

INFLUENCE OF DIETARY INCLUSION OF BUTYRIC ACID AND ORGANIC ACID SALT MIXTURE ON RABBITS' GROWTH PERFORMANCE AND DEVELOPMENT OF DIGESTIVE TRACT

Vilma Kliševičiūtė^{*1}, *Virginijus Slausgalvis*³, *Asta Racevičiūtė-Stupelienė*¹, *Vilma Šašytė*¹, *Romas Gružas*¹, *Jamal Al-Saifi*³, *Simona Pankinaitė*¹, *Alius Počkevičius*²

¹*Institute of Animal Rearing Technology, Lithuanian University of Health Sciences
Tilžės st. 18, LT-47181, Kaunas, Lithuania*

²*Institute of Infectious Diseases, Pathology Center, Tilžės st. 18, LT-47181, Kaunas, Lithuania*

³*INNOV AD NV/SA, Belgium*

**Corresponding author: Vilma Kliševičiūtė*

*Department of Animal Sciences, Lithuanian University of Health Sciences, Veterinary Academy
e-mail: Vilma.Kliseviciute@lsmuni.lt, Tel: +370 37 363505*

Abstract. The study was conducted to investigate the impact of butyric acid and organic acid salt mixture additives on growth performance and development of the digestive tract in rabbits. The study was conducted with 14 Californian breed rabbits. The rabbits (28–77 days old) were assigned to 2 treatment groups (7 rabbits per each treatment group). The dietary treatments were: 1) control diet, and 2) diet supplemented with a mixture (*Novibac*[®], dosage 1 kg/t of feed, and *Novyrate*[®], dosage 1 kg/t of feed) – from INNOV AD nv/sa, Belgium – a commercially available product that includes butyric acid, citric acid, calcium formate and propionate, silicic acid and zeolite. Rabbits were stored in individual wire cages with grid floors and an individual vessel for watering and feeding. Storage conditions were the same for both groups. Rabbits were fed twice a day (ad libitum). During the feeding trial, the following parameters were analysed: rabbits' performance, development of the intestinal tract, pH and dry matter content in different parts of the intestine. The inclusion of butyric acid and organic acid salt mixture in the compound feeds increased the body weight, feed intake as well as growth rate of rabbits and improved the feed conversion ratio. The additives did not have a significant effect on the pH value of different parts of the gastrointestinal tract of rabbits. The additives had a positive effect on the development of the intestine: the intestine length increased by 1% ($P>0.05$) and the intestine weight increased by 5% ($P<0.05$) in the experimental group compared with the control group.

Keywords: rabbits, butyric acid, organic acid salts, productivity, digestive tract