Pengaruh Substitusi Tepung Kacang Merah Terhadap Karakteristik Fisik, Kimia Dan Organoleptik Roti Kering Bagelen.

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ABSTRAK

Roti kering bagelen merupakan produk pangan yang dipanggang setelah dan sebelumnya diolesi dengan krim, sehingga memiliki tekstur renyah, aroma harum, dan rasa manis. Substitusi tepung kacang merah pada roti kering bagelen dapat meningkatkan nilai gizi, mengurangi penggunaan tepung terigu, dan produk rendah gluten. Kandungan tepung kacang merah meliputi energi 369,35 kkal, protein 22,85 g, lemak 2,56 g, karbohidrat 64,15 g, kalsium 502 mg, fosfor 429 mg, zat besi 10,3 g, dan serat 4 g per 100 gr. Penelitian ini bertujuan untuk mengetahui persentase terbaik dan pengaruh substitusi tepung kacang merah terhadap karakteristik fisik, kimia dan organoleptik roti kering bagelen. Metode yang digunakan adakah RAL (Rancangan Acak Lengkap) dengan 6 perlakuan substitusi tepung kacang merah (0%, 10%, 20%, 30%, 40%, 50%) dan 3 pengulangan. Data dianalisis menggunakan ANOVA dan dilanjutkan uji Duncan taraf 5%. Hasil penelitian menunjukkan bahwa substitusi tepung kacang merah memberikan pengaruh signifikan terhadap warna (*lightness, redness, yellowness*), kenampakan irisan, kadar serat, kadar protein, sifat organoleptik dan tidak memberikan pengaruh signifikan terhadap kadar air dan kadar abu. Persentase terbaik adalah perlakuan P1 (tepung terigu 90% : tepung kacang merah 10%) dengan nilai warna *lightness* (L*) 59.91, *redness* (a*) 5.52, *yellowness* (b*) 14.14, pori-pori menjadi lebih kecil dan rapat, nilai kadar air 4,73%, kadar serat kasar 0,67%, kadar abu 2,39%, dan kadar protein 10,84%, serta sensorik untuk warna, rasa, tekstur berada pada level 4.

Kata Kunci: Roti Kering Bagelen, Tepung Kacang Merah, Karakteristik Fisik, Kimia, Dan Organoleptik

The Effect of Red Bean Flour Substitution on the Physical, Chemical and Organoleptic Characteristics of Bagelen Dry Bread.

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ABSTRACT

Bagelen bread is a food product that is baked after and before being smeared with cream, so it has a crunchy texture, fragrant aroma, and sweet taste. Substitution of red bean flour in bagelen bread can increase nutritional value, reduce the use of wheat flour, and low-gluten products. The content of red bean flour includes 369.35 kcal of energy, 22.85 g of protein, 2.56 g of fat, 64.15 g of carbohydrates, 502 mg of calcium, 429 mg of phosphorus, 10.3 g of iron, and 4 g of fiber per 100 g. This study aims to determine the best percentage and the effect of red bean flour substitution on the physical, chemical, and organoleptic characteristics of bagelen bread. The method used is a Completely Randomized Design (CRD) with 6 red bean flour substitution treatments (0%, 10%, 20%, 30%, 40%, 50%) and 3 replications. Data were analyzed using ANOVA and continued with Duncan's test at a level of 5%. The results of the study showed that red bean flour substitution had a significant effect on color (lightness, redness, yellowness), sliced appearance, fiber content, protein content, organoleptic properties and did not have a significant effect on water content and ash content. The best percentage is treatment P1 (90% wheat flour: 10% red bean flour) with a lightness (L) color value of 59.91, redness (a*) 5.52, yellowness (b*) 14.14, pores become smaller and denser, water content value of 4.73%, crude fiber content of 0.67%, ash content of 2.39%, and protein content of 10.84%, and sensory for color, taste, texture are at level 4.*

Keywords: *Bagelen Dry Bread, Red Bean Flour, Physical, Chemical, and Organoleptic Characteristics*