

# **THE EFFECT OF PREBIOTIC OF PEANUT SHELL WITH INOCULUM OF *Bacillus cereus* ON THE REDUCTION OF AMMONIA LEVELS OF LAYER EXCRETA IN VITRO**

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## **ABSTRACT**

The purpose of this study was to analyze the effect of prebiotic peanut shells with *Bacillus cereus* bacteria inoculum on ammonia levels, pH, water content, and the number of laying hens bacterial colonies and to determine the best concentration of peanut shell prebiotics in reducing ammonia levels, pH, water content, and number of bacterial colonies in laying hens. This research was conducted by direct application of prebiotic peanut shells that have been fermented with *Bacillus cereus* bacteria inoculum on excreta, using an experimental method with a Completely Randomized Design (CRD) consisting of 4 treatments and 3 replications. The treatments used were P0 (control treatment), P1 (6% peanut shell fermentation with *Bacillus cereus*), P2 (8% peanut shell fermentation with *Bacillus cereus*), P3 (10% peanut shell fermentation with *Bacillus cereus*). Parameters observed consisted of ammonia content, water content, pH, and the number of bacterial excreta colonies. Data were analyzed by ANOVA, if significantly different, then continued with Duncan's multiple distance test. The results showed that prebiotic administration of peanut shells with *Bacillus cereus* inoculum had a significant effect on reducing ammonia levels, water content, pH, and the number of bacterial colonies excreta of laying hens. Based on the results of the study, it can be concluded that the concentration of 10% is the best concentration in reducing ammonia levels, water content, pH, and the number of bacterial colonies of laying hens excreta.

**Keywords:** Prebiotic, Peanut Shell, Ammonia