

**FORMULATION AND EFFICACY OF 2-in-1 PELLETTED NATURAL
FERTILIZER WITH ONION (*Allium cepa* L.) AS TEST CROP**

CHRISTIAN DAVE ROQUE ALONZO

An undergraduate thesis manuscript submitted to the Faculty of the Department of
Soil Science, College of Agriculture, Central Luzon State University,
Science City of Muñoz, Nueva Ecija in partial fulfillment of the
requirements for the degree

**BACHELOR OF SCIENCE IN AGRICULTURE
(Soil Science)**

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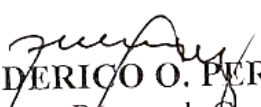
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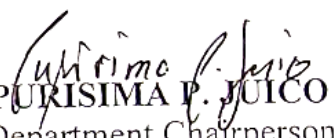
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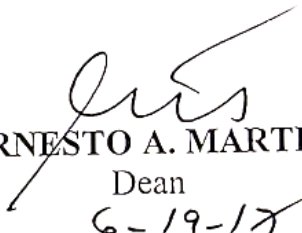

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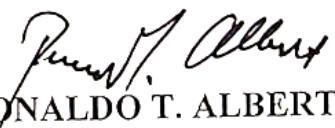
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BIOGRAPHICAL SKETCH

Christian Dave R. Alonzo was born on March 10, 1997 in Baliuag, Bulacan but he is from the town of Pulilan. He is the second child and only son of Mrs. Thelma R. Alonzo and the late Mr. Arnold M. Alonzo. His siblings are Ethel Joy A. Reyes and Faith Kristel R. Alonzo.

He finished his elementary education at Marciano del Rosario Memorial Elementary School (MRMES), and high school education at Academia de Pulilan (ADP). Being blessed to receive DOST-SEI Scholarship made a way for him to enter college in a prestigious Central Luzon State University. His interest in field science and a childhood dream to become a prominent researcher and scientist encouraged him to pursue Soil Science under BS Agriculture program.

He graduated with Certificate in Agricultural Science with honors in the same university and became active in extra-curricular activities like joining University Supreme Student Council (USSC), Lakas-Angkan Student Organization (LASO) and Soil Science Society (SSS).

Thereafter, he found his ultimate reason to live than just becoming successful in his chosen career: to know Jesus, to be like Him, and make Him known. He is an active member of Lakas-Angkan Ministries, Inc. (LAMI). Dave is looking forward for a more intense service to God. This desire gave him an opportunity to take Certificate in Basic Pastoral and Leadership Course under Leadership Development Institute in LA-UPLB.

CHRISTIAN DAVE ROQUE ALONZO

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“But seek first His kingdom and His righteousness, and all these things will be given to you as well.” – Matthew: 33(NIV)

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ABSTRACT

The study was conducted to 1) formulate and determine the efficiency of 2-in-1 pelleted natural fertilizer in onion production; 2) characterize the production performance of onion plant applied with different fertilizers in terms of growth and economic yield; 3) assess changes in some soil properties before and after the field trial 4) analyze the economic benefit of using 2-in-1 Pelleted Natural Fertilizer (PNF) as fertilizer technology in onion production.

A 2-in-1 PNF was formulated using ordinary compost, molasses as binder, and organic foliar fertilizer. It has 0.98% N, 3.61% P₂O₅, 1.51% K₂O and a pH of 7.74.

Application of PNF to soil gives additional Available P reserves as well as Exchangeable K, CEC, and soil OM after harvest. However, the decrease in soil Available N after harvest indicates better utilization of N.

RRIF alone and combination of RRIF to either half or full rate application of PNF give the better performance

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in terms of bulb diameter, and plant height relative to PNF and control. Application of PNF alone to onion field gives poor growth performance.

Treatment 3, Treatment 4, Treatment 5, and Treatment 6 show added costs. They reveal lower gross income when compared to Treatment 2. Full RRIF and full PNF gave additional economic benefit when compared to RRIF alone with P34, 500.00 in gross income and P3, 075.00 when total expenses are added.

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