

**ANTIOXIDANT PROPERTIES OF EDIBLE AND
NON-EDIBLE PARTS OF PASSION FRUIT (*Passiflora* sp.)**

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TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix
ABSTRAK	x
CHAPTER 1: INTRODUCTION	
1.1 Background Study	1
1.2 Problem Statement	3
1.3 Significance of the Study	4
1.4 Objective of the Study	5
CHAPTER 2: LITERATURE REVIEW	
2.1 Free Radicals	6
2.2 Oxidative Stress	7
2.3 Antioxidant	7
2.3.1 Studies on the antioxidant properties of fruits	8
2.4 Passion Fruit (<i>Passiflora</i> sp.)	10
2.4.1 Medicinal studies on passion fruit	11
2.5 Evaluation of Antioxidant	13
2.5.1 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay	13
2.5.2 Phenolic and flavonoid compounds	14
CHAPTER 3: METHODOLOGY	
3.1 Materials	
3.1.1 Raw materials	15
3.1.2 Chemicals	15
3.1.3 Apparatus	15
3.2 Methods	
3.2.1 Sample collection	16
3.2.2 Extraction of edible and non-edible parts	16
3.2.3 Radical scavenging activities by using DPPH assay	16
3.2.4 Total phenolic content (TPC)	17
3.2.5 Total flavonoid content (TFC)	18
3.3 Statistical Analysis	19
CHAPTER 4: RESULTS AND DISCUSSION	
4.1 Extraction of Edible and Non-edible Parts of Passion Fruit	20

4.2	Radical Scavenging Activities	22
4.3	Total Phenolic Content (TPC)	26
4.4	Total Flavonoid Content (TFC)	30
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS		34
CITED REFERENCES		35
APPENDICES		41
CURRICULUM VITAE		53

ABSTRACT

ANTIOXIDANT PROPERTIES OF EDIBLE AND NON-EDIBLE PARTS OF PASSION FRUIT (*Passiflora* sp.)

Antioxidants can delay or inhibit oxidation process and one of the sources of antioxidants come from fruits. The present study was done to evaluate the percentage inhibition of free radicals, TPC and TFC of edible and non-edible parts of *Passiflora* sp. fruit by using the DPPH assay, Folin-Ciocalteu reagent and aluminium chloride colorimetric method respectively. The edible and non-edible parts were extracted by using solvent extraction method and ascorbic acid was used as a control. The concentration of the extracts used are 0.2, 0.4, 0.6, 0.8 and 1.0 mg/ml. The non-edible part showed higher percentage inhibition of free radicals at 1.0 mg/ml ($96.73 \pm 0.80\%$) compared to the edible part ($88.39 \pm 3.99\%$). At 0.2 mg/ml, the non-edible part showed $70.02 \pm 3.76\%$ while the edible part showed $43.44 \pm 2.08\%$. The edible part showed higher TPC at 1.0 mg/ml (113.25 ± 3.63 GAE mg/g) compared to the non-edible part (104.43 ± 0.93 GAE mg/g). At 0.2 mg/ml, the edible part indicated 35.83 ± 2.04 GAE mg/g while non-edible part showed 31.03 ± 8.47 GAE mg/g of phenolics. In the three tests, all concentrations of the edible and non-edible parts were statistically significant with ascorbic acid ($p < 0.0001$), except at the concentration of 0.4 mg/ml in TFC, where there was no significant difference between the edible part and ascorbic acid. In this study, the three tests were dependent on concentration in which higher concentration lead to higher percentage inhibition of free radicals, TPC and TFC.