ORGANOLEPTIC TEST OF NOODLE FROM BROWN SEAWEED EXTRACT SUBTITUTION

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ABSTRACT

The research was distributed by the utilization of the Brown seaweed in food processing have not been there. This research aimed to analyze the influence of Brown seaweed extract to the quality of noodle in terms of colour, aroma, texture and taste. The type of research was true experimental by using single random design method. The type of the data being used is the primary data sourced from 30 panelists by filling the organoleptic format towards the sample. The data already acquired and then tabulated in the form of tables and done the analysis Variant (ANAVA). If different real continued with further test Duncan. Results of the study showed there was significant influence between the 0%, 5%, 10%, 15%, 20% dan 25%, and substitution of Brown seaweed extract against noodle namely quality on the quality of color and texture. Quality distinctive scent of chicken meatballs, fibrous texture is smooth and savory flavor has no effect on the quality of the noodle. The results of the quality of the noodle best is 25%.

KEYWORDS: *brown seaweed, noodle , The Quality Of Organoleptik*

1. INTRODUCTION

Noodle is a type of food that is liked by the community in various circles. Children to adults like noodles and not see about people's society status. noodle is very easy and practical to be processed and consumed and it is very popular. Therefore is not surprising that noodles become one of the favorite foods. Noodle has a high value and practical presentation and is not only suitable for the Indonesian tongue but also abroad.

Noodles is one of the main foods in Asia, half of the amount of flour almost made to become noodles (Miskelly, 1993; YehandShian, 1999). Noodles in Asia are sold in raw, wet, dry, or instant. Color, cooking method, texture and taste are important factors that influence consumer, consumer acceptance of the quality of noodles in Asia (Moss, 1971 or Nagao et al., 1997) Noodle has become one of alternative food substitutes for rice in Indonesia. This is very beneficial, if see from the point of view of diversification of food consumption, because food consumption depends not only on rice.

Generally, noodles means that is flat food with a diameter of 0.07-0.125 inches, made from wheat flour with the addition of water, eggs, and water ash through the process of wet extrusion. Wet noodle is a moisture content of 25-35% (Badrudin, 1994) in Yustiareni (2000). Anonymous (1992) defines that wet noodles are food products made from flour with or without the addition of oleic ingredients, and food additives are permitted, noodle haven't a wet condition, and have a maximum moisture content of 35%.

Elasticity and noodle texture can be improved by using food additives (Cariniet al.2009). Several food additives (BTP) used in the manufacture of noodles among others gum (Charles et al. 2007), enzymes (Wu and Corke,

2005), isolates and soy protein, casein, chitosan and pregelatinized starch (Chillo et al.2009), xanthan gum, guar gum, locust bean gum, konjakglukomana and hydroxypropyl methylcellulose (Silva et al., 2013). However, there is no library of brown seaweed extract in making noodles.

Brown seaweed contains alginate compounds which is a part of the cell wall in seaweed that is found in brown algae. The content of alginate in seaweed depends on the type of seaweed (Setiawan, 2004). The function of alginate are thickener, emulsion, suspension stabilizer, covering, fastener, and gelling (Wiwin, 2008). Alginate also has been proven to strengthen mucus, the natural protection of the intestinal wall, can slow digestion, and alginate contains high fiber, contains important minerals, easy to digest, taste, and safe.

In this Research, to determining the amount of seaweed extract that used in making noodles is doing a preliminary research. Based on the results of pre-research that has been done by the author, the amount of brown seaweed extract used as much as 0%, 5%, 10%, 15%, 20% and 25% have result of good quality noodles. The purpose of this research was to analyze the effect of using seaweed extract as 0%, 5%, 10%, 15%, 20% and 25% to the color, smell, texture and taste of noodles.

2. METHODS

The type of research conducted was pure experiment (true experiment). This research was conducted in August 2017 at the Cullinary Art's Workshop, Family Welfare Science, Faculty of Tourism and Hospitality, Universitas Negeri Padang. The independent variables were brown seaweed extract (0%, 5%, 10%, 15%, 20% and 25%). The dependent variable is the quality of the noodles. Primary data was sourced from 30 panelists with organoleptic test format and sample by using complete randomized design method with three repetitions. Datas were analysed by anava, if significantly different followed by Duncan test.

The ingredients needed in making afkir chicken meatballs were : afkir chicken, tapioca starch, rice flour, ice cubes (control), brown seaweed extract, garlic, pepper, sugar and salt. While the tools used are tools for cooking and organoleptic analysis.

Implementation stage is the process of preparing materials that have been prepared and weighed in accordance with the recipe. Material processed with work steps that have been determined so that no errors in the process of making afkir chicken meatball, as for the flow diagrams making the process of making afkir chicken meatball is as in Figure 1.
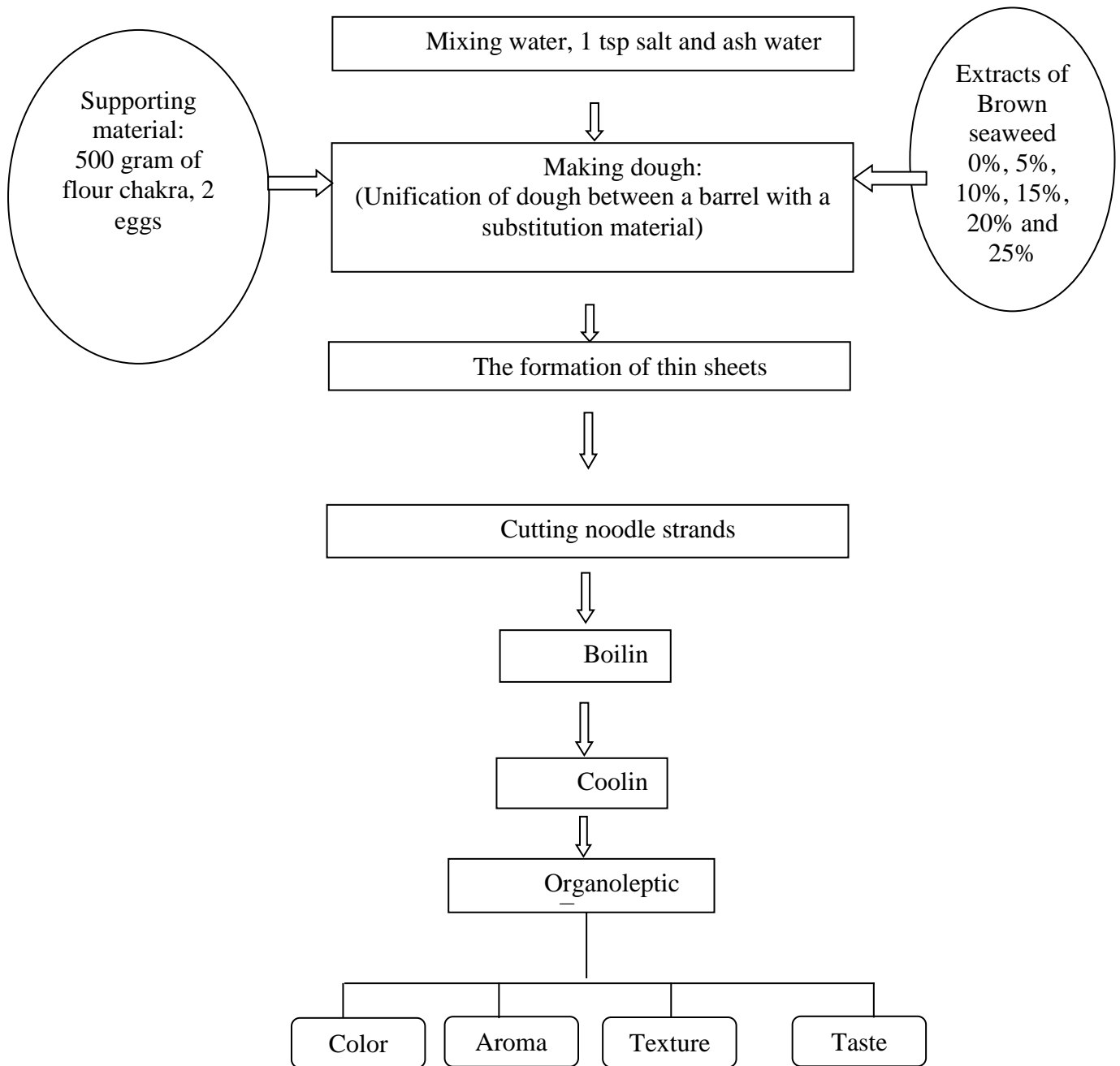
FPP-UNP

Mixing water, 1 tsp salt and ash water

Supporting material:
500 gram of flour chakra, 2 eggs

Making dough:
(Unification of dough between a barrel with a substitution material)

Extracts of Brown seaweed 0%, 5%, 10%, 15%, 20% and 25%

The formation of thin sheets

Cutting noodle strands

Boilin

Coolin

Organoleptic

Color | Aroma | Texture | Taste

Figure 1. Noodle Making Process

3. RESULT AND DISCUSSION

3 1. Result

Based on the organoleptic test that has been done on the quality of noodles that include the quality of color (cream), aroma (brown seaweed extract, fragrant), texture (chewy, not easy to break) and taste (savory). Then obtained the average of each quality or research results like Figure 2 .
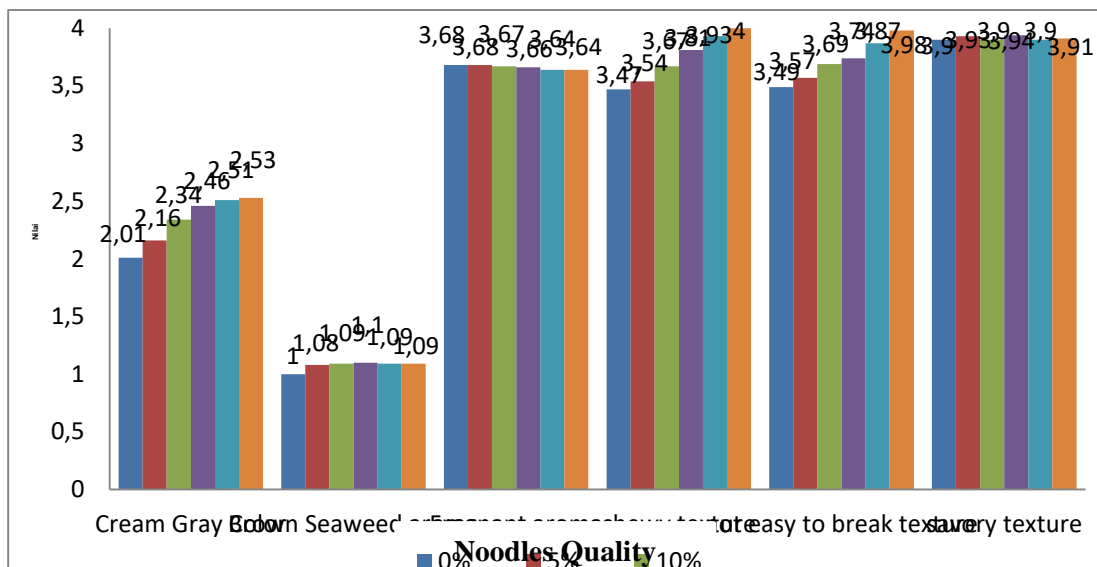
Figure 2. Result of Noodle Organoleptik test

Based on Figure 2 it can be explained that : quality color with an average value range of 2,01-5,53 with category enough colored creamy that mean more and more substitution of brown seaweed extract so that increasing value of cream color on noodle. Quality of brown seaweed aroma with an avarage value range of 1,00-1,10 with category not flavorful of brown seaweed , it's mean brown seaweed extract substitution do not give a real effect to quality of noodle aroma. Quality of fragrant arom with an avarage value range of 3,64-3,68 with category enough fragrant , it's mean brown seaweed extract substitution do not give a real effect to quality of noodle aroma. Quality of chewy texture with an average value range of 4,47-4,00, with chewy category it's mean brown seaweed extract substitusion give a real effect to chewy texture quality on noodle. Texture quality not easy to break with an avarage value range of 3,49-3,98 with category not easy to break mean more usage of brown seaweed extract then making more noodle texture more and more not easy to break. Quality of savory with an avarage value range of 3,90-3,94 with category of savory mean brown seaweed extract substitution do not give a real effect to noodle quality .

Based on the explained in Figure 2 that insignificant effect on brown seaweed extract substitusion is brown seaweed aroma , fregrant aroma and savory taste no real different. Whereas for quality of cream color , chewy texture and not easy to break have real different so need to do Duncan's advanced test can be seen in table 1 :

Table 1. Result of Duncan's Advanced Test Quality Chicken Meatball Afkir

No	Indicator (quality)	Sample Value					
		X0	X1	X2	X3	X4	X5
1	Cream color	2,01d	2,16c	2,34b	32,46a	2,51a	2,53a
2	Chewy texture	3,47e	3,54d	3,67c	3,81b	3,93a	4,00a
3	Not easy to break texture	3,49e	3,57d	3,69c	3,74c	3,87b	3,98a

Information : different number behind number explain the real different

3.2 Discussion

1) Color

Noodles consist of one sub indicator, the beige color in which Ho is rejected means there is a significant influence in terms of color on the quality of noodles with substitution of brown seaweed extracts. It is seen in Figure 1 that the treatment without using chocolate seaweed extract is quite different with the use of brown seaweed extract as much as 25%. The best result of the beige color is found in the treatment of X5 (2,53). This not-so-significant difference occurs because the use of brown seaweed extract is not very high. The higher the use of brown seaweed extract, the more it gives a different effect. According to Winarno (2004: 171) argues that a good nutritious, tasty and have excellent texture, will not be eaten if it has an unsightly color or gives the impression that it has deviated from its intended color. The color of this noodle will attract appetite for people who will enjoy it.

2) Aroma

This indicator consists of two sub indicators namely the aroma of brown seaweed and aroma of fragrant. The results of both sub indicators indicate Ho is accepted which means there is no significant difference effect on the quality of noodles. Aroma of the highest brown seaweed was found in the treatment of X4 (1,10) and for the fragrant aroma quality for the best result was found in the treatment of X1 and X2 (3,68).

Aroma is something that is issued by a food that is able to stimulate the sense of smell so that the generation of one's appetite. According to Moehyi (1992: 99), "The aroma of food is a very strong attraction and able to stimulate the sense of smell to arouse the taste".

Aroma is one of the parameters that affect the perception of taste delicious from a food. Aroma is a typical odor that is issued by a food that is stimulated through the sense of smell that can increase appetite. Smell or aroma can be used as a sign of whether or not a food is good. The aromas of the food vary, depending on the ingredients and the cooking technique.

3) Texture

This indicator consists of two indicators namely the chewy texture express Ha accepted means there is a significant influence on the quality of chewy texture in noodles. The best result of the chewy texture is at X5 (4,00). Based on research the quality of texture in the noodles can be expressed the greater use of brown seaweed extracts then increasing the texture of chewy noodles produced. According to Deasy Anwar (1995 : 1024) that: "Texture is the size and arrangement or network of union of parts of something so forming an object."

Indicator is not easy to break that Ha accepted means there is a significant effect on the quality of noodles. The best results are in X5 (3.98) with the category not easily to be broken.

4) Taste

Indicator taste of noodles stated Ho accepted means there is no significant effect on the quality of noodles. With the highest ANAVA result is in X4 (3,94). The expected taste of this research is the savory taste of the noodles. Taste is a sensation that results from the combination of ingredients and composition in a food product by the taste bud. According to Mike in Dia (2007: 17), "Taste is a factor that determines the quality of food after the appearance of the food itself. Taste is a desired taste image depending on each taste."

4. CONCLUSION

The results of organoleptic tests show that the quality of color and texture is chewy and not easy to broken is really different, while the quality of smell and taste is not significantly different. The noodle quality of the substitution of the best brown seaweed extract is 25%. The highest score of color (cream) indicator was found in the treatment of 25%, the highest score of scent indicator (brown seaweed) was found in the 15% treatment, the highest score of smell indicator was found in 5% and 10% treatments. The highest score of texture (chewy) indicator was found in the 25% treatment, the highest score of texture indicator (not easy to break) was found in the 25% treatment and the highest score of taste indicator (tasty) was 15%

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