

**Research Title :** Development of Dietary Fiber Supplement Food from Used Coconut Residue

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## ABSTRACT

The purpose of the development of dietary fiber supplement food from used coconut residue is to study an appropriate amount of used coconut residue from oil distillation in three food products, such as steamed stuff bun, deep-fried dough stick and roti. The research was planned in accordance with “Randomized Complete Block Design, RCBD”. Sense test by tasting method by giving favorite scores of 9 levels (9 – Point Hedonic Scale), quality test of chemical composition and physical composition, including acceptance test of 100 people towards the products were performed.

Adding dietary fiber from coconut residue in steamed stuff bun flour at 5%, 10% and 15% of total flour weight was found that the tasting persons favored the flour added coconut residue at 5% and using coconut residue instead of jicama in pork filling at 100%, having the mean of favorite score in appearance, color, smell, taste, food texture, overall, at 7.68, 7.58, 7.77, 7.23, 7.67 and 6.98, respectively, when analyzed with One-way ANOVA and compared with the difference of the mean, it was found that the characteristics of appearance, smell, food texture and favorite had, overall, the difference in statistical significant at ( $p \leq 0.05$ ). The approximate chemical compositions of steamed stuff bun added dietary fiber from coconut residue, weight: 100g. were consisting of moisture: 43.63g., carbohydrate: 33.75g., protein: 8.12g., fat: 13.10g., ash: 1.40g. and dietary food: 0.33g; physical quality had color value: L\*, a\* and b\* 83.33, 0.49 and 10.97, respectively. Deep-fried dough stick added dietary fiber from coconut residue at 5%, 10% and 15% of total flour weight, the tasting persons favored deep-fried dough stick added dietary fiber from coconut residue at 15%, having the mean scores of characteristics of appearance, color, smell, taste, food texture and favorite, overall, at 7.95, 7.80, 7.80, 8.08, 7.98 and 8.03, respectively, when analyzed with One-way ANOVA and compared with the difference

of mean, it was found that the characteristics of appearance, color, smell, taste, food texture and favorite did not, overall, have the difference in statistical significant at ( $p \geq 0.05$ ). The approximate chemical compositions of deep-fired dough stick added dietary fiber from coconut residue, weight: 100g., were consisting of moisture: 4.73, carbohydrate: 59.68g., protein: 10.25g. fat: 22.85g., ash: 2.49g. and dietary fiber 1.02g.; physical quality had color value:  $L^*$ ,  $a^*$  and  $b^*$  39.22, 7.79 and 20.49, respectively. Roti added dietary fiber from coconut residue at 5%, 10% and 15% of total flour weight, the tasting persons favored adding of coconut residue at 15%, having the mean scores of characteristics of appearance, color, smell, taste, food texture and favorite, over all, at 8.02, 7.88, 8.10, 7.98, 7.78, and 8.03, respectively, when analyzing with One-way ANOVA and compared with the difference of the mean, it was found that characteristics of appearance and food texture had the difference in statistical significant at ( $p \leq 0.05$ ). The approximate chemical compositions of roti added dietary fiber from coconut residue, weight: 100g., were consisting of moisture: 9.74g., carbohydrate: 53.05g., protein: 8.94g., fat: 27.32 g., ash: 0.95g., and dietary fiber: 0.98g.; physical quality had color value:  $L^*$ ,  $a^*$  and  $b^*$  60.75, 4.10 and 22.97, respectively. From the acceptance test, it was found that the consumers accepted the steamed stuff bun added dietary fiber from coconut residue as the products were beneficial to health and accepted deep fried dough stick added dietary fiber from coconut residue and roti added dietary fiber from coconut residue as the products had good quality.