EPIPHYTIC FUNGI ASSOCIATED IN OFF-SEASON TOMATO

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ACCEPTANCE SHEET

This undergraduate thesis entitled "**EPIPHYTIC FUNGI ASSOCIATED IN OFF- SEASON TOMATO**" prepared and submitted by **DOMINIC SANJAYA BULANADI WIJAYAWICKRAMA**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY**, is hereby accepted.

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BIOGRAPHICAL SKETCH

Dominic Sanjaya Bulanadi Wijayawickrama, a half-Filipino native of Sri Lanka, is the first of the three children of Tilak S. Wijayawickrama and Audrey V. Bulanadi. Six months after his birth, he was moved to Roxas, Isabela, in the Philippines, where he spent his first four years with his grandparents. Afterwards, he went to stay with his parents for seven years and finished his elementary education at the Sri Lankan International School in Saudi. He went back to Sri Lanka and was admitted to the Regent International College, completing his secondary education. In 2012, he moved back to the Philippines to stay at his mother's house in the Municipality of Talavera, in Nueva Ecija. A year later, he enrolled in the BS Biology program in Central Luzon State University, Science City of Muñoz, Nueva Ecija. He took up his thesis about the epiphytic fungi associated in off-season tomatoes under the guidance of Dr. Renato G. Reyes.

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ABSTRACT

WIJAYAWICKRAMA, DOMINIC SANJAYA B., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **MAY 2018, EPIPHYTIC FUNGI ASSOCIATED IN OFF- SEASON TOMATO**

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Tomato is a widely used crop all over the world but its production is oftentimes confronted by the incidence of diseases caused by plant pathogenic bacteria, viruses and fungi. This study was conducted to monitor the different epiphytic fungi present on the different growth stages of tomato during its off – season cultivation. Temperature and humidity were also recorded in this study to determine if there is any effect on the growth and population of fungi. The isolated fungi were then classified based on their cultural and morphological characteristics. Identification of species based on their molecular characteristics were carried out by the amplification of DNA ITS region using the PCR with the forward primers ITS1 and reverse ITS 4 and was confirmed by using gel electrophoresis. Basic Local Alignment Search Tool (BLAST) was used for species identification.

There are ten different epiphytic fungi were isolated from the farm. These are *Aspergillus flavus, Aspergillus niger, Aspergillus fumigatus, Aspergillus parasiticus, Fusarium solani, Fusarium proliferatum, Penicillium oxalium, Trichoderma atroviride, Acremonium and Rhizopus. Aspergillus flavus* and *Aspergillus niger* amongst all the collected fungi occurred the most.

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