PENGARUH PENAMBAHAN BEKATUL TERHADAP KADAR SERAT, AKTIVITAS ANTIOKSIDAN DAN SIFAT ORGANOLEPTIK MINUMAN KEDELAI

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Abstrak

Hiperkolesterol merupakan kondisi kadar kolesterol dalam darah melebihi batas normal (>240 mg/dl). Salah satu alternatif pencegahan hiperkolesterol adalah dengan membatasi asupan makanan tinggi lemak serta meningkatkan asupan serat dan antioksidan. Penelitian ini bertujuan untuk menganalisis pengaruh penambahan bekatul terhadap kadar serat, aktivitas antioksidan dan sifat organoleptik minuman kedelai serta menentukan formula terpilih dan menganalisis kandungan gizi formula terpilih. Penelitian ini merupakan penelitian eksperimental dengan desain penelitian rancangan acak lengkap (RAL) satu faktor berupa empat perlakuan dengan penambahan bekatul sebesar F0 (0%), F1 (6%), F2 (8%) dan F3 (10%). Data uji organoleptik dianalisis dengan uji Kruskal Wallis dan dilanjutkan dengan uji Mann Whitney jika terdapat perbedaan signifikan. Data uji serat pangan dan aktivitas antioksidan dianalisis dengan uji ANOVA dan dilanjutkan dengan uji Duncan jika terdapat perbedaan signifikan. Hasil analisis uji organoleptik menunjukkan bahwa penambahan bekatul berpengaruh nyata (p<0,05) terhadap tingkat kesukaan panelis pada parameter warna, aroma, tekstur dan rasa minuman kedelai. Hasil analisis serat pangan dan aktivitas antioksidan menunjukkan bahwa penambahan bekatul berpengaruh nyata (p<0,05) terhadap kadar serat pangan dan aktivitas antioksidan minuman kedelai. Formula terpilih pada penelitian ini adalah F3 dengan penambahan bekatul 10% dengan kadar serat pangan 10,23 gram, aktivitas antioksidan 3094.18 ppm, kadar protein 1,80%, kadar lemak 1,64%, kadar karbohidrat 6,49%, kadar abu 0,73% dan kadar air 89,34%.

Kata Kunci: Minuman Kedelai, Bekatul, Serat Pangan, Aktivitas Antioksidan

THE EFFECT OF RICE BRAN ADDITION ON FIBER CONTENT, ANTIOXIDANT ACTIVITY AND SENSORY ACCEPTANCE OF SOYBEAN DRINK

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Abstract

Hypercholesterol is a condition where cholesterol levels in the blood exceed normal limits (>240 mg/dl). One of the alternative ways to prevent hypercholesterol is by decreasing high-fat food intake and increasing fiber and antioxidant intake. This study aims to analyze the effect of rice bran addition on fiber levels, antioxidant activity and organoleptic test of soybean drink and determine the selected formula and analyze the nutritional content of selected formulas. This research is an experimental study with a complete randomized design (CDR) one factor in the form of four treatments with the addition of rice bran by F0 (0%), F1 (6%), F2 (8%) and F3 (10%). Organoleptic test data was analyzed by using the Kruskal Wallis test and followed by using the Mann Whitney test if there were any significant differences. Food fiber test data and antioxidant activity were analyzed with the ANOVA test and continued with Duncan's test if there are significant differences. The results of organoleptic test analysis showed that the addition of rice bran had a significant effect ($p < 0.05$) on the panelist's preferred level on the parameters of color, flavor, texture and taste of soybean drink. The results of analysis of dietary fiber and antioxidant activity showed that the addition of rice bran has a real effect ($p < 0.05$) on food fiber levels and antioxidant activity of soybean drink. The formula selected in this study is F3 with the addition of 10% rice bran contains 10.23 grams food fiber content, 3094.18 ppm antioxidant activity, 1.80% protein content, 1.64% fat content, 6.49% carbohydrate content, 0.73% ash content and 89.34% ash content.

Keyword: Soybean Drink, Rice Bran, Food Fiber, Antioxidant Activity