FLUOROMETRIC DETERMINATION OF GIBBERELIN IN *Fusarium* AND *Gibberella* SPECIES COMPLEX INFECTING ECONOMIC CROPS IN NUEVA ECIJA

EMMANUEL CAJUCOM NIETO

An undergraduate thesis manuscript presented to the faculty of the Department of Crop Protection, College of Agriculture, Central Luzon State University in partial fulfilment of the requirements for the degree

BACHELOR OF SCIENCE IN AGRICULTURE
(Crop Protection – Plant Pathology)

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BIOGRAPHICAL SKETCH

The author of this study was born on a Tuesday morning at 7:29 am on April 9, 1996 at Brgy. Mallorca San Leonardo, Nueva Ecija. He was the eldest among the two siblings of Mr. Alberto Interior Nieto and Mrs. Rosenda Cajucom Nieto. His sibling was named John Paul C. Nieto.

He finished his elementary school in San Leonardo Central School at San Bartolome San Leonardo Nueva Ecija (S.Y. 2008). He went to Mallorca National High School at Barangay Mallorca San Leonardo Nueva Ecija (S.Y. 2012).

In year 2012, he entered Central Luzon State University (CLSU), Science City of Muñoz, Nueva Ecija to pursue a degree of Bachelor of Science in Agriculture later on he decided to major in Crop Protection and choose Plant Pathology as his field of specialization. At the same time, he joined the college-based organization the Pest Management Society where he became business manager (S.Y. 2014-2015). The author was a member of performing group in the university called CSLU Concert/Marching band from year 2012-2017, and also due to the influence of one his co majors and because of the blood of a fighter running to his veins he trained in a sport called Pencak Silat a traditional Indonesian martial arts and later become a member of the Pencak silat varsity team in CLSU, and also a member of MKKPI San Jose City Chapter, and Phil Silat Sports Association Incorporated from 2016 up to present.

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EMMANUEL CAJUCOM NIETO

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDIX

LIST OF APPENDIX TABLES

FLUOROMETRIC DETERMINATION OF GIBBERELIN IN *Fusarium* AND *Gibberella* SPECIES COMPLEX INFECTING ECONOMIC CROPS IN NUEVA ECIJA[1]

By

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ABSTRACT

Seven *Fusarium* species and eight *Gibberella* species were isolated in this study, *Fusarium* species were isolated from melon from Lupao and Guimba, rice from Peñaranda and San Leonardo, pepper from San Leonardo, Gapan, and banana from Muñoz. *Gibberella* species were isolated from melon from Quezon, corn from Talavera, Talugtug, and San Leonardo Nueva Ecija, onion from San Jose, Santo Domingo and Bongabon and rice from Gapan. The amount of gibberellin produced by the *Fusarium* and *Gibberella* species were quantified using fluorometer.

The study shows that all isolates produced gibberellin. *Fusarium* species in pepper from Gapan produced the highest amount of gibberellin at 35 days of incubation. Gibberelin production in *Fusarium* decreased at 42 days of incubation, while *Gibberella* isolates from corn produced the highest amount at 35 up to 49 days of incubation. Gibberellin production decreased at 56 days of incubation.

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