RESISTANCE OF GAMMA IRRADIATED LAKATAN MUTANT LINES AGAINST BLACK SIGATOKA DISEASE (*Mycosphaerella fijiensis* Morelet) UNDER NATURAL FIELD CONDITION

REUEL ORTIZ PABLO

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

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

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BIOGRAPHICAL SKETCH

The author was born on September 12, 1995 at Brgy. Victoria Llanera, Nueva Ecija. He is the eldest child among three children of Joel C. Pablo and Saniata O. Pablo.

He completed his primary education at Llanera Central School at Brgy. Victoria, Llanera, Nueva Ecija (S.Y. 2008). He went to Llanera National High School at Brgy. Bagumbayan, Llanera, Nueva Ecija (S.Y. 2012).

In a year 2012, he entered tertiary level at Central Luzon State University (CLSU), Science City of Muñoz, Nueva Ecija with a degree of Bachelor of Science in Agriculture and later on he decided to major in Crop Protection and chose Plant Pathology as his field of specialization. He joined the college-based organization, Pest Management Society.

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RESISTANCE OF GAMMA IRRADIATED LAKATAN MUTANT LINES AGAINST BLACK SIGATOKA DISEASE (*Mycosphaerella fijiensis* Morelet) UNDER NATURAL FIELD CONDITION[1/]

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ABSTRACT

The influence of irradiation and weather parameters on the expression of resistance and/or susceptibility to black Sigatoka (*Mycosphaerella fijiensis* M.) were examined on several irradiated Lakatan lines under natural field infections. The Lakatan lines utilized in this study were lakatan line A, line B, line C, line D and line E which differed in resistance and susceptibility to the black Sigatoka pathogen. Lakatan lines B and D exhibited partial resistance characterized by impeded lesion development, lower infection index, infection efficiency and disease efficiency as compared to control. For the other Lakatan lines, expression of susceptibility was indicated by an accelerated disease progression from lesion development to an overall increase of the different disease parameters measured for black Sigatoka.

Correlation analysis showed significant relationships between weather variables and formation of streaks on cigar leaf stage B of the different Lakatan lines. Of the three weather variables, rainfall, temperature, and relative humidity were positively correlated in the development of the streaks.

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