PRODUCTION OF OKRA (*Abelmoschus esculentus* L.) THROUGH APPLICATION OF FOLIAR FERTILIZER AS SUPPLEMENT TO VARYING LEVELS OF ORGANIC FERTILIZER

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An undergraduate thesis manuscript submitted to the faculty of the Department of Crop Science, College of Agriculture, Central Luzon State University in partial fulfillment of the requirements for the degree

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by

FUMIO MARK BUENAVENTURA NABANA

An undergraduate thesis manuscript submitted to the Faculty of the Department of Crop Science, College of Agriculture, Central Luzon State University in partial fulfillment of the requirements for the degree Bachelor of Science in Agriculture

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BIOGRAPHICAL SKETCH

The author, FUMIO MARK BUENAVENTURA NABANA, was born on January 28, 1991 in Pamplona Las piñas City, Manila. He is the eldest son of Mr. Fumio S. Nabana and Mrs. Apple B. Nabana.

He finished his elementary education at Camella School in Pamplona Las piñas City and his secondary education at University of Perpetual Help System Dalta in Las piñas City, Manila. Before pursuing college he works at his father's company (Kita-keiso.co.jp) in japan to gain knowledge and experience in metal works and electrical wirings. His father wants him to be an agriculturist so he pursued his tertiary education at Central Luzon State University (CLSU) with the degree of Bachelor of Science in Agriculture major in Crop Science Specialize in Horticulture.

To gain more friends and develop his personality he joined the Society of Crop Science Majors (SCSM).

Like other students, he experienced difficulties and trials throughout his college life. However, he was able to overcome those hardships and trials through the help of God who gave him strength and power, and her family and friends who served as his inspiration.

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by

FUMIO MARK B. NABANA

ABSTRACT

A field study was conducted to determine the influence of organic fertilizer with and without supplement of Amino Plus organic foliar fertilizer in the production of organic okra (*Abelmoschus esculentus* L.). The different treatments used were: T1- Control (no fertilizer), T2- 2 OF $^{tha-1}$, T3- 4 OF $^{tha-1}$, T4- 6 OF $^{tha-1}$, T5- 8 OF $^{tha-1}$, T6- 10 OF $^{tha-1}$, T7 2 OF $^{tha-1}$ + Amino Plus, T8- 4 OF $^{tha-1}$ + Amino Plus,T9- 6 OF $^{tha-1}$ + Amino Plus, T10- 8 OF $^{tha-1}$ + Amino Plus, T11- 10 OF $^{tha-1}$ + Amino Plus. The study was arranged in a single factor experiment in Randomized Complete Block Design (RCBD) with three replications.

Results of the study revealed that okra plants fertilized with 10 OF $^{tha-1}$ supplemented with Amino Plus foliar fertilizer at the rate of 2 tbsp/L of water and applied at weekly interval significantly produced broad leaves with higher chlorophyll content (46.00) resulted to taller plants at flowering stage (28.57cm) and produced flowers and ready to harvest fruits at 19.00 and 46.00 days after sowing, respectively. Also, these plants produced longer fruit (9.60cm) and wider fruit diameter (1.41 cm) that contributed to higher marketable fruit yield per plot/ha of (544.16g)(0.91^{tha-1}) with lesser (13.25g) non-marketable fruits compared to the rest of the treatments evaluated.

Interestingly, the yield obtained from plants fertilized with 10 OF $^{tha-1}$ + Amino Plus supplement is 137% higher than those plants fertilized with 10 OF $^{tha-1}$ without supplement but 185% higher on the control (no fertilizer)

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