



**THE DEVELOPMENT OF CHAYOTE “SAYOTE” (*Sechuim edule*) AND
OREGANO (*Origanum vulgare*) -POPSICLE**

An Undergraduate Thesis Presented to Faculty of the
College of Tourism and Hospitality Management
De La Salle University-Dasmariñas

Dasmariñas, Cavite

In partial Fulfillment of the requirement for the
Degree Bachelor of Science Major in Hotel and Restaurant Management

By:

Advincula, Shirgilyn P.

Illana, Vriener S

Piquero, Marymea R.

November, 2015



ABSTRACT

This study focused on the development of popsicle using Oregano and Sayote as the base ingredients. Through sensory evaluation, the research focuses in the acceptable formulation of the Ampalaya and Tinapa Sauce through its appearance, aroma, texture, color, taste and general acceptability. The nutritional content and direct cost computation was also takes into consideration.

Experimental research was used in this study wherein 9-point Hedonic Scale for the general acceptability, 7-point Hedonic Scale for appearance, aroma, color, texture and taste. Analysis of Variance (ANOVA) was also use to determine the significant acceptable formulation of the popsicle.

Based on the findings there are significant different in the mean ratings of respondents by appearance and taste. In terms of aroma, color, taste and general acceptability there are no significant difference. It shows that the mean ratings of respondents by appearance is lot 1 having a mean score of 6.13. The Analysis of Variance showed a level of significant at ($F= 0.044952$, $P\text{-value}=0.987278$) which means that the mean ratings of the lots by general acceptability have no significant



deference. This implies that lot 1, 2, and 3 are not significant difference to lot 4.

In additional, all lots were acceptable based on the mean ratings of the respondents for the each sensory attributes. The mixture Oregano and Sayote with Watermelon is the most acceptable among the four lots which also found out to be a good source of Vitamin A, Vitamin C, Calcium and Phosphorus.

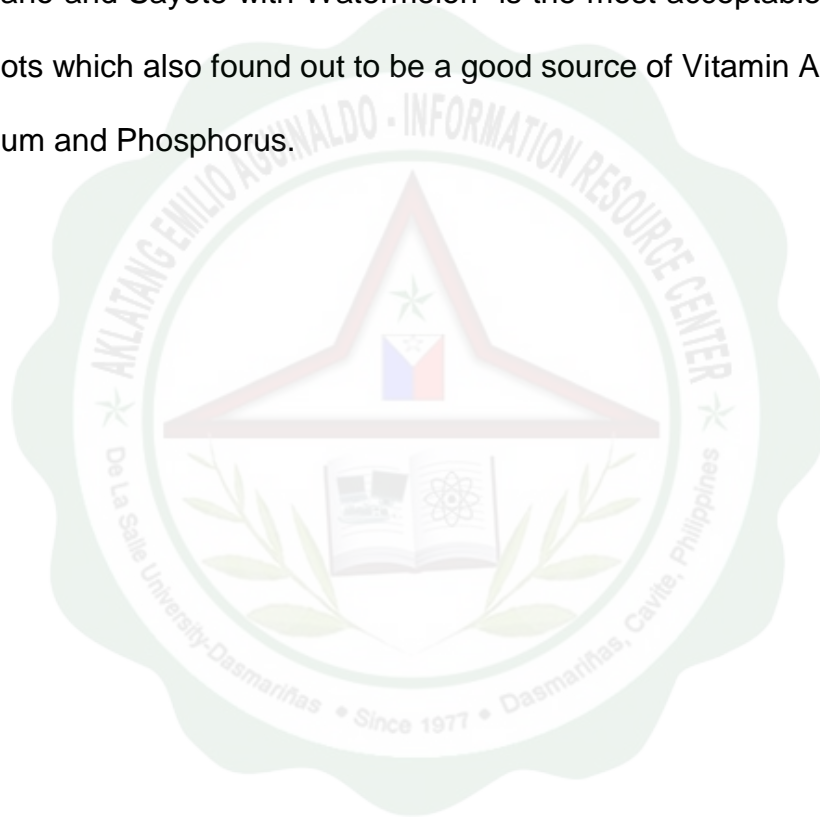




TABLE OF CONTENTS

	Page
Title Page	<i>i</i>
Acknowledgement	<i>ii</i>
Abstract	<i>iii</i>
Table of Contents	v
List of Tables	<i>viii</i>
List of Figures	ix
List of Appendices	ix
Chapter	
1 THE PROBLEM AND ITS BACKGROUND	
Introduction	1
Background of the Study	4
Statement of the Problem	5
Scope and Limitation of the Study	6
Significance of the Study	7



Definition of Terms	8
2 REVIEW OF RELATED LITERATURE AND RELATED STUDIES	
Molecular Gastronomy	9
Popsicle	10
Popsicle Process	11
Oregano	12
Chayote	15
Watermelon	17
Pineapple	19
Banana	21
Fresh Milk	23
Corn Syrup	25
Cassava Flour	26
Synthesis	27
Theoretical Framework	28
3 METHODOLOGY	
Research Design	29
Methods	32



	Sensory Evaluation	36
	Statistical Treatments of Collected Data	37
4	PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA	
	Most Acceptable Formulation	32
	Sensory Evaluation	38
	Most Acceptable Formulation	42
	Theoretical Nutritional Content	43
	Direct Material Cost	45
5	SUMMARY, CONCLUSION AND RECCOMENDATION	
	Summary of Findings	46
	Conclusions	47
	Recommendations	47
	Bibliography	48
	Appendices	50



LIST OF TABLES

Table		Page
1	Nutrient Components of Oregano	13
2	Nutrient Components of Sayote	16
3	Nutrient Components of Watermelon	18
4	Nutrient Components of Pineapple	20
5	Nutrient Components of Banana	22
6	Nutrient Components of Fresh milk	24
7	Nutrient Components of Corn Syrup	25
8	Nutrient Components of Cassava	26
9	Formulation of Sayote and Oregano Popsicle	30
10	Verbal Interpretation of the Mean Score	38
11	Verbal Interpretation In terms of Appearance	39
12	Verbal Interpretation In terms of Aroma	39
13	Verbal Interpretation In terms of Color	40
14	Verbal interpretation In terms of texture	40
15	Verbal Interpretation In terms of Taste	41
16	Verbal Interpretation In terms of General Acceptability	41
17	Most Acceptable Formulation	42
18	Nutritional content of most acceptable popsicle	43



19	Cost Computation	45
----	------------------	----

LIST OF FIGURES

Figure		Page
1	Research Design	28
2	Ingredients Used in Lot 1-4 – Oregano and Sayote	31

LIST OF APPENDICES

Appendix		Page
A	Oregano and Sayote Watermelon Recipe	51
B	Sample Sensory Evaluation Form	52
C	Tally Scores Of Sensory Evaluation	55
D	Recommended Percent Daily Value	60
E	Curriculum Vitae	61