

**CULINARY INNOVATION AND NEW PRODUCT  
DEVELOPMENT REPORT**

**APPLICATION OF *COSMOS CAUDATUS* LEAVES IN OIL AS  
*SOTTOLIO*' PRESERVING MEDIA RICH IN BIOACTIVE  
COMPOUNDS**



**ARRANGED BY  
MUHAMMAD ILHAM RASHIF  
2274130010075**

**CULINARY ARTS STUDY PROGRAM  
OTTIMMO INTERNATIONAL  
MASTERGOURMET 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 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, October 11<sup>th</sup> 2024





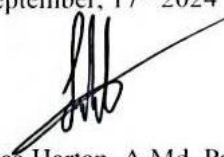
Muhammad Ilham Rashid

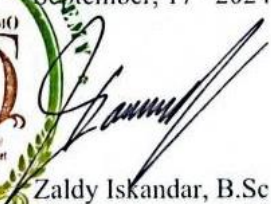

**APPROVAL 1**  
**CULINARY INNOVATION AND NEW PRODUCT**  
**DEVELOPMENT PROJECT**

Name : Muhammad Ilham Rashif  
Place, Date of Birth : Surabaya, 25 Juni 2001  
NIM : 2274130010075  
Study Program : D3 Culinary Art  
Title : APPLICATION OF *COSMOS CAUDATUS*  
LEAVES IN OIL AS *SOTTOLIO*'  
PRESERVING MEDIA RICH IN BIOACTIVE  
COMPOUNDS

**This Paper has been approved by :**

Head of Culinary Art Study Program,  
September, 17<sup>th</sup> 2024  
  
  
Hani Adhianata, S.TP.M.Sc  
NIP.19900613 1402 016

Advisor  
September, 17<sup>th</sup> 2024  
  
Jessica Hartan, A.Md. Par.  
NIP.19940923 2201 084

Director of  
Ottimmo International Master Gourmet Academy  
September, 17<sup>th</sup> 2024  
  
  
Zaldy Iskandar, B.Sc  
NIP.19731025 1201 001

## APPROVAL 2

### APPLICATION OF *COSMOS CAUDATUS* LEAVES IN OIL AS *SOTTOLIO*' PRESERVING MEDIA RICH IN BIOACTIVE COMPOUND

Culinary Innovation and New Product Development report by :

**Muhammad Ilham Rashif**

**2274130010075**

This report is already presented and pass the exam on :  
(October, 8<sup>th</sup> 2024)

**This paper has been approved by :**

Advisor : Jessica Hartan, A.Md. Par.

1<sup>st</sup> Examiner : Heni Adhianata, S. TP., M.Sc.

2<sup>nd</sup> Examiner : Gilbert Yanuar Hadiwirawan, A.Md. Par.




## PREFACE

Praise to God, for giving me strength and letting me through all the difficulties so I was able to finish this Culinary Innovation and New Product Development Report.

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 Jessica Hartan A.MD. Par. 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. Someone, who always provide me with unfailing support and continuous encouragement throughout my years of study
5. Someone, for their love and unwavering moral support

Surabaya, October, 11<sup>th</sup> 2024

  
Muhammad Ilham Rashif

## ABSTRACT

*Sottolio* is a food preservation method originating from Italy that uses oil as a storage medium to protect food from oxidation. This product focuses on developing the *sottolio* method by utilizing *cosmos caudatus* leaves as a source of bioactive compounds rich in antioxidants, and canola oil as a medium for preserving fish. Canola oil is chosen as the preservation medium due to its good stability against heat and oxidation, as well as its beneficial unsaturated fatty acid content. Meanwhile, *cosmos caudatus* leaves, which contain flavonoids and phenolic compounds, are expected to enhance preservation effectiveness through their antioxidant properties. The results of this product demonstrate that the combination of *cosmos caudatus* leaves and canola oil can extend the freshness of fish and provide high antioxidant benefits compared to traditional preservation methods. This product development is also expected to offer an environmentally friendly preservation alternative and support the healthy food trend in the community.

**Keyword:** *Cosmos Caudatus Leaves, Canola Oil, Spanish Mackerel, Sottolio*

## TABLE OF CONTENT

<b>Plagiarism Statement</b> .....	<b>i</b>
<b>Approval 1</b> .....	<b>ii</b>
<b>Approval 2</b> .....	<b>iii</b>
<b>Preface</b> .....	<b>iv</b>
<b>Abstract</b> .....	<b>iv</b>
<b>Table Of Content</b> .....	<b>vi</b>
<b>List Of Figures</b> .....	<b>viii</b>
<b>List Of Tables</b> .....	<b>ix</b>
<b>Chapter I Introduction</b> .....	<b>1</b>
1.1 Background Of The Study .....	1
1.2 Objectives Of The Study.....	2
<b>Chapter II Literature Review</b> .....	<b>3</b>
2.1 Ingredient Review.....	3
2.1.1 Cosmos Caudatus Leaves .....	3
2.1.2 Canola Oil.....	4
2.1.3 Spanish Mackerel .....	5
2.2 Product Review.....	5
2.3 Process Review .....	6
<b>Chapter III Methods</b> .....	<b>7</b>
3.1 Time And Place .....	7
3.2 Ingredient And Utensils .....	7
3.3 Processing Methods .....	8
3.4 Flow Chart .....	9
<b>Chapter IV Result And Discussion</b> .....	<b>10</b>
4.1 Product Result.....	10
4.2 Nutrition Fact.....	10
4.2.1 Nutrition Table .....	10
4.2.2 Nutrition Calculation.....	11
4.2.3 Nutrition Label .....	14
4.3 Food Safety And Packaging .....	14
4.3.1 Processing And Storage Temperature .....	14
4.3.2 Shelf Life.....	15
4.3.3 Product Packaging.....	15

4.4 Financial Aspects.....	16
4.4.1 Product Cost .....	16
4.4.2 Selling Price.....	17
<b>Chapter V Conclusion And Suggestion.....</b>	<b>18</b>
5.1 Conclusion .....	18
5.2 Suggestion.....	18
<b>Bibliography</b>	
<b>Appendix</b>	



## TABLE OF FIGURES

<b>Figure 2.1</b> Cosmos Caudatus Leaves .....	3
<b>Figure 2.2</b> Canola Oil .....	4
<b>Figure 2.3</b> Spanish Mackerel.....	5
<b>Figure 3.1</b> Flowchart cosmos caudatus oil and Spanish mackerel sottolio' .....	9
<b>Figure 4.1</b> Glass Jar .....	15
<b>Figure 4.2</b> Logo and Nutrition Fact.....	16

## LIST OF TABLES

<b>Table 3.1</b> Ingredients for Cosmos Caudatus Oil (2 Pack) .....	7
<b>Table 3.2</b> Ingredients for Spanish Mackerel Sottolio' (2 pack) .....	7
<b>Table 3.3</b> Utensils .....	8
<b>Table 4.1</b> Value of Cosmos Caudatus Leaves per 100g .....	10
<b>Table 4.2</b> Nutritional Value of Canola Oil per 100g .....	11
<b>Table 4.3</b> Nutritional Value of Spanish Mackerel per 100g.....	11
<b>Table 4.4</b> Nutritional Value of Ingredients used in The Recipe for Spanish Mackerel Sottolio .....	12
<b>Table 4.5</b> Cost of Ingredients .....	16
<b>Table 4.6</b> Cost Packaging .....	17
<b>Table 4.7</b> Total Cost .....	17