MYCELIAL GROWTH RESPONSE OF *Pleurotus florida* (Mont.) Singer IN COCONUT BASED MEDIA

DANIEL D. BENICO

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF APPENDICES

LIST OF APPENDIX TABLES

LIST OF APPENDIX FIGURES

ABSTRACT

BENICO, DANIEL, D., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, MYCELIAL GROWTH RESPONSE OF** *Pleurotus florida* (Mont.) Singer **IN A COCONUT BASED MEDIA**

Adviser: SOFRONIO P. KALAW Ph.D.

Oyster mushroom (*Pleurotus florida*) is an edible macrofungus commonly cultivated in the Philippines. This study aimed to develop coconut based technology for mycelial growth and fruiting body production of *P. florida*. Specifically, the influence of coconut water gulaman, pH, illumination, aeration and temperature was assessed. Moreover, the fruiting body performance on different coconut sawdust and rice straw substrate combinations was evaluated.

P. florida prefers mature coconut water gulaman (10.88 mm/day) with 6.5 pH (11.69 mm/day) incubated in sealed (11.34 mm/day), lighted (9.78 mm/day) or dark (9.54 mm/day) conditions at room temperature (9.19 mm/day). The longer mycelial colonization was noted in pure coconut sawdust (21.5 days) while the shortest mycelial colonization was recorded in the remaining treatments (19 days). In terms of primordial formation, the longest period was recorded in pure coconut sawdust (49 days) while the shortest period was noted in pure rice straw (24 days) substrate formulation. Among the different substrate formulations, pure rice straw produced the highest yield (67.19 g) and biological efficiency (15.25%). On the other hand, the lowest yield (23.57 g) and biological efficiency (5.30%) was recorded in pure coconut sawdust.

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