SOIL FERTILITY ASSESSMENT OF ORGANIC AMENDMENTS (CROP RESIDUES) IN LOWLAND AREA OF BARANGAY VILLA CUIZON

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ACCEPTANCE SHEET

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BIOGRAPHICAL SKETCH

Mark Angelo Mandac was born on February 17, 1999 in Santiago City, Isabela. He is the youngest of the two children of Mr. Glen Mandac and Mrs. Hiyasmin Mandac.

He finished his elementary education at Estrella Elementary School receiving 4th honor on 2011 and his secondary education at Eveland Christian College in 2015.

The author's dream school was Central Luzon State University because of his parent's alma mater. His 1st choice was Agriculture and Veterinary Medicine for its 2nd choice.

He is also a member of one of the college-based organization Soil Science Society (SSS)

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ABSTRACT

MANDAC, MARK ANGELO ROQUE, Department of Soil Science, College of Agriculture, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JANUARY 2020, "SOIL FERTILITY ASSESSMENT OF ORGANIC AMENDMENTS (CROP RESIDUES) IN LOWLAND AREA OF BARANGAY VILLA CUIZON".**

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The experiment was conducted in the field of Brgy. Villa Cuizon, Science City of Munoz, Nueva Ecija in which soil was incorporated with organic materials and was evaluated with the following objectives; (1) To quantify soil nutrient (N, P, K) & OM status in rice-based farm (2) to determine the effect of different organic amendments in the growth and development of Pechay. The organic materials were incorporated through green manuring and crop residues with the following treatments; (T1) Control, (T2) Soil+Rice Straw, (T3) Soil+Mango Leaf Litter, (T4) Soil+Soybean, and (T5) Soil+Mungbean.

The initial soil fertility status in the experimental area is low with %OM of 1.90%, %nitrogen of 0.095%, available phosphorus of 4.33ppm and also exchangeable potassium of 99.3ppm. After 8 weeks of incorporation of different organic soil amendments no significant increase was observed in all the soil parameters measured during the study.

The average height of pechay planted in soil with soybean as green manure resulted to the tallest height with an average of 16.05cm, although not significantly different from other treatments. Moreover, highest yield was obtained when soil was added with soybean with an average of 146.66g. Pechay grown with this treatment has better yield than the other treatments, mainly because of pechay has better growth and development in soil incorporated

with green manure. Green manure treated with mungbean and soil incorporated with crop residues treatment (Rice Straw), while crop residue treatment (Mango Leaf Litter) resulted second to the lowest.

Keywords: Green Manuring, Crop Residue, Soil Incorporation

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