

EFFECT ADDITIONAL PROBIOTICS OF *Bacillus subtilis* ON THE PHYSICAL QUALITY OF QUAIL EGGS (*Cortunix-cortunix japonica*)

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ABSTRACT

This study aimed to determine the effect of the addition of probiotic *Bacillus subtilis* in laying quail feed rations on the physical quality of eggs, namely egg weight, Egg White Index (EWI), Egg Yolk Index (EYI), Haugh Unit (HU), and shell thickness. The research method used a Completely Randomized Design (CRD) with 4 treatments and 5 replications each consisting of 8 quails: PO: control feed without probiotics, P1: feed containing 2.5×10^6 CFU/g probiotics, P2: Feed containing 5×10^6 CFU/g, and P3: The feed contains 7.5×10^6 CFU/g, each replicate using 2 eggs. Statistical test using anova with Completely Randomized Design (CRD), if there is a difference in mean between treatments the Least Significant Difference (LSD) test is performed. Based on the results of the study, the addition of *Bacillus subtilis* to feed had a significant effect ($P > 0.05$) on the physical quality of eggs, including Egg Yolk Index, Egg White Index, HU, and Shell Thickness. The conclusion of this research is that the addition of probiotics can improve the physical quality of eggs, this indicates that *Bacillus subtilis* has a positive effect on the physical quality of eggs.

Keywords: Quail, *Bacillus subtilis*, Egg Physical Quality.

