USE OF SYNBIOTIC PREPARATIONS IN TURKEY DIETS AND THEIR EFFECT ON GROWTH PERFORMANCE

Giedrius Buteikis[1], Paulius Matusevičius[1], Algirdas Januškevičius[2], Jan Jankowski[3], Dariusz Mikulski[3], Joanna Blok[3], Krzysztof Kozłowski[3]

[1]Department of Animal Husbandry, Lithuanian Veterinary Academy, Tilžės str. 18, LT-47181 Kaunas; phone : +370 37 36 35 05, E- mail: buteikis@lva.lt

[2]Department of Animal Nutrition, Lithuanian Veterinary Academy, Tilžės str. 18, LT-47181 Kaunas; phon.: +370 37 36 34 08, E-mail: jalgis@lva.lt

[3]Department of Poultry Science, University of Warmia and Mazury in Olsztyn, , M. Oczapowskiego str. 5, 10-719 Olsztyn, Poland. Phone:+48 89 523-33-23, fax:+48 89 523-34-18, E-mail : janj@uwm.edu.pl

Summary. The study was conducted to determinate the effects of probiotic lactic acid bacteria and lactose supplementation on the growth performance parameters of turkeys. A total of 1400 BIG6 male turkeys were randomly divided into 4 groups and raised until 18 weeks of age. The turkeys were fed basal diets (group 1) supplemented with probiotic lactic acid bacteria strain *Pediococcus acidilactici MA 18/5M* (group 2, *Bactocell®*), lactose (group 3), and the combination of these supplements (group 4). Treatment results showed that addition of probiotic significantly ($P \leq 0.05$) improved body weight of turkeys until 12 weeks of age and had no significant effect on final body weight. Feed utilization was significantly ($P \leq 0.05$) lower in the group of turkeys fed a diet with probiotic supplement. The addition of dietary lactose or lactose with probiotic negatively affected the growth rate of turkeys, but the addition of the dietary lactose in combination with probiotic bacteria had positive effect on mortality of turkeys.

Key words : turkeys, probiotic, prebiotic, lactose, growth parameters, feed conversion.