

**ANTIBACTERIAL ACTIVITY OF SHIITAKE MUSHROOM**  
*(Lentinula edodes)*

**SOPIYATUN BINTI IBUNU SUHOODHU**

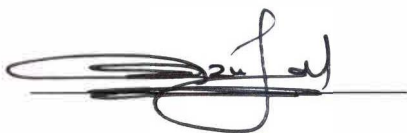
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This Final Year entitled “**Antibacterial Activity of Shiitake mushroom (*Lentinula edodes*)**” was submitted by Sopiayatun Binti Ibbun Suhoodhu, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by



Dr. Nor' Aishah Binti Hasan  
Supervisor  
Faculty of Applied Sciences  
University Teknologi MARA  
Negeri Sembilan, Kampus Kuala Pilah  
Pekan Parit Tinggi, 72000 Kuala Pilah,  
Negeri Sembilan



Siti Norazura Binti Jamal  
Coordinator FSG661 AS201  
Faculty of Applied Sciences  
Universiti Teknologi MARA  
Negeri Sembilan Kampus Kuala Pilah  
Pekan Parit Tinggi, 72000 Kuala  
Pilah, Negeri Sembilan



Dr Aslizah Binti Mohd Aris  
Head of Biology School  
Faculty of Applied Sciences  
Universiti Teknologi MARA  
Negeri Sembilan Kampus Kuala Pilah  
Pekan Parit Tinggi, 72000 Kuala Pilah,  
Negeri Sembilan

Date: \_\_\_\_\_

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## ABSTRACT

### ANTIBACTERIAL ACTIVITY OF SHIITAKE MUSHROOM

(*Lentinula edodes*)

Bacterial become resistant to antimicrobial drugs through different mechanism. Nowadays, researchers are in search of some novel antimicrobial molecule, which have four broad spectrum of activity against both Gram negative and Gram positive bacteria without having any of the side effect. Natural resources have been exploited in the last year and among of them mushrooms could be an alternative source of new antimicrobials. This study aimed to screen the antibacterial activity of methanolic and aqueous extracts of Shiitake mushroom against bacterial *Staphylococcus sp.*, *Bacillus sp.*, *Salmonella sp.* and *Escherichia coli*. The antibacterial activity of whole parts of mushroom were evaluated by paper disc diffusion method against two Gram negative and two Gram positive bacterial species with various concentrations (100, 200, 500, 700, 1000 mg/ml). Result revealed that methanolic and aqueous extract of Shiitake inhibit growth in the tested bacteria. Methanolic extract had a remarkable sensitivity towards bacteria Gram negative while Gram positive bacteria demonstrated susceptible against aqueous extract. Result showed at increasing zone of inhibition in all tested bacteria with increasing concentration of extract in both extract except for *Staphylococcus sp.* Finding in this study suggested that Shiitake mushroom could potentially become source of antimicrobial agent against pathogenic microorganism.