

EFFECTS OF XYLANASE AND PREBIOTICS FRUCTOOLIGOSACCHARIDES ON PRODUCTIVITY OF BROILER CHICKENS

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Summary. The experiment was conducted to determine effects of xylanase and prebiotics fructooligosaccharides on growth performance, feed conversion ratio, mortality, pH, dry matter, protein and ammonia concentration of broiler chickens gastrointestinal tract. Six hundred birds were divided into three groups and for 35 days were fed basal diet (I group – control), basal diet supplemented with xylanase (II group) and basal diet supplemented with xylanase and prebiotics fructooligosaccharides (III group). Addition of xylanase to the basal diet improved body weight 5% and feed conversion ratio (kg feed/kg weight gain) decreased 8%, compared to control ($P>0.05$). Body weight were increased 6% and feed conversion ratio decreased 6% versus control in addition of xylanase and fructooligosaccharides ($P>0.05$). In the gastrointestinal tract xylanase and fructooligosaccharides influence many aspects of bowel function through fermentation. It was found that compared to control, xylanase alone and in combination with fructooligosaccharides gave lower pH value, ileum viscosity and caecal protein concentration, while ammonia concentration decreased only in addition of xylanase and fructooligosaccharides ($P>0.05$).

Key words: xylanase, prebiotics fructooligosaccharides, productivity, broiler chickens.