

***The Evaluation of Nutrient Content of Tamarind Seeds (Tamarindus indica L.)
as Prebiotics to Probiotics Bacillus subtilis***

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ABSTRACT

The use of antibiotics can cause residues in poultry products and have a negative impact on consumers if consumed continuously. The use prebiotics as an alternative to antibiotics because it is not harmful and safe. This study aims to determine the evaluation of the nutritional content and inhibition of tamarind seeds (Tamarindus indica L.) as a prebiotic in poultry. The study consisted of seven treatments with different heating times and concentrations of tamarind seeds, namely: P0 (control), P1 (tamarind seeds in the water bath for two hours with a concentration of 1%), P2 (tamarind seeds in the water bath for two hours with a concentration of 1%). 2 %), P3 (acid seeds in the water bath for three hours with a concentration of 1%), P4 (acid seeds in the water bath for three hours with a concentration of 2 %), P5 (acid seeds in the water bath for four hours with a concentration of 1%), and P6 (acid seeds in the water bath for four hours with a concentration of 2 %). This research was conducted in vitro in the feed laboratory of State Polytechnic of Jember. The parameter observed was the total plate count of Bacillus subtilis bacteria. This study uses an experimental method with the experimental design used is a completely randomized design (CRD) with a unidirectional pattern, if there is a significant difference in mean ($P < 0.01$) the treatment is continued with the DMRT test (Duncan's Multiple Range Test). The results showed that the addition of tamarind seeds as a prebiotic in poultry gave a significant increase in the growth of Bacillus subtilis bacteria in treatment (P1 and P2), with an average value of bacterial growth of $40,36 \times 10^8$ and 41.44×10^8 . The conclusion of this study showed that heating tamarind seeds two hours could increase the growth of Bacillus subtilis bacteria at different for levels.

Keywords: *Prebiotics, Tamarind Seeds, Total Plate Count*