USE OF HYDROALUMINOSILICATE–CLINOPTILOLITE IN ADULT CATS RATIONS

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Abstract. Maine Coon cats were fed dry fully fledged food "Nature's protection", which contained 1.5% of clinoptilolite. The test was carried out at different periods of physiological conditions: at rest, during pregnancy and lactation period. Food intake and excreted faeces, amounts of nutrients uptake, and blood chemical and morphological characteristics were determined at the beginning of experiment and at different periods of physiological state.

The stools of the cats that have received additive clinoptilolite were richer in dry material: faeces of cats at rest contained 21.16 % of dry matter, or by 1.27 % ($p<0.05$) more compared with the controls, during the pregnancy 22.50 %, or by 3.62 % ($p<0.001$) and during lactation 22.67 %, or by 1.79 % ($p<0.05$) more compared with the controls.

The intake of dry matter by the test group cats at rest was 88.02 %, or by 0.91 % ($p<0.05$) lower compared with the controls, at the end of lactation 87.31 %, or by 0.83 % ($p<0.001$) higher, in the middle of pregnancy 87.77 %, or by 0.77 % ($p<0.01$) lower compared with the controls.

Crude protein best absorbed in the test group of cats at rest was 92.09 %, or by 1.43 % ($p<0.001$) better compared with the controls; crude fibre also was better absorbed – from 71.08 to 75.87 %, or by 0.78–2.80 % ($p<0.001$) better compared with the controls. The same can be said about the absorption of green ash: at rest its value was 50.24 %, or by 5.55 % ($p<0.001$) better than in the control group, at the end of lactation 57.43 %, or by 3.18 % ($p<0.001$) higher compared with the control.

The overall increase in blood protein content was observed from the beginning of the test and through the changing physiological state of the cats. The total protein in the blood of tested cats was 61.8 g L^{-1}, or by 2.49 % ($p<0.01$) higher compared with the controls, in the middle of pregnancy 62.6 g L^{-1}, or by 1.95 % ($p<0.01$) higher, at the end of lactation 67.8 g L^{-1}, or by 4.95 % ($p<0.001$) higher compared with the controls. It was observed that all blood morphological and biochemical parameters were within normal limits, suggesting that clinoptilolite positively affects the body's physiological processes.

Keywords: clinoptilolite, cat, digestibility, blood, faeces.