OPTIMIZING THE CONCENTRATION OF VERMICOMPOST TEA IN LETTUCE (*Lactuca sativa* L.) GROWN IN PASSIVE HYDROPONICS

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BIOGRAPHICAL SKETCH

The author, Mayvelyn L. Cabrera was born on June 21, 1999 in Sta. Maria, Bulacan. She is the eldest among the three children of Mr. Avelino Bernardo Cabrera and Mrs. Mary ann Lucas Cabrera.

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To accomplished her dreams, she enrolled at Central Luzon State University, Science City of Muñoz, Nueva Ecija and took up Bachelor of Science in Agriculture, major in Crop Science and chose Horticulture as her field of specialization. She was a Dean's lister for one semester (A.Y. 2018-2019).

During her college days, she joined the Society of Crop Science Majors and was elected as secretary during A.Y. 2017-2018.

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ABSTRACT

CABRERA, MAYVELYN L. Department of Crop Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippine, **June 2019, OPTIMIZING THE CONCENTRATION OF VERMICOMPOST TEA IN LETTUCE (*Lactuca sativa* L.) GROWN IN PASSIVE HYDROPONICS**

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Lettuce was grown in passive hydroponic systems to evaluate the growth, yield, and postharvest response and sensory characteristics of lettuce applied with varying concentrations of vermicompost tea (VCT) applied either daily or every other day. The experiment was laid out in a completely randomized design with three replications. The treatments that were evaluated are: water, inorganic nutrient solution (INS), 27% VCT, 40% VCT, and 53% VCT applied either daily or every other day.

Result showed that daily application of 53% VCT had comparable growth and yield of lettuce with the daily application of INS. These treatments had significantly tallest plant, highest number of leaves, widest leaves, longest root and heaviest fresh and dry weight than the other treatments.

In addition, these two treatments had maintained good quality of lettuce until 9 days at 20°C. Sensory characteristics on the other hand were not affected by the treatments applied. This study showed that 53% VCT could be a potential alternative for INS in growing lettuce in passive hydroponics system.

Keywords: lettuce; passive hydroponics; vermicompost tea; inorganic nutrient solution

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