The beneficial effects of humic acids on gastric ulcers in pigs

The beneficial effects of humic substances on the intestinal health of pigs have long been known. Pigs in their natural habitat love to dig peat which supplies them with humic acid based mineral complexes and also improves their gastric integrity.

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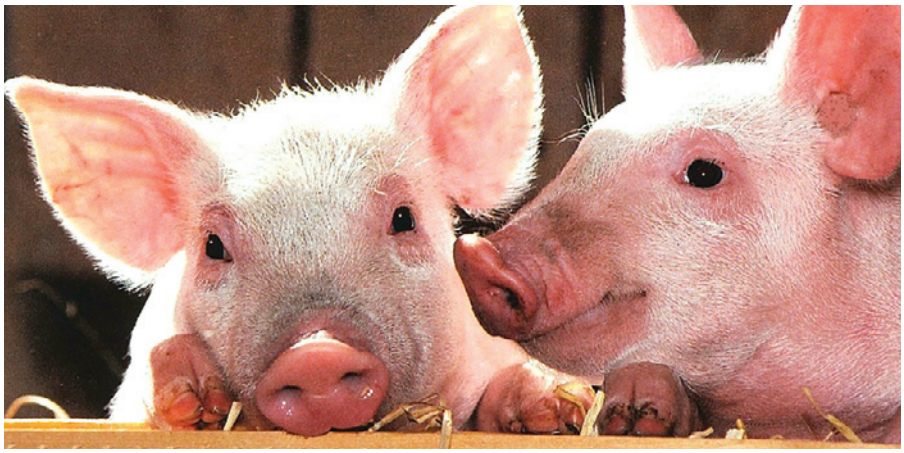
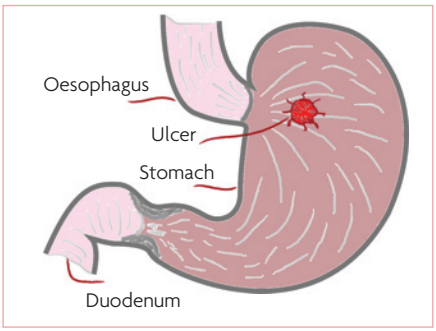


In this article I would like to introduce the causes of gastric ulcerations, as a possible danger of intensive farming and their prevention strategies from a natural perspective. Gastric ulceration is a widespread distress of pigs, in most cases it occurs as a chronic form when pigs lose appetite which leads to a decrease in growth and weakness. Overall they have to be slaughtered with a low weight. The disease is characterised by the development of erosions or ulcerations of different sizes and shapes on the oesophageal part of the stomach mucous membrane. In many cases, gastric ulcers can be a sign of unfavourable housing and feeding circumstances.

The formation of gastric ulcers

The start of the illness is characterised by epithelial lesions of the oesophageal stomach region. At first, erosions and ulcers appear on the surface that get deeper with time. The damaged epithelium is often colonised by bacteria and fungi which could also contribute to the worsening of the disease. Ulcers can lead to bleeding and even larger vessels can be damaged from which serious bleeding arises causing the death of the pig.



Ulcers cause digestive disorders and gastrointestinal illness, and bleeding is associated with anaemia that causes the animal to weaken.

Gastrointestinal lesions regenerate, but the process is prone to recurrence. Scars and stenosis at the site of healing can lead to gastrointestinal disturbances which may reduce the profitability of pig fattening.

Possible causes of its development:

- Granulated fodder (small particle size).
- Finely ground feed increases gastric juice production and pepsin activity.
- Lack of crude fibre.
- Rotten or rancid feed.
- Myco and endotoxins.
- Stress (housing conditions, farrowing, social).

Humic acid supplementation

We have studied the effects of humic substances on the intestinal health of pigs over the past 10 years. As one factor we also evaluated the prevention efficiency on gastric ulcerations caused by feed or stress.

Our experience is based on subjective observation by farmers and autopsy results.

During the trials the risk of ulcerations ceased or was significantly reduced in the groups who received humic acids with the feed or through the water.

In the case of existing ulcers, humic acid helped regenerate the wounds. Compared to the control group, there were fewer notches observed in the slaughtered animals.

This could be related to more factors, one of them could be the antibacterial effect of humic acids, which reduced the infections of the ulcerations.

The other effect is related to the high surface activity of humic acids, thus forming a protective film on the surface of the ulcer, protecting it from stomach acid.

The third reason is the beneficial effect of humic acids on cell regeneration. Humic acids form a complex with microelements present in the feed, including zinc and manganese, which can easily be utilised to improve the overall microelement supply of animals. Zinc and manganese activate cell metabolism as a constituent of vital enzymes, such as the cascade processes responsible for the cellular restoration of the wounds resulting from the initial oesophageal gastric ulcer.

This process is especially important for modern high-performance pigs that are particularly sensitive to incomplete microelements due to their increased growth potential – in many colonies microelement levels become a limiting factor for healthy growth.

In addition to the antibacterial, antiviral, and detoxifying effects of humic acids, the organic complex forming effect also plays a major role. With respect to the above results, humic acids can effectively contribute to improve the gastrointestinal health status and productivity of pigs. ■