

## THE INFLUENCE OF PROBIOTIC *BILAVET* ON MORPHOLOGICAL BLOOD PARAMETERS, DIGESTIBILITY AND CHEMICAL COMPOSITION OF FAECES IN GERMAN SHEPHERD DOGS

Jakov Šengaut<sup>1</sup>, Algirdas Januškevičius<sup>2</sup>, Gražina Januškevičienė<sup>3</sup>, Paulius Gabinaitis<sup>2</sup>

<sup>1</sup>*Jakov Veterinary Clinic, Gerosios Vilties str. 1, LT-03147 Vilnius, Lithuania. Tel. +37052105048*

<sup>2</sup>*Department of Animal Nutrition, Veterinary Academy, Lithuanian University of Health Sciences  
Tilžės g. 18, LT-47181 Kaunas, Lithuania. Tel. +37037363408, e-mail: jalgis@lva.lt*

<sup>3</sup>*Department of Food Safety and Animal Hygiene, Veterinary Academy, Lithuanian University of Health Sciences  
Tilžės g. 18, LT-47181 Kaunas, Lithuania*

**Summary.** The influence of probiotic *Bilavet* on morphological blood parameters, digestibility of nutrients and chemical composition of faeces in adult German Shepherd female dogs was investigated. Fourteen dogs were used for the experiment. They were divided into 2 groups (experimental and control) each of 7 animals. All animals were fed a dry food. The experiment lasted for 60 days. Dogs in experimental group for 30 days period were offered 20 ml of probiotic *Bilavet*. Blood and faecal samples were taken on day 0, 30 and 60. On day 0, amount of leukocytes, in both groups was comparable. However, on day 60 amount of leukocytes in experimental group increased on 27.08% compared to controls ( $p < 0.05$ ). Furthermore, amount of erythrocytes and hematocrit in both groups varied close to physiological norm, and amount of hemoglobin in experimental dogs slightly increased, but the differences were not statistically significant ( $p > 0.05$ ). At the end of study the level of glucose in experimental dogs was 5.25 mmol/L or 13.39% higher compared to control group ( $p < 0.05$ ). In addition, at the end of experiment the levels of blood urea and bilirubin of experimental dogs increased on 4.38% and 13.61%, the level of cholesterol and alanine aminotransferase slightly decreased and of aspartate aminotransferase slightly increased compared to controls, respectively. The amount of total protein, albumin and creatinine level during the experiment showed tendency to decrease, but the differences were not statistically significant.

Investigation of the content of faeces showed that dry material, organic matter, crude fat and non nitrogenous extractive substances comprised 28.4%, 19.3%, 0.54% and 7.36%, respectively. There was no differences between both groups in amounts of crude protein, crude fiber and crude ash content. In conclusion, supplementation of diet with probiotic *Bilavet* have showed positive influence on German Shepherd female dogs blood parameters and increased digestibility of dry food.

**Keywords:** probiotic, blood parameters, faecal content, digestibility, dogs.