ANTIFUNGAL ACTIVITY OF *Artocarpus altilis* LEAF EXTRACT

FARIDAH BINTI BOIRAN

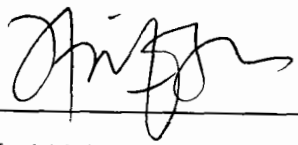
Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Biology
in the Faculty of Applied Sciences
Universiti Teknologi MARA

JANUARY 2016

This Final Year Project Report entitled **"Antifungal Activity of *Artocarpus altilis* Leaf Extract"** was submitted by Faridah binti Boiran, in partial fulfillment of the requirements for the Degree of Science (Hons.) Biology, in the Faculty of Applied Sciences and was approved by

Sarini Bt. Ahmad Wakid,
Supervisor,
Faculty of Applied Sciences
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan

Ilyanie Bt. Hj. Yaacob,
Project Coordinator,
Faculty of Applied Sciences
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan



Dr. Nor'Aishah Bt. Abu Shah,
Head of School of Biology,
Faculty of Applied Sciences
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan

Date:_____

TABLE OF CONTENT

ABSTRACT

ANTIFUNGAL ACTIVITY OF *Artocarpus altilis* LEAF EXTRACT

The study was aimed to determine the antifungal activity of *Artocarpus altilis* leaf extract and to compare the effectiveness of leaf extract in three different types of solvent (ethanol, chloroform and water). Antifungal activity was tested against four pathogenic fungi (*Aspergillus fumigatus*, *Aspergillus niger*, *Tricophyton sp* and *Malassezia sp*) using disc diffusion method by indicating the presence of the clear zone of inhibition around discs impregnated with different concentration of extract (12.5, 25, 50 and 100 mg/ml). The positive control used was fluconazole and negative control was the solvent itself without extract. The result showed that water extract was the most effective compared to other solvents used (ethanol and chloroform) indicated by the highest inhibitory activity against the tested fungi. The only two fungi were inhibited (*Aspergillus fumigatus* and *Aspergillus niger*) at concentration 25, 50 and 100 mg/ml with concentration dependent manner. *Aspergillus* species were more susceptible as indicated by the largest diameter of inhibition zone at 13.33 mm of diameter against *Aspergillus fumigatus* followed by *Aspergillus niger* at 12.67 mm, while *Tricophyton sp* and *Malassezia sp* showed resistant to all different concentration of extracts. The result suggested that the *Artocarpus altilis* leaf extracts have the promising of low therapeutic potential against certain fungi.