

UJI HEDONIK DAN ANALISIS KADAR SERAT KASAR KUKIS SUBSTITUSI BEKATUL BERAS MERAH (*Oryza sativa* L.) DAN TEPUNG KULIT PISANG KEPOK (*Musa paradisiaca* L.)

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INTISARI

Latar Belakang: Kukis merupakan makanan yang praktis dan tahan lama, tetapi umumnya tinggi lemak jenuh yang berisiko terhadap Penyakit Tidak Menular (PTM), khususnya dislipidemia. Upaya pencegahan dapat dilakukan melalui pengembangan pangan fungsional tinggi serat berbasis bahan pangan lokal. Bekatul beras merah kaya akan serat, flavonoid, dan antosianin serta tepung kulit pisang kepok kaya akan serat, pektin, dan senyawa bioaktif lain sehingga berpotensi digunakan sebagai bahan substitusi tepung terigu pada pembuatan kukis sekaligus memanfaatkan limbah hasil samping pertanian untuk mendukung keberlanjutan pangan.

Tujuan: Mengetahui perbedaan tingkat kesukaan dari segi warna, aroma, rasa, tekstur, dan sifat keseluruhan serta kadar serat kasar pada kukis dengan variasi formula substitusi bekatul beras merah dan tepung kulit pisang kepok.

Metode: Jenis penelitian eksperimental murni dengan desain rancangan acak lengkap (RAL). Terdapat tiga variasi perlakuan persentase tepung terigu dengan tepung kombinasi (bekatul beras merah dan tepung kulit pisang kepok), yaitu F0 (100%:0%) sebagai kontrol, F1 (75%:25%), dan F2 (50%:50%). Tingkat kesukaan terhadap kukis substitusi bekatul beras merah dan tepung kulit pisang kepok digunakan uji hedonik yang dilakukan ke 30 panelis agak terlatih. Kadar serat kasar dianalisis dengan metode hidrolisis asam basa menggunakan ulangan sampel sebanyak tiga kali dan pengujian analisis dilakukan secara triplo.

Hasil: Hasil analisis statistik pada data hasil uji hedonik menunjukkan adanya perbedaan signifikan pada parameter warna, aroma, rasa, tekstur, dan sifat keseluruhan. Sementara itu, hasil analisis statistik pada data hasil analisis kadar serat kasar menunjukkan adanya perbedaan signifikan pada ketiga formula.

Kesimpulan: Substitusi bekatul beras merah dan tepung kulit pisang kepok berpengaruh terhadap tingkat kesukaan panelis pada parameter warna, aroma, rasa, tekstur, dan sifat keseluruhan serta kadar serat kasar kukis. Tingkat kesukaan tertinggi pada formulasi kukis keseluruhan diperoleh F0 dan formulasi kukis kelompok perlakuan diperoleh F1 serta kadar serat kasar tertinggi diperoleh pada F2.

Kata kunci: analisis serat kasar; bekatul beras merah; kukis substitusi; tepung kulit pisang kepok; uji hedonik

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HEDONIC TEST AND CRUDE FIBER ANALYSIS OF COOKIES SUBSTITUTED WITH RED RICE BRAN (*Oryza sativa* L.) AND KEPOK BANANA PEEL FLOUR (*Musa paradisiaca* L.)

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ABSTRACT

Background: Cookies are widely consumed due to their practicality and long shelf life. However, they are typically high in saturated fat, which contributes to the risk of non-communicable diseases (NCDs), particularly dyslipidemia. Development of high-fiber functional foods utilizing local resources offers a preventive approach. Red rice bran is rich in fiber, flavonoids, and anthocyanins, while kepok banana peel flour provides fiber, pectin, and bioactive compounds. These ingredients hold potential as wheat flour substitutes while promoting the utilization of agricultural by-products to enhance food sustainability.

Objective: This study aimed to evaluate differences in sensory acceptability (color, aroma, taste, texture, and overall attributes) and crude fiber content of cookies formulated with varying proportions of red rice bran and kepok banana peel flour.

Methods: A true experimental study with a completely randomized design (CRD) was conducted using three formulations: F0 (100% wheat flour), F1 (75% wheat flour:25% composite flour), and F2 (50% wheat flour:50% composite flour). Sensory evaluation was performed by 30 semi-trained panelists using a hedonic test. Crude fiber content was analyzed using the acid-base hydrolysis method with three sample replications and the analysis was performed in triplicate.

Results: Hedonic analysis revealed significant differences in color, aroma, taste, texture, and overall acceptability. Crude fiber analysis also showed significant differences among the three formulations.

Conclusions: Substitution of red rice bran and kepok banana peel flour influenced the panelists acceptability scores for color, aroma, taste, texture, and overall attributes, as well as the crude fiber content of the cookies. The F0 formulation showed the highest overall acceptability, while among the treatment formulations, F1 showed the greatest sensory preference. The highest crude fiber content was obtained in the F2 formulation.

Keywords: crude fiber analysis; hedonic test; kepok banana peel flour; red rice bran; substituted cookies

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