

**DEVELOPMENT OF COOKIES USING
JACKFRUIT (*Artocarpus heterophyllus*)
SEED AS BY-PRODUCT**

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ABSTRACT

This study was carried out to develop cookies using jackfruit seed as by-product, to assess consumer acceptability of jackfruit seed cookie, to prove that jackfruit seed can be one of the cookie ingredients, and to optimize the baking time and temperature of cookie. Quantitative descriptive analysis (QDA), hedonic test, physical and proximate analysis on cookies were conducted. A control and four formulated cookie samples, in which jackfruit seed nibs of 10, 15, 20 and 25 grams were added into the formulation, were tested in first stage of QDA. Through second and third stage of QDA, selected formula from first stage QDA which is cookies with 15 grams of jackfruit seed nibs were baked at 160°C and 180°C for 15, 20, and 25 minutes. No significant differences ($p > 0.05$) were found in all sensory attributes except for crispness and hardness attribute during first stage of QDA, whereas in second and third stage of QDA, significant difference ($p \leq 0.05$) was found in all sensory attributes. One formula each from second and third stage of QDA was selected for consumer acceptance in hedonic test. Significant difference ($p \leq 0.05$) was found in all attributes except for cookie appearance. Cookies baked at 160°C for 15 minutes obtained the highest preference rate. In physical analysis, both control and formulated sample showed no significant difference ($p > 0.05$) in water activity and spread factor. Whereas, in proximate analysis; ash, protein, fat, and carbohydrate content of formulated sample are 1.477%, 1.248%, 7.735%, 29.092%, and 60.448% respectively. All proximate analysis results showed no significant difference ($p > 0.05$) except for moisture content. Therefore, cookies with 15 grams of jackfruit seed nibs, baked at 160°C for 25 minutes may have the potential to be commercialised in the market.

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