EFFECT OF LIGHT EMITTING DIODE (LED) ON THE MYCELIAL GROWTH, FRUITING BODY PRODUCTION AND ANTIOXIDANT PROPERTY OF *Pleurotus djamor*

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An Undergraduate Thesis Submitted to the Faculty of the Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines
in Partial Fulfillment of the Requirements
for the Degree of

BACHELOR OF SCIENCE IN BIOLOGY
(Major in Microbiology)

JUNE 2018

ACCEPTANCE SHEET

This undergraduate thesis entitled "**EFFECT OF LIGHT EMITTING DIODE (LED) ON THE MYCELIAL GROWTH, FRUITING BODY PRODUCTION AND ANTIOXIDANT PROPERTY OF *Pleurotus djamor***" prepared and submitted by **EMMANUEL FLAMEÑO WY JR**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY** is hereby accepted.

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BIOGRAPHICAL SKETCH

The author was the third sibling of Femmy Joy F. Wy and Emmanuel F. Wy Sr., who was born on the 14th day of May, year 1998 at Cabanatuan City. He was baptized as Roman Catholic and named Emmanuel after his father's name. He now resides at Talavera Nueva Ecija in which his family is staying.

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He successfully finished his on the job training at Philippine Center for Postharvest Development and Mechanization (PhilMech) and He actively participated on seminars namely; Current Trends in Food Safety and Quality Assurance, Seminar on Global Trends in Biotechnology: Globalizing Biotechnology Initiatives in CLSU, Special Lecture On Cryo Banking Of Animal Genetic Resources.

ACKNOWLEDGMENT

The completion of this work would not be possible without the invaluable people behind it.

The author would like to thank first his beloved family especially his parents, the core reason for the completion of his research. The author would like to acknowledge all the invaluable efforts, time, financial support and unconditional love they give to be able for him to reach his goal.

The author would also thank Sir Rich Milton R. Dulay, his adviser, for his guidance and valuable assistance for his research who is exceptionally patient and generous to share his words of encouragement in order to improve this research.

The priceless contributions of his critic, Dr. Sofronio P. Kalaw, were deeply appreciated. For his keen suggestions and expertise. To his time for making this paper more valuable.

The author would also like to extend his deep appreciation to his classmates, friends and co-advisees whom always sharing their knowledge and helping out whenever he needed help whether it is personal or study problems.

Above all, to our Almighty God, for giving him a strength and hope for fulfilling authors life with loving parents and friends. It will not possible without him. He gives the author with so much wonderful and meaningful college life.

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ABSTRACT

WY, EMMANUEL JR F., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2018, EFFECT OF LIGHT EMITTING DIODE (LED) ON THE MYCELIAL GROWTH, FRUITING BODY PRODUCTION AND ANTIOXIDANT PROPERTY OF *Pleurotus djamor***

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Pleurotus djamor also known as pink oyster mushroom is known to produce light to dark pink colored fruiting bodies which depends on the strain and the growing conditions. The effect of the different light conditions particularly light emitting diode (LED) on the mycelial growth and fruiting body production on *P. djamor* was investigated. The radical scavenging activity and total phenolic content of fruiting bodies grown on different illumination conditions were determined. Mycelia under blue LED showed the widest mycelial diameter (79.83 mm) after 4 days of incubation. The highest yield (67.30g) and biological efficiency (13.46%) were noted in blue LED. The most number of fruiting bodies was recorded in alternating light and dark while the longest stipe (21.67mm) and widest diameter of pileus (41.00mm) were observed in total darkness and blue LED, respectively. Fruiting bodies harvested under blue LED had the highest radical scavenging activity (68.44%) while those grown under fluorescent light contain the highest total phenolic content (121.29 mg GAE / g sample) .

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