

**CULINARY INNOVATION AND NEW PRODUCT
DEVELOPMENT REPORT**

**UTILIZATION OF SOYBEANS, PEANUTS, MUNG BEANS AS
MAIN INGREDIENT FOR MAKING SNACK BAR**



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Surabaya, July 30th 2025



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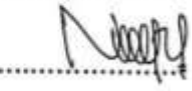
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PREFACE

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:

1. Zaldy Iskandar, B. Sc as director of Ottimmo International Master Gourmet Academy
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That is all I can say, I apologize if there are errors or inconsistency in the use of words or sentences. Hopefully, the following report is helpful for the readers. Thank you.

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Evelyn Pricilia Holden

ABSTRACT

Tempeh is a traditional Indonesian fermented food commonly made from soybeans, widely recognized as a nutritious and digestible plant-based protein source. Fermentation using *Rhizopus oligosporus* enhances its nutritional value by reducing antinutritional compounds and producing functional bioactive components. This study explores the development of a tempeh-based snack bar using a combination of three legumes soybeans, peanuts, and mung beans as the main ingredients. These legumes were fermented, combined with oat, dark chocolate, egg white, and coconut sugar, and then baked at 175°C for 15–20 minutes to produce a practical and shelf-stable functional snack. Each serving weighs 40 grams and provides 141.5 kcal of energy. The product is preservative-free and packaged using laminated material consisting of aluminum foil, polyethylene (PE), and litho paper, offering adequate protection against moisture and microbial contamination. Based on its characteristics, the snack bar has an estimated shelf life of 1–2 weeks at air-conditioned room temperature ($\pm 25^{\circ}\text{C}$) and up to ± 1 month if stored in refrigeration ($4\text{--}10^{\circ}\text{C}$). With a selling price of Rp8,000 per bar, this product presents a healthy and accessible option for modern consumers seeking convenient snacks made from natural, locally sourced ingredients. This innovation supports the rising demand for plant-based functional foods and contributes to sustainable food diversification using Indonesia's traditional fermented products.

Keywords: tempeh, fermentation, soybeans, peanuts, mung beans, snack bar.

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