

**PRODUCT DEVELOPMENT OF COOKIES
SUPPLEMENTED WITH RAMBUTAN SEED
AS A BY PRODUCT**

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ABSTRACT

Incorporation of rambutan seed (10%, 15%, 20% and 25%) as byproduct in the development of cookies was investigated based on sensory attributes (colour, roughness, hardness, crispness, and moisture absorption) in first stage of QDA. The most appropriate rambutan seed cookie formulation was selected and went through second stage of QDA (2nd, 3rd, and 4th QDA) where the most appropriate external parameters (baking temperature and time) were selected. Cookie with 15% of rambutan seed nibs was selected from first QDA as the most appropriate formulations and used in second stage QDA. Cookies baked at 170°C for 20 minutes, 180°C for 15 minutes, and 190°C for 15 minutes were selected from second stage of QDA and compared with commercial cookie during hedonic test. The most preferred cookie in hedonic test was compared with control cookie in physical test (water activity and spread factor) and chemical test (moisture, ash, protein, fat, total dietary fiber and carbohydrate content). Among the rambutan seed cookie formulations, cookie baked at 180°C for 15 minutes gained more public preference in most sensory attributes profile and comparable to commercial cookie. There were significant differences ($p \leq 0.05$) with increasing trend in water activity and spread factor after adding rambutan seed. There were no significant differences ($p > 0.05$) in ash, protein and fat content after rambutan seed is added, but the mean scores showed increasing trend in fat content. There were significant differences ($p \leq 0.05$) in moisture and carbohydrate content between control and rambutan seed cookie. Moisture content increased when rambutan seed was added. In addition, cookie added with rambutan seed chips showed a high content of total dietary fiber (8.50%) compared to control cookie (2.28%).

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