

**RESEARCH AND DEVELOPMENT  
FINAL PROJECT “HOT PUMPKIN”  
(PUMPKIN CHILI FERMENTED)**



**By:**

**JONATHAN RIO GOEY**

**2074130010026**

**STUDY OF CULINARY ART  
OTTIMMO INTERNATIONAL  
MASTERGOURMET ACADEMYSURABAYA**

**2022**

## PLAGIARISM STATEMENT

I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication. I also certify that this assignment/report has not previously been submitted for assessment in any other unit, except where specific permission has been granted from all unit coordinators involved, or at any other time in this unit, and that I have not copied in part or whole or otherwise plagiarized the work of other students and/or persons.

On this statement, I am ready to bear the risk/any sanctions imposed to me in accordance with applicable regulations, if in the future there is a breach of scientific ethics, or you have a claim against the authenticity of my work.

Surabaya, 18 October 2022



Jonathan Rio Goey

## APPROVAL 1

### CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT PROJECT

Name : Jonathan Rio Goey  
Place, Date of Birth : Sidoarjo, 14 September 2002  
2002NIM : 2074130010026  
Study Program : D3 Seni Kuliner  
T I T L E : Fermentasi Sambal Labu Kuning

#### This paper is approved by:

Head of Culinary Arts Study Program  
November 18<sup>th</sup> 2022

Advisor,  
November 18<sup>th</sup> 2022



Hilda Tjahjani I., S.E., Ak.,C.A., M.M.

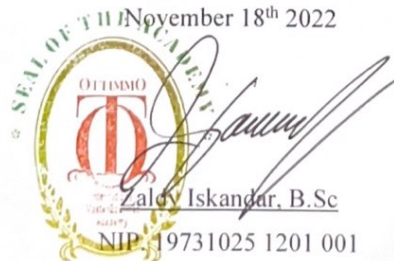
NIP. 19691029 2002 072



Novi Indah P.S.,S.T.,M.Sc S.

NIP.19951109 2202 083

Director of  
Akademi Kuliner dan Patiseri OTTIMMO Internasional

November 18<sup>th</sup> 2022  
  
Zaldy Iskandar, B.Sc  
NIP. 19731025 1201 001

**APPROVAL 2**

**PUMPKIN CHILI FERMENTED  
(HOT PUMPKIN)**


Culinary Innovation and New Product Development report by :

**Jonathan Rio Goey**  
**2074130010026**

This report is already presented and pass the exam on :

(15 November 2022)

Examiners :

Examiner 1 : (Novi Indah Permata Sari,S.T.,M.Sc.).....

Examiner 2 : (Fransisca Romana Titis Suniati,S.TP.,M.Sc.) .....

Examiner 3 : (Jessica Hartan,A.Md.Par.) .....



## PREFACE

Praise and gratitude for the presence of Jesus Christ, because thanks to his grace and guidance I was able to complete Research and Development on time. Thank you, Lord, for all the abundance of favors and blessings that You have given to me who is full of shortcomings. prayers and thanksgiving continue to flow from the heart and mouth to the Lord Jesus Christ.

These few lines of sentences hopefully can make my place to say thank you to:

1. Mrs. Novi Indah P.S.,S.T.,M.Sc as my RnD advisor who has helped me in a lot of things for me to understand the guidelines for making this report..
2. Mr. Zaldy Iskandar as the head Director of Ottimmo International.
3. Ms. Hilda Tjahjani Iskandar as the Head of Study Program at Ottimmo International.
4. Mr. Goey Yozepp and Mrs. Lilyana Gunawan as my parents, who support and provide everything I need to achieve a good education and help me personally.
5. For the big family of Goey who always give encouragement.
6. Green nature family, my ottimmo's friend, Ms Dea and aline theola who always give encouragement and help to complete this research and development task, I love you guys.

Surabaya, 18 October 2022



Jonathan Rio Goey

## PREFACE

Praise and gratitude for the presence of Jesus Christ, because thanks to his grace and guidance I was able to complete Research and Development on time. Thank you, Lord, for all the abundance of favors and blessings that You have given to me who is full of shortcomings. prayers and thanksgiving continue to flow from the heart and mouth to the Lord Jesus Christ.

These few lines of sentences hopefully can make my place to say thank you to:

1. Mrs. Novi Indah P.S.,S.T.,M.Sc as my RnD advisor who has helped me in a lot of things for me to understand the guidelines for makingthis report..
2. Mr. Zaldy Iskandar as the head Director of Ottimmo International.
3. Ms. Hilda Tjahjani Iskandar as the Head of Study Program at Ottimmo fInternational.
4. Mr. Goey Yozeph and Mrs. Lilyana Gunawan as my parents, who support and provide everything I need to achieve a good education and helpme personally.
5. For the big family of Goey who always givesencouragement.
6. Green nature family, my ottimmo's friend, Ms Dea and aline theola who always give encouragement and help to complete this research and development task, I love you guys.

Surabaya, 18 October 2022

Jonathan Rio Goey

## EXECUTIVE SUMMARY

Sambal which has rich benefits for the body is a complementary food in a container that is classified as low calories but rich in benefits because it is combined with waste ingredients in pumpkin that have sufficient protein, namely chili sauce. This idea arose because most Indonesians people like sambal, because for Indonesians eating without chili sauce is incomplete but often afraid because complementary foods do not have many high benefits. When you eat this sambal in a container, you will feel the distinctive taste of the sambal plow with the addition of the pumpkin but with many benefits.

Complementary foods that are rich in these benefits will be packaged in plastic containers because it is easy to use and the affordable price. Use plastic containers because they are safe. The name of the product is "Sambal", the color theme used is Transparent white, thus consumers can know what ingredients it is made of. Each container will contain 150gram and will be sold for IDR 41,000. Later, complementary foods that are rich in benefits can be obtained in supermarkets or can be ordered directly through our website and social media.

**Keyword:** *complementary food, a lot of benefits, Chili, Pumpkin*

## TABEL OF CONTENT

PLAGIARISM STATEMENT .....	i
APPROVAL 1.....	ii
APPROVAL 2.....	iii
PREFACE.....	iv
EXECUTIVE SUMMARY .....	v
TABEL OF CONTENT .....	vi
LIST OF TABLES .....	viii
LIST OF FIGURE .....	ix
CHAPTER 1: INTRODUCTION .....	1
1.1 BACKGROUND OF THE STUDY .....	1
1.2 THE OBJECTIVE OF THE STUDY .....	3
CHAPTER 2: INGREDIENTS AND UTENSIL OVERVIEW .....	4
2.1 DESCRIPTION OF THE MATERIAL TO BE USED.....	4
2.2 THE TOOLS USED DURING THE PROCESSING .....	5
2.3 THE PROCESSING PRODUCT USING PICTURE .....	7
2.3.1 Fermented Pumpkin.....	7
2.3.2 Chili Base .....	8
2.3 RECIPE .....	9
2.4 FLOWCHART METHOD .....	13
CHAPTER 3: NUTRITION AND FOOD SAFETY .....	14
3.1 THE FACTS OF NUTRITION.....	14
3.1.1 Sambal Labu Kuning .....	15
3.2 FOOD SAFETY .....	17
3.2.1 Processing and storage temperature.....	17
3.2.2 Product Shelf Life.....	17
3.3.3 Product Packaging .....	17
CHAPTER 4: FINANCIAL ASPECT .....	19
4.1 Variable Cost.....	19
4.1.1 Fixed Cost .....	21



4.1.2 Overhead Cost .....	21
4.1.3 Cost of Production .....	21
4.2 SWOT ANALYSIS .....	22
CHAPTER 5: CONCLUSION AND SUGGESTIONS .....	24
5.1 CONCLUSION.....	24
5.2 SUGGESTION.....	25
5.3 THE BENEFITS OF THE STUDY .....	25
BIBLIOGRAPHY .....	26
APPENDIX.....	27

## LIST OF TABLES

Table 1 Sambal Labu Kuning Nutrition.....	15
Table 2 Variable cost .....	19
Table 3 Start Up Cost .....	20
Table 4 Fixed Cost.....	21
Table 5 Overhead Cost.....	21
Table 6 Cost of Production .....	21

## LIST OF FIGURE

Figure 1 The Material for fermented pumpkin .....	4
Figure 2 The Material for chili base.....	4
Figure 3 The Tools Used During The Processing.....	5
Figure 4 Cuts the pumpkin, and pumpkin skins.....	7
Figure 5 Boiling the pumpkin, pumpkin skins, and pumpkin seeds picture .....	7
Figure 6 Mixing water and kultur yoghurt then put into the bowl.....	8
Figure 7 Fry red chilies, red cayenne pepper, garlic & tomatoes .....	8
Figure 8 Pure the chili, tomato, cayenne pepper, and garlic, and slice the shallots.....	8
Figure 9 Saute the shallots and add the mashed ingredients.....	9
Figure 10 Add palm Sugar, powdered broth salt, Sugar, and Lime juice .....	9
Figure 11 Mix fermented pumpkin and chili base .....	9
Figure 12 Mixed fermented pumpkin and chili base .....	10
Figure 16 Product Processing FlowChart .....	13
Figure 17 Nutrition Fact.....	14