Effectiveness of Synbiotics Based on Natural Prebiotics Tamarind Seeds (*Tamarindus indica* L.) Against Broiler Chicken Immunity

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ABSTRACT

High fluctuating ambient temperature affects the immune system of broiler. Efforts are being made to help maintain the body's resistance of broiler chickens that have the potential as a substitute for antibiotics, namely synbiotics based on natural prebiotics from tamarind seeds (Tamarindus indica L.). The aim of this study to determine the effect of the addition of natural probiotics and prebiotics tamarind seed flour (Tamarindus indica L.) on broiler immunity with parameters of relative weight of lymphoid organs. The study consisted of five treatments with different doses of probiotics and prebiotics, namely: P0 (control), P1 (2 ml probiotic + 2 g prebiotic), P2 (2 ml probiotic + 4 g prebiotic), P3 (4 ml probiotic + 2 g prebiotic), and P4 (4 ml probiotic + 4 g prebiotic). This study used 200 broiler chickens. Each treatment consisted of four replications, each replication consisted of 10 chickens. The parameters observed were the relative weight of the bursa fabrisius, the relative weight of the thymus, and the relative weight of the spleen. This study uses an experimental method with the experimental design used is a completely randomized design (CRD) with a unidirectional pattern, if there is an average treatment, it is continued with the Duncan Multiple Range Test (DMRT). The results of this study showed that the addition of synbiotics based on tamarind seed prebiotics in the feed had no significant effect on the weight of the lymphoid organs.

Keywords: Lymphoid, Broiler, Probiotic, Prebiotic, Tamarind