

NATIVE CHERRY AND CARAMAY TAMED TO SUIT THE PALATE: JELLIES FROM THE WILDS



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INTRODUCTION

- Fruits from the wild such as native cherry and caramay in this study were considered raw materials for jelly.
- Native cherry is locally known as “pangot” in Quirino Province.

INTRODUCTION

- Caramay or Bangkiling (*Phyllanthus acidus*) is used to sour soups and other dishes in some parts of the in Northern Luzon.

INTRODUCTION

- Caramay contains the following:
 - Flavonoids and nutraceuticals
 - Phytoflavonoids and other bioactive compounds
 - Antioxidant and radical scavenging potentials
 - Methanolic extracts from fruits as antibacterial agents

INTRODUCTION

- In Quirino Province, Philippines, these two products, native cherry and caramay were usually **neglected** fruits.
- Most of these fruits were just **left behind**, **unnoticed** and **rotten**.
- Most Quirinians do not appreciate the ***sour*** taste of these fruits.

INTRODUCTION

- Aside from the sour taste of the fruits, shelf life is also too short.
- Native cherries and caramay should be converted to a food item desirable to consumers and also increase the shelf life.

INTRODUCTION

- The researchers therefore thought of a technique to add value to native cherry and caramay by using it as raw material for the most in demand dessert and spread.... the jelly.

INTRODUCTION

- For the preparation of jelly, the critical ingredients are:
 - Pectin
 - Sugar
 - Acid

OBJECTIVES

1. Determine the sensory quality of native cherry, caramay jelly and guava jelly as to:
 - 1.1 consistency
 - 1.2 aroma
 - 1.3 flavor
 - 1.4 color

OBJECTIVES

2. Determine the overall/general acceptability of native cherry, caramay jelly and guava jelly.

3. Determine the significant differences in the sensory quality and acceptability of native cherry, caramay jelly and guava jelly.

MATERIALS AND METHODS

Variable Ingredients

- The variable ingredients of the study were the juices from guava, native cherry, caramay (1 kilogram each) that composed the treatments.
 - T1-guava
 - T2- native cherry
 - T3- caramay

MATERIALS AND METHODS

Non- Variable Ingredient

Sugar – 1 kilogram

Water – 1 liter

MATERIALS AND METHODS

Experimental Design

- The three treatments were designated as follows: Treatment 1- guava jelly, Treatment 2- native cherry jelly, and Treatment 3- caramay jelly.
- Ten laboratory panelists represented the replications. Completely randomized design (CRD) was followed in the presentation of coded samples.

MATERIALS AND METHODS

Experimental Design

- The three treatments were designated as follows: Treatment 1- guava jelly, Treatment 2- wild cherry jelly, and Treatment 3- caramay jelly.
- Ten laboratory panelists represented the replications. Completely randomized design (CRD) was followed in the presentation of coded samples.

MATERIALS AND METHODS

Process Flow

1. Gathering quality fruits

2. Washing

3. Chopping

4. Boiling

5. Straining

6. Cooking

7. Bottling

8. Pasteurizing

MATERIALS AND METHODS

Gathering of Data

- A ten-member laboratory panel was seated in two sessions (mid-morning and mid-afternoon) to evaluate the consistency, aroma, flavor, color and overall acceptability.

MATERIALS AND METHODS

Gathering of Data

- The panel members' reactions/preferences were recorded in the evaluation form by descriptive words on the 9-point Hedonic scale (9 representing the most desirable/acceptable and 1 the least). Data gathered were tabulated, interpreted and analyzed statistically.

MATERIALS AND METHODS

9-point Hedonic Scale

Numeric Value	Scale	Description
9	8.50-9.00	Liked Extremely
8	7.50-8.50	Liked very much
7	6.51-7.50	Liked moderately
6	5.51-6.50	Liked slightly
5	4.51-5.50	Neither Liked nor Disliked
4	3.51-4.50	Disliked slightly
3	2.51-3.50	Disliked moderately
2	1.51-2.50	Disliked very much
1	1.00-1.50	Disliked extremely

MATERIALS AND METHODS

Criteria for the Selection of Panel

- The evaluator must not be smoker.
- The evaluator must not be chewing gums, mints and must not eat candies at least 2 hours prior to evaluation.
- They must not have artificial teeth.
- They must not be using strong perfumes and smelling spicy ingredients prior to evaluation.

MATERIALS AND METHODS

Statistical Procedure

Data gathered from the sensory evaluation on the consistency, aroma, flavor color and overall acceptability were analyzed using the analysis of variance (ANOVA) for a completely randomized design (CRD).

RESULTS AND DISCUSSION

CONSISTENCY

Table 1. Mean sensory ratings on the consistency, aroma, flavor, color and overall acceptability of jellies.

TREATMENTS	Consistency	Aroma	Flavor	Color	Overall Acceptability
T1- Guava Jelly	8.1	8.2	8.3	8.0	8.9
T2- native Cherry Jelly	7.8	8.0	8.1	7.7	8.6
T3-Caramay Jelly	7.4	7.8	8.2	7.8	8.7

RESULTS AND DISCUSSION

CONSISTENCY OF JELLIES

- Mean ratings for consistency of guava jelly (8.1) and native cherry jelly (7.8) have the same descriptive equivalents of “liked very much” while that of caramay jelly (7.4) was “liked moderately”. Statistical analysis showed no significant differences in the desirability of the three jellies. This implies that the consistency of the different jellies is comparable.

RESULTS AND DISCUSSION

AROMA

Table 1. Mean sensory ratings on the consistency, aroma, flavor, color and overall acceptability of jellies.

TREATMENTS	Consistency	Aroma	Flavor	Color	Overall Acceptability
T1- Guava Jelly	8.1	8.2	8.3	8.0	8.9
T2- Native Cherry Jelly	7.8	8.0	8.1	7.7	8.6
T3-Caramay Jelly	7.4	7.8	8.2	7.8	8.7

RESULTS AND DISCUSSION

AROMA OF JELLIES

- There were no significant differences in the aroma of the three treatments. Mean scores for aroma ranged from 7.8-8.2, which have a descriptive equivalent of “liked very much” in the 9-point hedonic scale. This implies that the aroma of the different jellies is comparable.

RESULTS AND DISCUSSION

FLAVOR

Table 1. Mean sensory ratings on the consistency, aroma, flavor, color and overall acceptability of jellies.

TREATMENTS	Consistency	Aroma	Flavor	Color	Overall Acceptability
T1- Guava Jelly	8.1	8.2	8.3	8.0	8.9
T2- Native Cherry Jelly	7.8	8.0	8.1	7.7	8.6
T3-Caramay Jelly	7.4	7.8	8.2	7.8	8.7

RESULTS AND DISCUSSION

FLAVOR OF JELLIES

- There were no significant differences in the flavor of the three treatments. Mean scores for flavor ranged from 8.1-8.3, which have a descriptive equivalent of “liked very much” in the 9-point hedonic scale. This implies that the flavor of the different jellies is comparable.

RESULTS AND DISCUSSION

COLOR

Table 1. Mean sensory ratings on the consistency, aroma, flavor, color and overall acceptability of jellies.

TREATMENTS	Consistency	Aroma	Flavor	Color	Overall Acceptability
T1- Guava Jelly	8.1	8.2	8.3	8.0	8.9
T2- Native Cherry Jelly	7.8	8.0	8.1	7.7	8.6
T3-Caramay Jelly	7.4	7.8	8.2	7.8	8.7

RESULTS AND DISCUSSION

COLOR OF JELLIES

- There were no significant differences in the color of the three treatments. Mean scores for flavor ranged from 7.7-8.0, which have a descriptive equivalent of “liked very much” in the 9-point hedonic scale. This implies that the color of the different jellies is comparable.

RESULTS AND DISCUSSION

OVERALL ACCEPTABILITY

Table 1. Mean sensory ratings on the consistency, aroma, flavor, color and overall acceptability of jellies.

TREATMENTS	Consistency	Aroma	Flavor	Color	Overall Acceptability
T1- Guava Jelly	8.1	8.2	8.3	8.0	8.9
T2- Wild Cherry Jelly	7.8	8.0	8.1	7.7	8.6
T3-Caramay Jelly	7.4	7.8	8.2	7.8	8.7

RESULTS AND DISCUSSION

OVERALL ACCEPTABILITY OF JELLIES

- There were no significant differences in the overall acceptability of the three jellies. The mean ratings (8.6-8.9) had a descriptive equivalent of “liked extremely”. This implies that the overall acceptability of the jellies is comparable.

CONCLUSION

The evaluators described the consistency of the three jellies as “liked moderately”. The aroma, flavor and color of the three jellies were described by the evaluators as “liked very much”. The overall acceptability of the products was described by the evaluators as “liked extremely”. No significant differences found in the sensory characteristics and overall acceptability of the product. Native cherry jelly and caramay jelly are potential substitute for guava jelly.

RECOMMENDATION

1. Pectin analysis for native cherry and caramay.
2. Future researches on native cherry jelly and caramay jelly should include return of investment (ROI) analysis and shelf life.
3. Recipe standardization for future commercialization.
3. Health and nutrition potentials of native cherry should be studied.

Thank you very much for your
attention.....

