

**POPULATION OF COLLEMBOLA IN SOIL AMENDED WITH ANTIBIOTIC
LADEN CHICKEN MANURE EXPOSED TO VARIOUS
PHOTOTHERMAL DURATION**

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BIOGRAPHICAL SKETCH

Raphael Danigem P. Dimaya is a proud son of Mr. Danilo O. Dimaya and Mrs. Rowena P. Dimaya. He is the youngest among the four siblings. He finished his primary and secondary school in The Little Shoe Integrated School where he also served as Vice President of Student Body Organization. He is currently studying in the Central Luzon State University taking up BS Agriculture Major in Soil Science.

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ABSTRACT

DIMAYA, RAPHAEL DANIGEM P., Department of Soil Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **June 2019, POPULATION OF COLLEMBOLA IN SOIL AMMENDED WITH ANTIBIOTIC LADEN CHICKEN MANURE EXPOSED TO VARIOUS PHOTOTHERMAL DURATION.**

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Collembolan contribute in the mechanical degradation of organic material in the soil. Most of these insects are known as biological indicators of healthy soil ecosystem. Chicken manure used as organic fertilizer contains potential antibiotic residue due to the heavy use of antibiotics in the poultry industry. Application of chicken manure with a potential antibiotic residue may have an effect on the biota in the soil ecosystem that must be observed.

Photothermal exposure of chicken manure contributed to the degradation of residual antibiotic present. Longer exposure resulted to less residual antibiotic present in the manure which may also indicate that there is a higher degradability of residual antibiotics in the manure. Newly harvested samples of chicken manure analyzed to have the most residuals of antibiotic because it was not subjected to photothermal exposure. Application of antibiotic laden chicken manure as soil amendment resulted to significant loss of diversity of collembolan community in the soil within the first two week of incorporation however, there is a revamp in population after a month of incubation.

Keywords: Collembola, residual antibiotics, chicken manure

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