***Study of Making Mocaf Flour dan Red Bean Flour Cookies as a Snack Food
for People with Diabetes Mellitus***

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ABSTRACT

Data from the International Diabetes Federation (IDF) in 2021 states that in Indonesia, 19.4 million of the 179.72 million adult population (aged 20-79 years) suffer from diabetes mellitus or DM. DM can lead to complications if not treated immediately. Medical nutritional therapy involving a diet rich in complex carbohydrates with a low glycemic index and high-fiber foods is one of the management strategies for DM. Red bean flour and mocaf flour are two high-fiber ingredients that can be utilized for the production of snacks for DM patients. This study aims to analyze the fiber content, organoleptic properties, optimal processing method, fiber content claims based on BPOM No. 1 of 2022, nutrient composition, and comparison with SNI 2973:2022 standards, determine portion sizes and nutritional values, and test the glycemic index of the cookies. The research method used a Completely Randomized Design (CRD) with six formulations and four replications, varying the ratio of mocaf flour and red bean flour: P1 (3:7), P2 (4:6), P3 (5:5), P4 (6:4), P5 (7:3), and P6 (8:2). Based on the research results, the fiber content of the product was found to be 1.18–12.30 g/100 g. The hedonic test for color, aroma, texture, and taste yielded interpretations ranging from like to very like. The best treatment was P6 with energy of 417.2 kcal, protein 8.05%, fat 10.25%, carbohydrates 73.3%, ash 2.03%, moisture 6.34%, and fiber 1.18 g. The fiber claim was not met in the best formulation. Product quality based on SNI 2973: 2022 except for moisture content, while the portion size for a single serving depends on the diabetes diet being followed, and the best treatment cookies have a glycemic index of 32.09, which is classified as low.

Keywords: Mocaf Flour, Red Bean Flour, Cookies, Glycemic Index, Diabetes Mellitus