

## ***DODOL SICINI FORMULATION WITH EUCHEUMA COTTONII SEAWEED FORTIFICATION***

### ***Formulasi Dodol Sicini Dengan Fortifikasi Rumput Laut Eucheuma Cottonii***

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#### **ABSTRACT**

*Dodol, which belongs to the category of semi-moist foods (foods with intermediate moisture), is immediately consumed due to its sugary, chewy appearance. Seaweed will acquire economic value subsequent to undergoing additional processing, such as the transformation into seaweed dodol. The objective of this study is to differentiate the nutritional and hedonic benefits of Sicini dodol in response to fortification with Eucheuma cottonii seaweed. GOWATE REGION-PERI. This research methodology employs three interventions and three repetitions in an experimental laboratory. Analysis of data employs the Anova test. The water contents of samples A (27.81%), B (35.86%), and C (36.86%) were displayed in the results. Ashes A (1.04%), B (1.40%), and C (1.64%) by weight. The protein concentrations are as follows: A (3.44%), B (3.48%), and C (3.58%). Samples A (7.27%), B (9.26%), and C (8.86%) contained fat, respectively. Carbohydrates A (56.60%), B (61.69%), and C (66.02%) are examples. Samples A (1.61%), B (3.73%), and C (6.32%) comprise crude fiber. The hedonic test outcomes indicate that samples A (7.50), B (6.80), and C (6.20) have an average appearance. As indicated by the average fragrance of samples A (7.27), B (6.70), and C (5.40). Based on the typical taste, samples A (7.50), B (7.10), and C (5.70) are evident. As shown by the average textures of samples A (7.00), B (6.40), and C (5.60). In conclusion, seaweed lunkhead Eucheuma cottonii affects chemical and hedonic quality.*

*Keywords: Dodol, Eucheuma cottonii seaweed, chemical tests, hedonic*

#### **ABSTRAK**

Dodol merupakan golongan pangan semi basah (*Intermediate moisture food*) yang memiliki citra manis, kenyal, sehingga langsung dimakan. Rumput laut akan bernilai ekonomis setelah mendapatkan penanganan yang lebih lanjut, seperti diolah menjadi dodol rumput laut. Penelitian ini bertujuan untuk mengetahui pengaruh fortifikasi rumput laut *Eucheuma cottonii* terhadap nilai nutrisi dodol Sicini dan mengetahui pengaruh fortifikasi rumput laut *Eucheuma cottonii* terhadap nilai hedonik dodol Sicini Di Kabupaten Gowa. Metode penelitian ini menggunakan experimental laboratories dengan tiga perlakuan dan tiga kali pengulangan. Data analisis menggunakan uji Anova. Hasil penelitian menunjukkan kadar air sampel A (27.81%),

B (35.86%) dan C (36.86%). Kadar abu A (1.04%), B (1.40%), dan C (1.64%). Kadar protein A (3.44%), B (3.48%), dan C (3.58%). Kadar lemak sampel A (7.27%), B (9.26%) dan C (8.86%). Karbohidrat sampel A (56.60%), B (61.69%) dan C (66.02%). Serat kasar sampel A (1.61%), B (3.73%) dan C (6.32%). Hasil uji hedonik menunjukkan rata kenampakan sampel A (7.50), B (6.80) dan C (6.20). Rata aroma menunjukkan sampel A (7.27), B (6.70) dan C (5.40). Rata rasa menunjukkan sampel A (7.50), B (7.10) dan C (5.70). Rata tekstur menunjukkan sampel A (7.00), B (6.40) dan C (5.60). Kesimpulannya dodol rumput laut *Eucheuma cottonii* mempengaruhi mutu kimia dan hedonik.

Kata Kunci: Dodol, Rumput Laut *Eucheuma cottonii*, Uji Kimia, Hedonik

## INTRODUCTION

*Eucheuma cottonii* seaweed is a type of red seaweed that is used as yeast. There are many benefits, such as high fiber content, vitamin B and can help reduce inflammation (Sari *et al.*, 2022), besides that it is also used as a direct medicinal ingredient (Sakaria & Annisa, 2023). This seaweed is also a type of red seaweed which contains sodium and bioactive compounds so that this type of seaweed has quite high economic potential (Veronika *et al.*, 2017), as well as being a natural antioxidant (Syafitri *et al.*, 2022). This seaweed is efficacious in treating various diseases, including antipyretics, worms, bronchitis, asthma, coughs, hemorrhoids, boils, nosebleeds, iodine deficiency, high cholesterol levels, maintaining eye health, treating malaria, and preventing colon cancer. Apart from that, it also functions as a stabilizer, emulsifier, gelling agent, thickener, binder, meat coating, medicine, cosmetics, ceramics and food ingredients (Hidaytulbaroroh, 2020).

Sicini Village is one of the villages in the Parigi District area which was the result of the expansion of Tinggimoncong District in 2020 with an area of 132.76 km<sup>2</sup> whose capital is Majannang Village (Usman, 2022). One of the businesses that provides a livelihood for the people of Sicini Village is dodol products which are also a typical food of the village, however the dodol products that the community has are still the same as in general without a mixture of food raw materials with good nutritional content. By looking at the potential of *Eucheuma cottonii*, It is necessary to formulate seaweed fortification in dodol sicini products so that these products have high nutrition. Karina and Desrizal (2021) explained that "One combination of healthy processed products with dodol that supports nutritional and food needs is processed dodol which comes from seaweed, because dodol is a delicious traditional food ingredient and has high nutritional content so it is widely known by the Indonesian people Apart from that, dodol is a semi-moist food with a high water content so the shelf life is relatively short, therefore it is necessary to add seaweed as an ingredient to extend the shelf life of dodol.

The addition of seaweed to a product is an opportunity to increase the fiber content to be used as a food source in the form of food fortification (Sihite, 2023), the crude fiber content of seaweed is an alternative used as a raw material for food and medicine to prevent the occurrence of colon cancer (Suryatna, 2015), seaweed is also a suitable choice for diet food because it is low in calories (Safia, 2020). Saloko (2020) explains that "Food fortification is the activity of adding one or more nutrients to improve the nutritional quality of food so that it can overcome deficiencies in that nutrient. By adding or fortifying a product, it will contain water-soluble dietary fiber (Octavia, 2021) and can also be used to fulfill and enrich nutritional needs in food (Shabrina, 2018). Apart from that, fortification also has a function as a stabilizer, gelling agent and suspender in the resulting product (Nur, 2016). Therefore, this study aims to determine the effect of *Eucheuma cottonii* grass fortification on the nutritional and hedonic value of dodol sicini.

## METHODS

### Place and Time

This research was carried out from November 2023 to January 2024. Consumer acceptance level test research was carried out at the Balik Diwa Institute of Maritime Technology and Business (ITBM), while nutritional tests were carried out at the Pangkep State Agricultural Polytechnic Biochemical Laboratory (POLITANI).

### Tools and Materials

This research used ingredients such as *Eucheuma cottonii* seaweed, sticky rice flour, coconut, brown sugar, cooking oil and water. The tools used are porcelain cups, desiccators, clamps, sample spoons, ashing furnaces, Kjeldhal flasks, Erlenmeyer flasks, burettes, measuring cups, electric heaters, coolers, round bottom flasks, volumetric pipettes, cur pipettes, fat flasks, soxlets.

### Design

The experimental design used was to use three treatments and three repetitions. This research is included in the type of laboratory experimental research in which treatment is used to find the effect of certain treatments on treatments under regular conditions. Dodol is made by following the methods of the Sicini Village community.

### Peocedurs

The composition of the ingredients and making of dodol follow the method of making it by the people of Sicini Village which is modified by adding *Eucheuma cottonii* seaweed. This sample consists of three, namely, sample A (dodol sicini without the addition of *Eucheuma cottonii* seaweed), sample B (dodol sicini with the addition of 200 grams of *Eucheuma cottonii* seaweed) and sample C (dodol sicini with the addition of 300 grams of *Eucheuma cottonii* seaweed) are presented in Table 1

Table 1. *Eucheuma cottonii* Seaweed Dodol Formula

Number	Materials	Amount		
		Sampel A	Sampel B	Sampel C
1.	Glutinous rice flour	1000 gram	800 gram	700 gram
2.	Seaweed	0	200 gram	300 gram
3.	Coconut	1000 gram	800 gram	700 gram
4.	Brown sugar	1000 gram	800 gram	700 gram
5.	Oil	200 ml	200 ml	200 ml
6.	Water	500 ml	500 ml	500 ml

After carrying out the process of making dodol, the next step is to carry out nutritional and hedonic tests.

### Levels of pleasure

Testing the level of liking for dodol products fortified with *Eucheuma cottonii* seaweed was carried out by 30 untrained panelists to determine the level of consumer liking using a score scale of 1 to 9. Samples were presented differently to determine the level of panelists' liking for sensory testing (hedonic scale) with specifications, appearance, color, aroma, texture and taste.

### Nutrition

Crude fiber is a type of carbohydrate that can help prevent the growth of bad bacteria in the stomach and human absorption system. There are two types of crude fiber: soluble or fine dietary fiber and coarse or insoluble dietary fiber (Fauzi, 2023). To determine the level of fiber

content, use the following calculations by following the Pangkep State Polytechnic Biochemistry Laboratory procedure.

$$100\% \text{ Crude Fiber} = \frac{A - B}{\text{gram.sample}} \times 100\%$$

Water Content uses the gravimetric method which is used to measure water height. The sample is ground with a blender, then the porcelain cup (A) is weighed, recorded, and the scale is reset to zero. Then put the soil sample into the ceramic cup (A) and add 2 grams to it. Finally, weigh (B). After that, dry the sample cup in a vacuum oven at 100o C for 5 hours or in a regular oven overnight, or until the weight remains constant. The final step is to use tongs to cool the porcelain cup in a desiccator for approximately 30 minutes, then weigh it (C). To find out how much water is in an object, do the following calculations:

$$\text{Water Content} = \frac{B - C}{B - A} \times 100\%$$

Ash content testing is carried out using gravimetric techniques, where porcelain ash is burned until it reaches a red-hot state in an ashing furnace with a temperature of around 6500 C for 1 hour. The temperature of the ash furnace should be increased gradually. After the temperature of the ashing furnace reaches around 400°C, take the porcelain ash cup and let it cool in the desiccator for 30 minutes. Next, measure the weight of the empty porcelain ash cup (A). Next, put the porcelain ash into a cup, make sure the amount of sample that has been homogenized is approximately ± 2 grams, then move it into the ash furnace. The temperature was increased gradually to 6500 °C. The heating process is carried out for 8 hours or the equivalent of one night, until white ash is formed. Next, the temperature of the ash furnace is reduced to around 40 oC. The porcelain ash cup was placed in a desiccator for 30 minutes using tongs and the weight was measured (B). To determine the ash content, use the following calculation:

$$\text{Ash Content} = \frac{B - A}{\text{Sample weight}} \times 100\%$$

There are 3 stages to test protein levels, namely the destruction stage, distillation stage and titration stage using the Kjeldahl method. To find out the level of protein content, use the following calculation:

$$\text{Protein Content} = \frac{(VA - VB) \text{HCl} \times N \text{HCl} \times 14,007 \times \text{FK} \times 100\%}{W \times 1000}$$

Fat content analysis was carried out using the Soxhlet method, namely grinding the sample and then measuring a 2 gram portion. The sample is placed in a tube-shaped filter paper that has been filled with cotton first. The filter paper is tied tightly at both ends to ensure that there is no possibility of substances escaping. Obese pumpkins were measured (A). Place the paper tube into the Soxhlet sleeve and continue filling it with 200 ml diethyl ether solution. Let the Soxhlet device operate for 1 hour, with 7 complete cycles. To determine fat content, use the following calculation:

$$\text{Lipid Content} = \frac{B - A \times 100\%}{\text{gram. sample}}$$

To analyze carbohydrates using the Luff School method, start by measuring a 5 gram sample and placing it in a 100 ml beaker. Next, add distilled water to the beaker until it reaches a volume of 100 ml. Mix everything using a 5 ml pipette in a 250 ml Erlenmeyer flask, then add 25 ml of Schoorl's luff reagent using a volumetric pipette. Next, heat it by placing it in a boiling water bath for exactly 10 minutes. Sample dilution is necessary if the reagent shows a red color. Cool the material quickly under running tap water and carefully add 15 ml of 20% KI solution and 25 ml of 4N H<sub>2</sub>SO<sub>4</sub> solution. Be careful not to overflow the solution. Carry out titration using 0.1N Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>.5H<sub>2</sub>O solution until the solution changes color to pale yellow. Add 2 milliliters of 1% starch indicator and continue titrating until the blue color disappears. To determine carbohydrate content, use the following calculation:

$$\% \text{ Carbohydrate Content} = \frac{A \times B \times C \times F \times 100}{\text{gram.sample} \times 1000}$$

### Data Analysis

The data analysis technique for this research will use Statistical Program for Social Science (SPSS) data analysis with the ANOVA analysis method to see the average differences between each sample.

## RESULT

This research was carried out using two testing methods, namely nutritional and hedonic. This test consists of three samples, namely control (without the addition of seaweed), 200 grams and 300 grams with the addition of seaweed. In nutritional testing, it consists of water content, ash content, protein content, fat, carbohydrates and crude fiber. Meanwhile, hedonic testing consists of 4 parameters, namely appearance, aroma, taste and texture. The results are as follows:

### Water Content

The water content test uses the gravimetric method which is used to measure the water level. Each water content test is repeated three times. The results shown in Table 2.

Table 2. Water Content Test Results of *Euचेuma cottonii* Seaweed Dodol

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Water Content	27,81%	35,86%	36,86%	20% max

### Ash Content

Ash content testing is carried out using gravimetric techniques, where porcelain ash is burned until it reaches a red-hot state in an ashing furnace with a temperature of around 6500 C for 1 hour. Each ash content test was repeated three times. The results shown in Table 3.

Table 3. Results of Ash Content Test for *Euचेuma cottonii* Seaweed Dodol

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Ash Content	1,04%	1,40%	1,64%	1,5% max

### Protein

There are 3 stages to test protein levels, namely the destruction stage, distillation stage and titration stage using the Kjeldahl method. Each protein test was repeated three times. The results shown in Table 4.

Table 4. Results of *Eucheuma cottonii* seaweed dodol protein test

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Protein	3,44%	3,48%	3,58%	Maksimal 3%

### Lipid

Analisis kadar lemak dilakukan dengan menggunakan metode Soxhlet. Uji lemak masing-masing diulang sebanyak tiga kali. Adapun hasilnya dapat dilihat pada Tabel 5.

Table 5. Results of *Eucheuma cottonii* seaweed dodol fat test

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Lipid	7,27%	9,26%	8,86%	Minimal 7%

### Carbohydrate

To analyze carbohydrates using the Luff School method, each carbohydrate test was repeated three times. The results shown in Table 6.

Table 6. Results of *Eucheuma cottonii* seaweed dodol carbohydrate test

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Carbohydrate	56,60%	61,69%	66,02%	Maksimal 1,5%

### Crude Fiber

To find out the level of fiber content through calculations by following the Pangkep State Polytechnic Biochemistry Laboratory procedure. Each crude fiber test was repeated three times. The results shown in Table 7.

Table 7. Test results of *Eucheuma cottonii* seaweed dodol crude fiber

Parameter	Sample			SNI7761:2013
	0	200 gram	300 gram	
Crude Fiber	1,61%	3,73%	6,32%	-

### Hedonic

Table 8. Hedonic Test Results for Dodol Grass *Eucheuma cottonii*

Specification	Sampel A	Sampel B	Sampel C
Looks	7.50	6.80	6.20
Smell	7.27	6.70	5.40
Taste	7.50	7.10	5.70
Tekstur	7.00	6.40	5.60



## DISCUSSION

### Chemical Test Analysis

Based on the results of the water content test of dodol sicini which is fortified with *Eucheuma cottonii* seaweed by carrying out different tests in table 2, it shows that the lowest air content is 27.81% in the control sample or without the addition of seaweed and the highest is 36.86%. there is the addition of 300 grams of seaweed. According to research by Latuconsina (2019), the higher the concentration of seaweed added to food, the higher the air content obtained. The high value of water content in dodol is due to the absence of a drying process in making dodol and the material used is flour which has air-absorbing properties (Nasyiah, et al., 2014). Of the two tests that had seaweed added, none met the dodol quality requirements set by SNI 7761:2013, namely a maximum of 20%.

Based on the results of the ash content test of dodol sicini which is fortified with *Eucheuma cottonii* seaweed, by carrying out different tests, namely 0, 200, 300 grams of seaweed addition, each of them got different results, it can be seen by the control test that the average result was 1.04. %. The average value of testing 200 grams of seaweed addition was 1.40% and testing 300 grams obtained an average value of 1.64%. According to research by Lukito., et al (2017), the more seaweed added to food will increase the ash content in dodol. The third treatment carried out had an effect with a significant value of  $0.001 < 0.05$  so it was continued to the Least Significant Difference Test (BNT) as in Table 9.

Table 9. BNT Ash Content Test Results

Treatment	Conclusion			
	Mean different	Sig	Test	Decission
Control vs 200 gram	-36.00	0.009	sig < 0.05	Signifikan
Control vs 300 gram	-60.67	0.001	sig < 0.05	Signifikan
200 gram vs 300 gram	-24.67	0.044	sig < 0.05	Signifikan

Based on the results of the dodol sicini protein test which is fortified with *Eucheuma cottonii* seaweed with different test treatments, namely 0, 200, 300 grams of added seaweed, each of them got different results, it can be seen by the control test that the average result was 3.44%. . The average value of testing 200 grams of seaweed addition was 3.48% and testing 300 grams got an average value of 3.58%. According to research by Lukito, et al (2017), the more seaweed added to a type of food will produce high protein levels.

Based on the results of the fat content of dodol sicini which is fortified with *Eucheuma cottonii* seaweed with different test treatments, namely 0, 200, 300 grams of seaweed addition, each of them got different results, it can be seen by the control test that the average result was 7.27%. . The average value of testing 200 grams of seaweed addition was 9.26% and testing 300 grams got an average value of 8.86%. According to research by Lukito., et al (2017), the fat content in dodol cannot be separated by the amount of coconut added, so by the three test treatments with three repetitions each, it can be seen that the highest fat content was with the addition of 200 grams of seaweed with a value of 9.26%, while the lowest was in the control sample (without the addition of seaweed) with a value of 7.27%.

Based on the results of dodol sicini carbohydrates fortified with *Eucheuma cottonii* seaweed with different test treatments, namely 0, 200, 300 grams of added seaweed, each of them got different results, it can be seen by the control test that the average result was 56.60%. The average value of testing 200 grams of seaweed addition was 61.69% and testing 300 grams got an average value of 66.02%. The results of the ANOVA test for dodol sicini fortified with *Eucheuma cottonii* seaweed showed that the three treatments carried out had no effect with a significant value of  $0.196 > 0.05$  on carbohydrates.

Based on the results of dodol sicini fiber fortified with *Eucheuma cottonii* seaweed, with different test treatments, namely 0, 200, 300 grams of seaweed addition, each obtained different results, it can be seen by the control test that the average result was 1.61%. The average value of testing 200 grams of seaweed addition was 3.73% and testing 300 grams got an average value of 6.32%. The three treatments carried out had an influence with a significant value of  $0.001 < 0.05$  so it was continued to the Least Significant Difference Test (BNT) as in Table 10.

Table 10. BNT Fiber Content Test Results

Treatment	Conclusion			
	Mean Different	Sig	Test	Decission
Control vs 200 gram	-212.33	0.004	sig < 0.05	Signifikan
Control vs 300 gram	-471.00	0.000	sig < 0.05	Signifikan
200 gram vs 300 gram	-258.67	0.001	sig < 0.05	Signifikan

### Hedonic Test Analysis

The results of the appearance test of dodol sicini fortified with *Eucheuma cottonii* seaweed are in Table 11

Table 11 Dodol Sicini Appearance Test Results

Spesification	Sample		
	0	200 gram	300 gram
Looks	7.50	6.80	6.20

The average results of the assessments from 30 untrained panelists using the hedonic test on dodol sicini fortified with *Eucheuma cottonii* seaweed, showed that the appearance value of each storage control sample was 7.50, the 200 gram sample was 6.80 and the 300 gram sample was 6.20. By the three test treatments, it can be seen that the level of consumer acceptance of the appearance of dodol sicini fortified with *Eucheuma cottonii* seaweed was highest in the control and lowest in the 300 gram sample. The results of the ANOVA test for dodol sicini fortified with *Eucheuma cottonii* seaweed showed that the three treatments carried out had an influence with a significant value of  $0.001 < 0.05$  on the appearance of dodol. Because it has a real effect, we proceed to the BNT (Least Significant Difference) test, the results of which are shown in Table 12

Table 12 BNT Test Results for Dodol Appearance

Treatment	Conclusion			
	Mean Different	Sig	Test	Decission
Control vs 200 gram	70	0.043	sig > 0.05	Signifikan
Control vs 300 gram	1.30	0.000	sig < 0.05	Signifikan
200 gr vs 300 gram	60	0.081	sig > 0.05	Signifikan

According to Safitri, et al (2018) the color of food will appear first as an indicator of freshness or maturity, whether it is good or not can be indicated by the presence of an even and uniform color. The average results of assessments from 30 untrained panelists using the hedonic test on dodol sicini fortified with *Eucheuma cottonii* seaweed, showed that the highest appearance value was in the control sample with a value of 7.50% and the lowest was in the 300 gram sample with a value of 6.20%. . If we look at the specification values based on SNI 7761:2013, the highest score for the panelists in the control sample with 7.50 (likes close to very likes) is the appearance of dodol.



The results of the ANOVA test for the aroma of dodol sicini fortified with *Eucheuma cottonii* seaweed showed that the three treatments carried out had an influence with a significant value of  $0.000 < 0.05$  on the aroma of dodol, this is in line with research conducted by (Safitri, et al 2018). Because it has a real effect, we proceed to the BNT (Least Significant Difference) test, the results of which are shown in Table 13

Table 13 Dodol Aroma BNT Test Results

Treatment	Mean Different	Conclusion		
		Sig	Test	Decission
Control vs 200 gr	57	0.167	sig > 0.05	Not signifikan
Control vs 300 gr	1.87	0.000	sig < 0.05	Signifikan
200 gr vs 300 gr	1.30	0.002	sig < 0.05	Signifikan

By the three test treatments, it can be seen that the level of consumer acceptance of the aroma of dodol sicini fortified with *Eucheuma cottonii* seaweed was highest in the control sample with a value of 7.27% and the lowest was in the 300 gram sample with a value of 5.40%. The taste of a product is determined by aroma factors arising by the composition of the ingredients (Abdiani, 2013). If we look at the specification values based on SNI 7761:2013, the highest score for the panelists was in the control sample with 7.27 (somewhat close to liking) the aroma of dodol.

The results of the ANOVA test on the taste of dodol sicini fortified with *Eucheuma cottonii* seaweed showed that the three treatments carried out had an influence with a significant value of  $0.000 < 0.05$  on the taste. Because it has a real effect, we proceed to the BNT (Least Significant Difference) test, the results of which are shown in Table 14.

Table 14 Dodol Taste BNT Test Results

Treatment	Mean Different	Conclusion		
		Sig	Test	Decission
Control vs 200 gr	40	0.329	sig > 0.05	Not signifikan
Control vs 300 gr	1.80	0.000	sig < 0.05	Signifikan
200 gr vs 300 gr	1.40	0.001	sig < 0.05	Signifikan

By the three test treatments, it can be seen that the level of consumer acceptance of the taste of dodol sicini fortified with *Eucheuma cottonii* seaweed was highest in the control sample with a value of 7.50% and the lowest was in the 300 gram sample with a value of 5.70%. If we look at the specification values based on SNI 7761:2013, the highest score for the panelists was in the control sample with 7.50 (likes close to really likes) the taste of dodol. The amount of seaweed added to a food will have a strong influence on the taste (Lukito., et al 2017).

The results of the ANOVA test on the texture of dodol sicini fortified with *Eucheuma cottonii* seaweed showed that the three treatments carried out had an influence with a significant value of  $0.008 < 0.05$  on the texture. Because it has a real effect, we proceed to the BNT (Least Significant Difference) test, the results of which are shown in Table 15.

Table 15 Dodol Texture BNT Test Results

Treatment	Mean Different	Conclusion		
		Sig	Test	Decission
Control vs 200 gr	60	0.174	sig > 0.05	Not signifikan
Control vs 300 gr	1.40	0.002	sig < 0.05	Signifikan
200 gr vs 300 gr	80	0.071	sig > 0.05	Not Signifikan

By the three test treatments, it can be seen that the level of consumer acceptance of the texture of dodol sicini fortified with *Eucheuma cottonii* seaweed was highest in the control sample with a value of 7.00% and the lowest was in the 300 gram sample with a value of 5.60%. This was due to the addition of more and more seaweed. will make the texture of the dodol more chewy (Lukito., et al 2017). If we look at the specification values based on SNI 7761:2013, the highest score for the panelists was in the control sample with 7.00 (like) the dodol texture.

### CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that, the nutritional value of dodol sicini with the addition of 200 grams of *Eucheuma cottonii* seaweed and the control (without the addition of seaweed) meets SNI 7761:2013. Dodol sicini with the addition of 300 grams of *Eucheuma cottonii* seaweed does not meet SNI 7761:2013. The hedonic value obtained from dodol sicini fortified with *Eucheuma cottonii* seaweed is lower compared to dodol sicini without the addition of seaweed.

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