

**MITIGATING AMMONIA EMISSION BY DIETARY
PROBIOTICS IN STARTER
BROILER DIETS**

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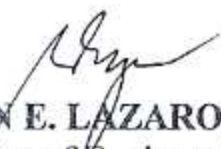

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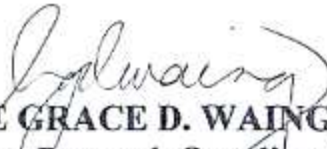

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BIOGRAPHICAL SKETCH

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ABSTRACT

PASCUA, JESILYN P., Department of Environmental Science, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **February 2020, MITIGATING AMMONIA EMISSION BY DIETARY PROBIOTICS IN STARTER BROILER DIETS**

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This study was aimed to assess the effectiveness of dietary probiotics on growth performance of broilers and mitigation of ammonia emission in a conventional broiler house. A total of 90 straight-run Cobb 500 broilers were randomly allocated into two (2) dietary treatments with three replicates per treatment and fifteen birds per replicate for 21 days. Growth performance was evaluated while the periodic ammonia emission was recorded by the daily smelling of a freshly laundered t-shirt hanged from the center of the broiler houses in each treatment every 6:00 PM. Results disclosed that a 19% reduction rate in ammonia emission was demonstrated from the broiler cages supplemented with dietary probiotics when compared to the control diet suggesting its environmental benefit in terms of improved air quality in the broiler house. However, in terms of growth performance, the inclusion rate of dietary probiotics at 100 g per 100 kg mixed diet did not favor the improvement ($p < 0.05$) on body weight (BW), gain in weight (GW), feed conversion ratio (FCR), average daily gain (ADG) and average daily feed intake (DFI). Livability, however, was comparable suggesting the safe usage of the probiotics in the diet for broilers. There was no economic benefit of probiotic inclusion in the diet due to lower final body weight and lesser number of broilers at the end of the starter stage.

Keywords: Probiotics, Odor; Ammonia Emission; Growth Performance; Environment.

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