

**ANTIOXIDANT, TOTAL PHENOLIC AND FLAVONOID  
CONTENT IN TWO DIFFERENT SPECIES OF GINGER**

**NUR ELYISA NOR IZWAN**

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This Final Year Project Report entitled “**Antioxidant, Total Phenolic and Flavonoid Content in Two Different Species of Ginger**” was submitted by Nur Elyisa binti Nor Izwan, 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



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Nurulhuda binti Ismail  
Supervisor  
B. Sc. (Hons.) Biology  
Faculty of Applied Sciences  
Universiti Teknologi Mara  
72000 Kuala Pilah Negeri Sembilan



---

Siti Norazura binti Jamal  
Project Coordinator  
B. Sc. (Hons.) Biology  
Faculty Of Applied Sciences  
Universiti Teknologi Mara  
72000 Kuala Pilah  
Negeri Sembilan



---

Dr. Aslizah binti Mohd Aris  
Head Of Programme  
B. Sc. (Hons.) Biology  
Faculty Of Applied Sciences  
Universiti Teknologi Mara  
72000 Kuala Pilah  
Negeri Sembilan

Date: 8/3/19

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## ABSTRACT

### ANTIOXIDANT, TOTAL PHENOLIC AND FLAVONOID CONTENT IN LOCAL GINGER

Ginger (*Zingiber officinale* Roscoe) contain various bioactive constituents and properties that are beneficial for health. Some of local ginger that are widely used as traditional medicine are ginger Bara and ginger Bentong. This study was conducted to determine and compare antioxidant, total phenolic and total flavonoid content of methanolic extract from both gingers. Antioxidant properties of both ginger were assessed by DPPH assay with ascorbic acid as positive control. The quantification of antioxidant showed that ginger Bara had higher percentage of inhibition,  $91.98 \pm 1.05$ . Besides that, determination of total phenolic content in methanolic extract of both ginger required gallic acid standard curve to be plotted. Ginger Bara had higher total phenolic content with  $8.83 \pm 0.06$  mg gallic acid/g of dry plant material. Moreover, highest total content of flavonoid also can be found in ginger Bara with  $0.46 \pm 0.01$  mg quercetin/g of dry plant material. In general, the study shows that ginger Bara have higher antioxidant properties, as well as phenolic and flavonoid content in comparison with ginger Bentong. Hence, the medicinal potential of ginger Bara was validated.