

Analisis Kandungan Energi, Proksimat, dan Tingkat Kekerasan *Snack Bar Puree Pisang Raja* dan Tepung Lentil dengan Substitusi Biji Chia

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ABSTRAK

Latar Belakang: Prevalensi obesitas di Indonesia terus meningkat akibat kebiasaan konsumsi camilan tinggi gula dan lemak. Lentil mengandung tinggi protein dan rendah lemak, sedangkan biji chia mengandung tinggi serat. *Snack bar* yang terbuat dari lentil dan biji chia dapat menjadi solusi camilan untuk mencegah obesitas.

Tujuan: Menganalisis kandungan energi, proksimat, dan tingkat kekerasan *snack bar puree* pisang raja dan tepung lentil dengan substitusi biji chia.

Metode: Penelitian eksperimental menggunakan rancangan acak lengkap dengan 4 formulasi berdasarkan perbandingan antara tepung lentil dan biji chia, yaitu F1 (90%:10%), F2 (92,5%:7,5%), F3 (95%:5%), dan F4 (97,5%:2,5%), serta 1 formulasi kontrol *snack bar* komersial. Kandungan energi, kadar air, abu, protein, lemak, karbohidrat, dan tingkat kekerasan dianalisis dengan metode gravimetri, Soxhlet, Kjeldahl, dan Texture Analyzer. Analisis statistik menggunakan ANOVA dan Mann Whitney.

Hasil: Kadar air tertinggi *snack bar* terdapat pada F3 (26,69%), kadar abu tertinggi adalah F1 (2,67%), kadar protein tertinggi adalah F1 (14,42%), kadar lemak tertinggi adalah F1 (4,84%), kadar karbohidrat tertinggi adalah F4 (52,06%), kandungan energi tertinggi adalah F1 (297,44 kkal), dan tingkat kekerasan tertinggi adalah F4 (580,86 N).

Simpulan: Penambahan tepung lentil dan biji chia memengaruhi kandungan energi, kadar air, abu, protein, lemak, karbohidrat, dan tingkat kekerasan pada *snack bar* secara signifikan.

Kata kunci: *snack bar*, tepung lentil, biji chia, proksimat, tingkat kekerasan.

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The Analysis of Energy Content, Proximate, and Hardness of Banana Puree and Lentil Flour Snack Bars with Chia Seed Substitution

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ABSTRACT

Background: The prevalence of obesity in Indonesia continues to rise due to the consumption of snacks high in sugar and fat. Lentils are high in protein and low in fat, while chia seeds are rich in fiber. Snack bars made from lentils and chia seeds could serve as a solution for preventing obesity.

Objective: To analyze the energy content, proximate, and hardness of snack bars made from raja banana puree and lentil flour with chia seed substitution.

Methods: The experimental study employed a completely randomized design with four formulations based on the ratio of lentil flour to chia seeds: F1 (90%:10%), F2 (92.5%:7.5%), F3 (95%:5%), and F4 (97.5%:2.5%), and a control formulation of a commercial snack bar. The energy content, moisture, ash, protein, fat, carbohydrate, and hardness were analyzed using gravimetric methods, Soxhlet, Kjeldahl, and Texture Analyzer. Statistical analysis was performed using Mann-Whitney and ANOVA.

Results: The highest water content in the snack bar is found in F3 (26.69%), the highest ash content is in F1 (2.67%), the highest protein content is in F1 (14.42%), the highest fat content is in F1 (4.84%), the highest carbohydrate content is in F4 (52.06%), the highest energy content is in F1 (297.44 kcal), and the highest hardness is in F4 (580.86 N).

Conclusion: The addition of lentil flour and chia seeds significantly affects the energy content, moisture level, ash content, protein, fat, carbohydrate, and hardness of snack bars.

Keywords: snack bar, lentil flour, chia seeds, proximate, hardness.

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