

ABSTRACT

IHSANATUL DWI 'AFIFAH, 2023, Substitution of Mocaf Flour (*Modified Cassava Flour*), Purple Sweet Potato Flour (*Ipomoea batatas L.*), and Mung Bean Flour (*Vigna radiata*) in Wet Noodles for Type 2 Diabetes Mellitus Patients, THESIS, Politeknik Kesehatan Kemenkes Malang, Supervisors Maryam Razak, STP., M.Si. and Ir. Astutik Pudjirahaju, M.Si.

In 2021, the International Diabetes Federation (IDF) reported that Indonesia is in fifth place in the world with the number of DM sufferers at 19.47 million people and is expected to increase to 28.57 million people in 2045. One of the treatments for DM is carried out with medical nutritional therapy by regulating the type of food, namely high protein, rich in fiber and low glycemic index. The aim of the research was to analyze the effect of substitution of mocaf flour, purple sweet potato flour and mung bean flour on the nutritional content, physical quality, organoleptic quality and glycemic index of wet noodles for type 2 DM patients. The type of research was an experimental Completely Randomized Design (CRD) design using 4 treatment levels with replication 3 times with the proportions of wheat flour: mocaf flour: purple sweet potato flour: mung bean flour at P_0 (100:0:0:0), P_1 (30:20:40:10), P_2 (30:25:30:15), and P_3 (30:30:20:20). The research was carried out in May – June 2023. The results showed that the substitution of mocaf flour, purple sweet potato flour and mung bean flour affected nutritional content (moisture, ash, protein, fat, carbohydrate, energy and fiber content), providing a significant effect ($p < 0.05$) on the physical quality (breaking power) and organoleptic quality (color, taste and texture) of wet noodles and does not have a significant effect ($p > 0.05$) on the organoleptic quality (aroma) of wet noodles. The best level of treatment is P_3 (30:30:20:20) wet noodles with a glycemic index of 68 (medium) with the reference food being white bread.

Keywords: DM Type 2, Wet Noodles, Mung Bean Flour, Mocaf Flour, Purple Sweet Potato Flour