The Addition of Probiotics (Saccharomyces boulardii) in Feed on Gas Ammonia and CO_2 Levels in Hybrid Duck Pens

Muhammad Agus Rizal
Poultry Agribusiness Study Program
Department of Animal Science

ABSTRACT

This study aimed to determine the effect of adding Saccharomyces boulardii to the diet as a probiotic on ammonia and CO2 levels in hybrid duck housing. Saccharomyces boulardii is a type of probiotic yeast known to be beneficial in reducing ammonia gas emissions in poultry. The study employed a Completely Randomized Design (CRD) with four treatments and five replicates; each treatment group consisted of five 16-week-old hybrid ducks with an average body weight of 1.292 kg, resulting in a total of 20 ducks used. The treatments involved the addition of Saccharomyces boulardii to the feed at the following levels: P0 (control without probiotic), P1 (0.5 g/kg), P2 (1.0 g/kg), and P3 (1.5 g/kg). The parameters observed were ammonia and CO2 levels. Data were analyzed using Analysis of Variance (ANOVA); if significant effects (P<0.05) were found, the analysis was followed by the Least Significant Difference (LSD) test. The study concluded that the addition of the probiotic Saccharomyces boulardii to the feed could reduce ammonia gas levels in the duck housing but was unable to reduce CO2 levels.

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Keywords : *Hybrid ducks, ammonia, CO_2, Saccharomyces boulardii, probiotics, animal feed, feed intake, body weight*