

EFFECT OF MEDIUM CHAIN FATTY ACIDS AND EMULSIFIER ON QUALITY PARAMETERS OF LAYING HEN'S EGGS

Jolita Klementavičiūtė¹, Romas Gružasuskas¹, Vilma Šašytė¹, Agila Daukšienė², Vilma Kliševičiūtė¹, Asta Racevičiūtė- Stupelienė¹, Jūratė Šlapkauskaitė¹, Gintarė Dovidaitienė³

¹*Institute of Animal Rearing Technologies, Faculty of Animal Husbandry Technology
Lithuanian University of Health Sciences, Veterinary Academy, Kaunas, Lithuania*

²*Department of Anatomy and Physiology, Lithuanian University of Health Sciences, Veterinary Academy
Kaunas, Lithuania*

³*Department of Animal Breeding and Nutrition, Faculty of Animal Husbandry Technology
Lithuanian University of Health Sciences, Veterinary Academy, Kaunas, Lithuania*

Corresponding author: Jolita Klementavičiūtė

e-mail: jolita.klementaviciute@lsmuni.lt; tel. +370 67868608

Address: Tilžės 18, LT-47181 Kaunas

Abstract. The objective of the experiment was to evaluate medium-chain fatty acids (MCFAs) and emulsifier influence on quality parameters of laying hens eggs. The feeding experiment was performed for 56 days with 30-week old *Lohmann Brown* lines combination 27 laying hens. Hens were divided into 3 groups; laying hens were fed with granular compound feed, 125 g/per day each. One of experimental groups compound feed was supplemented with MCFAs (dosage – 1 kg/t feeds) and another group feed was supplemented with MCFAs (dosage – 1 kg/t feeds) +emulsifier Lipidol (dosage 0.5 kg/t). During the first test period additive of MCFAs significant reduced egg weight 2.93 % (P<0.05) and additive of MCFAs+emulsifier in layer's feeds increased egg's yolk weight 0.6% (P < 0.001). After all experiment period it was found that feeds supplemented with medium-length fatty acids additives improved parameters of egg yolk color and feeds supplemented with MCFAs +emulsifier Lipidol significant reduced egg weight 1.12 % (P<0.05) and pH of egg albumen 0.24% (P<0.05).

Keywords: egg quality, medium-chain fatty acids, emulsifier