RESEARCH AND DEVELOPMENT FINAL PROJECT

Palm Treats

(Dairy-Free and Soy-Free Coconut Kefir Yogurt)



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STUDY PROGRAM OF CULINARY ART OTTIMMO INTERNATIONAL MASTERGOURMET ACADEMY SURABAYA

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July, 10th 2020

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PREFACE

First and foremost, i would like to praise and thank God, the almighty who has granted countless blessing, knowledge, and opportunity to the writer so that i have been finally able to accomplish this Research and Development report.

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Surabaya, July 10th 2020

Paulina Tricia Tanriady

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EXECUTIVE SUMMARY

Palm Treats is a product of healthy dairy free coconut kefir yogurt that made out of fermented coconut water blended with coconut flesh. It's fermented food made from water kefir grains which are highly beneficial organisms of bacteria that promote good digestion, gut health, immunity and even enhance the brain and mood.

Kefir is usually made with dairy milk since the sugars in milk (lactose) feed the good bacteria needed for growth, but since dairy isn't the most health – promoting choice out there, we use coconut water that has natural sugars that happen to feed kefir grains just as much as lactose does, but without all the negative side effects that come with dairy. Palm Treats become an alternative to conventional yogurt and providing unique health benefits

Palm Treats will be packed in a plastic jar with lid. We don't use a glass jar because glass is heavier than plastic and breaks much easier. In each pack there will be approximately 250 ml of Coconut Kefir Yogurt. Every pack will be sold for IDR 20.000.

CHAPTER I

INTRODUCTION

1.1. Background of The Study

Palm Treats is a product that made out of coconut water kefir. The main ingredients of Palm Treats is Water Kefir Grains. The word Kefir or Kephir is a thought to have originated from the Turkish word "keif" which means "good feeling".

Water Kefir Grains are purported to have originated in Mexico where they supposedly appeared as crystals on the paddles of a cactus plant. These grains aren't actually grains like wheat or barley. The grains themselves are a polysaccharide created by the bacteria and yeast which then consume the sucrose (table sugar) in the water. In exchange for nutrients, they create healthy acids as well as a host of organisms that support the human microbiome.

Water Kefir Grains are known with variety of names such as Tibicos, Tibi, Japanese Water Crystals, Tibetan Sea Bees, California Bees, African Bees, Balm of Gilead, Japanese Beer Seeds, Aqua Gems, Sea Rice, Beer Seeds, Ginger Bees, Ale Nuts, Beer Plant, Vinegar Bees, Bébées, and etc. They are called with different names in different countries.

Water Kefir Grains look like large salt crystals. They are usually clear or slightly gray in coloring, have a firm texture and have a sour refreshing flavor with a slight of subtle aroma of fresh yeast or a very subtle beer-like aroma. Using different types of sugar or juice will impact their color (molasses turns them light brown for example) though switching back to white sugar will cause them to turn clear again. Others sugars that have more minerals (brown sugar, coconut palm sugar, piloncillo, etc) may be suitable from time to time. But it the grains start to change shape or get mushy, switch back to white sugar until they restabilize.

Water Kefir is typically composed of both lactic and acetic acid bacteria. Most common bacteria species in Water Kefir are; Acetobacter Fabarum, Acetobacter Orientalis, Zymomonas Mobilis, Bifidobacterium Aquikefir, Bifidobacterium Crudilactisand, Bifidobacterium psychraerophilum, Lactobacillus Nagelii, Lactobacillus Hordei, Lactobacillus Hilgardii, Lactobacillus Casei, Leuconostoc Mesenteroides, Leuconostoc Citreum, and etc. Most common yeast species in Water Kefir are; Dekkera Bruxellensis, Dekkera Anomala, Saccharomyces Cerevisiae, Lachancea Fermantati, Zygosachharomyces Lentus, Zygotorulaspora Florentina, Hanseniaspora Valbyensis, and etc.

In a 2015 study published in Frontiers in Microbiology, kefir was recognized as a potential source of probiotics and molecules with several healthy properties. Here are health benefits of Kefir that are supported by research:

1. Boost Immunity

Kefir contains many nutrients and compounds (folate and biotin) that help kick our immune system to gear and protect our cells. It contains large amounts of *Lactobacillus Kefiri*, which helps defend against harmful bacteria like *salmonella* and *E. Coli*. Kefir has also shown the ability to lower cholesterol and blood pressure.

2. Improve Bone Health

Osteoporosis is a major concern for many people these days. It is especially common among older women and dramatically raises risk of fractures. Ensuring an adequate calcium intake is one of the most effective ways to improve bone health and slow the progression of osteoporosis. Kefir can increased calcium absorption in bone cells. This leads to improved bone density, which should help prevent fractures.

3. Potentially Fights Cancer

Kefir can play a big role in helping our body to fight this disease. The compounds found in probiotic drink have actually been shown to kill off cancer cells in the stomach in some in vitro studies. Kefir benefits in the fight against cancer are due to it's large anti-carcinogenic role inside the body. It can slow the growth of early tumors and their enzymatic conversions from non-carcinogenic to carcinogenic.

4. Detoxification and Rejuvenation

Probiotics from Kefir water can remove harmful chemicals, poisonous, and toxins from our body and blood. This can help our skin to becomes healthier and glowing after drink water kefir for a fer weeks. Kefir also help to prevent a range of age-related diseases such as dementia, and may also serve to extend lifespan.

5. Improve Stomach Health

Stomach has both good and bad bacteria. Kefir can maintaining a balance between the two bacteria and keep the stomach healthy. Drinking kefir, which is loaded with probiotics, can helps in treating diarrhea caused by infection or antibiotics. Kefir also helps in treating peptic ulcers. So kefir may be useful if you have problem with digestion.

6. Heals Skin

When our gut is out of whack it can send signals to our skin that disrupt it is natural balance and cause all sorts of problem like acne rashes, psoriasis and eczema. Kefir helps bring good bacteria back to the forefront and supports the health of our largest organ, the skin. Not only does it help with systemic based skin issues, but kefir benefits skin issues like burns and rashes as well.

7. Inflammation

Good bacteria help reduce inflammation throughout the entire body. This include blood vessel inflammation, arthritis and other areas of inflammation that show up with chronic disease. Kefir may help treat inflammation at the source to help reduce the risk of respiratory issues like allergies and asthma. The live microorganisms present in kefir help the immune system naturally suppress allergic reactions and aid in changing the body's response to the systemic outbreak points for allergies.

8. Weight Loss

Kefir is rich in protein which can helps us feel full for long periods of time. Kefir is rich in vitamins, enzymes and good bacteria that's beneficial when you are on a diet. It's also an essential one if we want to decrease calorie intake. If we include low – fat kefir in our diet, it will help us to lose weight.

9. Improve Mood and Mental Health

The connection between the gut and the brain is incredibly strong that problems in the brain almost always correlate to problem in the gut or vise versa. A tranquillising effect on the nervous system has helped many who suffer from mood disorder, sleep disorders and insomnia, depression and autism.

1.2 The Objectives of The Study

Some people may already be familiar with Water Kefir Grains. Kefir Grains is usually made into a beauty product. Kefir products has gained its popularity lately especially in social media where online shops have started to sell kefir – infused products such as masks. In Indonesia, water kefir grain is usually made into fermented beverages (made with sugared water, fruit juice, coconut water, beer wart, ginger beer and etc) because the bacteria give kefir its benefits for our body and skin health.

The main reason for the idea of Coconut Kefir Yogurt is to be able to help people with digestive diseases, since our product is dairy-free. Our product is suitable for those who wish to avoid all traces of dairy but still want a probiotic food because Coconut Kefir Yogurt might be a better option than yogurt for some lactose-intolerant people.

Today, kefir is considered as a superfood because it contains a composition of intestinal microbes that prevent the growth of pathogenic microorganisms inside our body. In Indonesia, Kefir hasn't been a readily available food for dairy-free consumer since most of Kefir products that are sold in Indonesia are come in a form of beverages and beauty products, so that's why we would like to introduce a new way to enjoy the Kefir Grains through our Dairy-Free Coconut Kefir Yogurt products.

1.3 The Benefits of Study

The result of this expected to be useful for:

1. Writer / author

- This research useful to help to improve my knowledge and thinking ability to create a new product using water kefir grains.
- The results of this project can be used to start a new food and beverage business.

2. Readers

- This research useful to help to improve insight and knowledge about water kefir grains and its benefits for health.
- The result of this research expected to be used as a reference material for further researchers.

3. Ottimmo International MasterGourmet Academy

• This research and development project is expected to have a beneficial effect for Ottimmo International MasterGourmet Academy.

CHAPTER II

INGREDIENTS AND UTENSILS OVERVIEW

2.1 Description of The Material to be Used

2.1.1 Water Kefir Grains

The main ingredients to make coconut water kefir. We used around 30gr of water kefir grains.

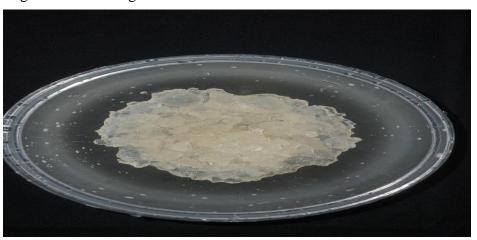


Figure 1. Water Kefir Grains.

2.1.2 Granulated Sugar

Granulated white sugar is the easiest and cheapest for water kefir grains to consume. Used to feed the water kefir grains. We used 60gr of sugar.



Figure 2. Granulated Sugar.

2.1.3 Mineral Water

Water kefir grains generally prefers a nutritious highly mineralized water. Avoid distilled water, reverse osmosis water and water which has been filtered through an activated carbon filter cause they often have extremely low or non-exsistent mineral levels. You can use tap water but make sure the water must be free from chlorine and fluoride because both can kill or hinder the yeast and bacteria in the grains. We used 500ml of water.



Figure 3. Mineral Water.

2.1.4 Raisin

Raisin used to add necessary minerals to keep the kefir grains happy. We used 10 gr of raisin.



Figure 4. Raisin.

2.1.5 Coconut Water

Coconut water is used to make the yogurt. Coconut water gives more benefits and avoids any chemicals that might be in regular water. We used 60 ml of coconut water.



Figure 5. Coconut Water

2.1.6 Coconut Flesh

Coconut flesh used to make the yogurt. We used 280 gr of coconut flesh.



Figure 6. Coconut Flesh.

2.2 The Tools Used During The Processing

2.2.1 Electric Scales

Electric scales used to measure the precise amount of ingredients that are used.



Figure 7. Electric scales.

2.2.2 Plastic Bowls

Plastic bowls used as a container to rehydrate and activate kefir grains with sugar water.



Figure 8. Plastic Bowls.

2.2.3 Plastic Strainer

Plastic strainer used to strain kefir grains after the fermenting process.



Figure 9. Plastic Strainer.

2.2.4 Plastic Spoon

Plastic spoon used to stir the water kefir grains and also used when adding sugar into the water.



Figure 10. Plastic Spoon.

2.2.5 Glass Jar

Glass jar used for the fermentation process



Figure 11. Glass Jar.

2.2.6 Coffee Filter

Coffee filter used to cover the jar. You can also use cheesecloth, paper towel or kitchen towel to cover the jar.



Figure 12. Coffee Filter

2.2.7 Rubber Band

Rubber band used to secured the coffee filter.



Figure 13. Rubber Band.

CHAPTER III

NEW PRODUCT PROCESSING SEQUENCE

3.1 The Processing Product by Using Picture

1. Prior to making coconut yogurt kefir, the grains must be fully activated. Activate dehydrated water kefir grains first by adding 2 teaspoon (8 grams) of granulated sugar into a plastic bowls. Add a little bit of water and stir thoroughly to dissolve the sugar. Add the water kefir grains and the raisins. Close the lid.



Figure 14. Kefir Grains, Raisins, Water and Sugar in plastic bowl.

- 2. Store it in the refrigerator for 2 weeks. Change the water and add the sugar every 2 days and change the raisins every 5 days.
- 3. Once the water kefir grains are re-hydrated, strain the water kefir grains and we're ready to make coconut kefir.
- 4. Cut and open the coconut, pour and strain the water into a container. Scrape out the meat and set aside.
- 5. Place the coconut flesh in a sterilized blender. Add the coconut water and blend it until super creamy like yogurt. Keep adding the water until we get the consistency that we like. Strain the coconut mixture to make it more creamy and thicker. Pour the coconut mixture into a clean glass mason jar



Figure 15. Coconut Kefir Yogurt in glass jar.

- 6. Add the Water Kefir Grains (about 1 tbsp), then stir well.
- 7. Cover the coconut yogurt with a coffee filter / cheesecloth or kitchen towel, place in a dark place for 7 10 hours.



Figure 16. Coconut Kefir Yogurt after fermentation process.

- 8. After that, take the coffee filter off, close the lid tightly and put in the fridge for 48 hours.
- 9. After the fermentation process, put in the Coconut Kefir Yogurt into a plastic jar with a weight of 250 ml per jar.

3.2 Complete Recipe Attached

Palm Treats

Dairy Free Coconut Kefir Yogurt

INGREDIENTS:

- 30 gr water kefir grains
- 500 ml water (for activate water kefir grains)
- 60 gr sugar (for activate water kefir grains)
- 10 gr raisin (for activate water kefir grains)
- 60 ml coconut water
- 1 young coconuts flesh (280 gr)
- 4 gr sugar

METHOD:

- To activate water kefir grains, add 60 ml water and 8 grams of sugar. Stir thoroughly to dissolve the sugar. Add the water kefir grains and raisins, close the lid. Store it in the refrigerator for 2 weeks. Change the water and sugar every 2 days and change the raisin every 5 days.
- Cut and open the coconut, pour and strain the water into a container. Scrape out the meat and set aside.
- Place the coconut flesh and sugar in a sterilized blender. Add coconut water and blend it until super creamy like yogurt. Keep adding the water until we get the consistency that we like. Strain the coconut mixture to make it more creamy and thicker. Move it into a clean glass mason jar.
- Add about 1 tablespoon Kefir Grains to the jar.
- Cover the coconut yogurt with a coffee filter, place in a dark place for 7 10 hours. After that, take the coffee filter off and put it in the refrigerator for 24 hours.

CHAPTER IV

NEW PRODUCT OVERVIEW

4.1 The Facts of Nutrition

Table 1. Nutrition Facts to Activated Water Kefir Grains.

Ingredients	Protein (g)	Fat (g)	Carbohydrate (g)
30 gr Kefir Grains	0	0	0
500 ml Water	0	0	0
60 gr Sugar	0	0	56,4
5 gr Raisins	0,15	0,02	3,96

Table 2. Palm Treats Nutrition Facts.

Ingredients	Protein (g)	Fat (g)	Carbohydrate (g)
60 ml Coconut Water	0,12	0,06	2,28
280 gr Coconut Flesh	2,8	2,5	39,2
4 gr Sugar	0	0	3,76
1 tbsp Kefir Grains	0	0	0
Total	2,92	2,56	45,24
Kkal (x4x9x4)	11,68	23,04	180,96
Total Calories	215,68 Kkal		

Figure 17. Nutrition Facts Label.

NI	1 -	
Nutrition F	acts	
2 servings per container		
Serving size	(125g)	
Amount Per Serving	440	
Calories	110	
	% Daily Value*	
Total Fat 12g	15%	
Saturated Fat 0g	0%	
Trans Fat 0g		
Sodium 0mg	0%	
Total Carbohydrate 90g	33%	
Dietary Fiber 0g	0%	
Total Sugars 0g		
Includes 0g Added Sugars	0%	
Protein 6g	12%	
Not a significant source of cholesterol, vitamir iron, and potassium	D, calcium,	
*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.		

CHAPTER V

BUSINESS PLAN

5.1 General Description of Company

Tryst Cafe is a sole proprietorship business. It is a business which focuses on the food and beverage business. Tryst Cafe will be located in Makassar, South Sulawesi at Jendral Sudirman Street. Tryst Cafe will start as a sole proprietorship business because it is a business that does not require a large amount of capital and employee, since our business is still new. We have innovated for healthy food products in Indonesia. We want to make food products that are still rarely known but has a lot of benefits for body so that's why we make a non-dairy and non-soy substitute for yogurt. Our product is a dairy-free and soy-free Coconut Kefir Yogurt that made with coconut and kefir grains.

Vision Statement:

To become the worldwide leader in healthy food and improve global health through innovation in food.

Mission Statement:

- 1. Our mission is to provide high quality, great tasting and healthy food.
- 2. To increase access to knowledge and consumption of healthy food through our product.

5.2 Business Scope of Company

5.2.1 Purchase of Product Ingredients (Purchasing)

The main ingredients of Palm Treats are Kefir Grains and Coconut. To get the kefir grains we bought it at an online shop since it quiet hard to get it in offline store in Indonesia. For the coconut, we bought it from a supplier that sell fresh coconut, and for the other ingredients such as sugar we bought it from a grocery shop or in a supermarket. So that in the production of palm treats we don't play a role by ourself.

5.2.2 Product Production Process (Production)

For the production process, we always provide the best by choosing a good quality of the ingredients. We began to manage these ingredients with the production process. This production process starts with activating water kefir grains for 2 weeks, and then blending the coconut flesh and the water and then the fermentation process.

5.2.3 Marketing and Selling Products (Marketing and Sales)

The first step we took to market our products was through social media since social media marketing is a powerful way for businesses of all sizes to reach prospects and customers. Social media marketing is the use of social media platforms (such as Facebook, Instagram, Twitter, Linkedln, Pinterest, and etc) to connect with our audience to build our brand. Great marketing on social media also can bring remarkable success to our business, creating devoted brand advocates and even driving leads and sales to our business. We will also spread brochures and posters in crowded places such as at Car Free Day event, give free samples and put our product in a grocery stores or supermarket.

5.3 Stakeholder

Parties related to this business:



Figure 18. Stakeholder

1. Supplier

Suppliers have a very important role in our production process. With a cooperative relationship with suppliers, we can get the ingredients for production. For the main ingredients like kefir grains and coconut we work with several suppliers, and for the other supporting ingredients we work with a supermarket or grocery store.

2. Customers

Customers have a very important role in the life of our company and products. With our customers, we can continue to carry out the production process to meet their needs.

3. Franchise partner

The role of the franchise partner will be seen when our business has begun to develop, where there will be cooperation with public with this franchise method. Franchise business can also be used to increase passive income.

4. Government

Governments can also be considered a major stakeholder in a business. All the product must pass the provisions in accordance with procedures from the government. So for that we try to get permission from Lembaga Pengkajian Pangan, Obat-obatan, dan Kosmetika Majelis Ulama Indonesia (LPPOM MUI).

5.4 Identification of Investment Opportunities (SWOT Analysis)

5.4.1 Strength

- Unique product, different from others in the market.
- Offer high quality and healthier product.
- Kefir Grains are reusable.

5.4.2 Weakness

- Costs are high.
- No customer's base.
- Kefir is rarely known by public so product marketing will be quite challenging.

5.4.3 Opportunity

- Expected industry growth over the next two years.
- Changing consumers eating behaviour into healthier food.
- Consumers are more health conscious.
- Ability to expand business operation in the future.

5.4.4 Threats

- New competitors are popping up.
- Rising operating costs.

5.5 Marketing Aspect

In order to market a product, it is imperative that we tailor our marketing and sales efforts to specifically reach the segment of population that will most likely buy our product. It is critical that we first determine or clearly identify our primary market since success depends on we being able to meet customer needs and desires, we need to know who our customers are, what they want, where they live and what they can afford.

The main target for Palm Treats are middle class families with children, teenagers and adults. Palm Treats is a perfect product for breakfast idea or as a treats for kids. This dairy-free yogurt is perfect for people who want to have dairy free lifestyle, whether if they're allergic to dairy, lactose intolerant, or vegan. It is also good for people who want to lose weight because its protein content.

If we don't promote our new product, it probably won't gain much attention because promotion is a key to a successful business. There are several strategies for businesses to achieve success on a competitive market. We will promote Palm Treats through the social media (Twitter, Instagram, Facebook). Social media has become increasingly essential for food business and can help us reach a lot of customers. We will try to introduce and sell our product in school canteens if we're allowed and in events such as Car Free Day (CFD) event every Sunday morning. We will also try to get our product into a grocery store or supermarket. And last rely on word of mouth marketing because word of mouth marketing and online marketing are equally as powerful as each other.

5.6 Technical Aspect

As for the capacity of Palm Treats production, we will produce the yogurt five times a week, because we need to put the grains on a break and rest them in sugar water. It helps to reset and refresh them. Palm treats will start as a home-based business so we will produce 10 packs of Palm Treats Coconut Yogurt per day. So

in a week we can produce around 50 packs. Only one worker / employee is needed because our business is still new and small. In the future, we will increase the number of employees if our business is going well.

5.7 Legal Aspect

Juridical Legal Aspect

1. Business Entity

Tryst Cafe is a sole proprietorship, also known as the sole trader since our business is still new and small. Our business is a type of business entity that is owned and run by one individual and in which there is no legal distinction between the owner and the business. The sole trader receives all profits and has unlimited responsibility for all losses and debts. Every assets of the business are owned by the proprietor.

2. Licensing and Tax

Documents are the most important objects for the verification and for setting up of a new business. These are the following documents which are necessary to set up a cafe in Indonesia:

- 1. Deed of Establishment of Business.
- 2. Photocopy of Owner's Identity Card.
- 3. Photocopy of Owner's NPWP.
- 4. Tourism Business Registration Number.
- 5. Halal Certificate.
- 6. Photocopy of UPL/UKL.
- 7. Letter of Document Validity.

Taxes are involuntary fees levied on individuals or corporations and enforced by a government entity whether local, regional or national in order to finance government activities. In economics, taxes fall on whomever pays the burden of the tax, whether this is the entity being taxed, such as a business, or the end consumers of the business's goods.

A company is subject to the tax obligations set by the Indonesian government if the company's domicile is in Indonesia. In general, a corporate income tax rate of 25 percent applies in Indonesia. However, there are several exemptions:

- Companies listed on the Indonesia Stock Exchange (IDX) that offer at least 40 percent of their total share capital to the public obtain a 5 percent tax cut (hence a tax rate of 20 percent applies for these public companies).
- Small and medium-enterprises with an annual turnover below IDR 50 billion (approx. USD \$3.8 million) obtain a 50 percent tax discount (imposed proportionally on taxable income of the part of gross turnover up to IDR 4.8 billion). In 2013, Indonesia's Finance Ministry issued a regulation that set a one percent income tax tariff on individual and institutional taxpayers with an annual gross turnover below IDR 4.8 billion (approx. USD \$363,636).

Corporate Income Tax	Tax Rate
Normal Rate	25 %
Public company with $> 40\%$ of its share traded on the IDX	20 %
Companies with a gross turnover below IDR 50 billion	12,5 %
Companies with a gross turnover below IDR 4.8 billion	1 %

Food Safety Law

Registering food and beverage in Indonesia depends on many factors. In general, the registration covers food additives, raw materials, package material and even the process of manufacturing the product. Most products that enter the country, should go through the process.

Requirements:

- Letter of Authorization (LoA), original, legalized by Indonesian Embassy in the country of origin
- Certificate of Free Sales (CFS), original, legalized by Indonesian Embassy in the country of origin
- Good Manufacturing Practice (GMP), copy, legalized by Indonesian Embassy in the country of origin
- Master of formula
- Packaging design
- Other supporting technical and quality document

In general, there are 8 documents which required by BPOM for the food and beverages registration, they are:

- Certificate of Free Sales in the country of origin
- Ingredients of finished products and its raw materials (includes expired info)
- HACCP Validation
- Certificate of Analysis of Finished Products
- Certificate of Analysis of Raw Materials & its ingredients
- Packaging information
- Product code explanation
- Authorization Letter

Food registration in BPOM can be done by filling out a template through the eregistration application on the official website of BPOM and we can directly fill the data for registration process. After all the documents are correct and complete, BPOM can immediately issue an NIE (usually less than 10 days) To obtain Halal Certificate in Indonesia:

STEP 1: Fulfill MS23000 halal requirements with materials, product and production process, and implement Halal Assurance System (HAS).

STEP 2: Prepare all required documents for halal certificate application. Submit the documents to Cekindo, along with the registration fee and halal certification contract fee.

STEP 3: Fill out documents, in accordance with certification status, as required by LLPOM MUI during the registration process. Submit the documents to Cekindo for LLPOM MUI to process.

STEP 4: Guidance is provided for pre-audit assessment, audit, post audit, and lab analysis to ensure compliance.

STEP 5: Product meets HAS requirements and passes LLPOM MUI lab analysis. MUI issues the certificate.

5.7 Financial Aspect

1. Variabel Cost

To activate Water Kefir Grains (for 2 weeks)

No	Description	Total Unit	Cost / unit	Cost / 2 weeks
1.	Water Kefir Grains	60 gr	IDR. 833,33	IDR. 50.000
2.	Mineral Water	500 ml	IDR. 8	IDR. 4.000
3.	Sugar	60 gr	IDR. 12	IDR. 720
4.	Raisins	10 gr	IDR. 90	IDR. 900
	Total / 2 weeks			IDR. 55.620

The Kefir Grains can last up to 1 year so:

1 year = 52 weeks	IDR. 55.620 / 52 weeks	IDR. 1.069 / week
1 week = 5 day of production	IDR. 1.069 / 5 days	IDR. 0,213 / days

1 recipe = 10 pcs

Table 3. Variabel Cost 1 day = 10 pcs

No	Description	Total Unit / Day	Cost / Unit	Cost / Day
1.	Water Kefir Grains	60 gr	IDR. 0,00346	IDR. 0,213
2.	Coconut	10 pcs	IDR. 8.000	IDR. 80.000
3.	Sugar	40 gr	IDR. 12	IDR. 480
4.	Packing			
	1. Jar	10 pcs	IDR. 4500	IDR. 45.000
	2. Sticker	10 pcs	IDR. 500	IDR. 5.000
	Total / Day			IDR. 130.480,213
	Total / Month			IDR. 2.609.604,26

2. Fixed Cost

Table 4. Fixed Cost

Material	Total	Depreciation	Depreciation	Depreciation
			/ year	/ month
Plastic spoon	IDR. 5.000	2 year	IDR. 2.500	IDR. 208,33
Plastic strainer	IDR. 15.000	2 year	IDR. 7.500	IDR. 625
Plastic bowl	IDR. 2.000	2 year	IDR. 1.000	IDR. 83,33
Electric Scales	IDR. 100.000	5 year	IDR.20.000	IDR. 1.666,66
TOTAL				IDR. 2.583.32

3. Overhead Cost

Table 5. Overhead Cost

Description	Cost / unit	Cost / month
Employee	IDR. 50.000	IDR. 1.000.000
Coffee Filter		IDR. 10.000
Rubber Band		IDR. 2.000
TOTAL		IDR. 1.012.000

Total Cost

Table 6. Total Cost

Type of Cost	Total / Month
Variabel Cost	IDR. 2.609.604,26
Fixed Cost	IDR. 2.583,32
Overhead Cost	IDR. 1.012.000
TOTAL	IDR. 3.624,187.58

Cost of Production (Month) = IDR. 3.624,187.58

Cost of Production / pcs = IDR. 3.624,187.58 / 200 pcs

= IDR. 18.120,93 / pcs

Selling price / unit = IDR. 18.120,93 + (10% * Rp. 18.120,93)

= IDR. 19.993,023

= IDR. 20.000.000

So, cost of production per pack is IDR. 18.120,93 and the selling price is IDR.20.000 per pack.

CHAPTER VI

CONCLUSION

6.1 Conclusion

To sum up, Kefir is one of a superfood that contains a larger number of different types of healthy bacteria and yeast, making them a very rich and diverse probiotic source. Palm Treats become an alternative to conventional yogurt and providing unique health benefits since kefir contains three times more probiotics than yogurt and it fits the criteria as a functional food. It is a rich source of calcium, protein, magnesium, phosphorus, vitamin and minerals.

With how rich of various health benefits Water Kefir Grain is, Palm Treats Dairy-Free Coconut Kefir Yogurt is a natural yet innovative food with the potential to offer benefits to health when eaten as part of a balanced healthy diet. Palm Treats can be a healthy dairy-free yogurt option for those who need or choose to avoid dairy products. This is also makes it ideal for people who following vegan or paleo diets or people who are intolerant of other plant-based products, like soy. Therefore, Palm Treats is suitable for everyone who want a healthy, easy and convenient snack to enjoy.

6.2 Suggestion

The most important thing when you work with Kefir Grains are the material of tools. When working with kefir grains, use nonreactive tools such as plastic, ceramic, or glass. We don't recommend to use equipment that has any iron, copper, aluminium or metal material since the kefir grains being acidic and they react to acid. The type of water used should be selected with care to ensure that no damage

will come to the grains. We recommended using water that are high in mineral content which will benefits the kefir grains.

The Water Kefir Grains should be rested at least once a week because they may get stressed. When the kefir grains started to smelling like sulfur, turning thick and slimy, have started becoming smaller and sand-like, it is a sign that your kefir grains need to take a rest and rebuild.

After you bought the yogurt, immediately store it in refrigerator. Do not leave the yogurt at room temperature. The Coconut Kefir Yogurt should be keep in the refrigerator because if not it will cause digestive diseases because of the growth of bacteria from food that is not stored in the proper conditions. If the yogurt already opened, the yogurt should be eaten no more than 2 hours, so it is recommended to consume it immediately after you open it.

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APPENDIX

Appendix I. Packaging Design



Figure 19. Packaging Design

Appendix II. Supplier List

1. Water Kefir Grains and Raisins

The Water Kefir Grains and raisins that we bought as our starter is from hidhoh https://shopee.co.id/product/23734368/288258401?v=557&smtt=0.0.4

2. Granulated Sugar and Mineral Water

The sugar and mineral water that we use is bought from Toko Baji Pamai located at Jl. Ranggong No.8, Bulo Gading, Kec. Ujung Pandang, Kota Makassar, Sulawesi Selatan 90111

3. Coconut

The coconut that we use is from Warung dg Isa located at Jl. Sunu No. 32, Timungan Lompoa, Kec.Bontoala, Kota Makassar, Sulawesi Selatan 90153.

4. Packaging Jar

The packaging jar is bought from Toko beautifulrainbowshop https://shopee.co.id/product/12499157/92496375?v=501&smtt=0.0.3

5. Packaging Sticker and Tag

The sticker that we use is ordered from Toko Cemerlang located at Jl. G. Bawakaraeng No. 80, Pisangan Utara Kec.Ujung Pandang, Kota Makassar, Sulawesi Selatan 90157.

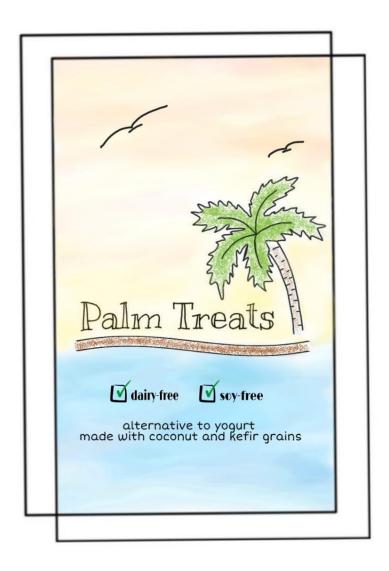


Figure 20. Product Logo

APPROVED RECIPE ATTACHED

Dairy-Free Coconut Kefir Yogurt

Yield: 250 gr coconut kefir yogurt

Ingredient:

- 30 gr water kellr grains
- 2 young coconuts (200 gr coconut flesh)
- 250 ml coconul water

Method:

- Cut and open the coconuts, pour and strain the water into a container. Scrape out the meat and set aside.
- 2. Add water kefir grains into the coconul water, make sure that there is an air space left on top for fermentation. Cover loosely with cheesecloth & secure with a rubber band
- 3. Allow the coconut water to sit in a warm spot for 24 hours 48 hours.
- 4. Place the young coconut flesh in a sterilized blender. Add the coconut water kefir and blend with the meat until super creamy like yogurt. Keep adding water until we get the consistency that we like. Strain the coconut mixture to make it more creamy and thicker.
- 5. Pour the coconut yogurt mixture into a clean glass mason jar.
- Cover the coconut yogurt mixture with a cheesecloth and rubber band. Place in a dark place for 7
 hours 10 hours. After that, take the cheesecloth off, seal the jar and put in the fridge for 48
 hours.

Serving Method:

- Serve as healthy snacks.
- You can add high fiber and nutritious foods such as berries, nuts and sweetener of choice.

Health Benefit:

- Can help with digestion of food, improve your gut flora, promote good bacteria in your digestive system, may benefit immune system, and help with some digestive disorders.
- Coconut water kefir contains potassium that can help prevent the loss of bone mineral density and reduce the risk of osteoporosis.
- Coconut water kefir is gluten free and suitable for people who have celiac disease or gluten sensitivity.
- Kefir may be associated with cancer prevention and also has beneficial effects in cancer treatment.
- Treat or prevent diarrhea, especially following antibiotic treatment.
- Treat irritable bowel syndrome or relieve symptoms.
- Help boost your immune system.

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