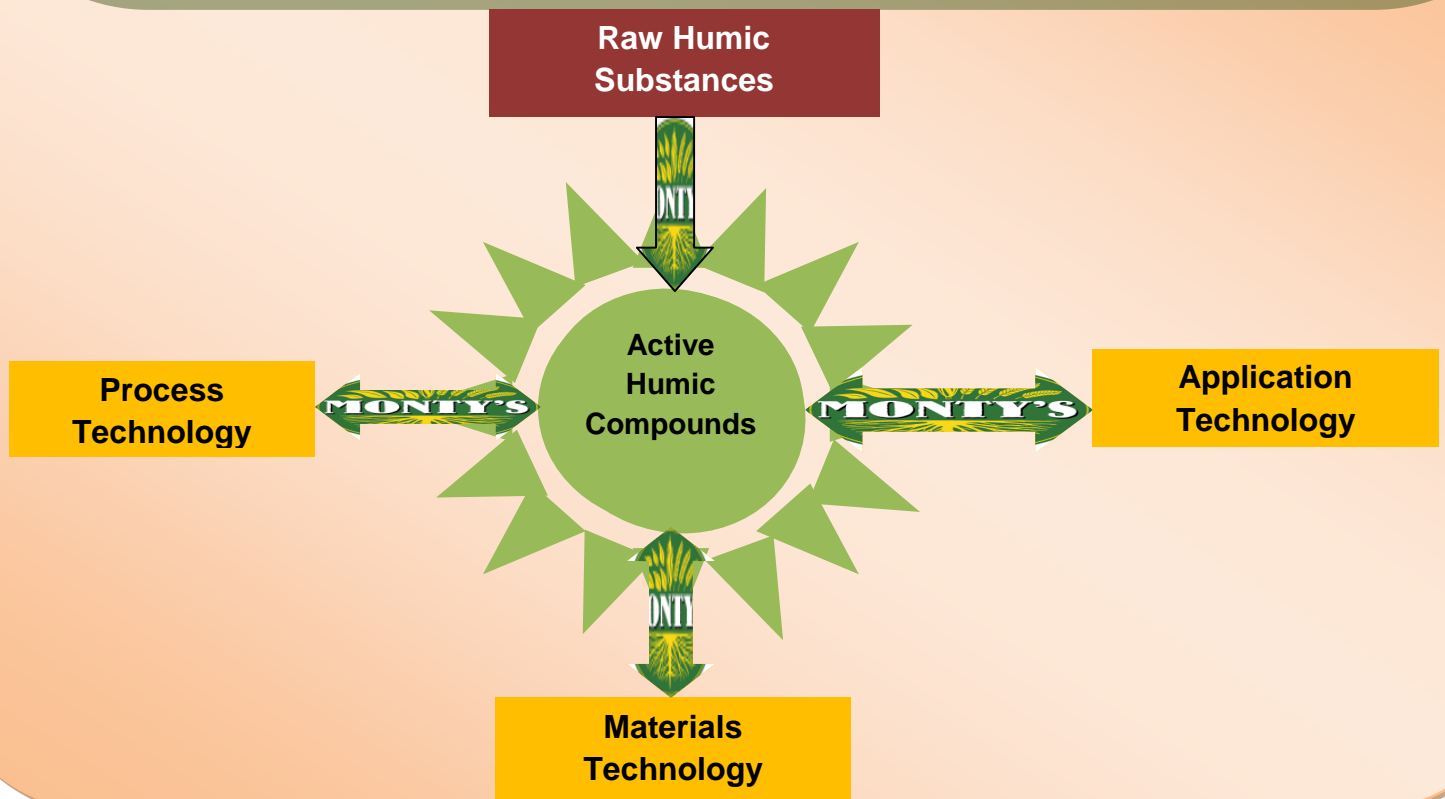


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What is **Active Humic Technology**?

Monty's Plant Food Co has the technology to produce **Active Humic Compounds (AHC)**. Additionally, **Monty's Plant Food Co** has materials, processes and application technologies to develop more complex compounds for a wide array of agricultural and industrial applications that are cost effective and support new sustainability initiatives. Some of these include:

- Environmentally responsible soil structure and fertility restoration for agricultural purposes
- 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 detoxification and restoration from heavy metals, PCB's, PAH's, pesticides, radioactivity and pathogens
- Irrigation, municipal and industrial water treatment from salt toxicity effects, heavy metals, pathogens and other contaminants





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Active Humic Technology

Sustainable technology for agriculture, energy and industry

Active Humic Technology enables farmers to optimize their crops and energy producers and industrial operations to convert their waste into environmentally safe or useful products. This allows businesses to achieve their desired financial objectives in an ecologically responsible way without destroying the current processes or infrastructure.



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. 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 harmful compounds like heavy metals. 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 cannot compromise the ability of future generations to meet their needs.

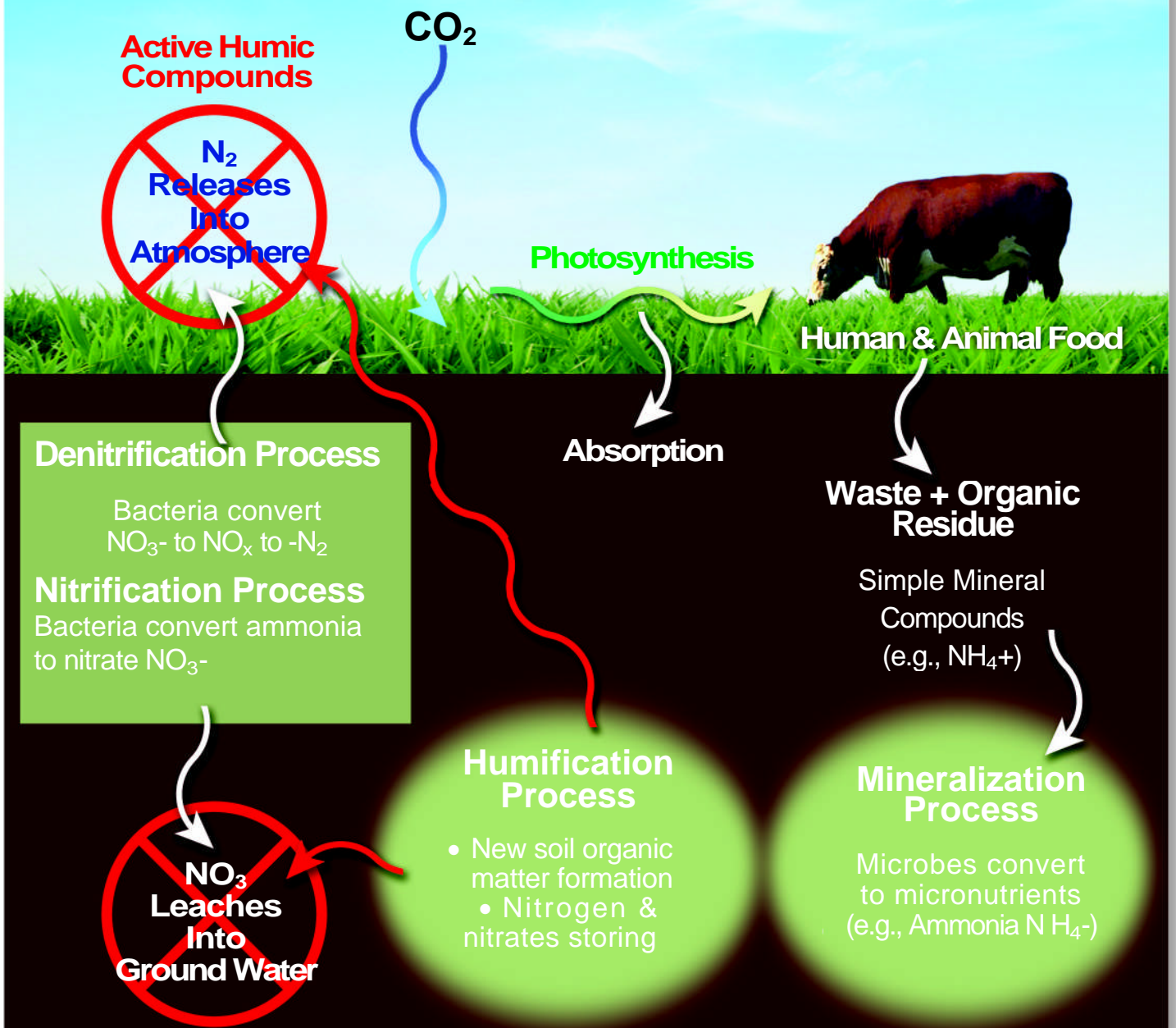
Monty's Plant Food Company's family of Active Humic Compounds coupled with Active Humic Technology (the synergistic deployment of material, process and application) are a powerful and innovative solution.



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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



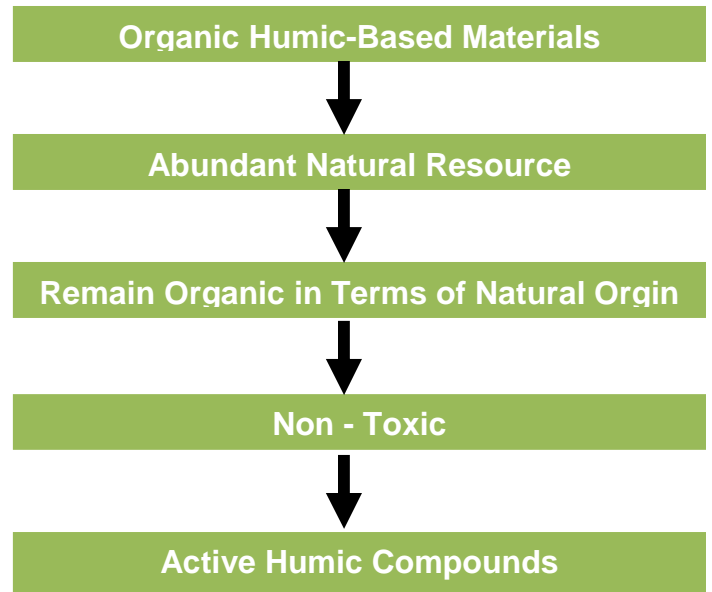
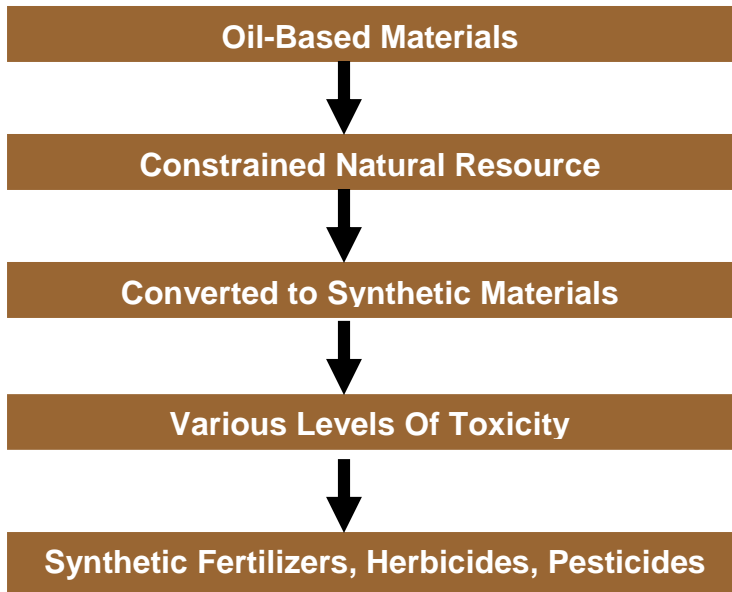


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Material

The Power Of **Green** Chemistry

Active Humic Compounds are an abundant natural resource, which actively react, and are non-toxic to the environment



Active Humic Compounds are beneficial *biologically*, *geologically* and *chemically* reactive agents.



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



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Active Humic Compounds: Benefits

The **Power** Of Active Humics For **Soil & Plants**



- Improves Available Nitrogen, Phosphorus & Potassium For Plants
- Stimulates Beneficial Microbial Activity
- Binds & Speeds Toxin Decomposition
- Increases Water Holding Capacity
- Reverses Soil Compaction
- Increases Soil Potential & Fertility

The **Power** Of Active Humics For **Water**



- Reduces Salt Toxicity Impact On Plants
- Immobilizes Heavy Metals & Nitrates
- Increases Phosphate Mobility
- Reduces BOD & COD
- Removes Pathogens

The **Power** Of Active Humics For **Industrial Waste**



- Immobilizes Heavy Metals
- Neutralizes & Absorbs Polychlorinated, Polycyclic & Oil Hydrocarbons
- Converts Waste Into Non-toxic Ground Material
- Supports Industrial Waste Conversion Into A Neutral Material, e.g., Man-Made Ground