

**ISOLATION AND CHARACTERIZATION OF BACTERIA
ISOLATED FROM DECAYED FRUITS**

INTAN MUNIRAH BINTI ZULKAHAR

**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**

JULY 2017

This Final Year Project Report entitled “**Isolation and Characterization of Bacteria Isolated from Decayed fruits**” was submitted by Intan Munirah binti Zulkahar, in partial fulfilment 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
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi MARA
Kampus Kuala Pilah
72000 Kuala Pilah, Negeri Sembilan

Lili Syahani binti Rusli
Project Coordinator
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi MARA
Kampus Kuala Pilah
72000 Kuala Pilah
Negeri Sembilan

Dr. Nor'aishah binti Abu Shah
Head of Programme
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi MARA
Kampus Kuala Pilah
72000 Kuala Pilah
Negeri Sembilan

Date: _____

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ABSTRACT

ISOLATION AND CHARACTERIZATION OF BACTERIA ISOLATED FROM DECAYED FRUITS

Malaysia paradies for local fruits such as banana (*Musa paradisiaca*), papaya (*Carica papaya L.*) and pineapple (*Ananas comosus L.*). Bacteria easily spoiled the local fruits which caused change in the appearance, colour and smell of the fruits. Therefore, this study were aim to isolate and identify pathogenic bacteria by using morphological and molecular methods. Decayed fruits such as banana, papaya and pineapple samples were obtained from fruits shop at Kuala Pilah Negeri Sembilan district. In this study, six bacteria strain were successfully isolated known as P1, P2, B1, B2, N1 and N2 bacteria. Gram strain results demonstrated that one bacteria, B1 give a positive result while others five bacteria which were P1, P2, B2, N1 and N2 showed negative results with rod-shaped appearance. In addition, P1, P2, B1, B2, N1 and N2 bacteria colonies observation showed circular, entire, raised, smooth and shinning however it differed in term of size and optical characteristics. In addition, biochemical tests showed P1 and P2 bacteria belong to *Klebsiella sp.* and *Escherichia sp.* meanwhile others bacteria failed to give positive results. However, molecular analysis showed a negative results for P1 and P2 bacteria. Therefore in this study, bacteria samples from decayed fruits belong to *Klebsiella sp.* and *Escherichia sp.* Molecular analysis was recommended to comfirm the bacteria species.