



PRODUCT INFO
& DATASHEET

Humic & Fulvic Acids and Amino Acids in NATURACTIV[®] (or SICORGAN[®]) organic fertilisers

Re: A high percentage of Humic & Fulvic Acids and Amino Acids in NATURACTIV & SICORGAN.

* These organic acids are formed during the composting process of the starting material.

Not all organic material is converted into these acids during composting, but most of the material humifies once it is put into the soil. This is a slow process during which time the humic acids are released gradually.

This is the most important part of the basic fertilisation process, which is essential for cultivation during the growing season.

These organic acids form complexes with inorganic particles in the soil, resulting in the release of nutrients such as phosphorus.

The clay-calcium-humus complex has an important function in the soil.

This complex has the ability to absorb an-ions and cat-ions and facilitates the release of ions into the soil, making them available to plants. **Within this same complex there is room for absorption of water, up to 15 times the material's own weight. As a result this complex keeps the soil moist, prevents dehydration of the soil, protects it from erosion and ensures bacterial viability in the soil.**

This humus complex also reacts with tricalcium phosphate and sesquioxide complexes, whereby locked and immobilised phosphorus in these inorganic complexes is unblocked and released into the soil.

* Fulvic acids dissolve when they come into contact with amino acids and sugars and in solutions with a low pH (2). Fulvic acid molecules are smaller than in the humic acids and the presence of humic acids accelerates this dissolving process. During decomposition, humic acids are transformed into fulvic acids.

The remaining organic material, which cannot be defined as humic or fulvic acids, is called humin and fresh organic matter. Naturally this material decomposes slowly and forms soluble substances.

* NATURACTIV & SICORGAN organic NPK's are fertilisers of animal origin and therefore contain proteins. The proteins are broken down during the fermentation process and are humified into amino acids.

The amino acids activate the bacterial life in the soil and stimulate the root activity of the crops. The development of microorganisms fauna in the soil is essential to fertilisation as this aids uptake of nutrients in plants.

**SICO ORGANIC FERTILISERS
YOUR INDISPENSABLE GROWTH SUPPORT**

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