DEVELOPMENT OF BUTTER COOKIES SUPPLEMENTED WITH RAMBUTAN (*Nephelium lappaceum*) SEED NIBS AS BY-PRODUCT

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ABSTRACT

The product development of butter cookies supplemented with rambutan seed nibs at 10%, 15%, 20% and 25% were investigated based on sensory properties (colour, roughness, crispness, hardness and moisture absorption), physical and proximate analysis at a first stage QDA. The optimum combination of external parameters (time and temperature) was further investigated at a second stage QDA. Each baking temperature of 160°C and 180°C at 15, 20 and 25 minutes were evaluated for the same sensory properties, and the optimum combination was tested for product acceptability using a nine-point hedonic scale. The physical (water activity and spread ratio) and proximate analysis (moisture content, crude protein, crude fat, total ash, and total carbohydrate) of rambutan seed nib cookie and a control cookie were conducted for comparisons. Significant sensory changes ($P \leq 0.05$) in all attributes were inflicted on cookies supplemented with 15, 20 and 25% of seed nibs. A 15% amount contributed sensory satisfaction and was used in the second stage QDA. Baking durations of 15, 20 and 25 minutes has significantly ($P \leq 0.05$) increased sensory intensities on all tested attributes for both temperatures of 160°C and 180°C. Two seemingly optimum time-temperature combination of 25minutes-160°C and 20minutes-180°C were selected, and the former significantly ($P \leq 0.05$) showed more preference in public, with a mean acceptability rating of 5.79 (like slightly). Crude protein content (6.57g/100g) of the rambutan seed cookie was fairly increased by about 0.2%, and the total mineral contents (1.02g/100g) was significantly ($P \leq 0.05$) increased by about 0.4%. Conversely, crude fat content (24.89g/100g) was significantly ($P \leq 0.05$) decreased by about 4%.