CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT REPORT

HIGH IN FIBER SNACK BAR FROM SORGHUM AND SORGHUM SUGAR



ARRANGED BY NAUFA ULYA 2274130010020

CULINARY ARTS STUDY PROGRAM
OTTIMMO INTERNATIONAL
MASTER GOURMET ACADEMY
SURABAYA

2024

PLAGIARISM STATEMENT

I certify that this assignment is my own work, based on my personal study and 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 otherunit, 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 copiedin 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 scientist fic ethics, or you have a claim against the authenticity of my work.

Surabaya, August 7th, 2024

Naufa Ulya

APPROVAL 1

CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT PROJECT

Name : Naufa Ulya

Place, Date of Birth : Surabaya, July 17th 2004

NIM : 2274130010020 Study Program : D3 Culinary Art

TITLE : HIGH IN FIBER SNACK BAR FROM

SORGHUM AND SORGHUM SUGAR

This paper has been approved by:

Head of Culinary Arts Study Program, August 7th, 2024 Advisor. August 7th, 2024

Heni Adhianata, S.TP., M.Sc

NIP. 19900613 1402 016

Novi Indah Permata Sari, ST., M.Sc

NIP. 19951109 2202 083

Director of
Ottimmo International Master Gourmet Academy
August 7th, 2024

Zaldy Iskandar, B.S

NIP 19731025 1201 001

APPROVAL 2

HIGH IN FIBER SNACK BAR FROM SORGHUM AND SORGHUM SUGAR

Culinary Innovation and New Product Development report by:

Naufa Ulya

2274130010020

This report is already presented and pass the exam on: (August, 7th 2024)

This paper has been approved by:

Advisor : Novi Indah Permata Sari, ST., M.Sc.

1st Examiner : Ryan Yeremia Iskandar, S.S.

2nd Examiner : Jessica Hartan, A.Md. Par.

PREFACE

Praise be to God Almighty because on this occasion I was able to complete this report. Completion of this report intended to fulfill the requirements for participating in an internship.

I also take this opportunity to express my gratitude to:

- Zaldy Iskandar, B. Sc as director of Ottimmo International Culinary Artand Patisserie Academy.
- 2. Novi Indah Permata Sari, ST., M.Sc as advisor.
- 3. Heni Adhianata, S.TP., M.Sc as head of Culinary art study program.
- My parents who always support and help me in personally and providing moral & material support for me.
- Both of my older sisters, who always support me in all situations and patiently deal with me.
- 6. My friend who has supported the progress of thus report from beginningto end.
- 7. My beloved doll kuskus that is always cute and adorable and makes me happy.

That is all I can say, I apologize if there are errors or inconsistence in the use of words or sentences. Hopefully, the following report is helpful for the readers. Thank you.

Surabaya, August 7th 2024

Naufa Ulya

ABSTRACT

One lifestyle currently gaining attention is a healthy lifestyle, which involves consuming nutritious and beneficial foods. One such food that meets these criteria is snack bar. Snack bars are very popular among people worldwide and are often preferred for their health benefits. The snack bar created in this research is primarily made from sorghum and sorghum sugar. Sorghum is a type of cereal that contains dietary fiber essential for the body and can have positive health effects. Sorghum sugar, on the other hand, is derived from the juice of sorghum stalks and has a lower sugar content than cane sugar. The sorghum snack bar is high in fiber, as nearly all of its ingredients contain dietary fiber. The method used to produce the sorghum snack bar involves three main steps: popping sorghum, caramelization, and drying using a dehydrator. Popping sorghum is typically done using a microwave or a pan; for this research, a pan was used to achieve better results. The sorghum snack bar is then packaged and divided into four servings, with each serving containing 54 calories. This snack can be consumed at any time and in any quantity depending on the caloric needs. Thus, it serves as a practical, healthy, and low-calorie breakfast option. In addition, the selling price of sorghum snack bar Goesbar also known as is Rp14, 000/pack.

Keyword: Snack bar, Sorghum, Sorghum snack bar, Sorghum sugar

TABLE OF CONTENTS

Plagiarism Statement	ii
Approval 1	iii
Approval 2	iv
Preface	V
Abstract	vi
Table of Contents	vii
List of Table	ix
Table of Figure	X
Chapter I Introduction	1
1.1 Background of The Study	1
1.2 The Objectives of The Study	3
Chapter II Literature Review	4
2.1 Ingredient Review	4
2.1.1 Sorghum	4
2.1.2 Sorghum Sugar	6
2.1.3 Condiment Ingredients	7
2.2 Product Review	9
2.3 Process Review	9
2.3.1 Pop-Sorghum Process	10
2.3.2 Caramelization Process	10
2.3.3 Drying Dates Process	10
Chapter III Methods	12
3.1 Time and Place	12
3.2 Ingredients and Utensils	12
3.2.1 Ingredients	12
3.2.2 Utensils	
3.3 Processing Methods	
3.4 Flow Chart	
Chapter IV Result And Discussion	16
4.1 Product Result	16
4.2 Nutrition Fact	17
4.2.1 Nutrition Table	17
4.2.2 Nutrition Calculation	

4.2.3 Nutrition Label	19
4.3 Food Safety and Packaging	19
4.3.1 Processing and Storage Temperature	19
4.3.2 Shelf Life	19
4.3.3 Product Packaging	20
4.4 Financial Aspects	22
4.4.1 Product Cost	22
4.4.2 Selling Price	23
Chapter V Conclusion And Suggestion	24
5.1 Conclusion	24
5.2 Suggestion	25
Bibliography	
Appendix	

LIST OF TABLES

Table 2.1	Nutrional composition sorghum (Tanwar et al., 2023)	5
Table 2.2	Comparison of sorghum sugar and sugarcane component (Asikin et	al.,
	2017)	7
Table 3.1	Ingredients for Snack Bar	12
Table 3.2	Utensils for Snack Bar	13
Table 4.1	Nutritional Value of Sorghum	17
Table 4.2	Nutrition Value of Sorghum Sugar	17
Table 4.3	Nutritional Value of Ingredients used in The Recipe for Sorghum Sr	ıack
	Bar	18
Table 4.4	Cost of Ingredients	22
Table 4.5	Cost of Packaging	23
Table 4.6	Total Cost	23

TABLE OF FIGURES

Figure 2.1 Sorghum	4
Figure 2.2 Snack Bar	
Figure 3.1 Flowchart Sorghum Snack Bar	
Figure 4.1 Sorghum Snack Bar	
Figure 4.2 Parchment/Baking Paper	
Figure 4.3 Duplex Cardboard	
Figure 4.4 Design and Logo Product	