PENGARUH KOMPOSISI TEPUNG KELAPA DAN TEPUNG UBI JALAR UNGU TERHADAP UJI PROKSIMAT, SERAT, DAN ORGANOLEPTIK *FLAKES* SEBAGAI ALTERNATIF PANGAN BAGI PENDERITA DIABETES MELITUS TIPE 2

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Abstrak

Diabetes melitus adalah penyakit degeneratif yang jumlahnya terus meningkat. Pengembangan pangan tinggi serat diperlukan sebagai alternatif pangan untuk penderita diabetes melitus. Tujuan dari penelitian ini adalah untuk melihat bagaimana komposisi tepung kelapa dan tepung ubi jalar ungu mempengaruhi kadar proksimat, serat pangan, dan karakteristik organoleptik *flakes*. Penelitian juga bertujuan menentukan formulasi terbaik. Studi ini menggunakan Rancangan Acak Lengkap (RAL) dengan tiga perlakuan, yaitu F1 (30%:70%), F2 (50%:50%), dan F3 (70%:30%). Setiap perlakuan dilakukan dua kali pengulangan. Data kimia dianalisis menggunakan *One Way* ANOVA dan organoleptik dianalisis dengan uji Kruskal Wallis. Hasil penelitian mengindikasikan bahwa komposisi tepung kelapa dan tepung ubi jalar ungu memberikan pengaruh signifikan terhadap kadar protein dan serat pangan *flakes*. Pada pengujian organoleptik, perbedaan formulasi berpengaruh signifikan terhadap tekstur dan rasa *flakes*, tetapi tidak memberikan pengaruh yang signifikan terhadap warna dan aroma. Formula terbaik diperoleh pada F2. Produk tersebut mengandung protein 8,41%, lemak 12,62%, karbohidrat 68,98%, dan serat pangan 20,19%. Setiap takaran saji 35 gram mengandung energi 246,73 kkal, protein 2,94 gram, lemak 4,42 gram, karbohidrat 24,14 gram, dan serat pangan 7,07 gram. Bagi penderita diabetes melitus, *flakes* berbasis tepung kelapa dan tepung ubi jalar ungu berpotensi dikembangkan menjadi pangan tinggi serat.

Kata Kunci: Diabetes melitus, *Flakes*, Serat pangan, Tepung kelapa, Tepung ubi jalar ungu.

THE EFFECT OF COCONUT FLOUR AND PURPLE SWEET POTATO FLOUR COMPOSITION ON PROXIMATE, FIBER, AND SENSORY CHARACTERISTICS OF FLAKES AS AN ALTERNATIVE FOOD FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Abstract

Diabetes mellitus is a degenerative disease with an increasing prevalence. The development of high-fiber foods is needed as an alternative food product for individuals with diabetes mellitus. This study was conducted to evaluate the influence of different proportions of coconut flour and purple sweet potato flour composition on proximate composition, dietary fiber content, and sensory characteristics of flakes, and to determine the best formulation. A Completely Randomized Design (CRD) with three formulations, F1 (30%:70%), F2 (50%:50%), and F3 (70%:30%). Each treatment was conducted in two replications. Chemical data were analyzed using one-way ANOVA, while sensory data were analyzed using the Kruskal Wallis test. The results indicated that the composition of coconut flour and purple sweet potato flour significantly affected protein and dietary fiber contents, as well as texture and taste, but had no significant effect on color and aroma. The best formula was F2 (50%:50%). The product contained 8.41% protein, 12.62% fat, 68.98% carbohydrate, and 20.19% dietary fiber. A serving size of 35 g provided 246.73 kcal, 2.94 g protein, 4.42 g fat, 24.14 g carbohydrate, and 7.07 g dietary fiber. These flakes have the potential to be developed as a high-fiber food product for individuals with diabetes mellitus.

Keywords: Diabetes mellitus, Flakes, Dietary fiber, Coconut flour, Purple sweet potato flour.