

7. APPENDICES

Appendix 1. Sensory Score Sheet

紫地瓜片感官品評試驗 (Ballot of sensory test of sweet potato chips)

姓名(Name): _____ 時間(time): _____

感官品評說明 (Instruction of sensory test):

1. 請比較兩種紫地瓜片的感官品評項目之感受強弱，各項目的品評強度均為 1-9，“1”代表該感官項目的強度最弱(the lowest)該感官項目的強度最強(the highest)。

To compare the strength of sensory profile in each attribute of sweet potato chips, the scale of each attribute ranges from 1 to 9. “1” represented for the lowest strength and “9” is for the highest.

2. 將紫地瓜片以眼睛檢視和鼻腔聞過後，比較樣品的紫色澤深淺度與地瓜風味之差異。依序測試，利用臼齒輕咬碎，感受酥脆度，再繼續咀嚼 10 次，準備吞嚥前感受紫地瓜片的油膩感，最後再評估紫地瓜片的整體接受度。

In order to compare the difference of purple color and sweet potato flavor in sweet potato chips, the eyes and nose is used to check samples at the first step. The samples will be chewed by molar teeth to test the crispiness of sample at the first bite. Following chewing oiliness of each sample will be monitored in the ballot. Finally, the overall acceptability will be recorded according the final evaluation attributes.

樣品代號 (code number)	紫色澤 (purple color)	地瓜風味 (sweet potato flavor)	酥脆度 (crispiness)	咀嚼後的油膩感 (oiliness after chewing)	整體接受度 (overall acceptability)
209					
126					

[illegible]

Appendix 4. Statistical Analysis of Moisture and Oil Content

a) Test of Normality

Tests of Normality						
Grup		Kolmogorov-Smirnov ^a			Shapiro-Wilk	
		Statistic	df	Sig.	Statistic	Sig.
Moist	Vacuum	.204	3	.	.993	.343
	Atmospheric	.292	3	.	.923	.463
Fat	Vacuum	.324	3	.	.876	.314
	Atmospheric	.259	3	.	.959	.612

a. Lilliefors Significance Correction

b) Independent-Sample t-test

Independent-Sample t-Test									
		Moisture				Fat			
		t	df	Sig. (2-tailed)	Mean Difference	t	df	Sig. (2-tailed)	Mean Difference
Moist	Vacuum vs Atmospheric	1.111	6	.300	0.000	1.111	6	.300	0.000
	Atmospheric vs Vacuum	-1.111	6	.300	0.000	-1.111	6	.300	0.000
Fat	Vacuum vs Atmospheric	1.111	6	.300	0.000	1.111	6	.300	0.000
	Atmospheric vs Vacuum	-1.111	6	.300	0.000	-1.111	6	.300	0.000

Appendix 5. Statistical Analysis of Monomeric Anthocyanin Content

a) Test of Normality

Tests of Normality						
Grup		Kolmogorov-Smirnov ^a			Shapiro-Wilk	
		Statistic	df	Sig.	Statistic	Sig.
Anto	Vacuum	.271	3	.	.548	.661
	Atmospheric	.225	3	.	.561	.733

a. Lilliefors Significance Correction

b) Independent-Sample t-test

Independent-Sample t-Test									
		Monomeric Anthocyanin				Total Anthocyanin			
		t	df	Sig. (2-tailed)	Mean Difference	t	df	Sig. (2-tailed)	Mean Difference
Anto	Vacuum vs Atmospheric	1.111	6	.300	0.000	1.111	6	.300	0.000
	Atmospheric vs Vacuum	-1.111	6	.300	0.000	-1.111	6	.300	0.000

Appendix 6. Statistical Analysis of Sensorial Acceptance

a) One-Way Non-Parametric ANOVA Kruskal-Wallis

Test Statistics ^{a,b}					
	color	flavor	crispiness	oiliness	overall
Chi-Square	1.856	6.323	.465	.007	2.173
df	2	2	2	2	2
Asymp. Sig.	.395	.042	.793	.997	.337

a. Kruskal Wallis Test
b. Grouping Variable: group

b) Mann-Whitney U Test Control – Atmospheric Fried Chips

Test Statistics ^a	
	flavor
Mann-Whitney U	139.500
Wilcoxon W	292.500
Z	-.177
Asymp. Sig. (2-tailed)	.859
Exact Sig. [2*(1-tailed Sig.)]	.865 ^b

a. Grouping Variable: group
b. Not corrected for ties.

c) Mann-Whitney U Test Control – Vacuum Fried Chips

Test Statistics ^a	
	flavor
Mann-Whitney U	84.000
Wilcoxon W	237.000
Z	-2.114
Asymp. Sig. (2-tailed)	.035
Exact Sig. [2*(1-tailed Sig.)]	.038 ^b

a. Grouping Variable: group
b. Not corrected for ties.

d) Mann-Whitney U Test Atmospheric Fried Chips – Vacuum Fried Chips

Test Statistics ^a	
	flavor
Mann-Whitney U	81.500
Wilcoxon W	234.500
Z	-2.198
Asymp. Sig. (2-tailed)	.028
Exact Sig. [Z*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: group

b. Not corrected for ties.





5.55% PLAGIARISM
APPROXIMATELY

Report #11287564

INTRODUCTION Background Healthy eating has been widely acknowledged following a massive campaign and education about healthy lifestyle among society. Healthy eating could contribute to preventing chronic diseases like heart disease, diabetes, and cancer (Ridzuan et al., 2018). Moreover, Ridzuan et al. (2018) mentioned that the most important thing in living a healthy life is by taking care of the food intake. One must eat a meal three times a day and control the portion of every meal they want to eat, should consume more fruits, vegetables, and fat-free or low-fat products. Consuming foods that have a low amount of saturated fats, trans fats, cholesterol, salt (sodium), and added sugar is also important. In Asian countries, besides rice, tubers are also well known and contain mostly of carbohydrate. Purple Sweet Potato (PSP) is a tuber or root vegetable that has a good amount of carbohydrate, minerals, and vitamins. These comestibles are still underdeveloped; hence the probability of product diversification and prospect utilization is quite big (Firgianti and Sunyoto, 2018). Research in 2006 (Mintel, 2006) showed that salty snack dominated more than half of the snack sales and became the majority of Americans consumer diet. In 2018 the popularity of snacking has contributed to salty snack sales of 4.8%, and even though it's predicted that there'd still be market growth, the rate will be