Pengaruh Substitusi Bungkil Wijen (*Sesamum indicum*) Terhadap Kadar Proksimat, Energi, dan Serat Pangan Bubuk Puding Glukomanan Porang (*Amorphophallus muelleri*) dan Kedelai (*Glycine max*) Sebagai Alternatif Makanan Tinggi Serat

Anisa Yulinar Anggarani[1], Fitriyono Ayustaningwarno[1], I Edward Kurnia Setiawan Limijadi[2], Angga Rizqiawan[1]

Email (Anisa Yulinar Anggarani): anisayulinar27@gmail.com

ABSTRAK

Latar Belakang : Diabetes mellitus (DM) merupakan salah satu masalah kesehatan di Indonesia yang prevalensinya diperkirakan akan terus meningkat. Bubuk puding glukomanan dan kedelai dengan substitusi bungkil wijen berpotensi sebagai alternatif makanan tinggi serat bagi penyandang DM.
Tujuan : Membuktikan pengaruh substitusi bungkil wijen terhadap kadar proksimat, energi, dan serat pangan bubuk puding glukomanan porang dan kedelai.
Metode : Penelitian eksperimental dengan rancangan acak lengkap satu faktor 4 formulasi substitusi bungkil wijen (0%,9%,18%, dan 27%). Analisis kadar air dan abu dengan gravimetri, protein metode kjeldahl, lemak metode soxhlet, karbohidrat *by difference*, dan serat pangan metode enzimatik gravimetri. Analisis statistik dengan uji beda one way ANOVA dan uji post hoc Tukey.
Hasil : Substitusi bungkil wijen berpengaruh signifikan ($p<0,05$) terhadap peningkatan kadar air, lemak, energi dan penurunan kadar karbohidrat, serat pangan, dan abu serta tidak berpengaruh signifikan terhadap peningkatan kadar protein. Formula terbaik yaitu F3 dengan substitusi bungkil wijen sebanyak 27%.
Simpulan : Semakin banyak presentase bungkil wijen yang disubstitusikan ke bubuk puding dapat meningkatkan kadar air, lemak, protein, dan energi. Sebaliknya, kadar karbohidrat, kadar abu, dan kadar serat pangan semakin turun seiring bertambahnya presentase bungkil wijen yang disubstitusikan.
Kata Kunci : bungkil wijen, glukomanan porang, kedelai, puding dan serat pangan

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[1]Departemen Ilmu Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang
[2]Departemen Patologi Klinis, Fakultas Kedokteran, Universitas Diponegoro, Semarang

Effect Of Sesame Cake (*Sesamum indicum*) Substitution on Proximate Level, Energy, And Dietary Fiber of Glucomannan Porang (*Amorphophallus muelleri*) And Soybean (*Glycine max*) Pudding Powder As An Alternative To High Dietary Fiber Foods

Anisa Yulinar Anggarani[1], Fitriyono Ayustaningwarno[1], I Edward Kurnia Setiawan Limijadi[2], Angga Rizqiawan[1]

Email (Anisa Yulinar Anggarani) : anisayulinar27@gmail.com

ABSTRAK

Background : Diabetes mellitus (DM) is one of health problem in Indonesia with a prevalence expected to increase. Glucomannan and soybean pudding powder with the substitution of sesame cake has the potential to be an alternative high-fiber food for people with DM.
Objective: To prove the effect of sesame cake substitution on proximate, energy and dietary fiber levels of porang and soybean glucomannan pudding powder.
Methods : This study was an experimental research with a completely randomized design with 4 formulations of sesame cake substitution percentages (0%, 9%, 18%, and 27%). Analysis of water and ash content used gravimetry, protein used the Kjeldahl method, fat using the Soxhlet method, carbohydrates by difference, and dietary fiber used the enzymatic gravimetric method. Statistical analysis used one way ANOVA test and Tukey's post hoc test.
Results: Substitution of sesame cake has a significant effect ($p<0,05$) on the moisture content, ash, fat, carbohydrates, energy and dietary fiber and does not have a significant effect on the protein content of porang and soybean glucomannan pudding powder. The best formulation based on nutritional content was F3 (27% substitution of sesame cake).
Conclusion: The greater substitution of sesame cake for pudding powder, the higher the moisture, fat, protein and energy content. On the other hand, carbohydrate content, ash content and dietary fiber content decreased as the amount of sesame meal substituted increased.
Keywords: dietary fiber, glucomannan porang, pudding, sesame cake, and soybean

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[1]Department of Nutrition Science, Faculty of Medicine, Diponegoro University, Semarang
[2]Department of Clinical Pathology Faculty of Medicine, Diponegoro University, Semarang