

Kadar Protein dan Mutu Organoleptik *Flakes* Berbasis Kentang (*Solanum tuberosum L.*) dan Tepung Kacang Tunggak (*Vigna unguiculata L.*) sebagai Alternatif Sarapan Tinggi Protein
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ABSTRAK

Latar belakang: Melewatkan sarapan menyebabkan kurangnya konsentrasi, lelah, dan mengantuk. *Flakes* merupakan makanan praktis yang dikonsumsi saat sarapan. Penambahan tepung kacang tunggak yang tinggi protein akan meningkatkan kadar protein *flakes*.

Tujuan: Penelitian ini bertujuan mengetahui pengaruh penambahan tepung kacang tunggak terhadap kadar protein dan mutu organoleptik *flakes*.

Metode: Penelitian eksperimental ini menggunakan rancangan acak lengkap (RAL) 1 faktor, yaitu formulasi *flakes* kentang (K) dan tepung kacang tunggak (TKT), terdiri dari: F0 (100% K), F1 (80% K; 20% TKT), F2 (70% K; 30% TKT), dan F3 (60% K; 40% TKT). Analisis kadar protein dilakukan dengan metode *Kjeldahl*, *ANOVA* dan *DMRT*, sedangkan mutu organoleptik dilakukan dengan uji hedonik dan uji *Just About Right* (JAR) pada 66 panelis dilanjutkan analisis *Kruskal-Wallis*, *Mann Whitney*, dan *penalty analysis*.

Hasil: Penambahan tepung kacang tunggak berpengaruh signifikan terhadap peningkatan kadar protein *flakes* ($p < 0,05$) dengan kadar tertinggi pada F3 (60% K; 40% TKT) sebesar 19,12 g/100 g. Akan tetapi penambahan tepung kacang tunggak menurunkan kesukaan panelis terhadap warna, rasa, aroma, dan tekstur *flakes* ($p < 0,05$). Faktor yang memengaruhi penurunan kesukaan panelis antara lain rasa kacang, aroma langu, dan tekstur yang keras.

Simpulan: Penambahan tepung kacang tunggak meningkatkan kadar protein *flakes* tetapi menurunkan penerimaan mutu organoleptik produk.

Kata kunci: *flakes*, kacang tunggak, protein, organoleptik, sarapan

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Protein Content and Organoleptic Properties of Potato Based Flakes (*Solanum tuberosum L.*) and Cowpea Flour (*Vigna unguiculata L.*) as a High Protein Breakfast Alternative

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ABSTRACT

Background: Skipping breakfast can lead to decreased concentration, fatigue, and drowsiness. Flakes are a practical food commonly consumed for breakfast. High protein cowpea flour is expected to enhance the protein content of flakes.

Objective: This study aimed to examine the effect of cowpea flour addition on the protein content and organoleptic of flakes.

Methods: This experimental study used a completely randomized design with one factor: the formulation of potato flakes (P) and cowpea flour (CF). Four formulations are F0 (100% P), F1 (80% P; 20% CF), F2 (70% P; 30% CF), F3 (60% P; 40% CF). Protein content was analyzed by the Kjeldahl method, ANOVA, and DMRT. Organoleptic properties were assessed through hedonic and Just About Right tests involving 66 panelists, followed by Kriskal-Wallis, Mann Whitney, and penalty analysis.

Results: Cowpea flour significantly increased the protein content of flakes ($p < 0,05$) with the highest value in F3 (19,2 g/100 g). However, it significantly decreased panelist preference for color, taste, aroma, and texture ($p < 0,05$), influenced by the beany taste, off-aroma, and hard texture.

Conclusion: Cowpea Flour increases protein content in flakes but decreases sensory acceptance.

Keywords: flakes, cowpea, protein, organoleptic, breakfast

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