



Sinigang Fusion: Kamias-Gabi Twist

Food Science & Chemistry



Lourdes Judy B. Luyun and Edlyn R. Narag

College of Hospitality Management, Cagayan State University, Andrews Campus, Tuguegarao City, Philippines

Corresponding Author: edlynnarag@csu.edu.ph

Key Findings and Policy Implications

The innovation developed in our research, "Formulation and Organoleptic Properties of Kamias-Gabi Sinigang Mix," lies in creating a novel dried soup base using two underutilized or traditionally prepared local Filipino ingredients – kamias (*Averrhoa bilimbi*) and gabi (*taro*) – to enhance the flavor profile and convenience of sinigang. It transforms a traditional culinary practice into a modern, convenient, and potentially economically beneficial food product by innovatively processing and combining locally sourced ingredients. The composition for the optimum formulation identified by the study, according to an organoleptic analysis is the ratio of 10:7 or 10 grams of powdered Kamias and 7 grams of powdered Taro. This comprises of 10 grams of powdered kamias, 7 grams of

powdered taro, 1 gram of salt, 1 gram of sugar, 1 gram of crushed dried onion, 0.5 grams of pepper, 1 gram of flour, 2 grams of cornstarch, 1 gram of msg and 2 grams of citric acid.

The study has several significant implications, particularly for the food industry, local agriculture, and consumer well-being in the Philippines and potentially beyond:

1. Promotion of Local and Underutilized Ingredients.
2. It demonstrates a successful methodology for developing a novel dried soup base, which can serve as a model for other food product innovations using local ingredients.

- 3.It offers a convenient alternative for preparing sinigang, saving time and effort for busy consumers without compromising authentic taste.
- 4.Successful commercialization of such a product could create new demand for Kamias and gabi, providing additional income opportunities for farmers who grow these crops.
- 5.Preservation of Culinary Heritage

Background

The development of a Kamias-Gabi Sinigang Mix is of the utmost importance in today's context, as it addresses the critical issue of underutilized fruits and crops with significant potential for product development and innovation. Through our comprehensive investigation, we have sought to shed light on the untapped potential of Kamias and Gabi and offer valuable insights that have the potential to drive positive change and innovation in the food industry.

Research Design

The study aimed to develop a formulation of Kamias-Gabi Powder Mix and determine its organoleptic properties. Specifically, it sought to determine the following:

- 1.The best formulation of the product
- 2.The sensory properties as evaluated by panelists in terms of the following:
 - 2.1. Taste
 - 2.3. Aroma
 - 2.4. Appearance
 - 2.5. Consistency
- 3.The General acceptability of the product

Research Paradigm

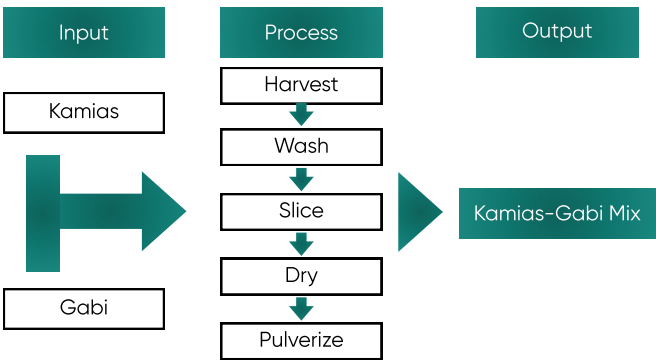


Figure 1. Schematic Diagram in determining kamias- gabi sinigang mix.

Methodology

This developmental research employed an experimental design, in which 5 trained evaluators used a 9-point Hedonic scale to determine the optimal formulation of Kamias Gabi Sinigang Mix. Additionally, 80 participants rated the acceptability level of the 3 formulations developed during the study.

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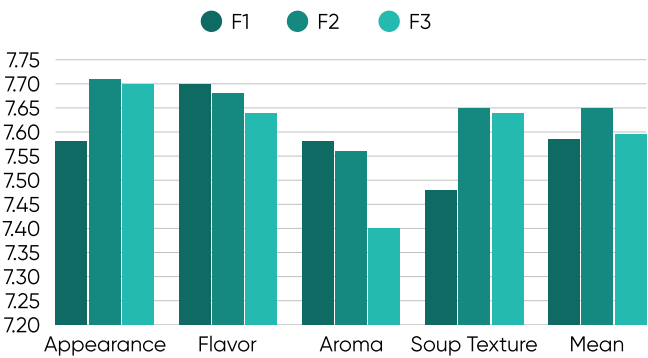


Figure 3. Summary of the sensory evaluation of kamias-gabi sinigang mix.

The sensory evaluation highlights how different formulations of the Kamias-Gabi Sinigang Mix (F1, F2, and F3) appeal to consumer preferences across various attributes.

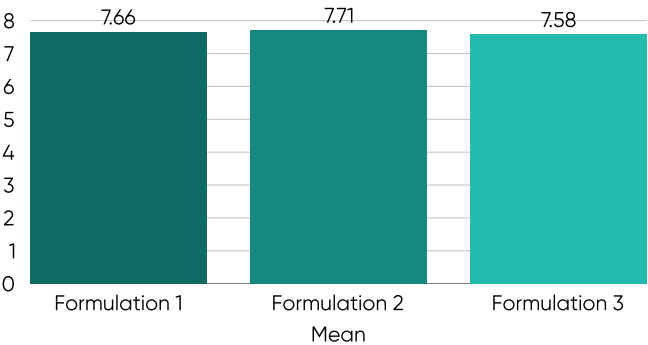


Figure 4. General acceptability of kamias-gabi sinigang mix.

The most acceptable formulation in terms of appearance, flavor, aroma and texture by the respondents is in formulation 2 which has a mean of 7.71.

Conclusion

This research has successfully developed a Kamias-Gabi Sinigang Mix that not only showcases the potential of these underutilized ingredients but also offers a delicious and nutritious alternative to traditional sinigang mixes. By harnessing the power of local resources and innovative product development, we believe this study paves the way for a more sustainable and diverse food industry that caters to the evolving needs and preferences of consumers.

Policy Recommendations

1. Promotion of Local and Underutilized Ingredients
2. Food Product Innovation and Development
3. Consumer Convenience and Health:
4. Economic Impact and Livelihood Generation
5. Preservation of Culinary Heritage
6. Basis for Further Research
7. Nutritional analysis
8. Precise nutrient content and potential health benefits
9. Microbial testing and shelf-life assessment
10. Packaging and labeling studies
11. Cost analysis and market feasibility studies

Target Policy Actors and Beneficiaries



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Editor's Note

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