

**GROWTH AND YIELD PERFORMANCE OF WATER SPINACH (*Ipomoea reptans*) GROWN VERTICALLY IN A GREENHOUSE PRODUCTION**

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An Undergraduate Thesis Submitted to the Faculty of the Department of Agricultural and Biosystems Engineering, College of Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines  
in Partial Fulfillment of the Requirements  
for the Degree of

**BACHELOR OF SCIENCE IN AGRICULTURAL AND BIOSYSTEMS  
ENGINEERING (AB Land and Water Resources Engineering)**

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**ACCEPTANCE SHEET**

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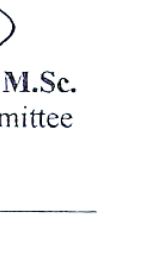
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## **BIOGRAPHICAL SKETCH**

The author, Desirie Queja Lantion was born at Barangay Esperanza Dilasag Aurora on July 3,1999. She currently lives at Barangay Bantug, Science city of Muñoz, Nueva Ecija. She is the second child of Mrs. Adena Q. Lantion and Mr. Victoriano A. Lantion.

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## ABSTRACT

**LANTION, DESIRIE Q.**, Department of Agricultural and Biosystems Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, July 2023. **GROWTH AND YIELD PERFORMANCE OF WATER SPINACH (*Ipomoea reptans*) GROWN VERTICALLY IN A GREENHOUSE PRODUCTION.**

Adviser: **NICASIO C. SALVADOR, M.Sc.**

The study was conducted to determine the appropriate planting method in the production of upland kangkong grown vertically in a greenhouse production using an existing greenhouse in Central Luzon State University Hydroponics and Aquaponics Technology (CHAT) Demonstration Farm, Science City of Muñoz, Nueva Ecija. Two greenhouse were used in the study namely greenhouse with and without cooling system.

The two factorial experiment was laid out in a Completely Randomized Design (CRD) with four treatments and three replications. Comparison among means (CAM) was done using Least Significant Difference (LSD).

The result revealed that with a total of 750 g produced in the first harvest, directly planted water spinach in the greenhouse with terracotta cooling system has the best growth and yield performance. The treatment obtained a 306.6 mm plant height mean, 5.10 mm stem diameter mean and 4.43 g fresh weight mean making it the best treatment among others.

Keywords: (Planting method; upland kangkong; terracotta cooling system; greenhouse)

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