

USE OF PREBIOTIC MANNANOLIGOSACCHARIDE FOR FEEDING ADULT GERMAN SHEPHERD BITCHES

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Abstract. Complete dry pet food with 0.1% content of prebiotics mannanoligosaccharides (MOS) was made in Lithuania. This pet food, called “Araton” has been used for the adult German Shepherd dog breed feeding. This food was used to feed bitches at rest, preparing to mate, mating and during gestation and lactation periods. MOS affected females stool consistency in shape and smell what is important from the ecological point of view. Under the effect of prebiotic, faeces of females in the test group contained 36.91 % of dry matter or by 2.15 % ($p<0.05$) more compared with controls. Assimilation of dry material by females in the test group was 76.41 %, or by 2.22 % ($p<0.001$) better than in the control group, organic material 83.41 % or by 1.29 % ($p<0.001$) better. Assimilation of green ash was by 0.80 %, crude protein 1.98 % ($p<0.05$), crude fat 0.15 %, crude fibre 0.53 % ($p<0.05$), non-nitrogenous extractive material 0.14 % better. The blood of the experimental females showed the general trend of increase of the content of proteins. In comparison with the control group, the content of common proteins in the blood of the test group was by 1.97 g L⁻¹ ($p<0.05$) higher; the level of glucose in the blood two months after the beginning of the test was 5.94 mmol L⁻¹ or by 4.04% lower in the experimental group compared with glucose levels in the blood from control group. At the end of the test, before weaning, the observed cholesterol levels in the blood of female dogs fed with prebiotics supplement was 4.43 mmol L⁻¹ or by 20.54% ($p<0.01$) lower compared with the results of the control group (period of lactation).

Keywords: prebiotic, dog, blood, digestibility, stool, dry food.