**GROWTH PERFORMANCE AND IMMUNITY OF BROILERS FED TOYOCERIN® SUPPLEMENTED DIETS**

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The use of probiotics in feed has been reported to improve the intestinal health and immunological status of the animals.

The objective of this study was to evaluate the gastrointestinal tract health, immunity and growth performance of broilers fed diets supplemented with the probiotic *Bacillus cereus* var. *toyoi*(1) (Toyocerin®).

264 male broilers. Two groups: control and Toyocerin. Duration: 1 to 35 days of age.

From day 1 to 7 of the experiment, higher body weight (BW, P<0.001), average daily gain (ADG, P<0.05) and average daily feed intake (ADFI, P<0.05) were observed for birds fed with Toyocerin®. A higher ADG and improved feed conversion ratio (FCR) from day 14 to 21 (P<0.05) were observed. Overall (day 1 to 35) lower ADFI (P<0.01) and FCR (P<0.05) was observed for the animals fed probiotic supplemented diet.

Animals fed the probiotic showed a higher villus height:crypt dept ratio (VH:CD, P<0.001) and goblet cells (P<0.1). The immunoglobulin A (IgA) concentration in bile (P=0.107) and number of antibodies against infectious bronchitis virus (IBV) on day 14 and infectious bursal disease virus (IBDV) ­on day 35 (P<0.05) increased in those animals fed with the probiotic.

According to the results obtained in this study, the dietary Toyocerin® supplementation improves performance and immune response of broilers.

(1)Recently classified taxonomically as *Bacillus toyonensis*.