

**A STUDY ON SENSORY EVALUATION AND THE  
NUTRITIONAL VALUES OF INCREASED FIBRE  
COOKIE USING JACKFRUIT (*ARTOCARPUS  
HETEROPHYLLUS*) SEED FLOUR AS THE  
FUNCTIONAL INGREDIENT**

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## ABSTRACT

Flour milled from jackfruit seed by-product is a potential use as a dietary fiber supplement in cookie. In this study, wheat flour was incorporated with jackfruit seed flour substitution levels of 60%, 80% and 100% in cookie formula and aimed to develop an increased fibre cookie that would at least be acceptable to consumers. Sensory evaluations (Quantitative Descriptive Analysis (QDA) and nine-point hedonic test) were performed on all formulations. QDA result showed that there were significant ( $P < 0.05$ ) sensory differences in roughness and moisture absorption between control and formulation cookies. In hedonic test, responses revealed that 60% jackfruit seed cookie scored significantly ( $P < 0.05$ ) higher than control cookie for several attributes (appearance, aroma and texture) but with no significant differences ( $P > 0.05$ ) for flavor and overall acceptance. The cookie with 60% jackfruit seed was then selected along with the control (0% seed flour) to undertake the physico-chemically analysis for nutritional values. Physicochemical analysis results showed that cookie with 60% seed flour substitution have significantly ( $P < 0.05$ ) higher spread and lower water activity; higher fat, ash, calcium and energy content and lower carbohydrate and moisture content than control cookie. The 60% seed flour cookie had a total dietary fibre content of roughly 9.48% compared to control cookie (0.65%) indicating that jackfruit seed can serve as a potential good source of total dietary fibre. Results of this study proposed that substitution of wheat flour with 60% jackfruit seed flour improved the overall nutritional quality of the cookie without any adverse effect on the sensory quality of cookie.

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