RESPONSE OF YOUNG TURKEYS TO DIETS CONTAINING FLAVOMYCIN, MANNAN-OLIGOSACCHARIDE OR INULIN

Zenon Zdunczyk¹, Jan Jankowski², Jerzy Juskiewicz¹, Jolanta Stanczuk¹ and Monika Wroblewska¹

¹Institute of Animal Reproduction and Food Research of Polish Academy of Sciences, fax (48 89) 5240124, e-mail: zezi@pan.olsztyn.pl, Tuwima 10, 10-747 Olsztyn, Poland
²Department of Poultry Science, Warmia and Masuria University, Ul. Oczapowskiego 5, 10-718 Olsztyn, Poland

Summary. For 8 weeks, the birds were fed ad libitum with the mash feed mixtures containing antibiotic (flavomycin, 8 mg/kg), or 1% of two types of oligosaccharides: mannan-oligosaccharide and inulin. A control group obtained a diet without antibiotic nor oligosaccharides. At the age of 7 weeks, the birds were kept on the bedding in individual metabolic cages. The supplementation of diets with Flavomycin or oligosaccharides had no significant influence on the diet intake and feed conversion of turkeys. Coefficients of apparent digestibility (85.8-86.8%) and utilisation (46.2-51.2%) of protein were similar in all groups. In all birds, a similar concentration of dry matter and ammonia in faeces was also observed. Faeces of turkeys fed a diet supplemented with oligosaccharides (MOS and inulin) were characterised with lower pH (5.51 and 5.48, respectively) than those of turkeys from the control group (5.77) as well as with a lower activity of microbial β-glucuronidase (0.75, 0.52 and 1.01, respectively). Relatively low concentration of SCFAs was observed in faeces of the birds in all groups, especially in turkeys fed Flavomycin-containing diet.

Keywords: Mannano-oligosaccharide, inulin, feed and protein utilization, faecal parameters, turkey.