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Analisis Fisikokimia, dan Daya Terima Biskuit Berbasis Tepung Mocaf (*Modified Cassava Flour*) dan Tepung Biji Labu Kuning (*Cucurbita moschata Durch*)

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ABSTRAK

Latar Belakang: Anemia menjadi salah satu masalah gizi yang banyak terjadi di Indonesia. Tepung mocaf mengandung zat besi yang cukup tinggi, sedangkan tepung biji labu mengandung protein yang tinggi, dan zat besi. Kedua bahan tersebut dapat dijadikan alternatif bahan dasar biskuit untuk mencegah dan mengatasi anemia.
Tujuan: Menganalisis karakteristik fisikokimia dan daya terima biskuit berbasis tepung mocaf dan tepung biji labu kuning.
Metode: Penelitian eksperimental dengan rancangan acak lengkap satu faktor yang terdiri dari 4 formulasi biskuit yaitu F0 (kontrol komersial), serta F1, F2, dan F3 yang dibedakan berdasarkan perbandingan komposisi tepung mocaf dan tepung biji labu kuning yaitu F1 (3:1), F2 (2:1), dan F3 (1:1). Uji kadar air, warna, dan tingkat kekerasan secara berurutan menggunakan metode oven, Hunter, dan TPA (*Texture Profile Analysis*). Uji daya terima menggunakan uji hedonik 9 skala, dan uji JAR (*Just About Right*) 9 skala. Penentuan formulasi terbaik ditentukan dengan metode *Multi Attribute Decision Making Simple Additive Weighing*.
Hasil: Kadar air, nilai a* (merah/hijau), nilai b* (kuning/biru) biskuit meningkat seiring peningkatan jumlah tepung biji labu kuning, sedangkan tingkat kekerasan dan nilai L* menurun seiring bertambahnya penggunaan tepung biji labu kuning. F2 sebagai formulasi terbaik mengandung kadar air 5.19%, L* 67.05, a*0.20, b* 30.58, dan kekerasan 10.35 N, serta penerimaan terbaik dari aspek rasa, warna, aroma, keseluruhan, dan memiliki nilai JAR tertinggi untuk aspek warna hijau, warna cokelat, tekstur, rasa gurih, dan aroma *nutty*.
Simpulan: Perbedaan formulasi biskuit berbasis tepung mocaf dan tepung biji labu kuning mempengaruhi aspek kadar air, tingkat kekerasan, nilai a*, dan b* pada warna, serta daya terima biskuit.

Kata Kunci: anemia, biskuit, fisikokimia, mocaf, biji labu kuning

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Physicochemical Analysis, and Acceptance Testing of Mocaf (Modified Cassava Flour) and Pumpkin Seed Flour (*Cucurbita moschata Durch*) Based Biscuits

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ABSTRACT

Background: *Anemia is one of the nutritional problems that often occurs in Indonesia. Mocaf flour contains quite high levels of iron, while pumpkin seed flour contains high levels of protein and iron. These two ingredients can be used as alternative basic ingredients for biscuits to prevent and treat anemia.*

Objective: *Analyzing the physicochemical characteristics and acceptability of biscuits based on mocaf flour and pumpkin seed flour.*

Method: *Experimental research with completely randomized design with one factor consisting of 4 biscuit formulations, namely F0 (commercial control), and F1, F2, and F3 which differentiated based on the ratio of mocaf flour and pumpkin seed flour, namely F1 (3:1), F2 (2:1), and F3 (1:1). Test of moisture content, color and level of hardness, sequentially using the oven, Hunter and TPA (Texture Profile Analysis) methods. The acceptance testing uses a 9-scale hedonic test, and a 9-scale JAR (Just About Right) test. Determining the best formulation is determined using the Multi Attribute Decision Making Simple Additive Weighing method.*

Result: *The moisture content, a*(red/green) value, b* (yellow/blue) value of biscuits increased as the amount of pumpkin seed flour increased, while the hardness level and L* value decreased as the use of pumpkin seed flour increased. F2 as the best formulation contains water content of 5.19%, L* 67.05, a*0.20, b* 30.58, and hardness of 10.35 N, as well as the best acceptance in terms of taste, color, aroma, overall, and has the highest JAR value for the green color aspect, brown color, texture, savory taste, and nutty aroma.*

Conclusion: *The differences in biscuit formulations based on mocaf flour and pumpkin seed flour affect moisture, hardness, redness, yellowness, and acceptability of the biscuits.*

Keywords: *anemia, biscuit, physicochemical, mocaf, pumpkin seed flour*

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