

**A STUDY ON TOTAL PHENOLIC CONTENT AND
ANTIOXIDANT ACTIVITIES OF SELECTED MANGO SEEDS**

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

APRIL 2009

This Final Year Project Report entitled “A Study on Total Phenolic Content and Antioxidant Activities of Selected Mango Seeds” was submitted by Kamarul Arifin Bin Khalid, in partial fulfillment of the requirements for the Degree of Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by



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Date: 25 MAY 2009

ACKNOWLEDGEMENTS

In the name of Allah, The Most Merciful and The Most Gracious, who send prophets for the guidance of Mankind, Million and Billion of Blessing be upon the last prophet and seal of the seal prophet.

The success of this project involves the contribution and support from many people. First and foremost, I would like to give my sincere gratitude to supporting and motivating supervisor, Assoc. Prof. Dr. Noriham Abdullah with her encouragement guidance, helpful critics, ideas, moral support and kindness during the preparation of this project paper.

I would to extend my special gratitude to Miss. Sabrina M. Yahaya as coordinator for CMT 679. Not forgotten, to all Applied Chemistry and Food technology laboratory assistants for their help and cooperation.

Finally yet importantly, my heartiest thanks and appreciations are for my parents, Encik Khalid Zainudin and Puan Noraini Mohd Noor for their never ending love and support. To all my friends who has been very helpful and kindness, thank for share the information and giving support to me for completing this study.

Thank you.

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ABSTRACT

A STUDY ON TOTAL PHENOLIC CONTENT AND ANTIOXIDANT ACTIVITIES OF SELECTED MANGO SEEDS

This study was aimed to determine the total phenolic content and antioxidant activities in selected mango seeds. Three different types of mango (*Mangifera indica L.*) commonly available in Malaysian supermarkets namely, 'Chokanan', 'Maha' and 'Madu' were selected. Ethanol was used as a solvent because it is safe to be used in the food system. Phenolic content was determined using a Folin-Ciocalteu assay. Antioxidant activities were determined using FRAP and DPPH assays. Based on analysis of variance, 'Madu' showed the highest amount of total phenolic content (3994.27 ± 20.6 mg GAE/g) and 'Chokanan' had the lowest total phenolic content (3424.33 ± 76.7 mg GAE/g). However, 'Chokanan' showed the highest ferric reducing power for FRAP assay, followed by 'Maha' and 'Madu' extract. For radical scavenging activity using 2,2 - diphenyl - 1 - picrylhydrazyl (DPPH) method, the highest effect of scavenging free radical showed by 'Madu' followed by 'Maha' and 'Chokanan' seed which were 95.08 ± 0.052 %, 94.68 ± 0.044 %, and 94.56 ± 0.041 % respectively. All the mango seed extracts had lower antioxidant activity compared to BHA/BHT. Mango seeds will be a potential for natural antioxidants.