

PENGARUH PENAMBAHAN GLUKOMANAN PORANG TERHADAP SIFAT FISIK DAN KANDUNGAN NUTRISI ROTI TAWAR DAUN KELOR

THE EFFECT OF PORANG GLUCOMANAN ADDITION ON THE PHYSICAL PROPERTIES AND NUTRITIONAL CONTENT OF MORINGA LEAF WHITE BREAD

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ABSTRACT

This study aims to determine the effect of the addition of porang glucomannan on the physical properties and nutritional content of Moringa leaf white bread. The method that used in this study was a Randomized Block Design (RBD) with a single factor (the effect of porang glucomannan concentration) and 6 treatments namely porang glucomannan concentrations of 0%, 0.5%, 1%, 1.5%, 2% and 2.5%. Parameters observed consisted of the physical properties (swelling volume and texture), the nutritional content (moisture content, ash content, protein and calories) and the organoleptic aspects (pores, aroma, texture and taste) which were tested by hedonic and scoring. Observational data were analyzed using the analysis of variance at 5% significant level using the CoStat Software. When there were significantly different, they were tested further using the Honest Significant Difference at 5% significant level. The results showed that the concentration of porang glucomannan had significantly different effects on the physical properties (swelling volume and texture), the nutritional content (moisture content, ash content, protein and calories) and the organoleptic aspects (pores and texture) of Moringa leaf plain bread. Porang glucomannan concentration of 1% was the best concentration that produced bread with 129,93% expansion volume; texture 1,07 N; 2899 cal/g calories; 38,95% moisture content; 1,48% ash content, 3,86% protein content; the pores, aroma, texture and taste were slightly liked by the panelists.

Keywords: *porang glucomannan, moringa leaves and white bread.*

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan glukomanan porang terhadap sifat fisik dan kandungan nutrisi roti tawar daun kelor. Rancangan yang digunakan pada penelitian ini adalah Rancangan Acak Kelompok (RAK) dengan faktor tunggal (pengaruh konsentrasi glukomanan porang) dengan 6 perlakuan yaitu konsentrasi glukomanan porang 0%, 0,5%, 1%, 1,5%, 2% dan 2,5%. Parameter yang diamati terdiri dari sifat fisik (volume pengembangan dan tekstur), kandungan nutrisi (kadar air, kadar abu, protein dan kalori) dan aspek organoleptik (pori-pori, aroma, tekstur dan rasa) yang diuji secara hedonik dan skoring. Data hasil pengamatan dianalisis menggunakan analisis keragaman dengan taraf 5% menggunakan *Software CoStat*. Ketika terdapat perbedaan yang nyata dilakukan uji lanjut menggunakan uji Beda Nyata Jujur (BNJ) pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa konsentrasi glukomanan porang memberikan pengaruh yang berbeda nyata terhadap sifat fisik (volume pengembangan dan tekstur), kandungan nutrisi (kadar air, kadar abu, protein dan kalori) dan aspek organoleptik (pori-pori dan tekstur) roti tawar daun kelor. Konsentrasi glukomanan porang 1% merupakan konsentrasi terbaik yang menghasilkan roti dengan volume pengembangan 129,93%; tekstur 1,07 N; kalori 2899 cal/g; kadar air 38,95%; kadar abu 1,48%; kadar protein 3,86%; pori-pori, aroma, tekstur dan rasa roti yang agak disukai.

Kata Kunci : glukomanan porang, daun kelor dan roti tawar.