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The effectiveness of *Taraxacum officinale* under conditions of the intestinal microbial imbalance in broiler chickens

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A. Arczewska-Włosek², S. Swiatkiewicz², D. Jozefiak³, S. Orczewska-Dudek², D. Bederska-Łojewska², B. Kieronczyk³, M. Rawski³, J. Nowak², M. Olejnik¹, K. Poltowicz²

¹National Veterinary Research Institute, Department of Pharmacology and Toxicology, Puławy, Poland, ²National Research Institute of Animal Production, Kraków, Poland, ³Poznan University of Life Sciences, Department of Animal Nutrition, Poznan, Poland

The aim of the study was to determine the effectiveness of *Taraxacum officinale* extract, along with (or without) various periods of application of coccidiostat in feed, salinomycin, under conditions of impaired intestinal balance. Shortening the period of salinomycin application by its withdrawal from the 22nd day of age was aimed to minimize the amount of its consumption during rearing. A total of 240 1-d-old, Ross 308 chickens were randomly assigned to 1 of 6 treatments, each comprising 5 replicate pens, with 8 male birds per replicate. A 3x2 factorial arrangement was employed with the following main experimental factors: the period of use of salinomycin (70 ppm) – 0, or shortened to the 21st day of age, or standard; feeding strategy – no feed additive or dry *Taraxacum officinale* extract (2 g/kg feed). The intestinal imbalance was experimentally induced by challenge model including feeding birds for 4 days with an inoculum from three *Clostridium perfringens* strains producing a netB toxin, and a single infection of *Eimeria* spp. as a 10-fold dose of live anticoccidial vaccine Paracox-5. The basic feed mixtures compositions were provocative and contained 10% rye, 10% wheat, and 2% fishmeal. The lack of salinomycin in feed resulted in the lower BWG and increased FCR compared to both other periods of coccidiostat use in the period 1–35 d of age. The growth performance indices obtained in the groups of chickens receiving coccidiostat in feed up to 21d were comparable to the standard period of salinomycin use. The use of herbal extract improved FCR, both in the absence of coccidiostat in compound feed and in case of its standard application period. Moreover, salinomycin residues in feces collected on the 42nd day indicate the circulation of this substance, despite its withdrawal from compound feed from the 22nd day of life. This study was supported by the National Centre for Research and Development, Poland (grant “GUTFEED” number: BIOSTRATEG1/267659/7/NCBR/2015).

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