Effect of selected disinfectants on the development of *Eimeria magna* – preliminary study

Jerzy Kowal¹, Katarzyna Walasik¹, Paweł Nosal¹, Anna Wyrobisz-Papiewska¹, Marta Basiaga¹, Dorota Kowalska²

ı Department of Environmental Zoology, Institute of Animal Sciences, University of Agriculture in Krakow, Mickiewicza av. 24/28, 30-059 Kraków, Poland; 2 Department of Small Livestock Breeding, National Research Institute of Animal Production, Krakowska 1, 32-083 Balice n. Kraków, Poland

Coccidiosis still poses a major cause of economic looses in rabbit breeding. Many factors may have influence on intensity and the course of coccidiosis. One of them is the accumulation of invasive forms (sporulated oocysts) in environment. The effect of disinfectants of invasive forms of Eimeria sp. is still poorly recognized. So the aim of the study was to asses the effect of selscted substances used to disinfection (perhydrol, acetic acid and their mixtures) on oocyst sporulation after single exposition. Oocysts of $E.\ magna$ isolated from rabbit feaces were incubated in different concentrations of disinfectants solution for 10 minutes, then were sporulated in 2% potassium dichromate and evaluated basing on their morphology.

The strongest effect on development of E. magna oocysts (damaged zygote or abnormal sporocists morphology) were observed after exposition on solution of 5% acetic acid (52,5% of damaged oocyst observed) and its mixtures with 3% and 5% perhydrol (54,5–60,5%, statistically significant difference in compare with control group). The solution of 3% and 5% perhydrol have mild effect on oocysts (14,5–19,5% of damaged oocysts) and no effect was observed after exposition on 5% solution of sodium hypochlorite.

Exposition of *Eimeria magna* oocysts on disinfectants contains perhydrol mixed with acetic acid may have an impact on their development (sporulation) in environment. Later infectivity of damaged oocyst/sporocyst/sporozoits for rabbits is discussed.