

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

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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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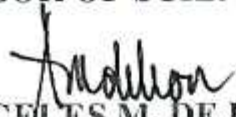
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BIOGRAPHICAL SKETCH

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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***

Adviser: RICH MILTON R. DULAY, M.Sc.

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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