

# **EFFECT OF REDUCING AND ACIDIFYING ANTI-BROWNING AGENTS ON FRESH CUT GUAVA**

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**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**

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## TABLE OF CONTENTS

	<b>PAGE</b>
<b>ACKNOWLEDGEMENT</b>	<b>iii</b>
<b>TABLE OF CONTENTS</b>	<b>iv</b>
<b>LIST OF FIGURES</b>	<b>vi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>vii</b>
<b>ABSTRACT</b>	<b>viii</b>
<b>ABSTRAK</b>	<b>ix</b>
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Background Study	1
1.2 Problem Statement	3
1.3 Significance of the Study	4
1.4 Objectives of the study	4
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Fresh cut fruits	5
2.2 Guava ( <i>Psidium guajava L.</i> )	6
2.3 Browning Effects	7
2.3.1 Polyphenol oxidase (PPO)	8
2.3.2 Phenolic compounds	9
2.4 Anti-browning Agents	10
2.4.1 Reducing agents	11
2.4.2 Acidifying agents	12
<b>CHAPTER 3: METHODOLOGY</b>	
3.1 Materials	13
3.1.1 Raw materials	13
3.1.2 Chemicals	13
3.1.3 Apparatus	13
3.2 Methods	14
3.2.1 Sample preparation	14
3.2.2 Determination of Polyphenol Oxidase (PPO) activity	15
3.2.3 Preparation of gallic acid standard	16
3.2.4 Determination of total phenolic contents	16
3.3 Data Analysis	17

<b>CHAPTER 4: RESULTS AND DISCUSSION</b>	
4.1 Determination of Polyphenol Oxidase (PPO) activity	18
4.2 Determination of total phenolic contents (TPC)	22
<b>CHAPTER 5: CONCLUSION AND RECOMMENDATIONS</b>	26
<b>CITED REFERENCES</b>	27
<b>APPENDICES</b>	30
<b>CURRICULUM VITAE</b>	39

## **ABSTRACT**

### **EFFECT OF REDUCING AND ACIDIFYING ANTI-BROWNING AGENTS ON FRESH CUT GUAVA**

Fresh cut products can be defined as any kinds of fruits or vegetables that have been processed to the end product that is ready to be eaten. The market for fresh cut products has grown rapidly due to the freshness and convenience. However, fresh cut products would undergo enzymatic browning as a result from wounding. The objective of this study is to determine the effectiveness of reducing and acidifying anti-browning agents on fresh cut guava by delaying enzymatic browning. The fresh cut guava was treated by dipping into anti-browning agents with 1.8 % concentrations (w/v) for 8 minutes. The treated fresh cut guava were then transferred into polyethylene bags and stored in the chiller along 12 days at 4°C. The fresh cut guava also dipped into distilled water as control. Polyphenol oxidase (PPO) activities in terms of percentage of inhibition and total phenolic contents (TPC) were evaluated every 4 days interval. The results obtained showed that citric acid treatment was more effectively inhibited PPO activity on fresh cut guava compared to ascorbic acid treatment during day 4, 8, and 12. This is because, citric acid treatment show the highest percentage inhibition of PPO up to 76.92% on day 4, 92.22% on day 8 and 89.60% on day 12. Moreover, TPC showed decrease in contents from day 4 to day 12 for all treatments while sharp reduction of phenolic contents obtained from control fresh cut guava from day 4 to day 8 and it may due to the reaction of phenol to PPO enzymes. It can be concluded that, the higher percentage of PPO inhibition, the lower PPO activity and the higher the total phenols.