ABSTRAK

SUBSTITUSI TEPUNG LABU KUNING DALAM TEPUNG TAPIOKA PADA PEMBUATAN COOKIES

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Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung labu kuning dalam tepung tapioka terhadap karakteristik fisik dan organoleptik cookies serta menentukan perlakuan terbaik. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan lima perlakuan, yaitu P0 (kontrol), P1 (10%), P2 (15%), P3 (20%), dan P4 (25%) substitusi tepung labu kuning. Parameter yang diamati meliputi rasa, warna, aroma, tekstur, analisis warna RGB, fracturability menggunakan Brookfield Texture Analyzer, dan ketebalan cookies. Data organoleptik dianalisis menggunakan ANOVA dan dilanjutkan dengan uji BNT 5%. Hasil penelitian menunjukkan bahwa substitusi tepung labu kuning berpengaruh terhadap tingkat kesukaan rasa, warna, aroma, dan tekstur cookies. Perlakuan terbaik diperoleh pada P3 (20% tepung labu kuning dan 80% tepung tapioka) dengan nilai kesukaan rasa 4,73, warna 4,33, aroma 4,27, dan tekstur 4,40. Analisis RGB menunjukkan bahwa peningkatan substitusi tepung labu kuning menyebabkan penurunan nilai Red, Green, dan Blue sehingga menghasilkan warna cookies yang semakin pekat. Nilai fracturability cenderung meningkat dengan meningkatnya substitusi tepung labu kuning, sedangkan ketebalan cookies tidak berbeda nyata antar perlakuan. Berdasarkan hasil penelitian, perlakuan P3 merupakan formulasi terbaik dalam menghasilkan cookies dengan karakteristik fisik dan organoleptik yang paling baik.

Kata kunci: cookies, tepung labu kuning, tepung tapioka, organoleptik, fracturability.

1. Penulis
2. Pembimbing

ABSTRACT

SUBSTITUTING YELLOW PUMPKIN FLOUR IN TAPIOCA FLOUR IN MAKING COOKIES

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This study aimed to determine the effect of pumpkin flour substitution in tapioca flour on the physical and organoleptic characteristics of cookies and to identify the best substitution level. The study employed a Completely Randomized Design (CRD) consisting of five treatments: P0 (100% tapioca flour), P1 (10% pumpkin flour), P2 (15% pumpkin flour), P3 (20% pumpkin flour), and P4 (25% pumpkin flour). The observed parameters included organoleptic properties (taste, color, aroma, and texture), RGB color analysis, fracturability using a Brookfield Texture Analyzer, and cookie thickness. Organoleptic evaluation was conducted using 15 panelists, and the data were analyzed using Analysis of Variance (ANOVA) followed by the Least Significant Difference (LSD) test at the 5% level. The results showed that pumpkin flour substitution significantly affected the organoleptic characteristics of cookies. The best treatment was P3 (20% pumpkin flour and 80% tapioca flour), with preference scores of 4.73 for taste, 4.33 for color, 4.27 for aroma, and 4.40 for texture. RGB analysis indicated a decrease in Red, Green, and Blue values as the level of pumpkin flour substitution increased, resulting in a darker cookie color. Fracturability tended to increase with higher levels of pumpkin flour substitution, while cookie thickness was not significantly affected. Therefore, P3 was identified as the best formulation for producing cookies with the most desirable physical and organoleptic characteristics.

Keywords: cookies, pumpkin flour, tapioca flour, organoleptic, fracturability.

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