

**PENGARUH PENAMBAHAN EKSTRAK CASSIA
VERA TERHADAP KARAKTERISTIK
BROWNIES CRISPY BERBASIS TEPUNG LABU
KUNING DAN TEPUNG KACANG KEDELAI**



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Pengaruh Penambahan Ekstrak *Cassia vera* Terhadap Karakteristik *Brownies Crispy* Berbasis Tepung Labu Kuning dan Tepung Kacang Kedelai

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ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi pengaruh penambahan ekstrak *cassia vera* terhadap karakteristik *brownies crispy* berbahan dasar tepung labu kuning dan tepung kacang kedelai, serta menentukan formulasi terbaik. Digunakan Rancangan Acak Lengkap (RAL) dengan lima tingkat penambahan ekstrak *cassia vera* (0%, 0,5%, 0,75%, 1%, dan 1,25%) serta tiga kali ulangan. Karakteristik fisikokimia dan sensori *brownies crispy* dievaluasi. Data dianalisis menggunakan Analisis Varian (ANOVA) yang dilanjutkan dengan Uji Duncan's New Multiple Range Test (DNMRT) pada tingkat signifikansi 5%. Hasil menunjukkan bahwa penambahan ekstrak *cassia vera* secara signifikan mempengaruhi kadar air, kadar abu, kadar protein, kadar lemak, kadar karbohidrat, serat kasar, aktivitas antioksidan, kekerasan, atribut sensori tekstur, dan rasa. Perlakuan terbaik berdasarkan evaluasi fisikokimia dan sensori adalah penambahan ekstrak *cassia vera* 1%, yang menghasilkan *brownies crispy* dengan kadar air 3,27%, kadar abu 3,78%, kadar protein 10,48%, kadar lemak 22,06%, kadar karbohidrat 60,40%, serat kasar 3,10%, aktivitas antioksidan 61,52%, kekerasan 27,82 N/cm², total energi 527,06 kkal, skor sensori warna, aroma, tekstur, dan rasa kategori (suka).

Kata Kunci: antioksidan; *brownies crispy*; ekstrak *cassia vera*; tepung kacang kedelai; tepung labu kuning.

The Effect of Adding Cassia vera Extract on the Characteristics of Crispy Brownies Made with Yellow Squash Flour and Soybean Flour *crispy brownies*

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ABSTRACT

This study aims to evaluate the effect of adding Cassia vera extract on the characteristics of *crispy brownies* made from pumpkin flour and soybean flour, and to determine the optimal formulation. A completely randomized design (CRD) was used with five levels of Cassia vera extract addition (0%, 0.5%, 0.75%, 1%, and 1.25%) and three replicates. The physicochemical and sensory characteristics of the *crispy brownies* were evaluated. The data were analyzed using Analysis of Variance (ANOVA), followed by Duncan's New Multiple Range Test (DNMRT) at a 5% significance level. The results showed that the addition of Cassia vera extract significantly affected moisture content, ash content, protein content, fat content, carbohydrate content, crude fiber, antioxidant activity, hardness, sensory attributes of texture, and flavor. The best treatment based on physicochemical and sensory evaluations was the addition of 1% Cassia vera extract, which produced *crispy brownies* with a moisture content of 3.27%, ash content of 3.78%, protein content of 10.48%, fat content of 22.06%, carbohydrate content of 60.40%, crude fiber of 3.10%, antioxidant activity of 61.52%, hardness of 27.82 N/Cm², total energy 527.06 kcal, and sensory scores for color, aroma, texture, and taste categorized as "liked".

Keywords: *antioxidant; cassia vera extract; crispy brownies; soybean flour; yellow pumpkin flour*