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Research Article

Acceptability Of Rice Corn Flour (*Zea Mays*) As Corn Cake

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ABSTRACT

The invention provides a corn cake product and a preparation thereof, which solve technical problem of simple raw material to create innovative product as corn cake, a new version of rice cakes a known Korean food or snacks. The study employs 80 respondents to take scores n the general acceptability on the six treatments provided in the study. The study employed Tukey's HSD, this tool used to assess the significance of differences between pairs of group means. It is also followed up to one-way ANOVA, when the F-test has revealed the existence of a significant difference between some of the tested groups. A combination of glutenous flour and added new ingredients made of corn grits, which is processed to make corn flour. On the general acceptability scale, it was scored and interpreted as likely slightly. In the optimization process, the best formulation revealed that 65% glutenous flour and 35% corn flour must be used for the final measurement of the variable for the development of corn cake. This information is extremely useful for the development of new food products since it enables the optimization of component ratios to accommodate the tastes of consumers containing glutenous rice and corn flour for corncake production. A study on the nutritional value and shelf life of maize cakes is also recommended.

Keywords: Corn cake, corn flour, corn grits, rice cake, Tukey's HSD

INTRODUCTION

Nature and Importance of the Study

Corn has been utilized by people for a variety of things. Feed, industrial starch, and bio-based polymers are among the many uses for it. Additionally, it has a wide range of health advantages, including the prevention of several cardiovascular diseases, a decreased risk of colon cancer, improvements in bone density, immune system stimulation, the prevention of anemia, a decrease in cholesterol absorption in the body, and the management of diabetes and hypertension (*Meenakshie Nagdeve, 2019*). Corn has 29% dietary, fiber, 25% carbohydrate, and 19% protein elements. The percentage of vitamins is 31% B6, 26% Thiamin, and 18% Niacin. minerals and magnesium, 32%. 22% Selenium and 24% Manganese. Consequently, corn becomes the major item in the diet of many tropical people, the main grain used for animal feed in temperate region, as well as new stocks for many other purposes including recently used as feedstock for biofuels. Rapid expansion of grain-based ethanol production in North America has already caused concern about future food and feed supplies.
The second-most significant crop in the Philippines is corn. About 14 million Filipinos prefer white maize as their primary staple, while about 50% of mixed feeds for livestock are made with yellow corn. In addition to transportation services, traders, processors, and suppliers of agricultural inputs who directly profit from corn production, processing, marketing, and distribution, some 600,000 farm households rely on corn as a primary source of income. The province of Biliran recorded a total corn production of 102.63 metric tons (MT) during the first quarter of 2022. This figure is higher by 35.04% than its production of 76.0 MT during the same quarter of 2021. (*Published: PSA Biliran, June 16 2023*).

Aside from rice, Filipinos also particularly in Visayas region consumed rice corn or also known as *bugas mais*. Bugas mais is an alternative to milled rice to be consumed originally by the Cebuanos that is available in the market. The researchers would like to develop a healthy and new product out of corn. Making a corn cake inspired in Korean dish rice cake. Rice cake has many used like rice cake *tteokbokki*, which is common in Korea.

In the study, the researcher used the *bugas mais* that turn into corn powder added to the original recipe to add also a health benefit. In some way, the study can help improve the nutritional status of who do not get to eat their breakfasts with a rice, in addition to that it can also serve as a corn product in the province of Biliran. The study was conducted to find out the acceptability of healthy rich food using corn as the main ingredient. Specifically, it sought to answer the level of acceptability of corn cake in terms of taste, texture and aroma, determine the general acceptability of corn cake and determine the best formulation of corn cake.

OBJECTIVES OF THE STUDY

The study was conducted to find out the acceptability of rice corn powder in developing corn cake where it is the main ingredients of the product.
Specifically, it sought to answer the questions;
1. To determine the level of acceptability in terms of;
1.1 Taste;
1.2 Color;
1.3 Texture; and
1.4 Aroma
2. To determine the general acceptability of corn cake.
3. To determine the best formulation of corn cake.

REVIEW OF RELATED LITERATURE

As an important food crop, corn has an important impact on people's lives. The processing of corn produces many by-products, such as corn gluten meal, corn husk, and corn steep liquor, wich are rich in protein, oil, carbohydrates, and other nutrients, all of which are inexpensive. Their accumulation in large quantities during the production process not only results in a burden on the environment but also the loss of potentially valuable food materials that can be processed. In fact, the by-products of corn processing have been partially used in functional foods, nutrients, feed, and other industries. There is no doubt that the secondary utilization of these by-products can not only solve the problem of waste pollution caused by them, but also produce high value-added products and improve the economic benefits of corn
As the demand and nutritional quality of corn products increase, the amount of by products produced during corn processing also increases. In order to maximize the utilization value of corn, reduce waste of resources, and fully realize the sustainable development of the corn industry, it is necessary to seek reasonable processing and utilization of corn by-products. The high value processing of corn by-products has broad market prospects and huge business opportunities, and it is of great practical significance to strengthen the development of corn by-products processing (*Yan Jiao et, al. 2022*). The second-most significant crop in the Philippines is corn. About 14 million Filipinos prefer white maize as their primary staple, while about 50% of mixed feeds for livestock are made with yellow corn. In addition to transportation services, traders, processors, and suppliers of agricultural inputs who directly profit from corn production, processing, marketing, and distribution, some 600,000 farm households rely on corn as a primary source of income.
The province of Biliran recorded a total corn production of 102.63 metric tons (MT) during the first quarter of 2022. This figure is higher by 35.04% than its production of 76.0 MT during the same quarter of 2021. (*Published: PSA Biliran, June 16 2023*).
Particularly, corn is utilized to produce traditional foods. value-added goods including baby food, snacks, and baked goods, etc. Chemicals like refined corn oil and ethanol, starch, or manufactured goods like candy, cake batters, cosmetics, sorbitol, and carbonated beverages are also maize is used to create food and is also used in the form of corn flakes or corn syrup.
Corn and cornmeal is used as food in fresh form or as an important ingredient in a lot of dishes in many regions of the world. Even in Mexico fungus of corn used as a delicious food known as huitlacoche. In Africa, corn was first introduced in 16th century and then it became a most important food of Africans. Corn thick porridge is used as a cultural dish of many countries such as Brazil, Italy and Romania etc. Corn flour is used in the place of flour of wheat for the making of corn bread in many other baked products.
(Elham G. K. et al, 2019). discussed Vitamins, minerals, magnesium, fiber, and complex carbs are all abundant in corn. Purple corn grains have a sizable amount of number of fibers that are utilized to improve the immune system and prevent obesity and diabetes. Corn silk extract is used to reduce blood glucose levels. Additionally, corn silk is utilized to lower serum lipid levels, including all levels of cholesterol and triglycerides. Analysis of qualitative data from Zea mays exhibits a significant quantity of phenolic substances and flavonoids that are crucial in health. One of the most common disorders that cause a human's death. Plants supply 'new leads' in advancements in the fight against cancer and other diseases thanks to bioactive substances. The focus of the present investigation is the capabilities of the various extracts (methanol, aqueous, and the chloroform) of the Zea mays leaves under the hydrogen peroxide stimulates the apoptotic process in cells from Hep2 (laryngeal cancer. After the alteration, corn has an anti-inflammatory effect. the expression of genes. Corn silk ethanolic extract demonstrates adverse consequences that successfully remove the endothelial monocytic cell. CS extract got rid of the motility of cells, production of exudates, and tumor necrosis factor Blocking alpha, oxidative

stress, and inflammation the ability to reduce inflammation. Zea mays is a key source of bioactive phenols and compounds like anthocynins, which are utilized in many American cities to make drinks and desserts. Among the primary anthocyanins are cyandin-3-. The seeds, leaves, and flower of the purple cone include the compounds glucoside, peonidine-3-glucoside, and cyanidine-3- dimalonyl-glucoside, which have strong biological effects like anti-inflammatory, anticancer, and antioxidant. Because maize contains phenolic phytochemicals, regular usage of the kernels helps manage non-insulin dependent diabetic mellitus or even protect against hypertension.

(Siyuan Sheng, et. al, 2018) states that most phytochemicals in corn are present in bran and germ fractions instead of the endosperm fraction. Human clinical trials, epidemiological studies, and some animal studies have implicated that regular consumption of corn and its derived whole grain products is associated with reduced risk of developing chronic diseases such as cardiovascular disease, type 2 diabetes, and obesity. The high amylose content in corn contributes to the digestive health by its nature of resistance to digestion thus bringing bioactive compounds to the colon. Therefore, dietary modifications of increasing corn and other whole grain consumption is a practical strategy to optimize health and reduce the risk of chronic diseases. Corn is rich in phytochemicals including phenolic acids, flavonoids, carotenoids, fiber, and resistant starch that are complementary to those in fruits, vegetables and other whole grains when consumed together. The benefits of resistant starch in corn have been well studied, and a moderate intake of RS (about 10 g/day) from corn starch has benefits on reducing glucose and insulin response, and a higher intake of RS (20 g/day) from corn starch promotes the digestive health. There is a lack of research on many other corn phytochemicals such as phenolic acids and flavonoids. Further research on the health benefits of phytochemicals in corn and sweet corn are warranted.

Elvi C. Escarez (2022). Explains that results of sensory evaluation revealed acceptable quality attributes in terms of color, taste, texture and general acceptability using treatments 2 and 3. The product which was subjected to the second process schedule was evaluated discreetly acceptable in terms of the color, taste, aroma, and general acceptability. On the other hand, results of the sensory evaluation revealed that the potential customers liked very much its texture due to its softness yet sticky consistency which made it more appealing. The rice cakes subjected to water retort is a nutritious sterilized snack that offers longer shelf-life compared to rice cakes produced from the usual steaming process.

PRIOR ART REVIEW

Tea glutenous rice cake. (CN101194690A), The invention provides a tea-rice cake product, which is substantially made from the following raw material components: main materials are deep color rice and white round shaped rice whose mass ratio is 2-25:75-98, incidental components comprise tea power or tea extract whose mass is 0.1-5 percent of the mass of the main materials, and the dark color rice is black glutinous rice or purple glutinous rice or black round shaped rice or purple round shaped rice. The invention provides a novel wet ground rice cake which take orders of local characteristics of ningbo, improves nourishing compositions and enriches the colors and patterns of the rice cake. The product is waxy but not is sticky, storage is long and is indehiscent, the odor is cleaning favor, the color is beautiful, the nutrition is rich, and the contents of specific dietary fiber and minerals such as k-rich, calcium and zinc and the like are best diet for patients with cardiovascular diseases.

Instant Rice Cake. (CN111329041B), the invention discloses a method for manufacturing instant glutinous rice cake, which comprises the following steps: soaking and grinding glutinous rice: soaking glutinous rice, grinding into slurry, and diluting with water to obtain glutinous rice slurry; secondly, mixing and grinding: the emulsifier, the thickener, the sugar alcohol, the white granulated sugar and other ingredients weighed according to the proportion are mixed, dispersed by adding water, expanded and processed by a colloid mill to obtain ingredient slurry; adjusting pH and heating for curing: adding water into the glutinous rice pulp and the ingredient pulp, uniformly mixing, acidifying, heating and pasting to obtain glutinous rice starch pasting ingredient pulp; the homogeneity and the filling seal: homogenizing, filling and sealing glutinous rice starch paste ingredient slurry to obtain an instant glutinous rice cake semi-finished product; carrying out pasteurization and cooling: and (4) pasteurizing and cooling the instant glutinous rice cake semi-finished product to obtain the instant glutinous rice cake product. The invention has the advantages of low preparation cost, pure flavor of the obtained product, exquisite texture, no aging, large elasticity, no bleeding, palatable sweetness and sourness, high sugar alcohol content, high utilization rate of raw materials, instant eating, white appearance and mechanization.

Manggae Rice Cake. (KR101257223B1), the present invention relates to a known composition for a rice cake rice cake and a method for manufacturing the same, which are widely present in the natural world such as gold extract, plants and microorganisms known to have antimicrobial, detoxification, anti-irritant, anti-allergic, anti-inflammatory and sedative effects on rice flour. Natural sweeteners such as trehalose and anti-aging agents that prevent aging of rice cakes are not only harmful to the human body, but also can occur in pre-processing applications, hygienic application technologies for manufacturing facilities and processes, and post-delivery product packaging processes. It minimizes pollutants and cures curing, browning, water evaporation, and

decay during distribution, as well as preserving traditional methods of manufacturing rice cake cakes, as well as developing proper manufacturing process technology that enables delivery by distribution. It relates to a known composition for rice cake rice cake and a method for producing the same.

Sandwich Rice Cake. (CN110637972A), the invention provides a sandwich glutinous rice cake and a preparation method thereof, which solve the technical problems of simple raw materials and single nutrient content of the glutinous rice cake in the prior art. The stuffing comprises a wrapper and stuffing, wherein the weight ratio of the wrapper to the stuffing is 22-26: 3-5; the leather is prepared from the following raw materials in parts by weight: 4-7 parts of hydroxypropyl starch; 0.8 to 1.2 portions of food thickening agent; 5-7.5 parts of soybean oil; 23-27 parts of sugar powder; 5-6 parts of water; 130-140 parts of glutinous rice balls; the preparation of the stuffing comprises the following raw materials in parts by weight: 7-10 parts of purple sweet potato powder; 2-5 parts of condensed milk; 1-2 parts of whole milk powder; 7-10 parts of butter; 3-6 parts of powdered sugar; 65-75 parts of cheese; 15-20 parts of glutinous rice cakes. The whole sandwiched glutinous rice cake prepared by the method is in a hollow bar shape, is fragrant and sweet in taste, soft and glutinous, crisp outside and tender inside, fresh and unique in taste, is deeply loved by consumers, and well meets the requirement of the consumers on better taste; and compared with the traditional glutinous rice cake, the glutinous rice cake has richer nutrition.

MATERIALS AND METHODS

Materials

The tools used in the conduct of the study were mixing bowl, measuring cups, measuring spoon, steamer, ladle, spoon, weighing scale.

Preparation

Preparation of Corn Flour and Glutenous Flour

1. Grind separately the corn grits and gluttenous rice finely in a powerful food processor until the corn grain turns into fine powder.
2. Sift the corn powder/flour into a clean bowl in two or three lots. (It sifts better when you do it in smaller quantities.) Remove any clumps or unground rice grains. When the corn flour is sifted once, sift it one more time. If you ended up with too much unground corn grains, put them back into the food processor and grind them again until you get the fine corn flour/powder.

Preparation of Corn Cake

1. Combine corn flour, Glutenous flour, fine salt, tapioca starch and cups of boiling water in a bowl. Mix them well.
2. Cover the steamer with baking paper or a clean tea towel and place the corn flour mixture on top. Close the lid and steam it for 20 minutes over high heat.
3. Cover the cutting board with a silicone baking mat or a few layers of cling wrap to prevent rice cake sticking onto it while shaping the rice cake. Carefully place the steamed rice cake dough on the mat.
4. Put a pair of thick cotton gloves (layer 1) and food safe gloves (layer 2) on top on your hands. (This is because rice cake dough will be very hot to touch.). Knead the rice cake dough. Pound it with a pestle for about 5 mins to give the rice cake a nice elastic texture.
5. Mold in a small log like form. Keep cool or frozen, if not, use immediately.

Process Flow

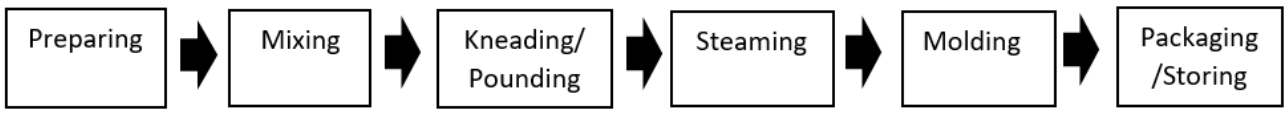


Figure 1. Process Flow

Sensory Evaluation

The rice cakes were subjected to sensory evaluation by selected panelists (n=80) who were potential customers of the product. Numerical score sheets were provided to rate the color, taste, texture, aroma and general acceptability of corn cakes using the 9-point Hedonic Scale. Respondents' consent was solicited prior to the conduct of sensory evaluation

Statistical Analysis

This study with a completely randomized design (CRD) and six treatments as independent variables. In this study, different level of corn flour and level of glutenous flour were used to determine the best formulation of corn cake. The sensory evaluation results determined the best formulation. Tukey's HSD was used in the

interpretation and analysis of the collected data. It used one-way ANOVA to determine if there was a difference between the variables.

Table 1. *Treatment of Variables*

Treatment	**Variables**			
	Glutenous flour		*Corn flour*	
	Grams	*%*	*Grams*	*%*
T1	*0*	*0%*	*220*	*100%*
T2	*32*	*20%*	*188*	*80%*
T3	*84*	*40%*	*136*	*60%*
T4	*136*	*60%*	*84*	*40%*
T5	*188*	*80%*	*32*	*20%*
T6	*220*	*100%*	*0*	*0%*

RESULTS AND DISCUSSION

This table presents the quality descriptions of the sensory attributes of corn cake for the six treatments as rated by the 80 panelists.

Table 2 Quality Descriptions of the Sensory Attributes of Corn Cake

Treatment	Glutenous Flour (% w/w)	Corn Flour (%w/w)	Color	Texture	Flavor	Aroma
1	0	100	White	Slightly Chewy	Only Corn flavor, no glutenous flour flavor	Only corn flour aroma, no glutenous flour aroma
2	20	80	White	Chewy	Well blended glutenous flour and corn flour to more perceptible glutenous flour than corn aroma	Well blended glutenous flour and corn aroma
3	40	60	White	Slightly Chewy	Well blended glutenous flour and corn flour	Well blended glutenous flour and corn aroma to more perceptible glutenous flour than corn aroma
4	60	40	White	Chewy to Slightly chewy	More perceptible glutenous flour than corn aroma to well blended glutenous flour and corn flour	More perceptible glutenous flour than corn aroma
5	80	20	Creamy White	Chewy	More perceptible glutenous flour than corn aroma to well blended glutenous flour and corn flour	More perceptible glutenous flour than corn aroma
6	100	0	Creamy white	Chewy to Slightly chewy	More perceptible glutenous flour than corn flavor	Only glutenous flour than corn flavor

This table indicate the majority of respondents on descriptive observation about the products (color, texture, aroma and flavor.)

For Treatment 1 which consists of 0% of glutenous flour and 100% of corn flour, the panelists perceived its color as white, slightly chewy in texture, more perceptible corn flour, no glutenous flour and with it comes to aroma only corn flour aroma, no glutenous flour. For Treatment 2 which consists 20% of glutenous flour and 80% of corn flour, the panelists perceived its color as white, chewy texture, in terms of flavor only corn flavor, no glutenous flour flavor. And for aroma, only corn flour aroma, no glutenous flour aroma. For Treatment 3 which consists of 40% glutenous flour and 60% corn flour, the panelists perceived its color as white, slightly chewy in texture, For flavor it is well blended glutenous flour and corn flour. And for aroma, well blended glutenous flour and corn aroma to more perceptible glutenous flour than corn aroma. As to Treatment 4, it consists of 60% of glutenous flour and 40% corn flour. It was observed as white in color, its texture as chewy to slightly chewy. For the flavor, more perceptible glutenous flour than corn aroma to well blended glutenous flour and corn flour. And in aroma, more perceptible glutenous flour than corn aroma. In terms of Treatment 5, 80% of glutenous flour and 20% corn flour. It was observed by the that its creamy white in terms of color, and chewy in texture, More perceptible glutenous flour than corn aroma to well blended glutenous flour and corn flour in flavor. And in aroma, More perceptible glutenous flour than corn aroma. For Treatment 6, which consists of 100% glutenous flour and 0% corn flour. It was discerned as a creamy white in color, chewy to slightly chewy texture. It is more perceptible glutenous flour than corn flavor and for aroma, Only glutenous flour than corn flavor

Table 3. General Acceptability of Corn Cake

Treatment	Glutenous Rice (% w/w)	Corn Flour (% w/w)	Color*	Texture^{ns}	Flavor^{ns}	Aroma^{ns}	General Acceptability*
1	0	100	5.20^{a}	5.90	4.95	5.08	6.00^{a}
2	20	80	5.40^{b}	6.05	5.60	5.43	6.10^{a}
3	40	60	5.68^{c}	6.03	5.40	5.43	6.23^{a}
4	60	40	5.85^{d}	6.05	5.50	5.70	6.50^{b}
5	80	20	5.20^{b}	5.83	5.23	5.38	6.88^{ac}
6	100	0	5.55^{e}	5.88	5.43	5.55	6.08^{c}
Mean			**5.48**	**5.96**	**5.35**	**5.43**	**6.30**

Means with common letter within a column are significantly different at 5% level of significance based on Tukey's HSD. 9-point Hedonic Rating Scale: 1=dislike extremely, 2=dislike very much, 3=dislike moderately, 4=dislike slightly, 5=neither like nor dislike, 6=like slightly, 7=like moderately 8=like very much, 9=like extremely

Color. The results show that glutinous rice and maize flour proportions greatly affect product color. Some prominent trends like adding glutinous rice typically results in a darker color. Treatment 5, with 80% glutinous rice and 20% corn flour, may represent an exception to the pattern, suggesting potential ingredient interactions at this ratio. Treatment 1 and Treatment 5 may have different color features due to the absence of glutinous rice, although having the same color value.
The results show that glutinous rice and corn flour mixture greatly affects product color. Color is crucial in food product creation; hence the findings are useful. To improve color outputs based on product requirements, these chemicals' mechanisms and interactions may need further study.

Texture. The texture analysis table shows that texture ratings vary among treatments. All treatments have a mean texture score of 5.96, ranging from 5.83 to 6.05. According to the research, the mixture's glutenous rice-corn flour ratio affects texture. Treatment 2, with 20% glutenous rice, has one of the highest texture scores in the study, 6.05. Treatment 5, with 80% maize flour, had one of the lowest texture scores, 5.83. This implies that a higher amount of glutenous rice in the mixture may improve product texture. Despite varied glutenous rice-corn flour ratios, Treatments 2 (20% glutenous rice) and 4 (60% glutenous rice) have the same texture score of 6.05. A threshold level of glutenous rice may be needed to preserve texture. This barrier could be studied further.
Food products have a mean texture score of 5.96, which is between the greatest and lowest ratings in the study. A balanced ratio of glutenous rice and corn flour may yield a relatively preferable texture. This study affects food product composition, specifically texture optimization. The glutenous rice-corn flour ratio clearly affects product texture. However, consumer sensory preferences vary, thus more study with a broader panel of taste testers may be needed to confirm these findings and determine the best texture. This study concludes that ingredient ratios determine food texture. Food makers can satisfy consumer texture preferences by carefully modifying glutenous rice and corn flour quantities, which can affect product acceptance and market success.

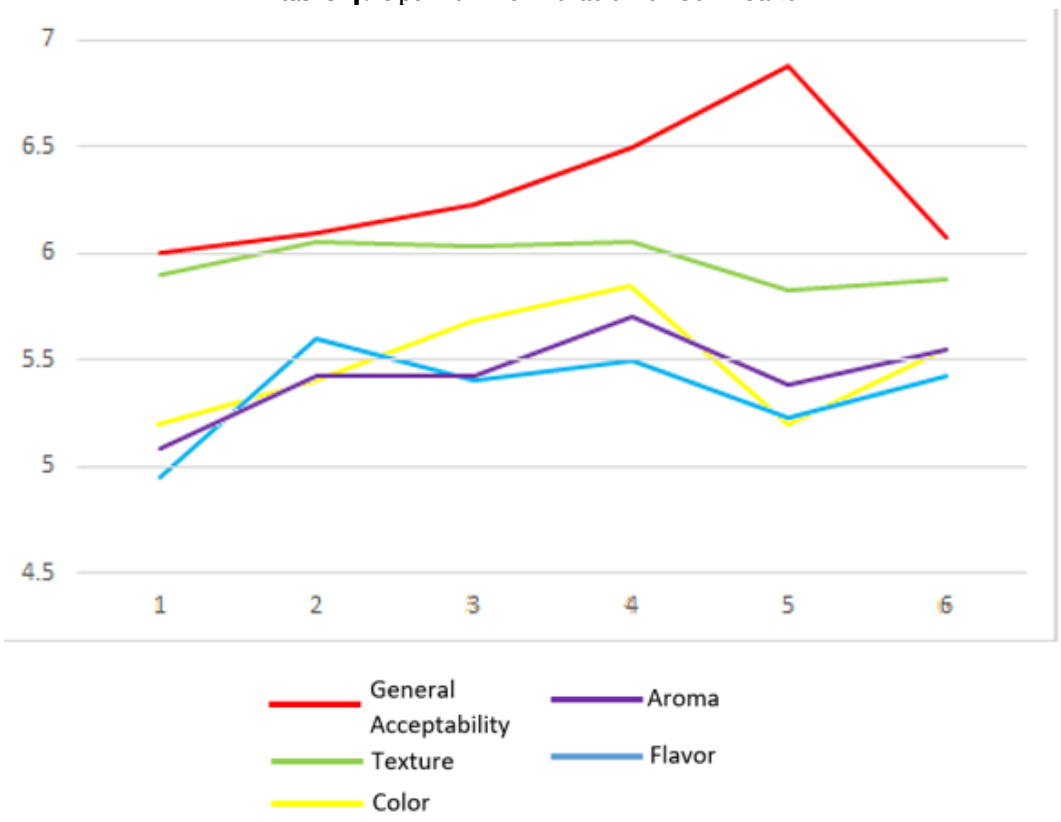
Flavor. The findings show that when the amount of glutenous rice in the mixture grew, the flavor rating generally rose. This implies that glutenous rice might enhance the overall flavor of the food item. The highest flavor score (5.43) was given to Treatment 6, which was made entirely of glutenous rice, indicating that glutenous rice can improve flavor on its own. A higher amount of corn flour in the mixture, on the other hand, typically led to a worse flavor grade. The flavor rating for Treatment 1, which was made entirely of corn flour, was the lowest (4.95). This shows that as compared to glutenous rice, corn flour may have a less beneficial effect on flavor. Among the treatments using both ingredients together, Treatment 2, which contained a balanced 20% glutenous rice and 80% corn flour, earned the highest flavor rating (5.60). This implies that the optimum flavor results can be achieved by striking the right balance between glutenous rice and maize flour. The flavor ratings for treatments 3, 4, and 5 varied somewhat, indicating that there is not a straight relationship between the two components and flavor. Flavor may be influenced by additional elements like processing techniques or particular food product qualities.

Aroma. The mean sensory evaluation score was 5.43 across treatments. This shows that Aroma items made with varied glutinous rice-corn flour ratios have similar sensory qualities. Due to the amount of glutinous rice and maize flour, Aroma products' sensory scores varied across treatments. Treatment 4 (40% Corn Flour, 60%

Glutinous Rice) received the highest sensory score of 5.70, indicating panelists' preference. Treatment 2 (80% Corn Flour, 20% Glutinous Rice) and Treatment 6 (100% Glutinous Rice) achieved high scores of 5.43 and 5.55, respectively, suggesting strong popularity. Treatment 1 (100% Corn Flour) received the lowest sensory score of 5.08, indicating fewer pleasant sensory qualities for corn flour products. Preference for Glutinous Rice: Treatments 4, 2, and 6 with more glutinous rice had higher sensory scores. Due to its unique texture and flavor, glutinous rice may improve sensory experience.
The results show that Aroma goods' best sensory qualities come from a glutinous rice-corn flour balance. This study's sensory evaluation results suggest Treatment 4, with 60% glutinous rice and 40% maize flour, is best.

General Acceptability. The result of the study base on the general acceptability is Like Slightly". According to the findings of this research, the proportion of glutenous rice flour to corn flour that is blended together has a considerable impact on the overall acceptance of the finished product. Treatments that contained a higher percentage of glutenous rice had a greater tendency to be well-liked, showing a preference for the sensory qualities that are associated with glutenous rice. However, it is essential to take into account that there was a decreasing return in acceptability as the glutenous rice content grew. This was demonstrated by a minor drop in acceptability in Treatment 6, which provides evidence of this trend.
This information is extremely useful for the development of new food products since it enables the optimization of component ratios to accommodate the tastes of consumers. When manufacturing products containing glutenous rice and corn flour, it is critical for producers to take these findings into consideration. Doing so will increase the level of customer satisfaction and market competitiveness achieved.

Table 4. Optimum formulation of Corn Cake



The optimum formulation will at 65% glutenous rice and 35% corn flour which indicated that two important variables met which were aroma and color.

RECOMMENDATION AND CONCLUSION

The formulated corncake obtained an average acceptable descriptive score, indicating that the product's overall quality has to be improved. The corn cake certainly has the potential to be a nutritious snack with additional benefits. The product optimization findings' ideal formulation is 65% glutenous flour and 35% corn flour. When providing a new ingredient, it's essential to take into consideration its color, texture, flavor, and aroma, along with its nutritional value.
More corn planting is still encouraged among farmers. Furthermore, for the sustainability of this product, the government must support the corn growers in the province of Biliran. It can be utilized to produce innovative products, like our own variation on corn cake. food vendors, food business sectors, etc. are encouraged to give

this innovative food as an alternative or added on their business for other food snacks. A study on the nutritional value and shelf life of maize cakes is also recommended.

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