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RESEARCH ARTICLE

The Influence of The Physical and Organoleptic Characteristics of The Trambulang

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ABSTRACT

Red rice is a food material containing carbohydrates and a large source of calories. Red beans contain one of the vitamins and minerals needed by the human body, vitamin A, vitamin C, calcium and iron substances. Processing of red beans is a way to store and preserve red beans to make a dose of trembulang. The dose of trambulang is a material made from a bag of ut flour mixed with a dry red rice leaf, previously the rice harvests the mihis and then the continuation of the machete is a type of lanque food that occurs in the volume of increase and form the product after the process of the break. The objective of this research was to find out how the use of red beans is converted into red beans with rice flour into physical and organoleptic characteristics of the dose of trambulang. The method used in this research was the experimental method and the design used in this research was the Randomized design completed (RDC) And the treatment used is 5 times and each treatment is repeated 3. The treatment used was the replacement of red rice and rice flour with the formulation of the material for the replacement of rice flour with 50 grams, 75 grams, 100 125 and 150. While the red beans were 250grams, 225 grams, 200 grams, 150 grams. The research results show that there is a significant influence on the replacement of red rice and rice flour on the physical and organoleptic characteristics of the trambulang dose which has a significant influence on color and smell parameters. The uninfluenced parameter is the test parameter with the texture parameter. The results of the analysis of the best treatment were the treatment with the replacement of 150 gr of red rice with 150 gr of rice (F5T5) with its average value score; 4.8, color, 4.22, taste, 4.33 test and 4.3 testes. This treatment can use its revenue as a recommendation for making a better dose of trambulang..

INTRODUCTION

Timor-Leste has the potential to be available for food as a source of large carbohydrates, in addition to providing other sources of carbohydrates from umbilical types such as feces. A large source of carbohydrates and calories (energy) is the body's body (Ipomea batatiñas L). The liver also contains carbohydrates that classify the fourth number after rice, corn and pharine. Other substances of feces include vitamin C, vitamin B6 (piridoksin) which has an important role for the immunological system (tupus) and the mineral content of feces such as phosphorus, calcium, manganase, iron and fiber substances that can be mixed to absorb a large amount of fat / colestrol in human blood (Reifa, 2005).

The leaf has different types of roots, such as the yellow one. Red rice is a food material containing carbohydrates and a large source of calories. Red beans contain one of the vitamins and minerals needed by the human body, vitamin A, vitamin C, calcium and iron substances. A source of energy contained in red beans in the form of sweet salt and carbohydrates. In addition, red beans contain a kind of substance Called antosianin. The anthocyanin content for red beans, the primary material is approximately 14,68- The red leaf increases its redness, so that the antosianin content is also large (Hutabarat 2010).

The objective of this research was to find out how the use of red beans is converted into red beans with rice flour into physical and organoleptic characteristics of the dose of trambulang.

The red leaf (Ipomea batatiñas var Ajamurasaki) contains a larger antoxianin pigment than any other type of leaf. It is a good pigment when compared to antoxyanin from other sources such as red ropels, elderberry, blueberries, and red corn (Kumalaningsih, 2007).

The red leaf began to be known to spread throughout the world, especially to the tropical climate. In the 16th century an estimated first-time red bean in Spain through Tahiti, in the islands of Guam Fiji.

Red rice processing is a way to store and preserve red rice. The plant is the same as the breakage whose water chain decreases to almost 7 percent (Sarweno, 2005). The red hair is shaped like a normal pharyn and white but then the color of the water becomes old.

Nurdjanah and Yuliana (2013), stated that red beans with the Ahamurasaki variety contain antosianin with a value of 63,15 mg / 100 g, while the results of a research by Ningsih (2015), total antiosianin red beans with a value of 18,1-25,7 mg / 100 g depends on the duration of the refrigerant (long time cooling). Arianingrum (2014) states that the duration of storage of red rice leaves in some parts has a certain duration of almost three months.

Red beans are converted into rice and will be easier for the beneficiaries to be either food industry materials or non-food (Murtiningsih and Suyanti, 2011). Richana (2012), stated that the red rice is a product of rice that can be finished (if it is a jade) which can be used as raw materials in the food industry and can be stored for a long time.

The dose of trambulang is a material made from a bag of wheat flourt mixed with a dry piece of rice, previously the harvest of mass and then the continuation of the soft food which occurs in increasing volume and forming the product after the process is done. (Irfansyah, 2001: 15).

The dose of trambulang is also a type of soft food that occurs with an increase in volume and the shape of the product that has a low density during the sneezing. Basically the dose of trambulang is produced through the process of sneezing or heating (gas comfort) at the sneezing stage, and then molten and cooled. This dose is made of a large-sodium material.

METHODOLOGY

The materials used in this research are materials of good quality, as well as hygiene, namely:

1. Sweet potato Flour
2. Wheat flour
3. Sugar
4. Hot water
5. Milk
6. Salt
7. Sachromeyces cereveciae
8. Vanila
9. tbm / sp
10. Egg
11. Margarine.

Equipment

The equipment used in this research is the following:

1. Spoon

3. Electric stove
4. Press clothes

5. Digital scale

6. Plate

7. Packaging.

7. Emblee.

The method used in this research is the experimental method and the design / design used in this research is And the treatment used is 5 times and each treatment is repeated 3. The treatment used is the replacement of red rice and rice flour. Treatment and research design are as follows: FU1TU1 Red rice 50 grams:

The variable used in this research is: physical and organoleptic characteristics, for the level of preference consisting of color, smell, taste and text dose of trambulang red rice with the use of the hedonic method (text score scale) with 15 panelists representing consumers (Soekarto, 1985). Hedonic testing is one of the most widely used tests to measure the level of preference for a product. This level of preference is called hedonic scale, for example, taste, taste, little taste, little taste, too low.

RESULT AND DISCUSSION

Description of Research Results for better treatment

Based on the research findings on the influence of the replacement of red rice with rice flour on physical and organoleptic characteristics of the dose of trambulang, it was assumed that between four (4) parameters of color, smell, taste and text that were analyzed obtained the result of the color and smell parameters significantly influenced the scale of consumer preferences represented by 15 panelists.

The research findings show that the best treatment of the trambulang dose product that is separated from the consumer observation is represented by 15 panelists for the observed parameters, note that the best trambulang dose is the treatment with the replacement of red rice 150 gr: 150 gr: 150 gr (F5T5). For more details see table 4.1 below.

Treatment	Organoleptic Test				Total
	Color	Flavour	Test	Texture	
F1T1	3.33	3.73	3.80	3.64	14.50

F2T2	3.87	3.82	3.91	3.69	15.29
F3T3	4.04	4.20	4.24	4.11	16.59
F4T4	4.11	3.84	3.87	4.04	15.86
F5T5	4.18	4.22	4.33	4.13	16.86*

Justification: * The best treatment.

Based on the results of the analysis of organoleptic data from the determination of the best treatment using color, smell, test and texture parameters in the five (5) treatments, the results showed that the color parameter with a value of 4.18 (F5T5), the smell parameter with a value of 4.22 (F5T5), the test parameter with a value of 4.33 (F5T5) and the texture parameter with a value of 4. This treatment can use its revenue as a recommendation for making a better dose of trambulang.

ORGANOLEPETIC TESTS FOR COLOR TRAMBULANG

According to Soekarto (2002), color has an important role for food products with the concept of willingness, quality attributes and signs of knowledge. Among other characteristics of food products. The color has factors that attract the consumer's Attention and faster the delivery of messages likes or does not like it.

From the results of the organoleptic test on the consumer preference scale representing 15 panelists it is indicated that the average value of organoleptic test for the color of the dose of tran bulan with its value score from 3.33 to 4.8. The scale of consumer preferences for the lower dose of trambulang is shown in the first treatment (F1T1) with its composition of 50 gr of red rice material: 250 gr of rice which results in an average value of 3.33. While the scale of consumer preferences for the larger trambulang dose color is shown in the fifth treatment (F5T5) with its composition of 150 gr red rice material: 150 gr rice flour which results in an average value of 4.8.

Based on the data from the analysis of the results (Anova) on organoleptic test of the trambulang dose color (For more details, see the average organoleptic test value for the color of the dose of trambulang shown in table 4.2 below:

	Middle Value	Notation	a real difference of 5%
F1T1	3.33	a	
F2T2	3.87	ab	
F3T3	4.04	ab	0.42
F4T4	4.11	b	

F5T5	4.18	b

Justification: The different letters in the notation column show that, in real different treatment between treatment at a significant level of 5%.

From the above- mentioned BNT 5% of the results show that the replacement of red rice rice in small quantities has a result starting from the level of disappreciation to the color of the dose of the trambulang because it gives a color of the dose of the trambulang is black and so the panelist representing the consumer does not like it because it does not show the original color of the dose of the trambulang. Therefore, if the amount of red rice continues to decrease, it will result in a poor color dose of trambulang. However, the amount of red rice replacement increases so it shows the original color of the dose of the trambulang so the consumer representing the panelist likes the color of the dose of the trambulang.

ORGANOLEPETIC TEST FOR DOSE TRAMBULANG

According to Tranggono, When a food product gives a good smell in the nose then it is possible that the consumer will like it, as well as when a food product gives a poor smell in the nose then the consumer may not like it.

From the results of the organoleptic test to the scale of consumer preferences representing 15 panelists it is indicated that the average value of organoleptic tests for the smell of the dose of trambulang with its value score from 3.73 to 4.22. The scale of consumer preferences for the lower dose of trambulang smell is shown in the first treatment (F1T1) with a composition of 50 gr of red rice: 250 gr of rice which results in an average value of 3.73. While the scale of consumer preferences for the largest dose of trambulang smell is shown in the fifth treatment (F5T5) with its composition of red rice 150 gr: 150 gr of rice which results in an average value of 4.22. Based on the data from the research (Anova) on organoleptic tests for the smell of the trambulang dose (For more details, see the average organoleptic test value for trambulang smell shown in table 4.3 below:

Table 4.3: Middle Value Results and Organoleptic Test Notation for Dose Trambulang.

Treatment	Middle Value	Notation	a real difference of 5%
F1T1	3.73	a	
F2T2	3.82	a	
F3T3	4.20	ab	0.40

F4T4	3.84	a
F5T5	4.22	ab

Justification: The different letters in the notation column show that, in real different treatment between treatment at a significant level of 5%.

From the above- mentioned BNT 5% of the results show that the replacement of red rice which has a small amount (a small amount) results from the level of disappreciation to the smell of the dose of the trambulang because it gives the smell of the dose of the trambulang iis moot so that the panelist representing the consumer does not like it because it does not show the original smell of the dose of trambulang so if it continues to reduce the amount of red rice regularly then it will result in a bad smell of the dose of trambulang. However, the amount of red rice replacement increases so it shows the original smell of the dose of the trambulang so that the consumer representing the panelist likes it too much for the smell of the dose of the trambulang.

ORGANOLEPTIC TEST FOR TEST DOSE TRAMBUNLAN

According to Tranggono When a food product is tasted in a person's tongue then it will be From the research data on the Variance Analysis (Anova) organoleptic test of the trambulang dose sabor (Anexo 1.3) shows that the replacement of the treatment of red beans with rice flour to the trambulang dose sabor does not have a significant influence (noun significant). For more details, see table 4.4 below.

SU	FD	NS	CS	CF	TF	
					5%	1%
Treatment	4	3.48	0.87	1.99^{LI}	2.50	3.60
Error	70	30.56	0.44			
Total	74	34.04				

Justification: NI = Not Influenced (P > 0,05).

* = Influence (P < 0,05).

* = Influensia Makaas (P < 0,01).

Because the F.Accounting value is lower than F.Table (1.99 < 2.50), acceptance of H0 means that of the five (5) treatment on the test of all potential trambulang dose is equal. The cause is because the taste resulting from the five treatments is very sweet so that the

15 panelists representing the consumer are very difficult to distinguish the taste of the dose of the trambulang between one treatment and another.

ORGANOLEPTIC TEST FOR THE TRAMBULANG

According to Moehyi The text is also a food component that determines the taste of food because sensitivity a sense of taste influenced by solid or cantal consistency will give a longer view of the sense of being. Food consistency also influences the form of food that people want.

From the research data on the Variance Analysis (Anova) organoleptic test of the trambulang dose sabor (Anexo 1.4) it is shown that the replacement of the red rice treatment with the trambulang dose test was not significantly influenced. For more details, see table 4.5 below:

SU	FD	NS	CS	CF	TF	
					5%	1%
Treatment	4	3.40	0.85	2.10^{LI}	2.50	3.60
Error	70	28.28	0.40			
Total	74	31.68				

Justification: NI = Not Influenced (P > 0,05).

* = Influence (P < 0,05).

* = Influensia Makaas (P < 0,01).

Because the F.Account value is lower than F.Table (2.10 < 2.50), acceptance of H0 means that of the five (5) treatment on the text of all the potential dose trambulang the same. The cause of the testes as a result of the five treatments was the child plant because of lack of glucose which was less maximal so the testes of the mucous dose trambulang and the breakage of the child which made it difficult for the 15 panelists to distinguish the testes of the dose trambulang between one treatment and another.

CONCLUSION

Based on the research results from the replacement of red rice with flour for physical and organoleptic characteristics the dose of terambulang is taken as follows:

1. Ho the replacement of red rice and flour with the amount of gram launched for the physical and organoleptic characteristics of the terambulang dose has a significant influence on the two (2) parameters, namely the color and smell parameters for the scale of consumer preferences represented by 15 panelists.

2. The replacement of red rice leaves may have replaced a portion of the grain function for the dose of terambulang.

As a result, the following are the best formulations based on organoleotic tests with the following characteristics of color, smell, taste and texture: 150 gr red beans, 150 gr flour, 65 gr sweet salt, 400 ml hot water water, 12 gr milk, 0.1 gr sodoi dose, 0.1 gr scochromyces cereviceae, 0.1 gr vanila, 10 gr TB, This formulation can use its revenue as a recommendation for making a better dose of Terambulang.

REFERENCES

1. Anonymous, 2020. Functions of the Ingredients Used in Cake Making. http://writecooklove.blogspot.com/2011/01/. Accessed on May 6, 2020. Anonymous, 2020. Advantages of Powdered Vanilla for Baking Cakes, Check out the usage instructions. https://mm.mommyasia.id/9244/article/. Accessed on May 6, 2020.
2. Arianingrum, A. 2014. The Effect of Partial Gelatinization on the Shelf Life of Purple Sweet Potato Flour. (Thesis). University of Lampung. Bandar Lampung. 103 pages. Bogasari. 2011. About Wheat Flour. http://www.bogasari.com Accessed on May 5, 2020. Crosby, Philip B. 1979. Quality is Free: The Art of Making Quality Certain. New York.
3. Damanhuri. 2005. Inheritance of Anthocyanins and the Response of Sweet Potato Clones (Ipomea batatas L.) to Growing Environment. [Dissertation]. Malang. Graduate School, Brawijaya University.
4. Directorate of Nutrition of the Ministry of Health of the Republic of Indonesia. (1981). List of Composition of Materials. Bharatara Kayra Aksara, Jakarta. Edwin Aleksander, et al. 2014. Substitution of wheat flour with pumpkin flour on the physical and organoleptic properties of muffins. (Thesis). Faculty of Agricultural Technology, Catholic University of Widya Mandala Surabaya, Indonesia. Endah Wijayanti, 2018.Understanding Cake Emulsifiers (Ovalet, TBM, and SP). http://Fimela.com. Accessed on May 6, 2020.
5. Fernandes Francisco, 2013. Study on the effect of sugar and yeast concentration on the quality of sweet potato pancakes (Ipomea batatas L.) (Thesis). Department of Food Processing Technology, Faculty of Agricultural Technology, Universidade Da Paz-Rua Osindo I Manleuana Dili Timor-Leste. Gisslen. 2013.
6. Essentials of Professional Cooking. John Wiley & Sons, Inc. New Jersey. Hardoko, Liana Hendrato, and Tagor Marsillam Siregar. 2010.
7. Utilization of Purple Sweet Potato (Ipomea Batatas L. Poir) as a Partial Substitute for Wheat Flour and Source of Antioxidants in White Bread.

8. Hardoko, Liana Hendrato, and Tagor Marsillam Siregar. 2010. Utilization of Purple Sweet Potato (Ipomea Batatas L. Poir) as a Partial Substitute for Wheat Flour and Source of Antioxidants in White Bread. Journal of Food Technology and Industry, Vol. XX1. No. 1. pp. 25-32.
9. Hernanto, J. 2014. Physicochemical Properties of Modified Purple Sweet Potato Flour through Various Heating Durations. (Thesis). Lampung University. Bandar Lampung. 76 pp. Hidayat, N. and Ikariztiana, K. 2004. Making Jelly Candy. Surabaya: Trubus Agrisana Publisher. Irfansyah, 2001. Physicochemical and Functional Characterization of Sweet Potato Flour (Ipomea batatas L) and Its Utilization for Making Crackers. (Thesis). Graduate Program, IPB, Bogor.
10. Kumalaningsih, S. 2007. Natural Antioxidants. Trubus Agrisarana Publisher Surabaya. Food. Jakarta.
11. Meyer, L. H. 1982. Food Chemistry. The AVI Publishing Company Inc. Westport. Mudjajanto, Eddy setyo and Yulianti, Lilik Noor., 2004. Making Various Breads. Penebar Swadaya, Jakarta. Neltriana, N. 2015. The Effect of Cattle Manure Fertilizer Dose on the Growth and Yield of Sweet Potato (Ipomea Batatas L.) (Thesis). Padang. Andalas University.
12. Nurdjanah, S, and N. Yuliana. 2013. Production of Physically Modified Purple Sweet Potato Flour using a Rotary Drum Dryer. First Year Competitive Grant Research Report. Dikti. University of Lampung. Nurhidayati, T. 2003.
13. The Effect of Enzyme Concentration Santosa Hery, et al. 2015. Modification of Purple Sweet Potato Flour (Ipomoea Batatas L. Poir) Using Heat Moisture Treatment (HMT) Method as a Raw Material for Instant Noodle Production. (Thesis).
14. Department of Chemical Engineering, Faculty of Engineering, Diponegoro University Indonesia. Sarwono, 2005. Sweet Potato. Penebar Swadaya, Jakarta.
15. Sastrosupadi, Adji. 2000. Practical Experiment Design in Agriculture. Kanisius: Yogyakarta.Setiawan Samhis, 2019. General Characteristics and Food Security and Its Explanation. https://www.gurupendidikan.co.id/ , 2020.
16. Soekarto. 1990. Organoleptic Assessment for the Food Industry and Agricultural Products. Jakarta: Bhatara Aksara.
17. Soeparno. 2011. Science of Nutrition and Meat Diet. Gadjah Mada University Press, Yogyakarta, pp. 53-54.
18. Sudaryani. 2003. Egg Quality. Penebar Swadaya. Jakarta.Papain and Fermentation Temperature on the Quality of Cottage Cheese. KAPPA 4 (1): 13-17.
19. Pratama Angga Eka et al. (2019). Supplementation of catfish flour (Clarias gariepinus) to increase the protein content in mooncake. (Journal). Vol 1. Fisheries Study Program, PGRI University Banyuwangi.
20. Rahayu, W.P. 1998. Practical Guide for Organoleptic Assessment Practicum. Faculty of Agricultural Technology Bogor. Bogor Agricultural Institute. Bogor. Reifa, 2005. Sweet Potatoes Health Benefits for Eyes and Heart and Cancer Prevention, Kartini Magazine Number: 2134. Rukmana, 1997. Sweet Potato Cultivation and Post-Harvest. Kansius Yogyakarta.
21. Supadmi, S. 2009. Study of Sweet Potato Variations (Ipomoea batatas L. tterns (Thesis). Surakarta: Master of Biosciences. Sebelas Maret University.
22. Suprapti, M. Lies. 2003. Sweet Potato Flour: Production and Utilization. Kansius: Yogyakarta. Suryati, L. 2014. The Effect of Heating Duration in a Rotating Heater

on the Appearance of Starch Granules, Anthocyanin Content, and Anthocyanin Capacit.