

CHOLINE CHLORIDE POSSIBLE EFFECT ON THE BLOOD SERUM OF COWS

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Abstract. In order to know choline chloride effect on blood serum's hydroxybutyrate (BHBA), glucose (GLU), insulin (INSUL), triglycerides (TG), cholesterol (T-CHO) concentration of dairy cows, we did research in one of Lithuania's milk farm. The research took place in the „X“ farm and Cathedral of non-infectious disease of LUHS in 2015. 40 cows were selected using analogical reasoning in their 3 or 4 lactation period. All cows 3 weeks before calving were divided into two groups – experimental (n=20) and control (n=20). Calving feeds of experimental cows were added with cholin supplement (dose – 100g/d) before 30 days. Control group cows were given its usual feeds according to the balanced diet ratio. The research results were assessed 21 d.p.p of following parametres: urea (BUN), triglycerides (TG) cholesterol (T-HO), insulin (INSUL) of cows who were fed with cholin supplement (100g/d). It was determined that urea's concentration after 21 days from the beginning of the research increased from $2,92 \pm 0,04$ mmol/l to $5,47 \pm 0,06$ mmol/L of experimental group, while control group's were increased from $2,74 \pm$ mmol/l to $6,02 \pm 0,1$ mmol/L. Triglyceride level in the control group from the beginning to the end decreased by 0.036 ± 0.002 mmol /L, compared with the experimental group triglyceride level decreased from $0,306 \pm 0,023$ mmol/L to $0.281 \pm 0,016$ mmol/L. Insulin level in the experimental group from the beginning increased from 1.748 ± 0.023 μ U/ml to $2,435$ μ U/ml, in the control group decreased from 3.245 ± 0.016 μ U/ml to $2,993 \pm 0.01$ μ U/ml. Beta-hydroxybutyrate in the experimental and control groups from the beginning increased equally by 0.87 mmol/L.

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