

Abstrak

PENGEMBANGAN *FLAKES* UNTUK PENDERITA SINDROM METABOLIK MENGGUNAKAN MOCAF, BERAS HITAM YANG DISUPLEMENTASI TEPUNG KEDELAI

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Latar Belakang: Sindrom metabolik secara signifikan dipengaruhi oleh pola makan tinggi protein dan tinggi serat pangan. Tujuan penelitian ini mendapatkan formula *flakes* dengan kandungan protein dan serat tinggi serta sifat organoleptik disukai sebagai alternatif makanan penderita sindrom metabolik.

Metodologi: Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) dengan 2 faktor. Faktor pertama proporsi mocaf, beras hitam, dan tapioka (P b/b); P1=85:10:5; P2=75:20:5; P3=65:30:5, faktor kedua suplementasi tepung kedelai (K b/b); K1=10%; K2=20%; K3=30%. Parameter yang diamati adalah sifat organoleptik (warna, aroma, tekstur, dan flavor); sifat kimia (kadar air, kadar abu, kadar protein, kadar lemak, karbohidrat *by difference*); serta sifat fungsional (serat pangan). Data diuji ANOVA, dilanjutkan DMRT 5%. Data sensoris diujikan Uji Friedman, dilanjutkan Uji Banding Ganda,

Hasil Penelitian: Perlakuan P berpengaruh nyata pada kadar air, kadar protein, karbohidrat *by difference*, dan serat pangan. Perlakuan K berpengaruh nyata pada kadar protein, karbohidrat *by difference*, dan serat pangan. Perlakuan P x K berpengaruh nyata pada kadar air, kadar protein, dan karbohidrat *by difference*. Kombinasi PK berpengaruh nyata pada semua variabel.

Kesimpulan: Hasil formulasi terbaik adalah P3K3 dengan nilai kadar air 10,39 %bb, kadar abu 2,57 %bk, kadar protein 10,10 %bk, kadar lemak total 3,50 %bk, karbohidrat *by difference* 83,81 %bk, serat pangan total 13,61 %bk, dan energi 407,20 kkal/100g.

Kata Kunci: *Flakes*, Mocaf, Kedelai, Sindrom Metabolik, Serat Pangan

Abstract

FLAKES DEVELOPMENT FOR PATIENTS WITH METABOLIC SYNDROME USING MOCAF, BLACK RICE AND SUPPLEMENTATION OF SOY FLOUR

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Background: Metabolic Syndrome is significantly affected by diet with high protein and high dietary fiber. The purpose of this study is to obtain formula flakes with high protein and dietary fiber content and organoleptic properties as nutrients.

Methods: This study used a randomized block design (RBD) with 2 factors. The first factor is the comparison of mocaf, black rice and tapioca (P b/b); P1 = 85: 10: 5; P2 = 75: 20: 5; P3 = 65: 30: 5, the second factor is soybean flour supplementation (K b/b); K1 = 10%; K2 = 20%; K3 = 30%. The parameters that can be known are organoleptic properties (color, aroma, texture, and flavor); chemical properties (water content, ash content, protein content, fat content, carbohydrate by difference); and functional properties (dietary fiber). The data will be analyzed with ANOVA and continued with DMRT 5%. Sensory data analyzed with Friedman Test, and post hoc test with Multiple Comparison Analysis.

Result: P treatment is evident in water content, protein content, carbohydrates by differences, and dietary fiber. Treatment of K is evident in protein, carbohydrate by difference content, and dietary fiber. P $\times$ K treatment is evident in water content, protein content, and carbohydrates by differences. PK combinations have a significant effect on all variables.

Conclusion: The best formulation results is P3K3 with water content 10.39% bb, ash content 2.57% bk, protein content 10.10% bk, total fat content 3.50% bk, carbohydrate by difference 83.81% bk, total dietary fiber 13.61%, and energy is 407.20 kcal/100g.

Keywords: Flakes, Mocaf, Soybeans, Metabolic Syndrome, Dietary Fiber