PEMANFAATAN TEPUNG DAUN KELOR (*Moringa oleifera)* DAN TEPUNG UBI JALAR ORANYE (*Ipomoea batatas)* SEBAGAI SUBSTITUSI TEPUNG TERIGU TERHADAP DAYA TERIMA KUKIS

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INTISARI

Latar Belakang: Daun kelor dan ubi jalar oranye memiliki kandungan zat besi dan protein yang tinggi, mudah ditemukan, serta dapat diperoleh dengan harga terjangkau sehingga mampu menjadi bahan substitusi pangan tinggi zat besi sebagai langkah alternatif dalam mengurangi kejadian anemia defisiensi zat besi pada remaja putri. Diperlukan pengolahan kedua bahan tersebut dalam bentuk camilan yang digemari seperti kukis dengan menambahkan tepung daun kelor dan tepung ubi jalar oranye.
Tujuan: Mengetahui karakteristik fisik dan daya terima kukis substitusi tepung daun kelor serta tepung ubi jalar oranye.
Metode: Jenis penelitian eksperimental murni dengan desain rancangan acak lengkap (RAL). Terdapat 3 variasi substitusi tepung daun kelor dan tepung ubi jalar oranye yaitu 0% (Formula A), 10%:50% (Formula B), dan 12%:48% (Formula C). Karakteristik fisik kukis substitusi tepung daun kelor dan tepung ubi jalar oranye diujikan kepada 5 panelis terbatas atau terlatih dan daya terima kepada 30 panelis semi terlatih. Analisis statistik yang digunakan adalah *one-way* ANOVA dengan *post hoc Duncan* (α=0,05) dan uji *Kruskal Wallis* dengan *post hoc Mann Whitney*. Penentuan formula terbaik diperoleh dari nilai rerata daya terima tertinggi secara keseluruhan.
Hasil: Semakin tinggi penambahan tepung daun kelor maka kukis semakin berwarna kehijauan, beraroma dan berasa daun kelor, serta bertekstur renyah dan rapuh. Semakin tinggi penambahan tepung ubi jalar oranye maka kukis semakin berwarna kekuningan, berasa manis ubi dan memiliki *aftertaste*, serta bertekstur lunak. Hasil uji daya terima secara umum pada tingkat kesukaan warna, aroma, rasa, tekstur, dan keseluruhan adalah agak tidak suka (3 dari skala maksimal 6). Formula B (penambahan 10% tepung daun kelor dan 50% tepung ubi jalar oranye) merupakan formula kukis substitusi yang paling disukai berdasarkan uji hedonik.
Kesimpulan: Substitusi tepung daun kelor dan tepung ubi jalar oranye dengan variasi Formula B dan C mempengaruhi karakteristik fisik dan daya terima kukis. Formula terbaik berdasarkan daya terima adalah Formula B.

Kata Kunci: Daya terima, karakteristik fisik, kukis, tepung daun kelor, tepung ubi jalar oranye

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THE UTILIZATION OF MORINGA LEAF FLOUR AND ORANGE-FLESHED SWEET POTATO FLOUR AS A WHEAT FLOUR SUBSTITUTE ON THE ACCEPTABILITY OF COOKIES

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ABSTRACT

Background: Moringa leaf and orange-fleshed sweet potato are contained high iron and protein. Those can be obtained at affordable prices, are easy to find, and can be substitutes for high-iron food as an alternative step in reducing the iron deficiency anemia in young women. It is necessary to process the two ingredients as a flour and make a popular snack product, such as cookies.
Goal: To know the physical characteristics and acceptability of the substituted moringa leaf flour and orange-fleshed sweet potato flour cookies.
Method: The type of research was true experimental with a complete randomized design. There were three variations of moringa leaf flour and orange-fleshed sweet potato flour substitution, 0% (Formula A), 10%:50% (Formula B), and 12%:48% (Formula C). The physical characteristics of the substituted moringa leaf flour and orange-fleshed sweet potato flour cookies were tested on five limited or trained panelists, and the acceptability was tested on 30 semi-trained panelists. Statistical analysis used one-way ANOVA with post hoc Duncan (α=0.05) and Kruskal Wallis test with post hoc Mann Whitney. The best formula was chosen from the average value of the highest overall acceptance.
Result: By adding the moringa leaf flour higher, the cookies are more green, have the moringa leaf flavor and taste, and a crunchy and crumbly texture. By adding the orange-fleshed sweet potato flour higher, the cookies will be more yellowish, has the sweet potato taste and aftertaste, and a soft texture. The results of the general acceptance test on the level of preference for color, aroma, taste, texture, and overall were somewhat disliked (three out of a maximum scale of six). Formula B (addition of 10% Moringa leaf flour and 50% orange sweet potato flour) is the most preferred substitute cookie formula based on the hedonic test.
Conclusion: The substitution of moringa leaf flour and orange-fleshed sweet potato flour with variations in Formula B and C affected the physical characteristics and acceptability of the cookies. The best formula based on acceptability is Formula B.

Keywords: Acceptance, cookies, moringa leaf flour, physical characteristics, orange-fleshed sweet potato flour

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