

**PLANT GROWTH-PROMOTING ACTIVITIES OF PHOSPHATE  
SOLUBILIZING BACTERIA ISOLATED IN THE  
RICEFIELD OF RIZAL, NUEVA ECIJA**

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ACCEPTANCE SHEET

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## **BIOGRAPHICAL SKETCH**

The researcher, Rodel B. Cabali, was born on January 3, 1999 at Paulino J. Garcia General Hospital, Cabanatuan City, Nueva Ecija. He is the youngest among the three (3) children of Mr. Armando D. Cabali and Mrs. Ruth B. Cabali. He finished his elementary education at Canaan East Elementary School (2011) and secondary education in Rizal National High School (2015). In 2015, he enrolled at the Central Luzon State University, with the degree Bachelor of Science in Agriculture major in Soil Science. He is a member of Christian Brotherhood International (CBI) and Soil Science Society (SSS).

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## ABSTRACT

**CABALI, RODEL B.**, Department of Soil Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **January 2020, PLANT GROWTH-PROMOTING ACTIVITIES OF PHOSPHATE SOLUBILIZING BACTERIA ISOLATED IN THE RICEFIELD OF RIZAL, NUEVA ECIJA.**

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The study aimed to isolate, characterized and identify the phosphorus solubilizing bacteria on the rice field of Rizal, Nueva Ecija. Using the Randomized Complete Block Design (RCBD), three isolates with plant growth promoting activities were tested in rice using the following treatments: T1 – Uninoculated (Control), T2 - Inoculated with *Pectobacterium carotovorum*, T3 - Inoculated with *Serratia marcescens*, T4 - Inoculated with *Yersinia frederiksenii*, T5 - Recommended rate of inorganic fertilizer (N,P,K), T6 - 50% Phosphorus with *Pectobacterium carotovorum* + (Full recommended rate of N, K), T7 - 50% Phosphorus with *Serratia marcescens* + (Full recommended rate of N,K), T8 - 50% Phosphorus with *Yersinia frederiksenii* + (Full recommended rate of N, K), and T9 - 50% Phosphorus alone.

Seventeen P solubilizing bacteria were isolated from the rice field of Rizal, Nueva Ecija. Three potential isolates with growth-promoting activities were identified, namely: *Pectobacterium carotovorum*, *Serratia marcescens*, and *Yersinia frederiksenii*. Said isolates were tested for their growth-promoting activities in rice using seedling vigor and pot experiment.

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