DEVELOPMENT OF REDUCED FAT "KAYA" USING SOY MILK

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ABSTRACT

The main purpose of this research was to develop a new formulation of low fat "kaya" using soy milk. Microbiological and physical analysis such as total soluble solids, water activity, and pH was analyzed in order to achieve the desirable consistency and to preserve the "kaya" for a longer period of time. Based on the microbiological analysis, the "kaya" can be stored up to one month in the refrigerator. The development of low fat "kaya" at 40%, 60%, and 80% substitution with soy milk was studied for its acceptance level through sensory analysis. Quantitative Descriptive Analysis (QDA) was used to investigate the effect of soy milk towards the formulations. Hedonic test on the other hand was done to study the acceptability level of the new formulations developed. A total of 10 panelists and 100 panelists were involved in the QDA and Hedonic Test respectively. In QDA, no significant difference ($P > 0.05$) was found in the attribute of colour, spreadability, and adhesiveness while significant difference ($P < 0.05$) was found in smoothness, sweetness, and firmness. As for the Hedonic Test, among the four attributes tested, three of the attributes showed significant difference; colour, sweetness, and spreadability. Only the aroma attribute showed no significant difference. Overall acceptability showed that formulation of 40% soy milk was most acceptable. However, for the ranking test, formulation of 80% soy milk had the highest score. Despite different formulations preferred, it can still be concluded that the substitution of coconut milk with soy milk into "kaya" showed positive sensory effect.