

ANCHOVY PINEAPPLE JAM

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Introduction

Jam is a type of fruit spread product made from whole, cut, or crushed fruit boiled with sugar. Almost any fresh fruit can be made into jam by mashing or slicing it fine, adding an approximately equal amount of sugar, and simmering until it reaches the proper concentration and gel at 218 to 222 F. It appears very rustic: a squishy, somewhat homogenous spread. It is frequently possible to identify the original fruit just by looking at a jam. Jam taste much like the original fruit.

Fruit jams have been one of the most common methods used to preserve fruit for decades. Fruit that has fiber content or is high in pectin in their jam formulation. Appropriate acidity, total soluble solid substance, and calcium content are all imperative for pectin gelation. The terms jam, marmalade, and preserve are used interchangeably. In the English language, preserves describe a product containing cooked or gelled whole fruit.

Anchovy is a small fish that we are going to make as one of the main ingredients and also a new taste of the flavor of jam. We will cook anchovy pineapple jam until thick, anchovy is also known as "dilis" (from Tagalog). The anchovy, being an oily fish, is rich in omega-3 fatty acids, well known for its ability to lower levels of triglycerides and cholesterol in the blood. It is also an excellent source of protein with fish of average size providing around 9g of protein and only 55 calories.

Pineapple (Ananas comosus) is an incredibly delicious and healthy tropical fruit. It originated in

South America, where early European explorers named it after its resemblance to a pinecone. This popular fruit is packed with nutrients antioxidants and other helpful compounds, such as enzymes that can fight inflammation and disease. Pineapple and its compound have been linked to many health benefits, including aiding digestion, boosting immunity, and speeding up recovery from surgery, among others. Pineapple also contained trace amounts of vitamins A and K, phosphorus, zinc, and calcium. They are especially rich in vitamin C and manganese, providing 131% and 76% of the daily recommendations, respectively.

The researchers conducted the study to developed Anchovy Pineapple Jam to make children eat fish without tasting musty flavor and enjoy all the healthful benefits of it.

Statement of the Problem

This study is conducted to determine the acceptability of Anchovy Pineapple Jam. Specific it sought to answer the following sub-problem:

1. What are the ingredients, tools, utensils, and procedures for Anchovy Pineapple Jam?
2. How do the respondents assess the level of acceptability of Anchovy Pineapple Jam?
 - 2.1 Flavor;
 - 2.2 Color;
 - 2.3 Thickness; and
 - 2.4 Spreadability

3. Is there a significant difference in the respondent level of the acceptability of Anchovy Pineapple Jam?

4. What is the nutritional value of Anchovy Pineapple Jam

Methodology

This study made use of the descriptive survey method, which highlights its purpose, methods, and other facts regarding the study. The descriptive method is considered appropriate since the process sought to gather, describe, analyze, and interpret data.

The researchers administered the questionnaire to select respondents to identify their age, gender, and other demographic characteristics, evaluate the effects of using Anchovy Pineapple jam chosen based on their knowledge on the information desired jam, and determine the level of acceptability by selected respondents.

Population and Sampling

This study utilizes purposive sampling in determining the number of respondents. Purposive because the respondents will be chosen based on their knowledge about a certain problem or kind of investigation.

There are twenty-five (25) respondents consisting of twenty (20) consumers five (5) experts. Purposively the consumer and the experts were chosen based on their knowledge of the information desired. As shown in the tables are the gathered data from the respondents.

Table 1

Respondents of the Study

Respondents	F	%
Expert	5	20
Consumer	20	80
Overall	25	100

The following are the profile characteristics of the respondents

as to sex, civil status, age and education attainment, number of years in service/company.

Table 2

Respondents according to Sex

Sex	Consumer		Experts		Overall	
	f	%	f	%	f	%
Male	8	40	0	0	8	32
Female	12	60	5	100	17	68
Total	20	100	5	100	25	100

As presented in Table 2, eight or 40% percent of consumer were male and twelve or 60% were female.

As to Faculty, there were zero or 0% percent male respondents five or 100% percent were female.

Such findings may attribute to the fact that most of the respondents of the study were female.

Table 3

Respondents according to Civil Status

Civil Status	Consumer		Experts		Overall	
	f	%	f	%	f	%
Single	12	40	2	40	14	56
Married	8	60	3	60	11	44
Total	20	100	5	100	25	100

With the value to their civil status as reported in table 3, twelve or 60 percent of consumers were single and married got eight or 40% percent.

As to expert respondents, two or 40% percent were single, three or 60% percent were married.

Summarily, the single respondent outnumbered the others.

Table 4

Respondents according to Age

Age Range	Consumer		Experts		Overall	
	f	%	f	%	f	%
21-30 years old	5	25	---	---	5	20
31-40 years old	15	75	2	40	17	68
41 and above	---	---	3	60	3	12
Total	20	100	5	100	25	100

As shown in table 4, there were zero or 0% percent of consumer respondents who were 20 years old and below, respondents who are in 21-30 years old got five or 25% percent, 31-40 years old got fifteen or 75% percent and 41 years old got zero or 0% percent.

As to the expert. 21-30 years old got zero or 0% percent 31-40 years old got two or 40% percent, and 41 and above years old got 3 or 60 percent.

On the other hand, for experts, who were 21-30 years old got zero on 0% percent, 31-40 years old got two or 40% percent and 41 and above years old got three or 60% percent.

Table 5

Respondents according to Educational Attainment

Educational Attainment	Consumer		Experts		Overall	
	f	%	f	%	f	%
College Graduate	8	40	0	0	8	32
College Undergraduate	1	5	0	0	1	4
w/ Master's Unit	5	25	1	20	6	24
w/ Master's Degree	6	30	2	40	8	32
w/ Doctoral Degree	0	0	2	40	2	8
Total	20	100	5	100	25	100

As shown in Table 5, for consumer college graduate got eight or 40% percent, college undergraduate one or 5% percent, with master unit got five or 25% percent and with ix or 30% percent.

As to the expert, there was one or 20% percent, with master unit got two or 40% percent w/ doctoral degree got two or 40% percent.

The majority of the respondent were college undergraduates.

Table 6

Respondents according to Number of Years in the Company.

Number of years in the Company	Consumer		Experts		Overall	
	F	%	f	%	f	%
20 Years and Above	8	40	3	60	11	44
16-19 Years	5	25	2	40	7	28
11-15 Years	4	20	0	0	4	16
6-10 Years	2	10	0	0	2	38
1-5 Years	1	5	0	0	1	4
Total	20	100	5	100	25	100

As shown as in Table 6, the consumer respondents according to the number of years in the company, for 20 years and above, there was eight or 53 percent, 16-19 years got five or 25 percent and 11-15 years got four or 20 percent. 6-10 years got two or 10 percent and 1-5 years got one or 5 percent, On the other hand, expert respondents three or 60 percent, were from 20 years and above and one or 7 percent belonged to 16-19 years.

The majority of the respondent was with 20 years and above in the company.

Presentation, Interpretation, and Analysis of Data

Subproblem No. 1: What are the ingredients, materials, apparatuses, and procedure in the preparation and development of Anchovy Pineapple Jam?

Table 7

Ingredients Used in the Preparation of Anchovy Pineapple Jam

Quant ity	Unit	Specifica tion	Unit Cost	Extend ed Cost
2	Kilo	Pineapple	70.00	140.00
1	Kilo	Anchovy	150.00	150.00
1	Kilo	Sugar	64.00	64.00
1	Kilo	Lemon	60.00	60.00
Total:				344.00 414.00
Yield: 55 jars of 40grams				
P22.00/JAR				

Table 8

Tools and Apparatuses used in the Preparation Anchovy Pineapple Jam

Quantity	Unit	Specification
1	set	Measuring cup
2	pcs.	Mixing bowl
2	pcs.	Knife
1	pc.	Pan
2	pcs.	Chopping board

Subproblem No.2: How do the respondents assess the level of acceptability of Anchovy Pineapple Jam in terms of aroma, appearance, flavor, and texture?

Table 9

Assessment of the Respondent on the Level of Acceptability of Anchovy Pineapple Jam

CRITERIA	Consumer		Expert		Composite		Rank
	WM	VI	WM	VI	WN	VI	
1. Aroma	4.	HA	4.	HA	4.	HA	2
	40		20		30		
2. Appearance	4.	HA	4.	HA	4.	HA	3
	20		20		20		
3. Flavor	4.	HA	4.	HA	4.	HA	1
	55		40		48		
4. Texture	4.	A	4.	A	4.	A	4
	15		00		08		
Overall	4.	HA	4.	HA	4.	HA	
Weighted	33		20		27		
Mean							

As stated by the data in Table 9, it could be gleaned that the consumer respondent assessment on the level of acceptability of Anchovy Pineapple Jam they rated "aroma" "appearance" and "flavor" as highly acceptable as confirmed by their respective weighted mean of

4.40, 4.20, and 4.55. Meanwhile, an acceptable rating on "texture" is supported by the weighted mean of 4.15. These obtained weighted mean values resulted in an overall weighted mean of 4.33 verbally interpreted as highly acceptable.

On the other hand, on the assessment of the expert respondents, they assessed the level of acceptability of the Anchovy Pineapple Jam they rated highly acceptable on "aroma" "appearance" and "flavor" as backed up by their respective weighted mean of 4.20, 4.20, and 4 40. However, an acceptable rating of texture was strengthened by the weighted mean of 4.00. This value obtained resulted in an overall weighted mean of 4.20 verbally interpreted as highly acceptable.

Generally, the consumer and expert respondents assess the level of acceptability of Anchovy Pineapple Jam, rank no 1 is "flavor" rated highly acceptable as backed up by the composite weighted mean of 4.48. Rank no.2 is aroma rated highly acceptable as evidenced by the composite weighted mean of 4.30. Rank no.3 is "appearance" rated highly acceptable as sustained by the composite weighted mean of 4.20. Rank no 4 is "texture" rated acceptable as confirmed by the composite weighted mean of 4.08.

This confirmed that the assessment of the consumers and expert respondents on the level of acceptability of Anchovy Pineapple Jam was highly acceptable in terms of its aroma, appearance, flavor, and texture as reinforced by the overall weighted mean of 4.27.

Subproblem No.3. Is there any significant differences in the assessment of respondents on the level of Anchovy Pineapple Jam?

It could be observed on the result of the significant difference in the assessment of the consumer and expert respondents on the level of acceptability of Anchovy Pineapple Jam, that the computed t

value of 1.8814 is less than the critical value of 2.068 at five percent level of significance of with 23 degrees.

Table 10

Significant Difference on the Assessment of Respondents on the Level of Acceptability of Anchovy Pineapple Jam

Respon dents	Me an	Stand ard Devia tion	t-ratio		
			Comp uted t- valu e	Deci sion	Verbal Interpre tation
Consum er	4. 33	0.132 3	1.88 .14	Acce pt Ho	Not Signific ant
Expert	4. 20	0.163 3			

Degree of Freedom = 23
Critical value at 0.05 = 2.068

freedom and verbally interpreted not significant resulted in the acceptance of the null hypothesis.

Since we failed to reject the null hypothesis, there is strongly evidenced that there is no significant difference in the assessment of the consumer and expert respondents on the level of acceptability of Anchovy Pineapple Jam in terms of aroma, appearance, flavor, and texture.

The result shows that the consumer and expert respondents share a common perception with their assessment of the variables presented on the level of acceptability of Anchovy Pineapple Jam in terms of aroma, appearance, flavor, and texture.

Subproblem No.4. What is the result of the nutritional value of Anchovy Pineapple Jam?

Nutritional Facts

Serving size: 40 grams
Servings: 12

Amount per serving		
Calories		54
		%Daily Value*
Total Fat	0.1g	0%
Saturated Fat	0g	0%
Cholesterol	0mg	0%
Sodium	4mg	0%
Total Carbohydrate	14.4g	5%
Dietary Fiber	0.2g	1%
Total Sugars	13.9g	
Protein	0.1g	

Vitamin D	0mcg	0%
Calcium	2mg	0%
Iron	0mg	0%
Potassium	19mg	0%
*The % Daily Value (DV) tells you how much a nutrient in a food serving contributes to a daily diet. <u>2,000 calorie a day</u> is used for general nutrition advice.		

Conclusions

Based on the finding of the study, the following conclusions were formulated:

1. Pineapple and anchovy can be one of the main ingredients in the preparation of jam.

2. The overall assessment of the expert and consumer respondents from the level of acceptability of Anchovy Pineapple Jam was highly acceptable in terms of its appearance, aroma, flavor, and texture.

3. The result of the significant differences signifies that the expert and consumer respondents do not concur with their assessment on the variables presented on the level of acceptability of Anchovy Pineapple Jam in terms of appearance, aroma, flavor, and texture.

4. Based on the results of the nutritional facts it contains the number of calories per serving: carbohydrates, fats, and proteins.

Recommendations

Based on the finding of the study, the following recommendation was drowned:

1. Use the most accurate and proportional amount of ingredients to improve its appearance and acceptability.

2. Anchovy Pineapple Jam has to be packed in a proper packaging material and should contain a best before seal as well as the nutritive value.

3. The results of the study should be taken as a reference for a future related study.