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Effect of dietary supplementation of phytobiotic on growth and immunocompetence of commercial broilers

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A study was conducted to determine the effect of supplementation of phytobiotic on growth and immune competence traits of commercial broilers. 72, one week old, Cobb 400 broiler chickens were distributed into two experimental groups having four replicates of nine birds each. The birds of the control group were fed a basal diet (22.5% CP & 2830 K cal/kg ME) while the other group was offered a basal diet supplemented with a phytobiotic, Superliv liquid (Ayurvet Ltd, Baddi, India) in drinking water @ 5ml/ 100 birds/ day during 1-2 weeks of age, 10 ml/ 100 birds/ day during 2-4 weeks of age and 20 ml/ 100 birds/ day during 4-6 weeks of age. Superliv liquid group birds had significantly higher ($P<0.05$) body weight compared to the control at 2nd week of age. Further, the weekly body weight of the birds in the phytobiotic fed group was apparently higher compared to the control group throughout the experiment. Total immunoglobulin (log 2) titre values in response to sheep red blood cells (SRBC) was significantly higher ($P<0.05$) in the phytobiotic group compared to the control group. Further, mercaptoethanol resistant (IgG) and mercaptoethanol sensitive (IgM) (log 2) antibody titer values in response to sheep red blood cells (SRBC) were apparently higher in the phytobiotic group compared to the control group. Cell mediated immune response i.e. *in vivo* cutaneous basophilic hypersensitivity response to lectin phytohaemagglutinin from *Phaseolus vulgaris* (PHA-P) determined as foot web index was apparently higher in the liver tonic group compared to the control group. Hence, it may not be unreasonable to infer that phytobiotic, Superliv liquid possesses promising immunomodulatory potential and supplementation of Superliv liquid may elicit growth in commercial broilers.

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