

Effect of *Lactobacillus fermentum* and *Enterococcus faecium* strains on internal milieu, antioxidant status and body weight of broiler chickens.

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Source

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Abstract

The aim of the present study was to evaluate the functional efficiency of two probiotic strains *Lactobacillus fermentum* CCM 7158 and *Enterococcus faecium* M 74 given to the drinking water on internal milieu, antioxidant status and body weight of broiler chickens. The experiment was conducted on hybrid Hybro (n = 180). The feeding period lasted 42 days. Experimental chickens of E1 group received a probiotic preparation in drinking water with concentration of 1×10^9 colony forming units (CFU) of *L. fermentum* CCM 7158 in 1 g of nutrient medium and experimental chickens of E2 group concentration of 2×10^9 CFU of *E. faecium* M 74 in 1 g of nutrient medium. The control group of animals received water without any additives. Triglycerides content in serum mainly with *L. fermentum* strain against the control group was decreased. Calcium content in both experimental groups and significantly in *E. faecium* group was increased. Antioxidant status in both probiotic groups was significantly increased. The content of bilirubin in group with *E. faecium* M 74 was significantly increased. In conclusion, addition of a microbial feed additive (*L. fermentum* and *E. faecium*) increased serum calcium and iron level, decreased triglycerides content in blood and slightly increased body weight of broiler chickens.

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