

HUMAC® Natur AFM with a high content of **natural humic acids (+65%)** is a natural feed material intended for all types of animals. The product is mixed into the feed as a preventive measure, which supports the reproductive indicators of animals, improves their production health and ensures the production of animal products without residues of foreign substances. It is also used to prevent and support the treatment of diarrheal diseases, dyspepsia and various intoxications. The natural humic acids in the product have the ability to bind various types of toxins, while simultaneously supplying minerals and trace elements in a chelated form that is easily usable in the animal's body.



Humic acids are natural organic substances. They arise from the chemical and biological decomposition of organic matter of plant origin and the synthetic activity of microorganisms. Together with fulvonic acids and humin, they belong to humic substances that are part of humus. In more detail, humic acids are polymeric aromatic macromolecules in which the connection between aromatic groups is provided by amino acids, sugars, peptides and aliphatic compounds. They mainly contain carboxyl groups, but also include carbonyl, quinone, semiquinone, hydroxyl, ester and amide groups. The complex structure of humic acids makes them practically insoluble in water and at the same time they show high biological activity. Humic acids are a natural component of animal food, as they are also present in drinking water (especially stagnant water, which animals love).

The high efficiency of the product is ensured by the activation of the raw material –of humic substances by our own technological procedure. During our activation, their chemical change does not occur, because we do not use the extraction of humic acids in the form of humic salts, as is commonly used in most similar products. Our mechanical procedures not only preserve the natural effects of humic acids, but also multiply them. Therefore, the product prepared in this way shows better biological effectiveness in the animal organism.

Activated natural humic acids play a key role in animal detoxification thanks to their high adsorption capacity. They can bind to their structure toxic substances in the digestive system of animals (microbial poisons, fungal toxins and other compounds poisonous to the organism, e.g. ammonia, PCBs, dioxins, heavy metals, etc.), which are then excreted in the feces. They support the immune system, activate metabolism and have an antiseptic effect. They significantly positively affect the basic vital functions of individual organs and the entire organism as a whole. With their buffering capacity, they maintain the body's acid-base balance. They have a protective effect on the intestinal mucosa, and the good health of the intestine also ensures the good health of the animal. Due to their effect, they have antiphlogistic, adsorptive, antitoxic and antiviral properties. They stabilize the pH in the entire digestive system of animals, optimize digestive processes and support the reproduction and activity of symbiotic microflora. They favorably influence the use of nutrients from the ration, thereby improving feed conversion. They significantly reduce the need for antibiotics and other drugs. They have a significant impact on improving production health as well as improving the quality of animal products.