COMPARATIVE QUALITY OF BROILER MANURE BASED COMPOST WITH OR WITHOUT FERMENTATION ADDITIVE AND ITS EFFECT ON THE GERMINATION OF PECHAY

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ABSTRACT

TAMAYO, MAANNE AYESSA M., Department of Environmental Science, College of Science, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **July 2023, COMPARATIVE QUALITY OF BROILER MANURE BASED COMPOST WITH OR WITHOUT COMPOST ADDITIVE AND ITS EFFECT ON THE GERMINATION OF PECHAY.**

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Utilizing broiler manure for composting at the same time addressing environmental issues can be a feasible alternative for broiler raisers. The study aimed to determine the effects of adding a rapid odor erasing and composting microbes (OECM) at different inclusion rates of 350 grams per 100 kg raw material (50 kg broiler manure + 50 kg fly ash), T2 400 grams per 100 kg raw material (50 kg broiler manure + 50 kg fly ash), T3 and 450 grams per 100 kg or raw material (50 kg broiler manure + 50 kg fly ash), T4 on physical properties, temperature, pH, germination rate, and percentage compost recovery. The control T1 was 100 kg raw material with no OECM. A Completely Random Design (CRD) was used consisting of 4 treatments with each treatment replicated thrice. Tukey HSD was used to further analyze significant differences.

Result showed that the odor of treated compost was no longer evident on day 13 for T2, T3, and T4. The texture from coarse to fine was observed in day 13 of T2, T3, and T4, while the color from black to grayish black was demonstrated on day 13 of T2, T3, and T4.

The temperature ($p. < 0.01$), pH ($p. < 0.01$), compost recovery ($p. < 0.01$), and germination rate ($p. < 0.01$) were significantly different over the control. Therefore, the OECM at 350 grams, 400 grams, and 450 grams per 100 kg raw material is an indispensable

indispensable additive for broiler-based manure as it significantly improved the varying compost quality parameters.

Keywords: Organic fertilizer; Chicken Manure; Fly ash; OECM

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