RESEARCH AND DEVELOPMENT FINAL PROJECT

KIEFE

(Healthy Gummies high in nutrients made from Kefir Grains with many Healthy Benefits)

By

Celine Laurence
1674130010023

OTTIMMO

STUDY PROGRAM OF CULINARY ART
OTTIMMO INTERNATIONAL
MASTER GOURMET ACADEMY
SURABAYA
2018
APPROVAL
“KIEFE”
Healthy Gummies high in nutrients made from Kefir Grains with many healthy benefits
Arranged by:
Celine Laurence
1674130010023

Approve,
Advisor

Examiner I

Examiner II

Surabaya, August 10th 2018

Irene Ratri Andia Sasmita
199102111805043

Arya Putra Sundjaja, SE
199102111805043

Dr. Ir. Fadjar Kurnia Hartati, MP.
0711116601

Knowing,
PREFACE

Director of Akademi Kuliner dan Patiseri Ottimmo Internasional

Zaldy Iskandar, B.Sc.
NIP. 197310251201001

Head of Study Program of Akademi kuliner dan Patiseri Ottimmo Internasional

Irra Chrisyanti Dewi, S.Pd., M.S.M
NIP. 197812011702028
PREFACE

As for the beginning, I would like to thank my Holy God, Jesus Christ for his blessings and spiritual guidance in order for me to complete this Research and Development report. The main purpose for this report is to help each student in Ottimmo to be creative and innovative as we have to create a whole new product that never been in Indonesia. One of the reasons why I come up with the idea of making Kiefe is because I want to create a healthier alternative consumption which can be very beneficial to human’s health condition.

During this process of completing this report, I received so much guidance and support. By this, I would like to express my gratitude to the names below:

1. My parents who have supported and provided me to achieve good education and as a family role to help me in personally.
2. Ms. Irene as my RnD mentor who have helped me in so many things in order for me to understand the guideline for making this report.
3. Ms. Irra Chrisyanti Dewi as the Head of Study Program at Ottimmo International.
4. Mr. Zaldy Iskandar as the head Director of Ottimmo International.
5. Ms. Cindy Tanio who have help me in so many ideas and suggestions, and who have helped me in motivation and courages.
6. My dearest friends, Ms. Celine Nicola, Ms. Stella Gracia, Ms. Diane Yudith, and Mr. Tommy who all have help me by a lot of guidance and suggestions.

Surabaya, August 8th, 2018.

Celine Laurence
EXECUTIVE SUMMARY

Kiefe is a product of healthy gummies that made out of Kefir Grains. It has a lot of benefit in health condition. Loaded with valuable enzyme, easily digestible nutrients, beneficial acids, vitamins and minerals, making Kiefe a more healthier sweet snacks for everybody to consume. It is known to promote and aid in digestion and overall health. It is also anti-mutagenic and help to amanage free radicals in the body. Kefir Grains also help to lower blood pressure and cholesterol. It is a magic bullet for health that has myriad of possible health benefits.

There will be 4 steps of processing. First is the fermenting which will take around 2 months but in this part, the harvesting of kefir grains is very highly effective as it will multiply in 4 times. The next process is Sun-drying process where the kefir grains will be sun-dried for 2 weeks in order for them to dried out. The third process is the freezing and drying process which only last for 2 days. And the last process is the packaging process.

Kiefe will be packed in a plastic jar and will be wrapped individually in candy wrappers. In each pack there will be approximately 70 grams of Kiefe – around 18-20 pieces of Kiefe since the size and the weight of each Kefir Grains is different from each other. Every pack will be sold for IDR 28.000.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>APPROVAL</th>
<th>PREFACE</th>
<th>EXECUTIVE SUMMARY</th>
<th>TABLE OF CONTENT</th>
<th>LIST OF PICTURES</th>
<th>LIST OF TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>ii</td>
<td>iii</td>
<td>iv</td>
<td>vi</td>
<td>vii</td>
</tr>
</tbody>
</table>

**CHAPTER I INTRODUCTION** ................................................. 1

1.1 Background of Ingredients ........................................... 1
1.2 Reason for Selection Ingredients ................................... 5
1.3 The Content of Nutrients & Health Benefits ....................... 6

**CHAPTER II INGREDIENTS AND UTENSILS OVERVIEW** ................. 11

2.1 Description of The Material to be used .......................... 11
2.1.1 Water Kefir Grains ............................................. 11
2.1.2 Granulated Sugar ................................................ 11
2.1.3 Mineral Water .................................................... 12
2.1.4 Black Raisins .................................................... 12
2.1.5 Citric Acid ....................................................... 13
2.2 The Tools Used During the Processing ............................. 13
2.2.1 Electric Scales ................................................... 13
2.2.2 Glass Bowl ....................................................... 14
2.2.3 Glass Jar ......................................................... 14
2.2.4 Cheesecloth ...................................................... 15
2.2.5 Plastic Strainer .................................................. 15
2.2.6 Plastic Spoon .................................................... 15
2.2.7 Binder Clips ..................................................... 16
2.2.8 Plastic Wrap ....................................................... 16

**CHAPTER III NEW PRODUCT PROCESSING SEQUENCE** ............... 17

3.1 The Processing Product by Using Flowchart ....................... 17
3.1 The Processing Product ............................................... 18
3.1.1 Fermenting Process ............................................. 18
3.1.2 Sun-Drying Process .............................................. 21
3.1.4 Freezing and Drying Process .................................. 23
3.1.5 Packaging Process .............................................. 24
3.2 Complete recipe Attached ........................................... 25

**CHAPTER IV NEW PRODUCT OVERVIEW** ............................... 27

4.1 The Facts of Nutrition ................................................ 27
4.1.1 Kefir Grains ....................................................... 27
4.1.2 Granulated Sugar ................................................ 28
4.1.3 Black Raisins ...................................................... 29
4.1.4 Lemon ............................................................... 30
4.1.5 Citric Acid ......................................................... 31
4.1.6 Complete Nutrition Facts ....................................... 32
CHAPTER V BUSINESS PLAN ............................................................................................33
  5.1 Identification of Investment Opportunities ..........................................................33
    5.1.1 SWOT Analysis .................................................................................................33
    5.1.2 Marketing Aspect .............................................................................................34
    5.1.3 Technical Aspects ............................................................................................34
    5.1.4 Financial Aspect ...............................................................................................35
      5.1.4.1 Variable Cost ...............................................................................................35
      5.1.4.1 Fixed Cost ..................................................................................................36
CHAPTER VI CONCLUSION ............................................................................................37
  6.1 Conclusion .............................................................................................................37
  6.2 Suggestion ..............................................................................................................38
REFERENCES ................................................................................................................39
APPENDIX ....................................................................................................................40
  Appendix 1. Packaging Design ..................................................................................40
  Appendix 2. Supplier List ............................................................................................42
  Appendix 3. Product Logo ..........................................................................................43
APPROVED RECIPE ATTACHED ...............................................................................44
FORM CONSULTATION ..............................................................................................45
LIST OF PICTURES

Picture 1. Kefir Grains .................................................................11
Picture 2. Granulated Sugar ..........................................................11
Picture 3. Mineral Water ...............................................................12
Picture 4. Black Raisins .................................................................12
Picture 5. Citric Acid .....................................................................13
Picture 6. Electric Scales ...............................................................13
Picture 7. Glass bowl .................................................................14
Picture 8. Tall Glass Jar ...............................................................14
Picture 9. Cheesecloth / Tofu Cloth ................................................15
Picture 10. Plastic Strainer ...........................................................15
Picture 11. Plastic Spoon .............................................................15
Picture 12. Small Binder Clips .......................................................16
Picture 13. Plastic Wrap ...............................................................16
Picture 14. Fresh Kefir Gains in a glass bowl ..................................18
Picture 15. Additional of Lemon Slice and Raisins ..........................18
Picture 16. Tall glass jar contains Fermented Kefir Water & Fresh Kefir Grains. 19
Picture 17. Kefir Grains, Sugar, Citric Acid in a glass bowl ..............21
Picture 18. Glass bowl wrapped with plastic wrap ............................21
Picture 19. Covered glass bowl with cheesecloth and binder clips ..........22
Picture 20. The starting process of sun dry ......................................22
Picture 21. The aftermath of Kefir Grains from the sun drying process ....23
Picture 22. Wrapped Kiefe with Ogandi fabrics in the packaging jar ....24
Picture 23. Nutrition Facts of Water Kefir Grains ............................27
Picture 25. Nutrition Facts of Raisins .............................................29
Picture 27. Nutrition Facts of Citric Acid .......................................31
Picture 28. Kiefe Packaging Front Side .........................................40
Picture 29. Kiefe Packaging Left Side ............................................40
Picture 30. Kiefe Packaging Right Side .........................................41
Picture 31. Kiefe Packaging Top Side ............................................41
Picture 32. Product Logo ............................................................43
LIST OF PICTURES

Table 1. Kiefe Nutrition Facts ..................................................................................32
Table 2. Table of Variable Cost in Food Cost and Packaging Cost.......................35
Table 3. Fixed Cost with Depreciation Cost ...............................................................36