

Natural Carbon Clay

In animal feed it is a common practice to apply micro-elements, increased amounts of proteins in feedingstuffs and other mixes, a wide range of the following additives are used primarily: coccidiostats (intestinal parasite), synthetic amino acids, enzymes, antioxidants, preservatives, detoxicants, Prebiotics, fungicides, preparations. In order to improve the living conditions are even dyes and taste improvers applied. All these substances produce at young upcoming animals from developing immunity.



For these reasons, among others, and as more attention is focused on prevention is becoming more fodder by the pharmaceutical industry using different natural substances produced.

Apart from these actions, the research is on it to more simple and at the same time, cheap and efficient to produce nutritional supplements, so that farmers themselves can give to their cattle.

The product introduced by us – Natural Carbon Clay-is a nutritional supplement based on natural kaolin (aluminosilicates) mined in soils containing carbon deposits. The product is for processing won in the side walls of a mine in the oldest primeval forest in Europe, in the East of Poland. This soil texture and structure is nowhere in the world to find only there. The grounds are owned by the State and there are exclusive contracts with the factory, where we have exclusive agreements for the production decrease.

The product is 100% natural! It consists of a combination of kaolin (aluminosilicate) and carbon.

White clay and carbon treatment is a therapy as old as mankind, animals and people instinctively used these products for hundreds and even thousands of years ago. Only today, in the time of intensified livestock production are becoming more and more pharmaceutical products administered to animals, with all the side effects that this entails.

Natural Carbon Clay there and against is one of the few natural detoxicants, which is easy to use in all types of feed.

Digestive tract diseases cause serious problems in the breeding. Inflammatory (inflammations) States of the intestine and mucosa (fungi) lead to indigestion at the animals. This caused by substances between the nutrients in the food. Often this manifests itself by a diarrhea which are caused by pathogenic factors or diet errors.

Due to the physical and chemical properties, is Natural Carbon Clay develops to use as additive for animal feed as coagulating (neutralizing) ingredient for compound feedingstuffs.

By her absorbing properties, performs Natural Carbon Clay very well as an absorbent for mycotoxins (gif substances caused by fungi), which come along with secondary metabolites of mildew fungi. The issue of corn contamination, and

The resulting contamination of feed with powdery mildew fungi is a global problem. It is reported that 40% of all corns in the world are infected with fungi and their metabolites (mycotoxins). It is true that treatments including gasification, additives based on organic acids or high-temperature the fungi from rowing, but they do not remove the mycotoxins, which by the fungi previously in the diet are deposited.

Poisonings by fungal metabolites are known for centuries. Alone in the massive and intensive livestock farming has shown how big is the health and ecological damage that can be generated. Pigs and poultry are especially susceptible to mycotoxins. Most dangerous of all mycotoxins deoxynivalenol and Zearalenone, ochratoxins, aflatoxins are:. Even the smallest doses mycotoxin in feed have very adverse effects.

Doctors and breeders are often helpless because they often find out too late, the cause this because the symptoms are much the same as in case of bacterial diseases.

The suffered infection can even larger forms when an antibiotic is given.

Enzyme preparations and decomposing fungus can be used to inactivate toxins mycotoxins, but so far the cheapest and most efficient method for inactivation of mycotoxins is the use of additives that provide a mechanical sorption (absorption). And this is so how Natural Carbon Clay works, it absorbs toxins and excess fluid in her pores, and in this form it is then excreted with the faeces.

The use of Natural Carbon Clay in the feed is an important element in prevention and control of diarrhoea, and in addition, it constitutes an additional source of mineral compounds. After taking by the animals, Natural Carbon Clay an adsorptive layer on the surface of the intestines (this due to concentration). This layer prevents the absorption of toxins in the blood circulation and irritation of stomach and intestine walls. This reduces the chance of the occurrence of pathological problems in the gastrointestinal tract.

And we reduce the use of Natural Carbon Clay water loss through the intestinal wall. Even 1 kg Natural Carbon Clay mixed per 1 tonne feed gives visible results at the animals.

To explain the effects of the dietary supplement Natural Carbon Clay, we need to analyze the properties of its ingredients.

Kaolin (white clay), this is the main ingredient of the supplement, is just like forest soil rich in aluminosilicates (mostly kaolinite), due to this property, it is suitable for absorbing vapors, gases and soluble substances, which contain toxins, among others. It is the strongest natural adsorbent product besides Silicon gel. Kaolin is an example of a molecular sieve, which because of its physical and chemical properties is capable of maintaining particles on the surface of chemical compounds. (The recording capacity area of kaolin is huge: 1 gram powder dust covers to 1000 m² absorbent area). The second ingredient of this supplement is carbon. This substance also possesses very good absorbent properties. (1 dm³ of this pulverised coal can absorb 80 litres ammonia).

Humic acids are important ingredients of the supplement. These are high-molecular-weight organic compounds with a reactive polyelectrolytic nature, who are able to take part in a number of chemical reactions, including: ionic exchange, forming complexes with metal, oxide reduction and other. They play a very important role in maintaining the State of the acid-base balance in the proper mineral nutrition for animals. Bacteriological investigations of humic acids have proven that they stimulate growth of bacteriostatic and bactericidal action, whereby the growth of pathogenic micro-organisms in the gastrointestinal tract of animals is delayed. And this has a direct influence on the correct health status in animals.

Testing conducted in calves have proven that humic acids a stimulating effect on the development of the immune system, which leads to a higher degree of immunity substances (especially of the gamma-globulin) at the animals tested.

The Foundation of the Natural Carbon Clay mineral dust also deserves attention, in particular the following elements: Fe, Si, Al, Mg, K, Ca, Mn, Cu and Se, which are responsible for important physiological functions, including the management of electrolytes. In addition, they are also components of enzymes. It is particularly effective in the preparation for the mineral compounds that come in organic form (organic complexes). They have very favorable physical and chemical properties compared to the digestive physiology of the animal digestive tract. That is, they form a natural absorption of moisture and reduce the surface tension in the intestines. As a result, emulsify with fats the various substances causing the liver function extra is supported particularly effect in pigs and poultry. This is especially important when there is fattened.

An important advantage of the preparation is that its main ingredients-aluminosilicates, not be digested in the digestive tract. This has a therapeutic effect. The mechanical adhesion of gases, bacterial toxins, mycotoxins and Poisons of the following species: alkaloids, glycosides, phenols, ammonia, hydrogen sulfide and other are excreted with the faeces. Additionally, it is positive that their physical and chemical properties, soften bowel movements regulate aluminosilicates, inflammatory States, digestive disorders and passage of chyme.

The functioning

Natural Carbon Clay

Clay is been used for centuries for medicinal purposes. The use of clay ranges from protection of the gastrointestinal tract, laxatiemiddel and anti-diarrhea up to the care of skin wounds.

Medical clay one can divide into two main groups. Fylosilicaten (similar to thin layers that retain moisture) and tectosilicates (similar to a large loaded three-dimensional framework to which substances can bind).

Natural Carbon Clay consists of kaolin clay and alumiumsilicaten, both fylosilicaten as tectosilicates.

Clays can be taken which have different functions:

1. Protect the mucosal membrane (fylosilicaten). The mucosal membrane is a kind of mucous lining that in the intestines against the intestinal wall attached to protect the intestinal cells. This mucosal membrane has a buffer operation so as to prevent degradation of pathogens as well as to a good recording of substances through the intestinal cells.
2. Binding of toxins. Toxins are particles of harmful fungi, plants or bacteria that Act on the bowels. Often these toxins are cumulative with something else: it shows no signs of poisoning by the toxins only, but the presence of toxins leads to a (severe) damage to the immune system of the animal, making it more susceptible to other animal pathogens.
3. In addition, kaolin used for absorption of fats and proteins, viruses and bacteria. Kaolin absorbs the excess of water in the intestines as well as any gases. (Ammonia in gaseous form is already bound in the intestine). Also given as bolus is kaolin to bind toxins oral because of its effect as cation exchanger (medical "bolus alba").

Many surveys (see the overview on p. 26) show that clay minerals have a good effect on animal health. These studies are performed on goats, dairy cows, calves and pigs. In addition to better health, they also more growth. Because the animal is issued the animal can slowly the NH₃ nitrogen (N, file part of protein) and make better use of the growth up.

An example of a harmful fungus is the Aspergillus fumigatus. Examples of toxins from fungi are DON and T2. These are toxins from fungi that occur in crops and lead to a much lower feed intake, vomiting, irritation of skin and mucous membranes, bloody diarrhea and in some cases even death in high concentrations. High concentrations can be observed, but often these toxins could be observed in small concentrations that are not harmful. Further examples of the use of clay minerals are: ammonia filtration into the air, water or land. Also in kidney dialysis devices, they are used to bind to ammonia.

The formation of ammonia volatilization is blocked.

Clay is in many cases a good smell.

As an example: Request a person or cat poop stinks.

The answer: Yes, it smells terrible.

In addition, you also hear that little of it is changed when the litter box smells. Cat litter is often a clay that holds water and also a smell effect as binder.

Ammonia is a positively charged dust that binds to clay minerals. Ammonia in water consists of the solution of NH_3 and NH_4^+ gradient. Because clay minerals the NH_4^+ to bind can not go back to NH_3 .

Due to the fact that the "free ammonia particles" fall because they are bound, improves the climate in the barn and the manure is better "livable" for bacteria. Ammonia comes in gas form smoking less but remains bound to clay minerals in the manure.

Soil Fertility.

Clay minerals are also used to improve soil fertility (this by slow release of minerals and ammonium), as well as for environmental purposes (uptake of heavy metals and ammonia).