

Pengaruh Substitusi Tepung Keluwih (*Artocarpus camansi*) pada Tepung Terigu terhadap Karakteristik Mutu *Brownies* Kukus

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung keluwih (*Artocarpus camansi*) pada tepung terigu terhadap karakteristik mutu *brownies* kukus secara fisik dan kimia. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 6 perlakuan dan 3 kali ulangan. Data dianalisa secara statistik dengan menggunakan ANOVA dan dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5%. Perlakuan pada penelitian ini adalah substitusi tepung keluwih sebesar 0%; 5%; 15%; 25%; 35%; dan 45%. Variabel yang diamati adalah analisa fisik yaitu uji organoleptik (aroma, warna, rasa, dan tekstur), daya simpan *brownies*, dan aktivitas air (a_w). Dan juga, analisis mikrobiologi yaitu uji angka lempeng total. Sedangkan analisa kimia yang diamati yaitu kadar air, kadar abu, kadar lemak, kadar protein, kadar serat kasar, kadar gula, dan penetapan nilai energi. Hasil penelitian menunjukkan bahwa semakin banyak substitusi tepung keluwih yang digunakan maka dapat meningkatkan kadar air, kadar abu, kadar lemak, nilai energi, kadar serat kasar dan angka lempeng total, sebaliknya semakin banyak substitusi tepung keluwih dapat menurunkan kadar protein, kadar karbohidrat, dan kadar gula pada *brownies* kukus yang dihasilkan. *Brownies* kukus dengan substitusi tepung keluwih yang terbaik berdasarkan karakteristik sifat fisika dan kimia adalah perlakuan F dengan nilai rata-rata analisis kadar air 29,08%, kadar abu 1,20%, kadar lemak 17,17%, kadar protein 9,78%, kadar karbohidrat 51,04%, nilai energi 365,93 kkal/100g, kadar serat kasar 26,69%, kadar gula 19,65%, dan angka lempeng total $5,2 \times 10^6$ CFU/g. Nilai rata-rata organoleptik yaitu warna sebesar 3,5, aroma 3,2, tekstur 3,6, dan rasa 3,7. Daya simpan *brownies* kukus penyimpanan suhu dingin (*refrigerator*) bertahan sampai hari ke-8, serta penyimpanan suhu ruang tidak bisa bertahan sampai hari ke-2 dengan kandungan aktivitas air (a_w) sebesar 0,92.

Kata Kunci : *brownies* kukus, karakteristik mutu *brownies* kukus, substitusi, tepung keluwih.

The Effect of Substitution of keluwih Flour (*Artocarpus camansi*) at Wheat Flour Toward The Quality of Characteristic of Steamed Brownies

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ABSTRACT

This research was aimed to know the effect of substitution of keluwih flour (*Artocarpus camansi*) at wheat flour toward the quality of characteristic of steamed brownies by physically and chemically. This research used Completely Randomized Designed (CRD) that consists of 6 treatments and 3 repetitions. The data were analyzed statistically by using ANOVA and continued with Duncan's New Multiple Range Test (DNMRT) at 5% significance level. The treatment in this research is the substitution keluwih flour by 0%; 5%; 15%; 25%; 35%; and 45%. The variable of observe was produce as physical analysis like organoleptic (aroma, color, flavor, and texture), brownies saved influincyni, and water activity (a_w). And then, microbiological analysis that is total plate test. The chemical analysis which is observed such as water content, ash content, fat content, protein content, dietary fiber content, sugar content, and energy value. The result of this research shows that many substitution of keluwih flour used, its can upgrade such as water content, ash content, fat content, energy value, dietary fiber content, total plate test, in other case of substitution keluwih flour its can to go down such as protein content, carbohidrat content, and sugar content at steamed brownies. The best of substitution of keluwih flour are based on characteristic of physically and chemically. The result of the product were steamed brownies at the treatment F (substitution keluwih flour 45%, wheat flour 55%) with average analysis such as water content by 29,08%, ash content by 1,20%, fat content by 17,17%, protein content by 8,54%, carbohidrat content by 27,45%, energy value by 365,93 kkal/100g, dietary fiber content by 26,69%, sugar content by 18,35%, and total plate count by $5,2 \times 10^5$ CFU/g. Average of organoleptic that is 3,5 of color, 3,2 of aroma, 3,6 of texture, and 3,7 of flavor. Brownies saved influincyni at saved in refrigeratory temperature is good until 8th days, and also saved in room temperature is not good until second day with water activity (a_w) by 0,92.

Keywords: keluwih flour, quality characteristic steamed brownies, steamed brownies, substitution.