

**THE GROWTH AND PRODUCTIVITY OF GRAY OYSTER MUSHROOMS
(*Pleurotus sajor-caju* (Fries) Singer) IN THE LIMAU MANIS AREA PADANG
CITY**

UNDERGRADUATE THESIS

BY

MARISKA FITRI SILVIA

1710422003

SUPERVISOR: Dr. phil.nat NURMIATI

NIP. 196211261990012001



BIOLOGY DEPARTMENT

FACULTY OF MATHEMATICS AND NATURAL SCIENCES

UNIVERSITAS ANDALAS

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ABSTRACT

The research about The Growth and Productivity of Gray Oyster Mushrooms (*Pleurotus sajor-caju* (Fries) Singer) in The Limau Manis Area Padang City was conducted from February to July 2021 at the Laboratory of Microbiology, Departement of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang. The research aims to observe the growth of gray oyster mushrooms mycelium on corn and bag log media, to determine the productivity value of gray oyster mushrooms on bag log media, and to analyze the levels of polyphenol and antioxidant activity contained in gray oyster mushrooms. The research was conducted by an survey methods and anlyzed descriptively using images, tables, and graphs. The results showed that the average growth of gray oyster mushroom mycelium on corn media was 0.83 cm/day and 1.02 cm/day on bag log media. The highest productivity of gray oyster mushrooms reached 48.59% with the highest total body weight of 388.73 grams. The highest number of fruiting body cap is 43 pieces. While the weight of the heaviest fruiting body cap reached 30.6 grams with the largest pileus diameter of 17.5 cm. The average polyphenol content of gray oyster mushrooms obtained was 401.58 g GAE/g dry weight and the average antioxidant content obtained was 146 g AAE/g dry weight.

Keywords: Antioxidant Activity, Gray Oyster Mushrooms, Mycelium Growth, Polyphenols, Productivity