Current scientific studies confirm that the liver of lactating dairy cows is vulnerable

With the onset of lactation, the nutritional need of the dairy cow increases noticeably. Despite the increasing feed intake, energy deficits cannot be excluded as a consequence. The resulting meltdown of body fat reserves, is always associated with an additional flooding of free fatty acids in the liver, hence they are further metabolized there. Studies have shown that at the beginning of the lactation inflammatory processes, i.a. in the liver, arise. As a result it can lead to a disturbed fatty acid oxidation and a lack of removal of fat from the liver, so that the risk of a developing fatty liver is noticeably increased. A given dose of anti-inflammatory medication, during the first days after calving, improves milk productivity as well as the dairy cow's health.

Metabolic problems and endotoxins

Besides the metabolic stress, which is similar to a ketosis, heat stress is considered to be of crucial importance in terms of reduced feed intake and performance. Heat stress in the organism, is the reason for the blood flow out of the organs to dissipate the heat. In the intestine, for example, it can lead to a lower content of oxygen (= hypoxia). The intestinal mucous membrane is particularly sensitive to such hypoxia. Under these conditions, an increased growth of gram-negative bacteria (G-) can be assumed. As a result of a chain reaction, morphological changes occur ➔

Lactating dairy cows have an increased need for nutrients, that can not always be met. The consequences might be: inflammatory processes in the liver.

which lead to a reduced intestinal barrier function. With the passage of intestinal contents into the blood stream, the bacterial residues produced by G-bacteria, the so-called endotoxins (called as lipopolysaccharides = LPS), enter the bloodstream, too (KVIDERA et al. 2017).

Humic acids in dairy cows – scientific results

Scientific studies with dairy cows have shown that the usage of humic acids improves the performance and health of dairy cows. BARTHMANN (2002) was able to significantly increase the 100-day-performance through the usage of humic acids. Furthermore, a tendency to reduce the occurrence of mastitis, metritis and delayed dismount of the placenta was observed. Additionally, improved fertility was noted. In terms of the health parameters (hoof health, occurrence of paresis and mastitis), LEIDEL (2016) also noted some trend improvements.

WH67® EG02 – effective protection for the intestine

The positive effects of the humic acid based WH67® EG02 on the intestine health are manifold. In addition to the inhibition of G-bacteria, the neutralization of pollutants is of particular importance. In this way, the occurrence of LPS can be noticeable minimized. Moreover, WH67® EG02 enhances the formation of mucus in the intestine, which serves as a protective layer of the intestinal villi. As a result, inflammation in the intestine is reduced and the influx or passage of LPS into the blood is minimized. WH67® EG02 is thus an important component for the protection of intestinal health. Scientific researchers have also proven that there are natural substances that directly improve the liver health. However, due to the low bioavailability, these substances are not very effective due to their complex processing steps.

Quelle: BARTHMANN, J. (2002): Einfluss von Propylenglycol und Huminsäuren auf klinische und klinischchemische Daten von Milchkühen im peripartalen Zeitraum. Dissertation, Universität Leipzig.
KVIDERA, S. K., HORST, E. A., AL-QUASI, M., DICKSON, M. J., RHOADS, R. P., KEATING, A. F. BAUMGARD, L. H. (2017): Leaky Gut´s Contribution to Inefficient Nutrient Utilization.
LEIDEL, I. (2016): Stabilisierung des Stoffwechseln bei Milchkühen im peripartalen Zeitraum. Dissertation, Universität Leipzig.

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