

EMPIRICAL STUDIES OF AGRO-BASED INDUSTRY:

VOLUME 2

(PRODUCT DEVELOPMENT TECHNOLOGY)



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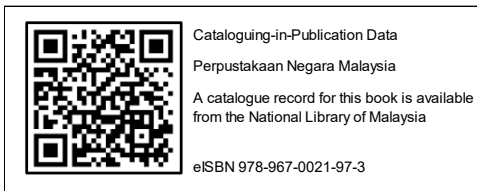
(PRODUCT DEVELOPMENT TECHNOLOGY)



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PREFACE

Undergraduate research enhances the learning experience and empowers students to seek out resources and research opportunities to achieve their full academic potential. Hence, the undergraduate curriculum at the Faculty of Agro-Based Industry imposes the students from each academic session to take up a final year project (FYP) to conduct research in their relevant academic programs. Which is obligatory for the completion of their B. Sc. with an Honours degree. This book compiled the comprehensive findings of undergraduate research that was carried out following the systematic research methods and analysis under the guidance of learned faculty members. The supervisors introduce students to different types of research across the disciplines, showing them how to carry out the research systematically to achieve the objectives of their study, how to interpret the findings, and how to write and present the research outcomes. This book will stand as a valuable resource for future students to design and carry out their FYP undergraduate research related to the area of agro-based industry. The book provides models, approaches, recent trends, and successful undergraduate research articles.

Ikarastika Rahayu Abdul Wahab

Khairiyah Mat

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CHAPTER 1

EMPIRICAL STUDIES OF AGRO PRODUCT DEVELOPMENT

Ikarastika Rahayu Abdul Wahab

Agro products have become an issue for national policymakers and are a public concern particularly when there is a need to enhance agricultural production, as well as to reduce postharvest loss, improve the quality of processed products, and add value to products to make more quality products available. The use of technology could generate employment and crucially contribute to the national agriculture and food security agenda. In addition, innovation also drives productivity growth, sustainability, and resilience across agro-product sectors. This national agenda has also been part of most studies in this Volume II to empower basic agricultural knowledge that aims to ensure sustainable development of agriculture and food sources.

Agro products are the life force and one of the sources of survival for humankind. It is not only we live with the support of food, but the majority of the world population is also dependent on agriculture as their source of survival. An approximate 36% of the world's workers are engaged in agriculture, be it directly or indirectly employed in this sector. Mhd Ruslan (2019) stated that agro-based sectors are seen to be significant to economic growth due to its nature of capability in generating a nation's economy and income, not only on the production side but also through export taxes.

There are plenty of things that agro product manufacturers produce for consumers. The agro-based industry is a thriving sector where it involves the processing of agricultural products to diversify downstream agriculture-based industries such as foods, crops,