

**ANTIOXIDANT AND TOXICITY STUDIES OF FRUIT  
PEEL EXTRACTS**

**HAMIRA AZRIN BINTI HARUN**

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This Final Year Project Report entitled “**Antioxidant and Toxicity Studies of Fruit Peel Extracts**” was submitted by Hamira Azrin Binti Harun, in partial fulfillment of the requirement for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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Sarini Binti Ahmad Wakid  
Supervisor  
Faculty of Applied Science  
Universiti Teknologi MARA  
Cawangan Negeri Sembilan  
72000 Kuala Pilah  
Negeri Sembilan

---

Lili Syahani Binti Rusli  
Project Coordinator  
Faculty of Applied Science  
Universiti Teknologi MARA  
Cawangan Negeri Sembilan  
72000 Kuala Pilah  
Negeri Sembilan

---

Dr. Nor'aishah Binti Abu Shah  
Head of Programme  
Faculty of Applied Science  
Universiti Teknologi MARA  
Cawangan Negeri Sembilan  
72000 Kuala Pilah  
Negeri Sembilan

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

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## ABSTRACT

### ANTIOXIDANT AND TOXICITY STUDIES OF FRUIT PEEL EXTRACTS

In this study, the peel extracts of species from family Curcubitaceae that included *Cucumis melo var. cantalupensis*, *Cucumis melo var. inodorus* and *Citrullus lanatus* were investigated on their total phenolic content using Folin-Ciocalteu method, DPPH radical scavenging activity and toxicity. Methanol was used as the extracting solvents of each extracts. All of the three extracts exhibited the ability to scavenge free radicals. The highest scavenging effect was presented by methanolic extract of *Cucumis melo var. inodorus* ( $IC_{50}=4.61$ ) which was corresponding to its highest total phenolic content ( $64.2 \pm 0.10 \mu\text{g GAE/ml}$ ). Meanwhile, the lethality concentration presented by each extracts was less than  $10 \mu\text{l/ml}$ . The results of this study indicate that methanol provided good extraction but at the same time might interfered the toxicity level presented by each extract.