
**EVALUATION OF ORGANOLEPTIC PUDDING MORINGA LEAF (*Moringa oleifera*)
BASED ON VARIATIONS ADD SUGAR**

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ABSTRACT

Moringa plant is a multipurpose plant that contains many important nutrients needed by the body such as calcium, vitamin B, vitamin A, vitamin C, protein and potassium. Based on this nutritional content, Moringa plants can be processed into vegetable products, namely budding products that are useful and nutritious. To gain acceptance regarding the preferences of consumers or the public in liking a food or beverage product, it is necessary to carry out an organoleptic test. The aim of this research was to determine the organoleptic quality of pudding products made from *Moringa oleifera* leaves based on variations in the addition of 100gr, 150gr and 200gr sugar. The method used is descriptive research to analyze the level of liking for pudding products. The research results showed that the organoleptic tests on pudding products made from Moringa oleifera leaves were different based on variations in the addition of 100g, 150g and 200g sugar. The variation in adding 100g of sugar shows the organoleptic results of the pudding product with a rather attractive color, slightly sweet taste, soft texture and a somewhat distinctive Moringa aroma. The variation in adding 150g of sugar shows the organoleptic results of the pudding product with a rather attractive color, sweet taste, soft texture and a somewhat distinctive Moringa aroma. The variation in adding 200g of sugar shows the organoleptic results of the pudding product with a rather attractive color, sweet taste, soft texture and a distinctive Moringa aroma.

Keywords: *moringa, pudding, sugar, organoleptic*

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INTRODUCTION

Indonesia, as a tropical country, has a diversity of flora that has great potential to be developed in the world of medicine, including antioxidants. One type of plant that is thought to be an antioxidant is Moringa (*Moringa oleifera*). The Moringa plant has been known for centuries as a multipurpose, nutrient-dense and medicinal plant. Moringa is known as The Miracle Tree or miracle tree because it has been proven to be a natural source of nutrients with medicinal properties whose contents are beyond the usual content of plants in general (Toripah, 2014). The Moringa plant is a shrub with a height of 7-11 meters and grows abundantly from the lowlands to a height of 700 m above sea level. Moringa can grow in tropical and subtropical areas on all types of soil, is resistant to dry seasons with a drought tolerance of up to 6 months and is easy to breed and does not require intensive care (Simbolan and Katharina, 2007). There are several nicknames for the

Moringa tree, including; The Miracle Tree, Tree For Life and Amazing Tree. This nickname arose because almost all parts of the Moringa plant, from leaves, fruit, seeds, flowers, bark, stems, to roots have extraordinary benefits. normal. Besides that, the Moringa plant has several useful contents, so it has the potential to be used in food, cosmetics and industry (Anwar et al., 2007).

The use of Indonesian Moringa plants is currently still limited. People usually use Moringa leaves as a complement to their daily cooking, and quite a few even use Moringa plants only as ornamental plants that grow on the terraces of houses, even in several regions in Indonesia. Moringa leaves are mostly used for bathing corpses, shedding amulets, and as animal feed (Dewi et al., 2016). Moringa leaves contain important substances needed by the body, namely: Calcium, Vitamin B, Vitamin A, Vitamin C, Protein and Potassium (Suwahyono, 2008). Along with the development of information, there are also developments and changes in people's lifestyles, including lifestyle in choosing the type of daily food menu. The large variety of food choices makes the leaves of the Moringa plant a heritage food that is sometimes abandoned. Considering the very diverse functions and benefits of the Moringa plant, both for food, medicine and the environment, information regarding the benefits of the Moringa plant needs to be widely disseminated to the public, so that it can be widely cultivated and utilized optimally (Wihastuti, 2007). Based on description that has been stated above, the aim of this research is to determine the organoleptic quality of Moringa Leaf Pudding (Moringa oleifera) Based on Variations in Sugar Addition.

METHODE

The type of research used is descriptive analyze the level of preference for pudding products made from Moringa oleifera leaves. Make Moringa leaf pudding at the researcher's house. Organoleptic tests were carried out on 15 panelists in the Biology Education Study Program consisting of 5 lecturers and 10 students with an assessment form in the form of a questionnaire.

Procedure

1. Sample Preparation Stage (Make Moringa Leaf Juice)
 - a. Samples were take in Halong Village, Baguala District
 - b. Separate the Moringa leaves along with the stem
 - c. Moringa leaves are washed until the surface is clean.
 - d. Collect as many leaves that have been removed from the petiole as needed
 - e. Then cook the Moringa leaves with 1000ml water
 - f. After boiling then remove from heat and strain
2. Pudding Making Process
 - a. Prepare a pan, then add the ingredients that will be used for each treatment used (100gr, 150gr and 200gr sugar)
 - b. Turn on the stove. Use low heat. Place the pan on top
 - c. Then stir, so that the sugar doesn't stick to the pan. Do this for approximately 15 to 17 minutes

Data Analysis

The data from this research will be analyzed descriptively using organoleptic tests in the form of color, aroma, taste and texture. Where these data are converted into numbers (organoleptic test).

DISCUSSION RESULT

Organoleptic testing on pudding products made from Moringa oleifera leaves based on variations in added sugar was carried out by 15 panelists. The parameters assessed in the organoleptic test on pudding food products made from Moringa oleifera leaves are based on variations in added sugar, namely, color, texture, taste and aroma.

a. Color

Color is one of the parameters used to test the panelists' level of preference for pudding food products made from Moringa oleifera leaves. Based on the results of organoleptic tests by 15 panelists regarding the color assessment of pudding food products made from Moringa oleifera leaves, it can be explained that the panelists gave different scores. The results of the average assessment value from 15 panelists using the hedonic method through organoleptic testing, the panelists gave a score for the color of the pudding food product made from Moringa oleifera leaves, namely in the treatment of adding 100 gr of sugar to a score of 3.6 (somewhat interesting), in the treatment of adding 150 gr of sugar a score of 3.5 (somewhat interesting) and in the treatment of adding 200 gr of sugar a score of 3.4 (somewhat interesting). The average organoleptic

color results show that the color of pudding food products made from *Moringa oleifera* leaves is in the score range of 3.5, which is quite attractive. Panelists gave different scores to pudding food products made from *Moringa oleifera* leaves which were caused by the addition of water, sugar and agar agar. There was an increase in the assessment score along with the increase in the weight of water, sugar and agar agar provided. For more details, summarize the average organoleptic values for the color of pudding food products made from *Moringa* leaves. The color of a food ingredient is influenced by the light absorbed and reflected from the ingredient itself and is also determined by dimensional factors, namely product color, brightness and clarity of the product's natural color (Rahayu, 2001). Color can be used as an indicator of freshness and ripeness. Whether the processing method is good or not can be indicated by the presence of a uniform and even color (Cahyadi, 2016)

b. Taste

Taste is a stimulus that can be felt by the senses of smell and taste together. Taste is one of the parameters used to test the panelists' level of preference for pudding food products made from *Moringa oleifera* leaves. Based on the results of organoleptic tests by 15 panelists regarding the assessment of the taste of pudding food products made from *Moringa oleifera* leaves, it can be explained that the panelists gave different scores. The results of the average assessment value from 15 panelists using the hedonic method through organoleptic testing, the panelists gave a score to the pudding food product made from *Moringa oleifera* leaves, namely in the treatment of adding 100 grams of sugar at a score of 3 (slightly sweet), in the treatment of adding 150 grams of sugar at a score of 4 (sweet) and in the treatment of adding 200 grams of sugar at a score of 4.4 (sweet). According to Dwiningsih (2010), taste is defined as stimulation caused by the material being eaten, which is felt by the sense of taste or smell, as well as other stimuli such as touch and the reception of degrees of heat by the mouth.

c. Texture

Texture is the cohesiveness of the pudding product which is observed with the sense of touch. Texture is one of the parameters used to test the panelists' level of preference for the quality of pudding food products made from *Moringa oleifera* leaves. Based on the results of organoleptic tests by 15 panelists regarding the assessment of the texture of pudding food products made from *Moringa oleifera* leaves, it can be explained that the panelists gave different scores. The results of the average assessment value from 15 panelists using the hedonic method through organoleptic testing, the panelists gave a score for the texture of pudding food products made from *Moringa oleifera* leaves, namely in the treatment of adding 100 grams of sugar at a score of 3.3 (somewhat typical of *Moringa*), at treatment with the addition of 150 grams of sugar with a score of 3.6 (somewhat typical of *Moringa*) and in the treatment of adding 200 gr of sugar with a score of 3.1 (somewhat typical of *Moringa*). The average organoleptic texture results show that the color of the pudding food product made from *Moringa oleifera* leaves is at a score of 3.3, which is quite typical of *Moringa*. Panelists gave different scores to pudding food products made from *Moringa oleifera* leaves due to the addition of carrageenan. There was an increase in the assessment score along with the increase in the weight of the carrageenan given. Texture can be defined as a sensory image of a product structure which is part of a pressure reaction, measured as mechanical force (such as hardness, adhesive and cohesive power, viscosity, elasticity and crispness) by kinesthetic nerves in the muscles of the hands, fingers, tongue, teeth and lips. . It can also be tactile sensory nerves, which are measured as geometric particles (crystalline shapes, grains, stickiness) by tactile nerves on the surface of the skin of the hands, lips and tongue (Meilgaard, Civille & Thomas, 1999).

d. Aroma

Aroma is the smell produced by chemical stimulation that is smelled by the olfactory nerves in the nasal cavity. Aroma is one of the parameters used to test the sharpness of the panelists' smell regarding the quality of pudding products made from *Moringa oleifera* leaves. Based on the results of organoleptic tests by 15 panelists regarding the assessment of the aroma of pudding made from *Moringa oleifera* leaves, it can be explained that the panelists gave different scores. The results of the average assessment value from 15 panelists using the hedonic method through organoleptic testing, the panelists gave a score for the chewy aroma of pudding food products made from *Moringa oleifera* leaves, namely in the treatment of adding 100 gr of sugar at a score of 4.4 (soft), in the treatment the addition of 150 gr of sugar had a score of 4.3 (soft) and the treatment with the addition of 200 gr of sugar had a score of 3.7 (somewhat soft). The average

organoleptic results show the aroma of pudding food products made from *Moringa oleifera* leaves at a score of 4.1, namely soft. Panelists gave different scores to pudding food products made from *Moringa oleifera* leaves which were caused by the addition of *Moringa* leaf juice. There was an increase in the assessment score along with the increase in the weight of the sugar given. The higher the addition of *Moringa* leaf juice, the pudding's aroma will have a distinctive *Moringa* or unpleasant smell, conversely, the less *Moringa* leaf juice is added, the distinctive smell produced by the pudding product will not be strong or have a very unpleasant aroma (Widawati and Hardiyanto, 2016).

CONCLUSION

It is hoped that the public will use *Moringa* leaves as a pudding product because they have a high nutritional content so they are good and nutritious to consume.

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