

## CHOLINE CHLORIDE POSSIBLE IMPACT ON COW'S PRODUCTIVITY

Edvinas Banevičius<sup>1</sup>, Jovita Einorytė<sup>2</sup>, Rimvydas Falkauskas<sup>3</sup>

<sup>1</sup>*Biochem Zusatzstoffe Handels- und Produktionsges  
mbH Küstermeyerstrasse 16, D- 49393 Lohne Amtsgericht Oldenburg HRB 110413, Germany  
tel.: +37060876234; e-mail: banevicius@biochem.net*

<sup>2</sup>*Lithuanian University of Health Sciences*

*A. Mickevičiaus g. 9, LT 44307 Kauna, Lithuania tel.: +37063504132 e-mail: j.einoryte@gmail.com*

<sup>3</sup>*National Food and Veterinary Risk Assessment Institute*

*J. Kairiūkščio 10, LT-08409 Vilnius, Lithuania, tel. (8~5) 278 0473 e-mail: rfalkauskas@vet.lt*

<sup>4</sup>*Lithuanian University of Health Science, Animal Research Centre*

*Tilžės g. 18, LT-47181 Kaunas, e-mail: vytautas.baranauskas@lsmuni.lt*

*Corresponding author: Edvinas Banevičius*

*e-mail: banevicius@biochem.net; tel. +37060876234*

*Address: Küstermeyerstrasse 16, D- 49393 Lohne Amtsgericht Oldenburg HRB 110413*

**Abstract.** In order to know choline chloride effect on health of dairy cows and changes of milk ingredients. The research took place in the „X“ farm and the Cathedral of non-infectious disease of LUHS in 2015. 40 cows were selected using analogical reasoning in their 3rd or 4th 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 until calving. We learned that yield increase was substantial, because after 7 days the experimental group's milk yield was higher by  $5.42 \pm 0.1$  L and after 28 days the milk yield was  $7.28 \pm 0.1$  L. The research is considered reliable when  $p < 0.05$ . It was learned that the electrical conductivity of milk decreased from 4.957 mS/cm to 4.804 mS/cm after 14 days, while the control group kept the same electrical conductivity. Although after the 28 days the research showed that the experimental group's milk electrical conductivity decreased, and were 4.738 mS/cm, while the control group electrical conductivity decreased slightly from 4.964 mS/cm to 4.837 mS/cm. It was learned that the ratio of fat and protein in the study group was higher than it was in the control group. It was learned that choline use did not have impact to the decrease of somatic cell count.

**Keywords.** Choline chloride, ketosis, lactating, calving