Media Pendidikan Gizi dan Kuliner

Journal homepage: https://ejournal.upi.edu/index.php/Boga/index

# Purple Sweet Potato Drop Cookies Reception

*Gita Garnapuspita, Ai Mahmudatusaadah, Yulia Rahmawati*

Culinary Education Study Program, Indonesian University of Education, Indonesia
Correspondence: E-mail: garnapuspita@gmail.com

**ABSTRACTS**

Purple sweet potato has a shelf life of only 15-20 days. Storing sweet potatoes for a very long time is prone to making the sweet potatoes sprout and experience changes in taste.Purple sweet potato flour is one of the simplest processed products from purple sweet potato.Purple sweet potato flour can be used in the innovation of making pastry products, namely cookies. The purpose of this study was to determine the processes involved in the development of cookies products and to determine the acceptability of the drop of purple sweet potato cookies. The method used in this research is the experimental method. Based on data processing, the results of the QDA oranoleptic test and the hedonic organoleptic test that had been carried out by 5 expert panelists on 4 trial products, namely DCUU 1, DCUU 2, DCUU 3 and DCUU 4. The organoleptic test results obtained the product with the best formulation, namely DCUU 4. Based on data processing and organoleptic test results (acceptability test) to 30 untrained panelists stated that the drop cookies product made from purple sweet potato was very positively received by consumers.



**ARTICLE INFO**

***Article History:***
*Received 01 December 2022*
*Revised 05 Februari 2023*
*Accepted 10 March 2023*
*Available online 01 April 2023*

***Keyword:***
*Acceptance,*
*Drop Cookies,*
*Purple Sweet Potato Flour*

## 1. INTRODUCTION

Purple sweet potato is the main carbohydrate source commodity, after rice, corn and cassava, and has an important role in the supply of food, industrial raw materials and animal feed (Zuraida & Supriati, 2011). The use of sweet potatoes with purple flesh in Indonesia is still very limited to a few types of food products, even in small quantities, the most commonly found in the market are chips (M Yusuf., 2011).

According to Helen, Ega & Nuram (2018) fresh purple sweet potatoes cannot last for a long time. Fresh purple sweet potatoes only have a shelf life of 15 -20 days. Storing sweet potato for a very long time is prone to making it sprout and taste changes (Thompson & Scheuerman, 1993), therefore it needs further handling by processing it into a product that has a long shelf life. One of them is the processing of sweet potatoes into purple sweet potato flour.

Purple sweet potato flour is one of the simplest processed products from purple sweet potato. Processing purple sweet potato into flour can increase the utilization of purple sweet potato which is still very underutilized to be processed into food products. There are several advantages that can be obtained by processing purple sweet potatoes, including having a longer shelf life, making it easier to use, and being able to increase the selling value and use value of purple sweet potatoes. Purple sweet potato flour has characteristics that can fulfill its role as a source of calories besides that it has a low protein content (Apriliyanti, 2010). Another advantage of manufacturing purple sweet potato flour is the promotion of food diversification, as stated in the diversification under the ACTION Plan.

Purple sweet potato flour has the potential to be applied in food processing, especially in the pastry sector, one of which is cookies. The development of cookie products using purple sweet potato flour will have its own advantages because this product has a longer shelf life compared to other products such as sweet bread, donuts, brownies and others. One of the raw materials in making cookies generally uses wheat flour.

General Chairperson of the Wheat Flour Producers Association (Aptindo) Franciscus Welirang (2020), stated that imports of wheat domestically are currently quite high with an estimated import of wheat in 2020 reaching 8 million tons, this situation is very worrying because it can lead to dependence on foreign food. Hassan (2014 p. 94) states that the wealth of biological natural resources in Indonesia which can be used as raw material for flour is quite widely available considering the abundant potential of our agricultural products, but many of which have not yet optimized their potential.

Purple sweet potato flour can be used as a substitute for wheat flour in making cookies. Sari (2015) revealed that cookies or pastries do not require ingredients that can expand in large volumes (high gluten content). This statement prompted the authors to examine the possibility of purple sweet potato flour being used as a basic ingredient for making cookies. Cookies made from wheat flour tend to have a bright yellowish white color (Fajiarningsih, 2013). Meanwhile, cookies made from purple sweet potato flour will produce attractive cookie colors in terms of color, taste and appearance (Alifia, 2021).

The taste of cookies has a sweet taste with ingredients derived from flour which does not contain high protein which is processed and baked until hard with supporting ingredients using raw materials such as sugar, butter, wheat flour and eggs (Hayatinufus, 2005). Classification cookies according to processing or printing, which consists of bar cookies, rolled cookies, ice box cookies, pressed cookies, molded cookies and drop cookies (Rahmawati and Subekti, 2017).

Drop cookiesnamely soft-textured dough that is molded with the help of a spoon, then placed on a margarine-polished baking sheet (drop on to). The dough used is cookie dough with the creaming method technique (Farida, 2008). The shape of the drop cookies is only in the form of rather flat spheres and usually you can put nuts, various chocolates, and fresh or dried fruits into the dough, while for the top decoration so that the cookies look prettier it attracts a spread of colorful icing sugar, melted chocolate, or chunks of candied red cherries. The characteristics of drop cookies are that they are colored according to the color of the ingredients, crunchy texture, slightly flattened sphere shape, fragrant buttery aroma, and usually filled with dried fruit, nuts or choco chips (Idrial, 2014).

Drop cookiesvery easy to make because it does not require extra concentration to shape it. Like cookies in general, the processed drop cookie dough is durable and in great demand by many groups, especially children because it is relatively crunchy and when broken the cross section of the piece has a less dense texture (Wijayanti, 2013).

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

Receptivity or organoleptic is a test by using the human senses, namely as the main tool in measuring the acceptability of products (Susiwi, 2009). The quality and organoleptic properties of cookies can be seen from their texture, aroma, taste and color (Helen, Ega & Nuram, 2018).

The use of purple sweet potato flour provides a natural color without synthetic substances for cookies and purple sweet potato flour has a good nutritional content for the body (Syarfaini, S., *et al.,* 2017). Based on Based on the background above, it is important for researchers to conduct research with the title "Purple Sweet Potato Cookies Drop Acceptance"

1. General purpose
   The general objective of this study was to determine the results of Purple Sweet Potato Cookies Drop Acceptance
2. Special purpose
   The specific objectives in this study are to:
   a) Determine the formulation of the purple sweet potato drop cookies product recipe
   b) Determine the process of making purple sweet potato drop cookies
   c) Analyzing the acceptability of purple sweet potato flour drop cookies product through hedonic test according to the sensory properties of shape, color, aroma, taste and texture by limited panelists and untrained panels.

## 2. METHODS

The research method used by the author is using experimental research methods which are included in quantitative research. "Experimental research methods can be interpreted as research methods used to find the effect of certain treatments on others under controlled conditions" (Sugiyono, 2014, p.107). This type of experimental design is a true experiment. Thus the internal validity (the quality of the implementation of the research design) can be high. In addition, the experiment involved a small experimental unit. The experimental method carried out by the author is to carry out a Quantitative Descriptive Analysis test using a reference product, which aims to determine the characteristics of the drop cookies contained in the product,

In this research, the writer will conduct a drop making experiment cookiesmade from purple sweet potato flour. The first stage of the research was to conduct product development experiments which began with the recipe analysis stage to obtain a reference recipe to be used as the initial product development recipe, the second stage carried out a series of trials until the results of cookies resembled or approached the reference product, the third stage carried out QDA organoleptic tests. and hedonic organoleptic test on the product resulting from the purple sweet potato drop cookies trial, then the fourth stage is making the standard drop recipe cookiespurple sweet potato according to the input of the panelists during the QDA organoleptic test, and the fifth stage is data collection through a questionnaire or organoleptic test questionnaire. This test consists of acceptance of 5 Likert scale, score 1 = really dislike, 2 = dislike, 3 = rather like, 4 = like, 5 = like very much. The panelists used during the organoleptic test were untrained panelists, namely 30 people.

### 2.1. Participant

The participants involved in this study were limited panelists for the QDA test of 5 people consisting of 3 expert lecturers in the Culinary Study Program and 2 cookie entrepreneur

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

owners who had more than 5 years experience, then for the author's preference test using untrained panelists, namely 30 people who are students of SMK Tata Culinary.

### 2.2. Research instruments

The instrument to be used in this study was a questionnaire for organoleptic tests using a Likert scale in the form of a checklist. In the Likert scale, the research variables will be measured and translated into indicators, then used as the basis for compiling questions or statements (Muchson, 2015, p.28). The level of preference consists of 5 levels, namely very like, like, rather like, dislike, and really dislike on every aspect of product sensory assessment (shape, color, aroma, taste and texture).

### 2.3. Research procedure

1. Time and Place of Research
   The research period starts from March 2022 to April 2022. The trial process is carried out at the Author's House, Darangdan No. 30 RT 02 RW 08, Sumedang Selatan, West Java
2. Tools and materials
   a) The tool for making purple sweet potato drop cookies is divided into 3 parts, namely preparation tools, processing tools and serving tools.
   b) The ingredients for making purple sweet potato drop cookies are purple sweet potato flour, margarine, butter, powdered sugar, egg yolks, cornstarch, milk powder, baking powder, salt, almonds, raisins, choco chips, white chocolate for decoration.
3. Product Development Stage
   The product development stage is to analyze the recipe by collecting 10 drop cookie recipes which are then processed and taken to become a reference recipe that will be used in the trial phase.
4. Trial Stage
   The trial was carried out to produce a product that resembled or approached the drop cookies reference product used.
5. QDA Organoleptic Test Stage
   The QDA test was carried out by giving the product from the results of the trial of the different purple sweet potato drop cookies product to 5 expert panelists, so that they would know the attribute assessment of the product, determine which product the panelist liked the most, besides that to determine the product's standard recipe, because During the QDA test, expert panelists were asked to provide comments on the product for improvement.
6. Hedonic Organoleptic Stage
   The hedonic organoleptic test was carried out by giving the product from the test results of different purple sweet potato drop cookies products to 5 expert panelists, namely 4 lecturers working in the Culinary Education Study Program and 1 owner of a cookie entrepreneur, so that the best formulation was produced.
7. Acceptability Test Stage
   The acceptability test is carried out to determine the consumer's assessment of the product. The acceptance test was carried out by means of an organoleptic test to measure the level of preference for the product. The product will be tested by untrained panelists, namely as many as 30 people who are SMK Tata Culinary students. According to the level of preference, this is called the hedonic scale, for example, like very much, like, rather like, don't like, really don't like and so on. The hedonic scale can be stretched or collapsed

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

according to the desired scale range. In data analysis, the hedonic scale is transformed into a numerical scale so that the data obtained is analyzed by performing statistical analysis.

**2.4. Data analysis**

The collected data were analyzed descriptively using Microsoft Excel. In this study will use the following methods:

1. Recipe Analysis
   Recipe analysis was carried out by collecting 10 drop cookie recipes which were then processed and taken into recipes.
2. Trials
   Conduct a series of trials to find a recipe whose results can be similar or close to the drop cookies reference product used.
3. QDA Test (Quantitative Descriptive Analysis)
   QDA test analysis was carried out by means of data obtained from panelists at QDA first measured using a ruler and then the numbers obtained were entered into the Ms. software. Excel. The data that has been entered into the software is then averaged and made into a spider web. The data obtained from the hedonic test results is entered into the Ms.Excel program and averaged, after obtaining the average results, the data is analyzed to obtain conclusions.
4. Hedonic Organoleptic Test
   In the hedonic organoleptic test as many as 5 expert panelists were asked to fill out a questionnaire or drop cookies purple sweet potato questionnaire. Panelists provide an assessment of likes or dislikes on a score scale for products. Data analysis used 5 sensory attributes on products consisting of shape, color, aroma, taste and texture. The score range in scoring is 5-1 ie. To find out the results of the hedonic organoleptic test from the panelists, a qualitative descriptive analysis of percentages was carried out, namely the qualitative obtained from the panelists must be analyzed first to be used as quantitative data which was processed using Microsoft Excel. The score to get the percentage is based on the assessment criteria for each hedonic test. The value score to get the percentage is formulated as follows (Ali, 1993, p. 86):

$$\% = \frac{n}{N}\ x\ 100\%$$

   Information:
   % = Percentage score
   n = Number of scores obtained
   N = ideal score (highest score x number of panelists)

5. Acceptance Test
   After obtaining the best formulation, a hedonic test was carried out, 30 panelists were asked to fill out a questionnaire on the acceptability of purple sweet potato drop cookies. Panelists provide an assessment of likes or dislikes on a score scale for the product. Data analysis used 6 parameters on the product consisting of acceptability of shape, color, aroma, taste, texture and overall impression. The range of scores in the assessment is 5-1, namely:
   All data that has been collected is then classified and then analyzed using descriptive techniques by finding the maximum score, minimum score, and class interval with the following formula:

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

$$S_{max}value = n\ x\ k\ x\ Maximum\ value$$

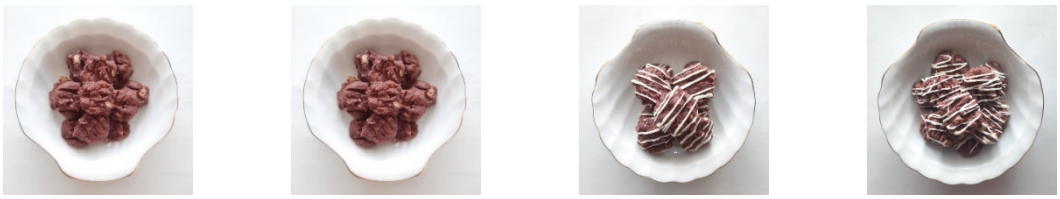
$$S_{min}value = n\ x\ k\ x\ Minimum\ value$$

$$Interval\ class\ length\ (C) = \frac{S_{max}value - S_{min}value}{K}$$

Information :
n = Many Panelists
k = Number of Assessment Categories

## 3. RESULTS AND DISCUSSION

### 3.1. Trial results



**DCUU 1** **DCUU 2** **DCUU 3** **DCUU 4**

**Figure 1.** Product trial results drop cookies purple sweet potatoes

### 3.2. QDA Organoleptic test results

After the hedonic organoleptic test was carried out, Quantitative Descriptive Analysis (QDA) was then carried out to determine the attribute ratings on the Purple Sweet Potato Drop Cookies product, so that it could clearly know the assessment of the four Purple Sweet Potato Drop Cookies products. The QDA results for the Purple Sweet Potato Drop Cookies product can be seen in table 1.

**Table 1.** QDA results drop cookies purple sweet potatoes

| | DCUU 1 | DCUU 2 | DCUU 3 | DCUU 4 |
|---|---|---|---|---|
| Shape Appearance | 73% | 83% | 83% | 89% |
| Sweetness | 71% | 76% | 81% | 88% |
| Savory taste | 65% | 74% | 72% | 90% |
| Purple Sweet Potato Flavor | 70% | 70% | 69% | 84% |
| Color Appearance | 64% | 68% | 68% | 82% |
| Aroma | 71% | 72% | 69% | 80% |
| Texture | 70% | 71% | 70% | 87% |

The results of the QDA Spider Web display can be seen in Figure 2.

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

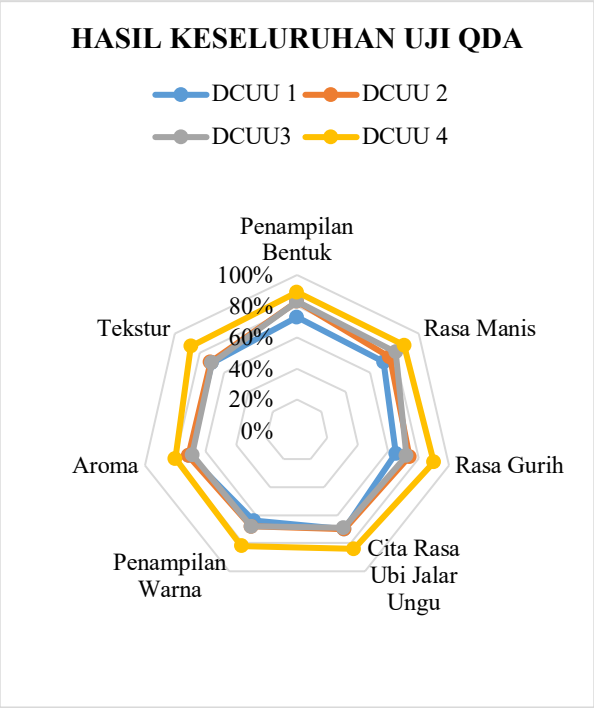



**Figure 2.** Spider web overall QDA test results.

It can be observed in Figure 6 above that shows the results of sensory attribute research on the four purple sweet potato drop cookies products. The shape appearance indicators on products are continuously improving. This increase was due to the use of refined sugar in the purple sweet potato drop cookies recipe, because refined sugar can affect the appearance of cookies.

The sweet taste indicator, of the four products, experienced a not too significant increase. This increase is caused by the dose and type of sugar used.

The savory taste indicator, of the four products, has increased. This increase was caused by the use of margarine and almonds in the products which continued to be increased in dosage, so that the four products experienced an increase in savory taste.

The purple sweet potato taste indicator, of the four products, has increased. This increase was caused by a reduction in the stuffing ingredients in the product.

Indicators of color appearance, of the four products have increased. The improvement referred to here is that the color is getting better or acceptable. This increase is caused by the use of cornstarch in the product, because the more cornstarch is used the color of the product will be less dark.

The aroma indicator, of the four products, has increased. This increase was caused by reducing the amount of butter and eliminating vanilla powder in the purple sweet potato drop cookies product recipe.

Texture indicators, of the four products have increased. This increase was due to the use of cornstarch and powdered sugar in the recipe for purple sweet potato drop cookies, because cornstarch and powdered sugar can crunch cookies.

The expert panelist who owns a pastry business commented on the DCUU 4 product. The expert panelist commented that the shape is good, the color does not emit a purple tint, the aroma is good, the taste is tasty, and the texture is good. From these comments the panelists will make purple sweet potato flour which is lighter in color than the flour made before, so that during the organoleptic test the untrained panelists will produce a very good assessment.

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

### 3.3. Hedonic organoleptic test results

The hedonic organoleptic test was carried out in two days, the first was on Thursday, May 12 2022 by 4 panelists who worked as lecturers at the Culinary Education Study Program, Indonesian University of Education who understood the characteristics of cookies well, and the second was carried out on Sunday , May 15, 2022 by 1 panelist who worked as a cookie entrepreneur for more than 5 years, the name of the business is Dapoer Oemi which is in Sumedang City, West Java.

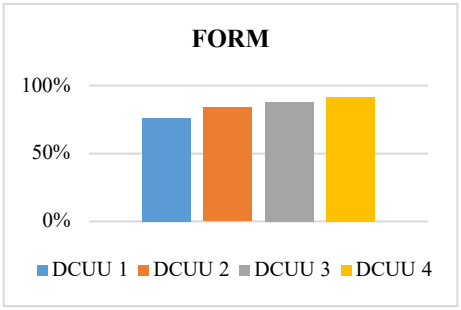



**Figure 3.** Form hedonic organoleptilic test results.

The results of the hedonic organoleptic test in terms of the shape of DCUU 1 as many as 76% of the panelists said they liked it somewhat.As many as 84% of panelists said they really liked DCUU 2. As many as 88% of panelists said they really liked DCUU 3. As many as 92% of panelists said they really liked DCUU 4.

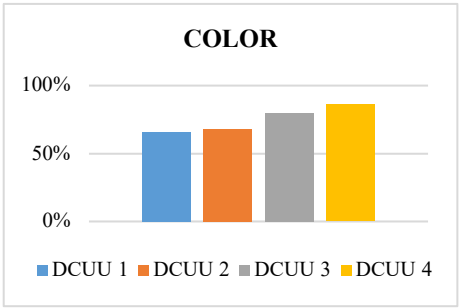



**Figure 4.** Organoleptic test results color hedonic.

The results of the hedonic organoleptic test on the color aspect of DCUU 1, as many as 66% of the panelists said they liked it a bit.As many as 68% of panelists said they liked DCUU 2. As many as 80% of the panelists said they liked DCUU 3. As many as 86% of panelists said they really liked DCUU 4.

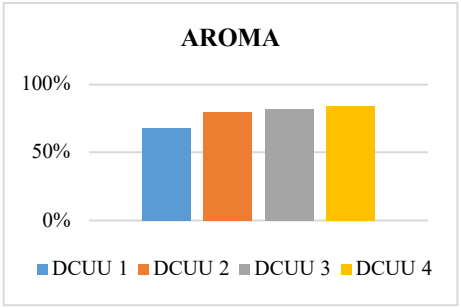



**Figure 5.** Aroma hedonic organoleptic test results.

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

The results of the hedonic organoleptic test on the aroma aspect of DCUU 1 showed that 68% of the panelists liked it.80% of the panelists said they liked DCUU 2. As many as 82% of panelists said they liked DCUU 3. As many as 84% of panelists said they really liked DCUU 4.

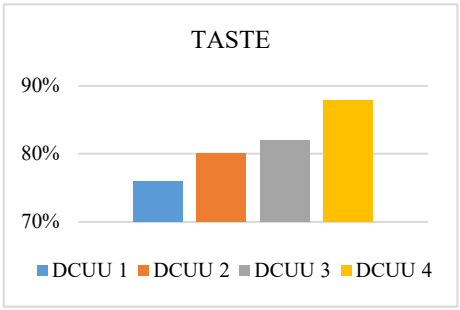



**Figure 6.** Chart of taste hedonic organoleptic test results.

The results of the hedonic organoleptic test in terms of taste in DCUU 1 were 76% of the panelists said they liked it.80% of the panelists said they liked DCUU 2. As many as 82% of panelists said they liked DCUU 3. As many as 88% of panelists said they really liked DCUU 4.

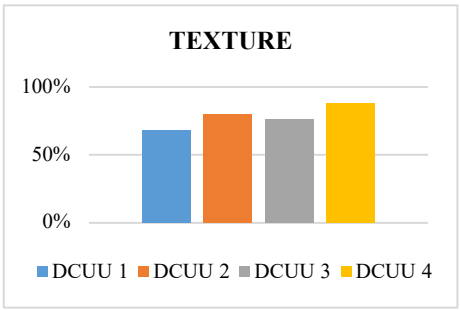



**Figure 7.** Textured hedonic organoleptilic test results.

The results of the hedonic organoleptic test on the texture aspect of DCUU 1 showed that 68% of the panelists liked it.80% of the panelists said they liked DCUU 2. As many as 76% of panelists said they liked DCUU 3. As many as 88% of panelists said they really liked DCUU 4.

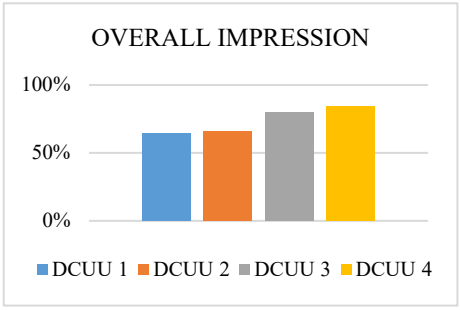



**Figure 8.** Chart of hedonic organoleptic test results overall impression.

The results of the hedonic organoleptic test in terms of taste can be observed in Figure 4.11. The results of the hedonic organoleptic test in terms of taste of DCUU 1 as many as 64% of the panelists said they liked it a bit.As many as 66% of the panelists said they liked DCUU 2. As many as 80% of the panelists said they liked DCUU 3. As many as 84% of panelists said they really liked DCUU 4.

### 3.4. Organoleptic test results

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

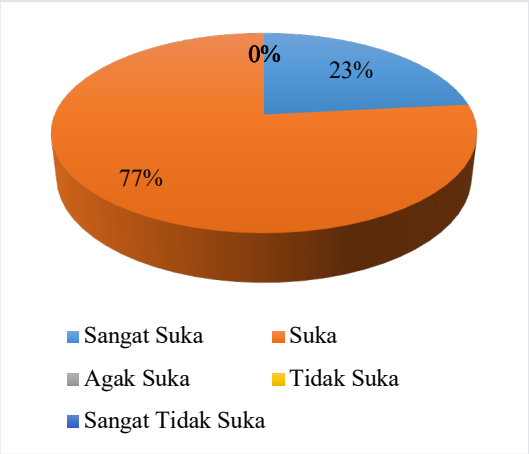



**Figure 9.** Organoleptilk test results in terms of shape.

In the results of processing the organoleptic test data for cookie products in terms of shape, 30 untrained panelists stated that they really liked as much as 23%, liked as much as 77%, rather liked 0% which means that there were no untrained panelists who chose rather liked the shape of cookies, disliked as much as 0% which means that there are no untrained panelists who don't like the shape of the cookies, and really dislike as much as 0% which means there are no untrained panelists who really don't like the shape of the cookies. Overall, the most dominant untrained panelists chose to like the shape of cookies.

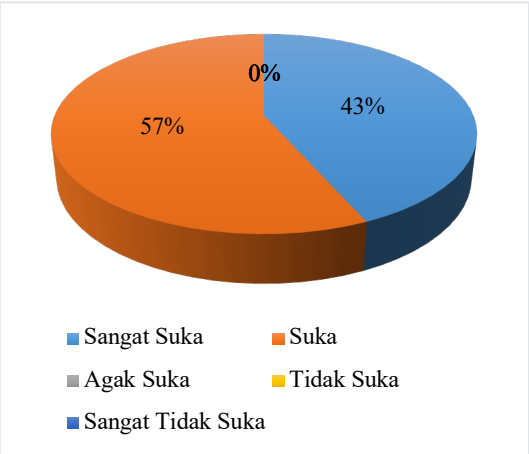



**Figure 10.** Chart of organoleptic test results in terms of color.

In the results of processing the organoleptic test data for cookie products in terms of color, 30 untrained panelists stated that they really liked the color of cookies by 43%, liked by 57%, rather liked 0%, which means that there were no untrained panelists who chose the color of cookies a bit, disliked as much as 0% which means that there are no untrained panelists who don't like the color of the cookies, and really dislike as much as 0% which means there are no untrained panelists who really don't like the color of the cookies. Overall, the most dominant untrained panelists chose to like the color of the cookies.

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

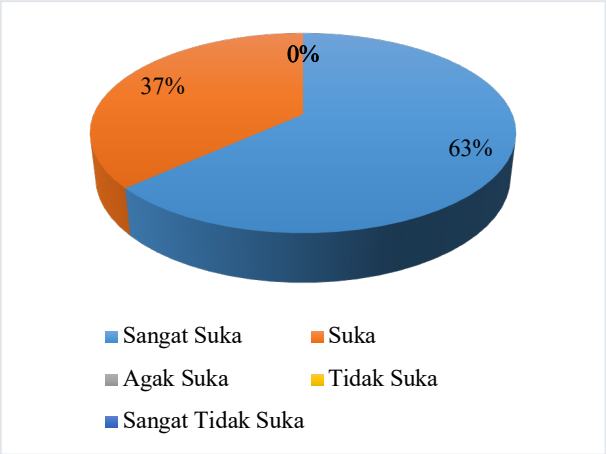



**Figure 11.** Organoleptic test results in terms of aroma.

In the results of processing the organoleptic test data for cookie products in terms of aroma, 30 untrained panelists stated that they really liked the aroma of cookies by 63%, liked by 37%, rather liked 0%, which means that there were no untrained panelists who chose a bit like the aroma of cookies, disliked as much as 0% which means that there are no untrained panelists who don't like the smell of cookies, and really dislike as much as 0% which means there are no untrained panelists who really don't like the smell of cookies. Overall, the most dominant untrained panelists chose to really like the aroma of cookies.

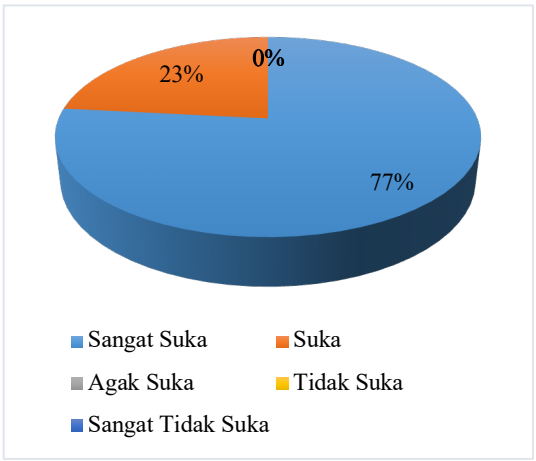



**Figure 12.** Organoleptic test results in terms of taste.

In the results of the processing of the organoleptic test data for cookies products in terms of taste, 30 untrained panelists stated that they really liked the taste of cookies by 77%, liked by 23%, rather liked 0%, which means that there were no untrained panelists who chose the taste of cookies a bit, disliked as much as 0% which means that there are no untrained panelists who don't like the texture of the cookies, and really dislike as much as 0% which means there are no untrained panelists who really don't like the taste of cookies. Overall, the most dominant untrained panelists chose to really like the taste of cookies.

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

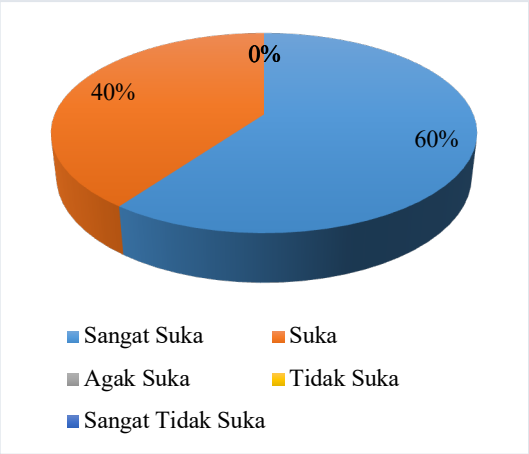



**Figure 13.** Organoleptic test results in terms of texture.

In the results of processing the organoleptic test data for cookie products in terms of texture, 30 untrained panelists stated that they really liked the texture of cookies by 60%, liked by 40%, rather liked 0%, which means that there were no untrained panelists who chose rather liked the texture of cookies, disliked as much as 0% which means that there are no untrained panelists who don't like the texture of the cookies, and really dislike as much as 0% which means there are no untrained panelists who really don't like the texture of the cookies. Overall, the most dominant untrained panelists chose really liked the texture of cookies.

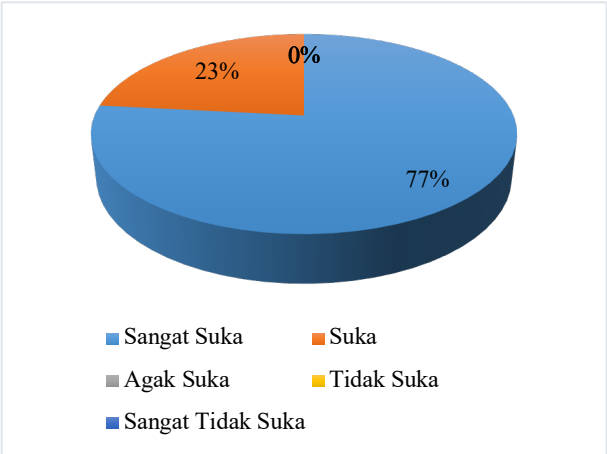



**Figure 14.** Organoleptic test results in terms of overall impression.

In the results of processing the organoleptic test data for cookies products in terms of overall impression of 30 untrained panelists stated that they really liked as much as 77%, liked as much as 23%, rather liked 0% which means that there were no untrained panelists who chose rather liked the overall impression of cookies, not like 0% which means that there are no untrained panelists who don't like the overall impression of the cookies, and really dislike as much as 0% which means that there are no untrained panelists who really dislike the overall impression of the cookies. Overall, the most dominant untrained panelists chose very like the overall impression of the cookies.

## 4. CONCLUSION

Based on the research that has been done by the author with the title "Receptivity of Purple Sweet Potato Drop Cookies", in general it can be concluded several things, namely: The purple sweet potato drop cookies product is a product innovation of drop cookies with purple sweet

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123

potato flour substitution. purple sweet potato drop cookies are made to create new innovations in order to take advantage of purple sweet potato flour which is underutilized with the aim of being accepted by consumers. In testing product acceptance, a descriptive test or Quantitative Descriptive Analysis (QDA), hedonic organoleptic test and organoleptic test (acceptance test) were carried out by expert panelists and untrained panelists. Hedonic organoleptic test and QDA organoleptic test as many as 5 people consisting of 4 lecturers who work in the Culinary Education Study Program, Indonesian University of Education who understand the characteristics of cookies well and 1 owner of a cookie entrepreneur who has more than 5 years experience, the name of the business namely Dapoer Umi in Sumedang, West Java. The organoleptic test used untrained panelists, namely as many as 30 people who were class XII students of SMK Tata Culinary. 5 panelists were experts on 4 products from the trial results, namely DCUU 1, DCUU 2, DCUU 3 and DCUU 4. From the organoleptic testing, the product with the best formulation was obtained, namely DCUU 4. Furthermore, an organoleptic test (acceptance test) was carried out on 30 panelists who did not trained and organoleptic test results stated that the product was received positively by consumers.

## 5. REFERENCES

Ali, M. (1993). Educational Research Strategy. Bandung : Space.

Apriliyanti, Tina. (2010). Study of Physicochemical and Sensory Properties of Purple Sweet Potato Flour (ipomoea batatas blackie) with Variation of Drying Process. (Thesis). Faculty of Agriculture, Eleven March University, Surakarta.

Fajiarningsih, H. 2013. The Effect of Composite Use of Potato Flour (Solanum tuberosum, L.) on the Quality of Cookies. (Thesis). Faculty of Engineering. Semarang State University, Semarang.

Ginting, E., JS Utomo., R. Yulifianti., & M. Yusuf. (2011). Purple Sweet Potato Potency As Functional Food. Science and Technology of Food Crops 6 (1), 116- 138.

Haryati, Nurbaeti and Sutrisna. (2015). Technical Instructions for Organic Cilembu Sweet Potato Cultivation. Bandung: West Java Agricultural Technology Study Center (BPTB).

Hayatinufus, CH (2005). Cookies : Cakes. Classic and Modern Dry. Gramedia : Jakarta.

Krisna, Ade., Sutardi & Suparmo. (2011). Chemical, Physical and Sensory Characteristics of Purple Sweet Potato Flour (Ipomoea Batatas Poiret) and Processed Products. AGRITECH : 31(4). doi :https://doi.org/10.22146/agritech.9634

Lasmanawati, E., Yulia R., & Ai, M. (2017). Synbiotic Products Made from Sweet Potatoes (Ipomoea Batatas L). Bandung : Indonesian University of Education, Bandung.

M. Lies. (2003). Sweet Potato Flour Production and Utilization. Kanisius: Yogyakarta.

Muchson. (2015). Descriptive statistics. Bogor : Guepedia.

Nadia, (2018). The Purple is High Economical. [Online] Accessed fromhttps://www.kompasiana.com/nadyasdp8723/5b9bb83b677ffb0f2e5ea872/si-ungu-berekonomis-tinggi. Nadya. 2018

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857

Putri, L., Subekti, S., & Siti, A. (2018). Acceptance Test for Cookies Products Made from Black Glutinous Rice Flour. Media Education, Nutrition and Culinary, 7(2), 31-43. doi :https://doi.org/10.17509/boga.v7i2.14300

Rajah, Kristian. T. (2016). Basic Pastries. Surabaya: NSC Press.

Rahmawati, Yulia & Sri Subekti. (2017). Cookies and Candy. Bandung: UPI PRESS

Santia, Tira. (2021). Press Import Dependence, People Asked to Use Local Flour. [Online] Accessed from https://www.merdeka.com/uang/tekan-dependence-import-Masyarakat-di Minta-gunakan-tepung-lokal.html

Sari, Auliadhini. (2015). Analysis of Organoleptic Quality of Butter Cookies Made from Corn Flour Against Consumer Purchase Interest. (Thesis). Indonesian University of Education, Bandung.

Sugiyono. (2011). Quantitative Research Methods, Qualitative and R&D. Bandung: Afabeta.

Susiwi. (2009). Organoleptic Assessment. Bandung: Chemistry Education FPMIPA Indonesian University of Education.

Thompson, F., & R., W., Scheuerman. (1993). Curing and Storing California Sweetpotatoes. Biological and Ag Engineering Dept. Californian. pp 5.

Tuhumury, H., Ega, L., & Keliobas, N. (2018). The Effect of Purple Sweet Potato Flour Substitution on the Characteristics of Pastries. AGRITEKNO: Journal of Agricultural Technology, 7(1), 30-35. doi : https://doi.org/10.30598/jagritekno.2018.7.1.30

Wijayanti, Ika. (2015). Experiment on Making Brown Rice Flour Syringe Cake. (Thesis). Faculty of Engineering, Semarang State University, Semarang.

Zuraida & Yati S. (2001). Sweet Potato Farming as Alternative Food Ingredients and Diversification of Carbohydrate Sources. Bogor: Research Institute for Food Crop Biotechnology.

Syarfaini, S., Satrianegara, MF, Alam, S., & Amriani, A. (2017). Analysis of Nutrient Content of Purple Sweet Potato Biscuits (Ipomoea batatas L. Poiret) as an Alternative to Nutrition Improvement in Society. Al-Sihah: The Public Health Science Journal, 9(2). doi : https://doi.org/10.24252/as.v9i2.3763

DOI: http://dx.doi.org/10. 17509/xxxxt.vxix
p- ISSN 2085-9783 e- ISSN 2549-6123