



Substitution of Rose Petal in Making Sponge Cake

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ABSTRACT

Roses are plants that have many benefits, vitamin content and uses, for example in the field of food products, in this field most roses are usually used for garnishing desserts only. The use of roses in the field of food products is still very little used, the author wants to make something new by using these rose petals in the product field, by making these rose petals into flour which will later be used in making sponge cake, which later in the process of making this sponge cake there is the addition of rose petal powder which the writer made with wheat flour, and the writer wants to know the results of adding rose petal powder in making this sponge cake whether it can be accepted and liked by the public. The methodology used by the author in this research is experimentation with a completely randomized design (CRD) consisting of 3 treatments, through a series of trials to find a standard recipe for manufacturing *sponge cake* by using roses. The results obtained by the author after collecting and processing respondent questionnaire data (people) with 4 (four) different aspects, namely color, aroma, texture, taste in substitution of rose petals in making this sponge cake, namely, panelists are not experts with a total score of overall 3 formulas 41.4% with an average of 3.45, for the formula with the highest score in formula 2 (two) with a total score of 14 with an average of 3.5, for the next highest score in formula 1 (one) with the total score is 13.8 with an average of 3.45, and for the smallest score, namely formula 3 (three) with a total score of 13.6 with an average of 3.4. The results of this study indicate that the use of rose petal powder in making sponge cake can be said to be successful with the results of the preference test which is dominated by liking.

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1. INTRODUCTION

Indonesia is a country with a tropical climate with abundant natural wealth, especially in its plants which can be said to have many plants that thrive and are unique, both from plants that bear fruit, flowers and seeds thrive, such as roses, roses are fast growing plants. adapting especially to changes in the weather climate in Indonesia, roses are also nicknamed the queen of flowers, with the beauty of their flowers which are very beautiful and their fragrant aroma makes roses the queen of flowers and one of the people's favorite plants. Roses are one of the flowers that are easy to flower and easy to cultivate.

There are more than 150 species of roses available in almost all sizes and colors. The best part about roses is that they are all edible. But never buy roses that have been given pesticides for consumption. Roses can also be eaten raw, mixed into various fruits, salads or dried and added to herbal mixtures such as teas and other infusions (Hill, 2018). Roses (*Rosa sinensis*) are rich in vitamin C and contain anthocyanins. Rose flower extract can be used as a natural food flavoring in the manufacture of pastries, ice cream, chocolate bars and puddings, and for making tea, while abroad it is eaten directly as a mixture of salads, cakes (Greece) and curries (India).

Seeing how it can be produced and the benefits and nutrients contained in rose petals, it needs to be produced with good handling so that rose petals can be used as best as possible. So far, we know that if a flower petal has been picked from a live plant, then sooner or later the petal will quickly wither and turn black, so the petal is no longer fit for consumption as a basic ingredient.

One of the most popular types of processed roses is rose tea. Tea drinks mixed with rose petals have the effect of increasing stamina and mood. Besides that, rose petals can be processed into flavoring or coloring powders that can be used in various kinds of cakes. Natural dyes derived from plants are natural dyes that are easily obtained and found.

People can use it directly from plants around their homes and yards, so natural dyes from plants will be cheaper and even easier to obtain compared to synthetic dyes. One of the food dyes that can be used and consumed is food coloring derived from plants, namely flowers. rose which can produce anthocyanin color. The addition of anthocyanin dyes or natural dyes in food and beverages has a very big influence on the taste and attractiveness of consumers.

Sponge cakes or sponge cake is one of the basic cakes for making soft textured tarts and also hollow, in general sponge cake does not have a too sweet taste, this aims to get the right taste when combined with sweet cream such as butter cream (Hanazarian, 2015). Sponge cake is a food product that uses fresh eggs in large quantities and uses a little margarine, flour, developer and granulated sugar then is processed using a method called the sponge cake method. The principle of making sponge cake is to mix the ingredients into a liquid dough and trap air to form foam which will expand during baking.

The researcher wants to add a flavor variant, namely rose petals, as we know roses are one of the ornamental plants which are usually consumed mostly as tea. So that roses are not just enjoyed for granted, the researchers want to make sponge cake with rose petal flavor. In addition to adding sponge cake flavor variants, the authors also have other benefits of rose petals in the form of various types of food innovation flavors.

Roses (*Rosa sp.*) are cut flowers that are in great demand by the public, which are often used to decorate formal events such as seminars, workshops and non-formal events such as weddings and some traditional events. If the event is over or the roses are stored/displayed for several days, they will wither and the selling price will fall. Even though the sort roses (not fresh anymore) still contain anthocyanin pigments of the Malvidin type and Cyanidin glycosides (saati, 2012).

Seeing that the author's environment is grown by plants, especially flowering plants, the author wants to experiment with flowering plants but in a way that makes them useful and acceptable to the community. For this reason, researchers want to make new innovations by using roses as a variation of sponge cake. So by seeing this, the authors are interested in conducting this research, the researcher wants to know that from the innovation in making this product, there will be changes in terms of aroma, color, taste, texture.

2. LITERATURE REVIEW

2.1. Roses

Roses are flowering ornamental plants that are in great demand and sought after because of their beautiful flowers and fragrant smell, roses are ornamental flowering plants in the form of herbs with thorny stems. Roses are not native to Indonesia, originating from the plains of the country, namely China. In its development, it spread widely in various regions, including Indonesia. In Indonesia, roses are enjoyed as cut flowers or used for traditional ceremonies and as sowing flowers (Titiek, 2017).

2.2. *Sponge Cake*

The principle of making sponge cake is to mix all the ingredients into a liquid dough and trap air to form foam which will expand during baking (Sutedja, 2015). The first thing to do in the process of making sponge cake is to do the process of beating the eggs and sugar first until it becomes homogeneous or you could say the eggs become stiff, followed by mixing all the ingredients directly and stirring them evenly and until they expand (Mashabi, 2016).

Sponge cake the good one is the golden bright yellow. The surface of the sponge cake must be flat and flat, in the middle of the sponge cake not expanding to a dome shape or sinking or deflating. A good and successful sponge cake can be cut easily without a lot of crumbs falling. The texture is light, soft, and medium hollow. Sponge cake made from eggs, sugar and flour. Sponge cake must be sweet because sponge cake is a dessert, but not excessive (Morton, 2015). Examples of *Sponge Cake* products include: Classic Almond *Sponge Cake*, Victoria *Sponge Cake*, Blueberry *Sponge Cake*, Chocolate Orange *Sponge Cake*, Strawberry *Sponge Cake*, Chocolate *Sponge Cake*, Green Cheese *Sponge Cake*, Cherry *Sponge Cake*, Coconut *Sponge Cake*, various Roll Cakes such as: Swiss Roll, Tiger Roll Cake, and various Small Cakes.

2.3. *Cake*

Cake is a dough that is baked with the main ingredients of flour, sugar, eggs and fat. *Cake* is much-loved by the public, especially for children to old age because of its soft texture, delicious taste and various appearance (Handayani and Aminah, 2012). *Cake* is quite popular in Indonesia, both cakes are baked or steamed. One of the charms of *cake* is that it tastes delicious and is easy to make. *Cake* is served in small or large pieces that are decorated or served in the size of the mold used (Rafika, 2012).

Factors that can affect the quality of a good and good *cake* are the basic ingredients, the manufacturing process, especially the mixing process, the thickness of the baking sheet mold and the oven temperature used. Basically, the basic ingredients for making *cakes* are using low protein flour or soft wheat. The process of mixing ingredients, molding, and baking also affects the texture and quality of the *cake* (Handayani and Aminah, 2012).

3. METHODOLOGY

The methodology used by the author in this research is experimentation with a completely randomized design (CRD) consisting of 3 treatments, through a series of trials to find a standard recipe for manufacturing sponge cake by using roses. Manufacturing trials sponge cake by using roses by using rose flour ingredients repeated several times to produce a standard recipe sponge cake by using roses which looks perfect, has a great taste.

4. RESEARCH RESULTS

The following is the conclusion of the results of calculating the product for making sponge cake made from rose petals, namely:

Table 4.1. Conclusion of Product Questionnaire Results Substitution of rose petals in making sponge cake Panelists are not experts.

Test	Dimensions	Total Score	Means	Median	Modus	Standard Deviation
P1	Color	3,5	3,5	4	4	0.63
	Aroma	3,6	3,6	4	4	0.49
	Texture	3,3	3,3	3	3	0.70
	Flavor	3,4	3,4	4	4	0.68
P2	Color	3,6	3,6	4	4	0.50
	Aroma	3,5	3,5	4	4	0.59
	Texture	3,5	3,5	4	4	0.59
	Flavor	3,4	3,4	3	4	0.65
P3	Color	3,4	3,4	4	4	0.66
	Aroma	3,4	3,4	3	3	0.55
	Texture	3,5	3,5	4	4	0.66
	Flavor	3,3	3,3	3	4	0.73
Total		41,4	41,4	44	46	7,43
Average		3.45	3.45	3.67	3.83	0.62

In the manufacture of sponge cake products with the added ingredient of rose petal powder, it was concluded that the results were in the form of questionnaire data for panelists, totaling 45 panelists in the non-expert category using 4 aspects, including: color, aroma, texture and taste in 3 experimental formulations. The total for the color aspect in the 3 experimental formulations got a score of 3.5 with conclusions tending to Like, the total for the aroma aspect in the 3 trial formulations got a score of 3.5 with conclusions tending to Like, the total texture aspect in the 3 experimental formulations got a score of 3.4 with the conclusion tend to like, the total aspect of taste in the 3 experimental formulations gets a score of 3.3 with conclusions tending to like.

Based on the results of the sponge cake product questionnaire research with the added ingredient of rose petal powder, a total of 41.4 results were obtained which were in the Like category, with the lowest indicators for the questionnaire questions being on the Texture (P1) and Taste (P3) aspects with a score 3,3. As for the highest score is on the Aroma (P1) and Color (P2) aspects with a score of 3.6. The results of the study showed that the panelists were interested in the experimental formulation of sponge cake with a mixture of rose petal powder. Of the 3 experimental formulations in the manufacture of sponge cake which was added rose petal powder from the panelist data that had been taken, the panelists liked the

P2 formulation product. Judging from the 3 aspects between P1, P2 and P3 listed in the data table above.

5. CONCLUSION

Based on the results of research conducted by the author with the title "Substitution of Rose Petals in Making Sponge Cake" the following results are obtained: From the experimental results of rose petal powder in making sponge cake it turns out that rose petal powder can be used as an additional ingredient for making sponge cake. Based on the test results of 3 formulas for making sponge cake using different rose petal powders, namely (15% rose petal powder and 75% wheat flour), (30% rose petal powder and 60% wheat flour), and (45 % rose petal powder and 45% wheat flour) it can be concluded that the formulation used by the author in processing sponge cake made from rose petal powder additives gets good results. Judging from the mean, median, mode and standard deviation values that have been obtained from the results of calculations and distributing questionnaires to non-expert panelists. For non-expert panelists, it can be concluded that the overall sponge cake product has a total value of 41.4 with an average value of 3.45 and the most preferred value is P2 (30% rose petal powder and 60% wheat flour) with a total value of 14 with a average 3.5. Whereas sponge cake made from a mixture of rose petal powder can be accepted with a score dominated by the like category from the aspects of Aroma, Color, Texture and Taste.

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