

***Making High-Fiber Snack Bar from Coconut Flour and Cowpea Flour for
Type 2 Diabetes Mellitus Patient***

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ABSTRACT

Type 2 diabetes mellitus is a degenerative disease caused by impaired performance of insulin, due to an increase in blood glucose. One way to handling it by consuming high-fiber foods. Therefore, in this research a high-fiber snack bar was made from coconut flour and cowpea flour, both of them contain high-fiber which are expected to control the blood glucose in diabetics. The purpose of this research was to determine the characteristics and nutrition facts, especially the dietary fiber of the snack bar. The research design used was a Randomized Block Design (RBD) with 1 factor that are the proportion of coconut flour and cowpea flour. The results showed that the snack bar had a significant differences ($\text{sig} < 0.05$) on dietary fiber, color L, hedonic (color, taste, aroma), and hedonic quality (color, taste, aroma, texture). However, there were no significant difference ($\text{sig} > 0.05$) on the physical properties of color (a, b, °Hue), strength, and texture of hedonic test. The best treatment in this research was F1 snack bar (90% coconut flour: 10% cowpea flour) which has the highest dietary fiber content of 10.55%, L, a, b, °Hue score are 60.9, 4.09, 24.96, and 80.55° and the strength is 2.6164 N. People with diabetes are give recommendation to consume snack bars in a serving sizes according to the type of diet. Meanwhile, for healthy people, the serving size of the snack bar are 2 bars (50 g) with an energy content of 219.03 kcal, 6.53 g protein, 7.93 g fat, and 30.39 g carbohydrates.

Keywords: *Coconut flour, cowpea flour, dietary fiber, snack bar, type 2 diabetes mellitus*