

UTILIZATION OF MORINGA LEAVES FOR POTATO MUD CAKE VARIATIONS AT THE GUNAWANGSA MERR HOTEL SURABAYA

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ABSTRACT

Pastry is one of the *food and beverage product departments* which has the task of producing quality cakes, bread or *desserts* in hotels. There are many variations of *pastry dishes* at the *Gunawangsa Merr Hotel Surabaya*, ranging from *international desserts* to Indonesian cakes. The processing of Indonesian or traditional cake variants is currently being developed into superior *pastry products* at the *Gunawangsa Merr Hotel Surabaya*. One of the Indonesian cakes at the *Gunawangsa Merr Hotel Surabaya* is potato mud cake, which is one of the Indonesian cakes that many hotel guests like. This potato mud cake, which many guests are interested in, is the basis for trials to make a healthy cake by adding ingredients that have good nutritional value. Potato mud cake will be modified with Moringa leaf powder using a substitution process with a formulation comparing the proportions of several samples to become a cake that has nutritional value. The research method used is quantitative research by conducting observations, interviews, documentation and filling out questionnaires to collect accurate data. The author conducted a trial (*test food*) at the *Gunawangsa Merr Hotel Surabaya*, this trial was carried out for 1 month. The results of making Moringa leaf potato mud cake are very good and interesting and have been assessed by several respondents. The author hopes that this Moringa leaf potato cake can be a recommendation for processing it into a healthy food.

Keywords: Pastry variations, mud cake, Moringa leaves, Moringa powder, processed products, Hotel.

INTRODUCTION

Pastry is a general term used to refer to various kinds of food products made from a mixture of wheat flour, fat (such as butter or oil), water, sugar, and usually eggs. *Pastry* is a section within the *food & beverages product organization* that specializes in handling or making *cakes, cookies, pastries, chocolate, pudding* and other *desserts* (Ramadhanti et al., 2022). Hotel *Gunawangsa Merr Surabaya* has a *pastry department* which is one of the supports for the smooth operation of the hotel. This *pastry* department has the main task and focus of ensuring that the *pastry products* served meet high quality standards and satisfy the tastes of hotel guests.

The *pastry* at the *Gunawangsa Merr Hotel Surabaya* has a very diverse range of *dessert preparations, ranging from international dessert preparations* and Indonesian cake preparations. The processing of Indonesian or traditional cake variants is currently being developed into a superior *pastry product* at the *Gunawangsa Merr Hotel Surabaya* because it not only tastes delicious but also elevates typical Indonesian cakes to be better known and in demand with more modern variations and a more attractive appearance. . One of the Indonesian cakes at the *Gunawangsa Merr Hotel Surabaya* is potato mud cake, which is one of the Indonesian cakes that many hotel guests like.

Many guests like potato mud cake because it tastes delicious with a chewy texture. Mud cake is a type of Indonesian wet cake. This cake is round and

flat, yellowish in color, has a sweet and savory taste and a soft texture (Saloko et al., 2022). This potato mud cake, which many guests are interested in, is the basis for trials to make a healthy cake by adding ingredients that have good nutritional value. Potato mud cake will be modified with Moringa leaf powder using a substitution process with a formulation comparing the proportions of several samples to become a cake that has nutritional value.

The Moringa plant (*Moringa oleifera*) is a tropical plant that is often found in Indonesia. This plant has a million benefits and properties, especially the Moringa leaves. Moringa leaves have all the necessary nutritional elements, including protein, carbohydrates, fats, vitamins and minerals, so they are considered a plant that can fulfill almost all human nutritional needs (Oktariani et al., 2022). This plant is often nicknamed *the miracle tree* because of its good nutritional content, but Indonesian people are still very ignorant and often only make moringa as a daily dish such as clear or stir-fried vegetables.

The use of Moringa leaves continues to be developed into products with good nutritional value, one of which is that Moringa leaves are now widely processed into semi-finished ingredients, namely Moringa leaf powder, then this powder can be processed into various processed foods or drinks that have high economic value, such as patisserie variant products like the ones the author will try. Thus, the processing of Moringa leaf potato mud cake can be

input for *pastry chefs* by considering the nutritional value of cake variations.

Research methodology

The type of research taken is quantitative research. Quantitative research is a research approach that uses data in the form of numbers and exact knowledge to answer research hypotheses (Waruwu, 2023). The research method was carried out by means of observations (*observations*) carried out directly in the kitchen of the Gunawangsa Merr Hotel Surabaya. Then continued with the trial (*experimental*) stage by processing Moringa leaf mud cake at the Gunawangsa Merr Hotel Surabaya for 1 month. Conduct interviews and fill out questionnaires. Finally, documentation is a complement to the selected research.

In this study, the population was all *staff* at the Gunawangsa Merr Hotel Surabaya and NSC Surabaya Polytechnic students. This sample distribution was carried out to members of the kitchen at the Gunawangsa Merr Hotel Surabaya, several employees (*housekeeping, front office, engineering*) at the Gunawangsa Merr Hotel Surabaya, culinary practitioners, and D4 Hotel Management Students at the NSC Surabaya Polytechnic with a total of 30 respondents.

This data collection technique was carried out completely and accurately by conducting direct observations and trials at the Gunawangsa Merr Hotel Surabaya, as well as conducting interviews and filling out questionnaires for 1 month while the practical fieldwork activities were taking place. The data collection technique uses a questionnaire regarding organoleptic tests. Organoleptic testing is a test of human senses or sensors as the main tool for measuring a product. The organoleptic test parameters that the author uses are color, aroma, taste, texture and appearance.

DISCUSSION

Problem analysis

1. Efforts to create variations of Indonesian cakes at the Gunawangsa Merr Hotel Surabaya. Hotel Gunawangsa Merr Surabaya is one of the 4 star hotels in Surabaya. Competition in the world of the hotel and culinary business certainly means chefs *must* always create new, creative and innovative menus. Results of interviews with *pastry* kitchen staff regarding efforts to create variations of cakes at the Gunawangsa Merr Hotel Surabaya by looking for new references and ideas, looking at developments in the latest cake *trends*, looking at the internet and studying on *YouTube* for the latest cake

techniques and recipes. Often carry out *food tests* (trials) and *share* with fellow *chefs* or culinary practitioners.

2. Modifying a variation of potato mud cake using a comparative substitution of the proportions of several samples with Moringa leaf powder. The author tried adding Moringa leaves as an additional ingredient to get a variation of potato mud cake. The author deliberately chose Moringa leaves because the author knows that there are many sources of nutrition in Moringa leaves. Using the standard potato mud cake recipe by the Gunawangsa Merr Hotel Surabaya as a reference for researchers to conduct experiments. The experimental stage was carried out repeatedly with different addition formulations, namely with the comparison in table 1. Comparison of the proportion of wheat flour with Moringa leaf powder.

Table 1. Comparison of the proportions of wheat flour and Moringa leaf powder.

No	Material	A	B	C	D
1	Flour	75%	50%	25%	0%
2	Moringa Leaf Powder	25%	50%	75%	100%

1. Process of Making Moringa Leaf Potato Mud Cake

The experiment in making Moringa leaf potato mud cake with the addition of Moringa leaf powder was carried out in February at the Gunawangsa Merr Hotel, Surabaya. The method for making this cake uses the standard Gunawangsa Merr Hotel Surabaya recipe with the addition of Moringa leaf powder according to the sample ratio that has been formulated.

Ways of making :

1. Weigh and prepare all ingredients.



Figure 1. Materials

2. Boil the potatoes then mash them with a *chopper*.
3. Melt Margarine, don't let it boil. Then cool.

4. Mix dry ingredients. Sift flour, granulated sugar and *baking powder* , mix well. (Material A)
5. *The* chopped potatoes with coconut milk, water and eggs, stir well. (Material B)
6. Mix ingredients A, Moringa leaf powder according to the sample formulation grammage and milk into ingredients B gradually, until mixture A and milk are used up. Stir gently.
7. Add melted margarine then stir well.
8. *Rest* for 30 minutes – 1 hour.
9. Print using low heat. (When half cooked add toppings).



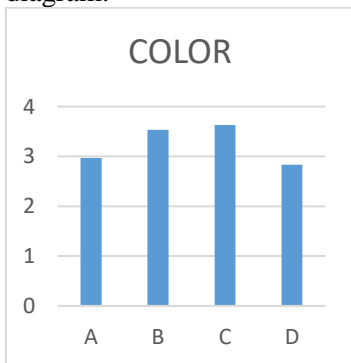
Figure 2. Results of Moringa leaf potato mud cake

2. Organoleptic Test Results

The results of the organoleptic test data for Moringa leaf potato mud cake which have been provided in the organoleptic research sheet (likability test) were obtained from 30 panelists using organoleptic observation tools in terms of color, aroma, taste, texture and appearance. It will be explained in the diagram below.

a. Color

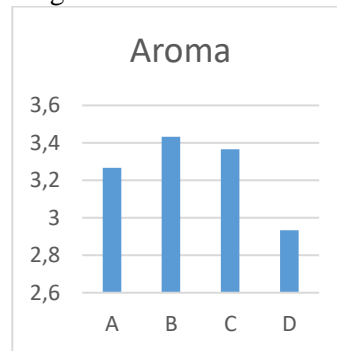
Based on the results of the organoleptic tests that have been carried out, the average value for the color of the Moringa leaf potato mud cake produced by sample A is yellowish green, sample B is light green, sample C is light green, sample D is blackish dark green. The highest interest result is sample C, while the lowest interest result is sample D. The overall results of the Moringa leaf potato mud cake assessment can be seen in the following diagram:



b. Aroma

Based on the results of the organoleptic tests that have been carried out, the average value

for the aroma of Moringa leaf potato mud cake produced by sample A has a sweet smell like mud cakes in general, sample B has a sweet and slightly matcha-like aroma, sample C has a tea leaf or matcha-like aroma. concentrated, sample D smells like thick leaves or the smell of moringa vegetables. The highest interest result is sample B, while the lowest interest result is sample D. The overall results of the Moringa leaf potato mud cake assessment can be seen in the following diagram:



c. Flavor

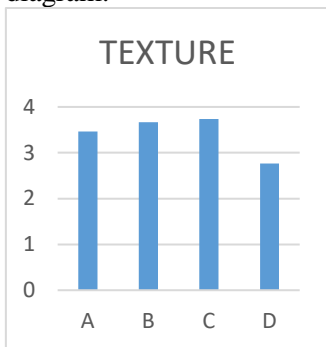
Based on the results of the organoleptic tests that have been carried out, the average value for the taste of the Moringa leaf potato mud cake produced by sample A has a sweet taste like mud cakes in general, sample B has a taste like matcha which is still sweet, sample C has a taste like slightly matcha strong with a slightly sweet aftertaste and the taste of Moringa leaves, sample D has a strong Moringa leaf taste or almost the same as a strong matcha taste which has a slightly bitter aftertaste. The highest interest result is sample C, while the lowest interest result is sample D. The overall results of the Moringa leaf potato mud cake assessment can be seen in the following diagram:



d. Texture

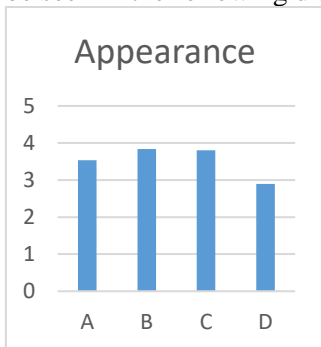
Based on the results of the organoleptic tests that have been carried out, the average value for the texture of the Moringa leaf potato mud

cake produced by sample A has a chewy texture like mud cakes in general, sample B has a chewy texture, sample C has a chewy texture and is slightly wet inside, sample D has a dry texture on the outside and wet inside. The highest interest result is sample C, while the lowest interest result is sample D. The overall results of the Moringa leaf potato mud cake assessment can be seen in the following diagram:



e. Appearance

Based on the results of the organoleptic tests that have been carried out, the average value for the appearance of the Moringa leaf potato mud cake produced, sample A has a good appearance with a yellowish green color and a good shape like mud cakes in general, sample B has a good appearance and color. light green with the same shape as a typical mud cake, sample C has an appearance with a bright green color and a shape that is slightly wet inside, sample D has an appearance with a very dark green color, almost black, dry on the outside and a slightly irregular shape because the inside is slightly wet . The highest interest result is sample B, while the lowest interest result is sample D. The overall results of the Moringa leaf potato mud cake assessment can be seen in the following diagram:



CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The author concludes that the variety of cakes at the Gunawangsa Merr Hotel Surabaya is very varied by creating new ideas, frequently testing and always looking at current cake trends. With this variation of mud cake with the substitution of Moringa leaf powder, this can be an input for the Gunawangsa Merr Surabaya Hotel to create various healthy cakes with various nutritional additions for hotel guests. The processing process for this Moringa leaf potato mud cake is almost the same as mud cakes in general, only by adding Moringa leaf powder to add a healthy cake variant that has nutritional value. The results of making this Moringa leaf potato mud cake were very interesting to the panelists with the results of organoleptic tests on color, aroma, taste, texture and appearance.

Suggestion

In this research, further experiments should be carried out in order to obtain maximum and close to perfect results, especially for samples B and C with the highest level of liking. The *pastry* party must maintain the quality and quantity of cake variations at the Gunawangsa Merr Hotel Surabaya. There are many variations of cakes and it is best if the cakes at the Gunawangsa Merr Hotel Surabaya can be varied with other ingredients so that they can become new variations. This Moringa leaf potato mud cake can be a recommendation for creating or producing healthy snack cakes.

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