

**CULINARY INNOVATION AND NEW PRODUCT
DEVELOPMENT REPORT**

**UTILIZATION OF MILLET POWDER AS THE MAIN
INGREDIENTS FOR MAKING HEALTHY CEREAL**



**ARRANGED BY
MARCELINUS RIZKI SAPUTRA
2274130010027**

**CULINARY ARTS STUDY PROGRAM
OTTIMMO INTERNATIONAL
MASTER GOURMET ACADEMY
SURABAYA
2024**

PLAGIARISM STATEMENT

I certify that this proposal is my original work. All information, ideas, and data presented in this proposal have been properly referenced and credited to their original sources. I recognize the significance of academic honesty and integrity in scientific writing, and I pledge to maintain these standards throughout this process. I understand that plagiarism is a serious violation of academic ethics, potentially leading to severe consequences. Therefore, I have ensured that every part of this proposal is free from any form of plagiarism, whether intentional or unintentional. Should it be demonstrated at a later date that any portion of this proposal is the product of plagiarism, I am willing to accept the consequences prescribed by my academic institution.

Surabaya, October 11th, 2024





Marcelinus Rizki Saputra
Marcelinus Rizki Saputra

APPROVAL 1
CULINARY INNOVATION AND NEW PRODUCT
DEVELOPMENT PROJECT

Name : MARCELINUS RIZKI SAPUTRA
Place, Date of Birth : SENDAWAR, 8th FEBRUARY 2005
NIM : 2274130010027
Study Program : D3 Culinary Art
TITLE : UTILIZATION OF MILLET POWDER AS THE
MAIN INGREDIENTS FOR MAKING
HEALTHY CEREAL


This paper has been approved by:

Head of Culinary Arts Study
Program,
(June 27th, 2024)



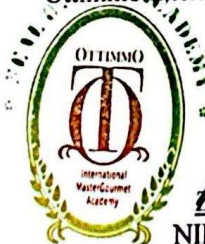

Heni Adhianata, S.TP., M.Sc
NIP. 19900613 1402 016

Advisor
(June 27th, 2024)



Anthony Sucipto, A.Md. Par.
NIP. 19960325 2201 085

Director of
Ottimmo International Master Gourmet Academy
(June 27th, 2024)



Zaldy Iskandar, B.Sc
NIP. 19731025 1201 001

APPROVAL 2
UTILIZATION OF MILLET POWDER AS THE MAIN
INGREDIENTS FOR MAKING HEALTHY CEREAL

Culinary Innovation and New Product Development report by :

Marcelinus Rizki Saputra


274130010027

This report is already presented and pass the exam on:

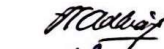
(October 08th, 2024)

This paper has been approved by:

Advisor : Anthony Sucipto, A.Md. Par.


.....

1st Examiner : Heni Adhianata, S,TP.,M.Sc.


.....

2nd Examiner : Gilbert Yanuar Hadiwirawan, A.Md. Par.


.....

PREFACE

First of all, I would like to express my praise and gratitude to God, who has given me health and strength to work through all the difficulties during the process of working on this proposal, so that I can complete this proposal for culinary innovation and new product development on time.

I also take this opportunity to express my gratitude to:

1. Chef Zaldy Iskandar, B. Sc as director of Ottimmo International Master Gourmet Academy
2. Chef Anthony Sucipto, A.Md. Par. as my CnD advisor who always guide and support me throughout the entire process of writing this report
3. Ms. Heni Adhianata, S.TP.,M.Sc as my head of study program of Ottimmo International Master Gourmet Academy
4. My Family, who always provide me with unfailing support and continuous encouragement throughout my years of study
5. My friends, for their love and unwavering moral support

Surabaya, October 11th, 2024



Marcelinus Rizki Saputra

ABSTRACT

Cereal is a ready-to-eat food that is convenient and can be enjoyed by all ages. The process of making cereal includes several main stages, namely roasting or toasting the ingredients, grinding, mixing and final roasting. The color of the cereal turns yellow-brown during this process, although the color variation is influenced by the ingredients used. The resulting cereal product has a light, crunchy texture and an appetizing, sweet aroma. Typically, cereals are made from ingredients such as wheat, oats or corn. However, this research uses foxtail millet seeds as the main ingredient, enriched with a mixture of nuts, seeds and dried fruits to increase the nutritional value of the product. The goal of this research is to increase millet production and consumption, and to introduce millet as the main ingredient in a nutritious and healthy cereal. The final product of this millet cereal has a good texture and delicious taste. 150 gram box of cereal contains 100 calories, 2 grams of protein, 2 grams of fiber, and 134 mg of calcium, with a serving size of 30 grams per serving. The retail price of this millet cereal is IDR 19.500 per box.

Keyword : *Foxtail Millet, Mix nuts & seeds, Mix Dried Fruits, Cereal*

TABLE OF CONTENT

Plagiarism Statement	ii
Approval 1	iii
Approval 2	iv
Preface	v
Abstract	vi
Table Of Content	vii
List Of Figures	ix
List Of Tables	x
Chapter I Introduction	1
1.1 Background of the Study	1
1.2 Objectives of the Study	2
Chapter II Literature Review	3
2.1 Ingredient Review	3
2.1.1 Foxtail Millet	3
2.1.2 Mix Nuts And Seeds	4
2.1.3 Mix Dried Fruits	5
2.2 Product Review	6
2.3 Process Review.....	6
2.3.1 Roasting and Milling	6
2.3.2 Mixed and Baked.....	7
2.3.3 Sensory test.....	7
Chapter III Methods	9
3.1 Time and Place	9
3.2 Ingredients and Utensils	9
3.2.1 Ingredients	9
3.2.2 Utensils	10
3.3 Processing Methods.....	11
3.4 Flow Charts	12
Chapter IV Result & Discussion	13
4.1 Product Result	13
4.2 Nutrition Fact	14
4.2.1 Nutrition Tabel.....	14

4.2.2 Nutrition Calculation	16
4.2.3 Nutrition Label	17
4.3 Food Safety & Packaging	17
4.3.1 Processing and Storage Temperature	17
4.3.2 Shelf life.....	17
4.3.3 Product Packaging	18
4.4 Financial Aspects.....	19
4.4.1 Selling Price.....	20
Chapter V Conclusion and Suggestion.....	21
5.1 Conclusion.....	21
5.2 Suggestion	21
Bibliography	
Appendix	

TABLE OF FIGURES

Figure 2.1 Foxtail Millet	3
Figure 2.2 Mix Nuts & Seeds	4
Figure 2.3 Mix Dried Fruits	5
Figure 3.1 Flowchart Millet Flakes	12
Figure 4.1 Millet Flakes	13
Figure 4.2 Nutrition Label.....	17
Figure 4.3 Aluminum-Metallized Pouch	18
Figure 4.4 Box.....	19

LIST OF TABLES

Table 3.1 Ingredients for fruit leather.....	9
Table 3.2 Utensils for fruit leather.....	10
Table 4.1 Nutritional value of Foxtail Millet.....	14
Table 4.2 Nutritional value of Mix Nuts.....	14
Table 4.3 Nutritional value of Mix Seeds.....	15
Table 4.4 Nutritional value of Mix Dried Fruits.....	15
Table 4.5 Nutritional Value of Ingredients Cereal Millet Flakes.....	16
Table 4.6 Cost Ingredients	19
Table 4.7 Packaging Cost	20
Table 4.8 Total Cost.....	20