# MAJOR PRACTICE IN THE CULTURAL MANAGEMENT PRACTICES OF CACAO (*Theobroma cacao* L.) var. FORASTERO BEANS PRODUCTION

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An undergraduate major practice manuscript presented 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**
**(Crop Science - Horticulture)**

**FEBRUARY 2020**

## ACCEPTANCE SHEET

This undergraduate major practice manuscript entitled **"MAJOR PRACTICE IN THE CULTURAL MANAGEMENT PRACTICES OF CACAO (*Theobroma cacao* L.) var. FORASTERO BEANS PRODUCTION"**, prepared and submitted by **MARK JEREMIAH E. GARCIA,** in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN AGRICULTURE (CROP SCIENCE),** is hereby accepted:

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## BIOGRAPHICAL SKETCH

The author MARK JEREMIAH E. GARCIA, was born on January 23, 1995 at Caloocan City, Metro Manila. He is the only child of Mr. Feliciano DG. Garcia and Mrs. Ana E. Garcia.

The author completed his elementary education in Blessed Hope Christian School at Brgy. Poblacion, Jaen, Nueva Ecija. After he graduated, he continued his secondary education at Salvador Araneta Memorial Institute, in Potrero, City of Malabon in 2011.

He pursued his college degree at De La Salle Araneta University in 2011 and took up Bachelor of Science in Animal Husbandry. In 2015, he transferred at Central Luzon State University and took up Bachelor of Science in Agriculture major in Crop Science with specialization in Horticulture.

As the author continued on college education, certain things happened beyond his control that he wished he could dealt with more courage like failures that led to depression. The author learned lesson and become hopeful to overcome trials through perseverance and with the help of the God Almighty, as well as his family and friends.

## ACKNOWLEDGEMENT

The author would like to extend his warm appreciation to the following people to whom he is indebted for the completion of his manuscript.

To the Department of Crop Science Faculty and Staff, Department of Crop Science Chairperson, Dr. Rosemarie T. Tapic, and the College Major Practice Coordinator Prof. Pacifico T. Vizmonte for the inspiration and pieced of advice.

To the former Dean of College of Agriculture Dr. Ernesto A. Martin. To Mr. Jeremias L. Ordonio, his adviser and for Mr. Dionie S. Barrientos for their guidance, support and pieced of advices during his major practice.

To his cacao buddies Grosnie De Jesus and Aiza Gregorio, for the laughter and joy they brought and life aspirations. To his friends Leandro Tecson, John Loyd Pagaduan, Louella Cudal, Abegail Siababa and CJ Fernandez for the help, motivations and encouragement during his down moments.

To the field workers of Department of Crop Science, Kuya Sonny and Kuya Terong for the help, supervision and practical knowledge that they shared during the conduct of the major practice.

To the Crop Science majors, Bernadette Fronda, Merrian Bote, Pauline Lumawag, Joanalyn Lata, Jervy Bautista and Ivan Donato for sharing their experiences, knowledge and giving the author a pieced of advice.

To his friends from different majors, Francis Lemuel Salazar, Reicy Geronimo, Angela Garcia who gave the author the best experience during their younger years.

He would like to express his gratitude to his mom, Mrs. Ana E. Garcia and also to his aunts Felisa E. Sevilla, Milagros E. Cabana and to his cousin Marilou E. Sevilla who support his journey tirelessly.

And most of all, unending thanks to the Almighty God for His blessings, guidance, and good health and for helping the author to overcome the trials in his life.

To all the people behind this success, thank you very much.

**MARK JEREMIAH E. GARCIA**

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## ABSTRACT

**MARK JEREMIAH E. GARCIA,** Department of Crop Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, August 2018.

**Major Practice in the Cultural Management Practices of Cacao (*Theobroma cacao* L.) var. Forastero Beans Production**

Venue: Department of Crop Science Pomology Project Area, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija.

Adviser: **Mr. Jeremias L. Ordonio**

This Major Practice in the Cultural Management Practices of Cacao (*Theobroma cacao* L.) var. Forastero Beans Production was conducted from the months of August 2018 to March 2019 at the Pomology Area, Department of Crop Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija.

The general objectives of the major practice were to enhance the knowledge of the student and developed skills in cacao beans production; to produce 20 kg of beans per 15 trees; and to morphologically characterize the 15 Forastero variety.

The field practice student experienced hands-on training in different activities namely water management, pruning, removal of water sprouts, pesticide application, harvesting, fermentation and sun drying.

In terms of yield, all 15 forastero variety trees bear a total of 229 cacao pods and produced 9 kg of cacao beans. The average pod length was about 15.64 cm with an average pod width of 8.27 cm and average pod wall thickness of 0.87 cm.. The recorded number of pods per tree was 15 pods while the average mummified pods per tree was 21 mummified pods. The average number of ridges per pod was 10 ridges as well as the average weight of pod was 396 g. The average number of beans per pod was about 44 beans with an average bean length of 2.48 cm, average bean width of 1.53 cm and average bean thickness of 0.70 cm. The average number of formed beans was about 32 beans with an average deformed beans per pod of 2 beans. Moreover, the average weight of 10 beans per pod of each sample pods was about 28.68 g. Also, the presence of aphids and mealybugs were observed in the pods.

A total yield of 9 kg dried beans was produced from 15 forastero cacao trees, which was lower by 11 kg than the objectives of the field practice student. This is because of high occurrence of mummified pods in the forastero trees.

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