

USING CHEMPEDAK (*ARTOCARPUS*  
*CHAMPEDEN*) SEEDS AS BY-PRODUCT  
IN THE DEVELOPMENT OF COOKIES

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## ABSTRACT

The chempedak seed flour with and without spermoderm substituted with wheat flour at 60%, 80% and 100% were investigated for their effects on physical and sensory properties of the cookies. Cookies prepared without chempedak seed flour were kept as control. The physical properties analyzed were spread ratio, moisture and ash content, and water activity. Quantitative Descriptive Analysis (QDA) and nine-point hedonic scale were used to determine the sensory attributes and acceptability of the cookies respectively. Some formulations of seed flour cookies were found to have significant differences ( $P \leq 0.05$ ) in moisture content and water activity compared to control cookies. However, all seed flour cookies shown significant difference ( $P \leq 0.05$ ) in ash content and no significant difference ( $P > 0.05$ ) in spread factor compared to control cookies. No significant differences ( $P > 0.05$ ) were found in all cookie attributes except roughness and moisture absorption, as compared to the commercial cookies. Control cookies and 100% seed flour with and without spermoderm were selected for consumer acceptance test based on the results obtained from QDA. The appearance of the 100% seed flour cookies were reduced significantly ( $P \leq 0.05$ ) as compared to control cookies. However, aroma, flavor and texture of seed flour cookies did not show any significant difference ( $P > 0.05$ ). Significant difference ( $P \leq 0.05$ ) was only found between control and seed flour cookies without spermoderm in overall acceptance. Therefore, chempedak seed flour cookies with spermoderm may have a better potential to be commercialized compared to cookies without spermoderm.

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