HumaCarb is an Organic Input used as part of a biologically managed farm system program. It complies with the USDA National Organic Program rules for Certified Organic System Plans.

SPECIFICALLY:
205.200: Maintaining soil resources
205.203(d) (2): A Nonsynthetic mined substance of low solubility. 205.203(c): does not contribute to contamination of crops, soil, or water

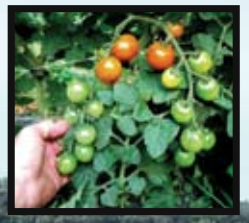
HumaCarb also complies with other international bio-organic regulations for the production of certified organic crops.

Verify with your organic certifier before using.

ADVANCING ECO-AGRICULTURE

HumaCarb™

Ultra-Micronized Humates



15266 Hayes Rd., Middlefield, OH 44062
440-632-1012 • Fax: 440-632-1256

ADVANCING ECO-AGRICULTURE

MICRONIZATION

Unlike liquid synthetic humates that are chemically extracted fractions of organic matter, HumaCarb contains all of the original complex carbons that are found in the natural material from which it is derived. The process of grinding a material down to fine particles where it is about the thickness of a human hair (about 6 microns thick) is called micronization. HumaCarb is micronized so it can be suspended in water for use in liquid applications while providing all of the complex components of the original natural material.

HUMUS

Humankind has realized for thousands of years that dark colored soils are more productive and provide more protection from plant diseases than light colored soils. The dark color in high fertility soils is from humic substances, which are a form of natural organic matter consisting mostly of complex carbons generated by microorganisms.

BENEFITS

The benefits of soil humus are well known. Humic substances are primarily responsible for the benefits normally attributed to humus. Some of the benefits include efficient nitrogen utilization, better nutrient uptake from soil to plant, increased nutrient density, pest and disease resistance, micronutrient utilization and plant growth stimulation. Most, if not all, of these benefits are the result of increased biological activity, not necessarily directly from the application of humic substances.

HUMIC SUBSTANCES

Microorganisms will eventuallychange natural organic matter into highly stable complex forms of carbon called humic substances. The process is called humification, and it occurs naturally in soils, compost piles, and where coal deposits have been exposed to long-term biological weathering. HumaCarb is an unadulterated form of highly weathered coal.

COMPLEX MATERIALS

In natural biological systems, humic substances are the critical link between the complex interactions of microbes, clays, nutrients, metals, plant roots and numerous organic compounds. They are extraordinarily complex substances, so it makes sense to use the natural material instead of the synthetic soluble extracts called "humic acid" and "fulvic acid".

THE HUMIN FRATION

Humic substances are also composed of a complex component that is absolutely insoluble. It is called humin, which is a very porous sponge-like material that soaks up water; a very critical function of any biological system. It is also the most stable and longest lasting carbon component of humic substances and is actually discarded as a waste product during the manufacture of synthetic humic and fulvic acids.

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