Reducing gastritis in swine

Gastritis (gastric ulcers) is one of the most important non-infectious causes of morbidity and mortality in modern swine production units. In general on-farm mortality is between 1-2% but can reach 12% on problem farms. Slaughter data show that the incidence of ulcerous lesions vary between 30-80%.

Symptoms and causes of gastritis

Gastritis is a multifactorial disease which is characterized by parakeratosis of the gastric mucosa. This can be seen as the typical yellow colorations in the stomach wall at slaughter. When the condition becomes more severe deeper erosions of the stomach wall appear, which eventually lead to internal bleeding (‘white pigs’) and death. The increased incidence of gastritis is likely related to selection for lean growth in modern genetics as the heritability of gastric ulcers is estimated to be 0.52. Insufficient attention to physiological development of the GI tract of young animals aggravates the situation and certain types of feed can also contribute to the development of gastritis. However, undoubtedly stress is the most important factor contributing to the incidence of gastritis.

Phytobiotics’ solutions to reduce gastritis

• **Feed management:** High attention to the requirements of the developing gut of young animals is needed to reduce sensitivity to gastritis during later stages in life. Feeding patterns need to be kept constant as disruption in feeding patterns increases the occurrence of gastritis. Fine particles (<200 µm) are also a risk factor for gastritis. Furthermore, gastritis is often more severe when there is insufficient fiber in the diet and/or an excess of protein.

• **Inflammation management:** Gastritis always starts with inflammation of the gastric mucosa. Reducing excessive mucosal inflammation to stimulate fast recovery of damaged tissue is necessary to have less severe lesions and avoid internal bleeding. The use of an anti-inflammatory agent in the feed can help to reduce the severity of gastritis.

• **Stress management:** The influence of stress, e.g. due to weaning, transport, environment or social interactions increases the secretion of hormones such as glucocorticoids (cortisol), which increase the susceptibility to gastritis. In farms with high incidence of gastritis strong measures should be taken to reduce stress.