

ABSTRACT

SENSORY, PHYSICAL, AND CHEMICAL ANALYSIS OF FOOD BAR WITH VARIOUS RATIOS OF POTATO STARCH (*Solanum tuberosum* L) AND WHEAT FLOUR

By

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Wheat flour is widely used in the production of food bars; however, it contains gluten, which, when consumed in excessive amounts, may cause digestive disorders. To address this issue, potato starch characterized by a relatively high potassium content (396 mg/100 g), low sodium concentration, and being naturally gluten-free can serve as an alternative to wheat flour in food bar formulations. This study aimed to investigate the effect of varying ratios of potato starch and wheat flour on the sensory, chemical, and physical properties of food bars, as well as to determine the optimal formulation among the tested ratios. The research was conducted using a Completely Randomized Block Design (CRBD) with six treatments and four replications, followed by sensory, physical, and chemical analyses. The results indicated that the ratio of potato starch to wheat flour significantly affected taste, texture, overall acceptability, moisture content, and hardness, but did not significantly influence the aroma of the food bars. The best formulation was obtained with a ratio of 60% wheat flour and 40% potato starch, achieving scores for taste (3.940), aroma (3.720), texture (3.900), overall acceptability (3.940), moisture content (7.732%), hardness (4496 gf), and protein content (8.05%).

Keywords: food bar, potato starch, wheat flour

ABSTRAK

ANALISIS SENSORI, FISIK DAN KIMIA FOOD BAR PADA BERBAGAI PERBANDINGAN TEPUNG KENTANG (*Solanum tuberosum* L.) DAN TEPUNG TERIGU

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Tepung terigu biasa digunakan dalam pembuatan *food bar* mengandung gluten yang jika dikonsumsi secara berlebihan dapat mengganggu pencernaan. Untuk mengatasi hal tersebut, tepung kentang memiliki kandungan kalium yang cukup tinggi sebesar 396/100g, rendah natrium, dan tidak mengandung gluten dapat dijadikan sebagai alternatif pengganti tepung terigu dalam pembuatan *food bar*. Penelitian ini bertujuan untuk mengetahui pengaruh perbandingan tepung kentang dan tepung terigu terhadap karakteristik sensori, kimia, fisik pada *food bar* serta menentukan formulasi terbaik dari berbagai perbandingan kedua jenis tepung tersebut. Penelitian ini disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan enam perlakuan dan empat ulangan, diikuti dengan uji sensori, fisik dan kimia. Hasil penelitian menunjukkan perbandingan tepung kentang dan tepung terigu pada produk *food bar* berpengaruh terhadap rasa, tekstur, penerimaan keseluruhan, kadar air, dan kekerasan. Tetapi, tidak berpengaruh terhadap aroma *food bar*. Formulasi terbaik diperoleh pada perbandingan 60% tepung terigu dan 40% tepung kentang dengan skor rasa (3,940), aroma (3,720), tekstur (3,900), penerimaan keseluruhan (3,940), kadar air (7,732%), kekerasan (*hardness*) (4496 gf), dan kadar protein sebesar (8,05%).

Kata kunci: *food bar*, tepung kentang, dan tepung terigu