PENGARUH KONSENTRASI RAGI ROTI INSTAN DAN KARAGINAN TERHADAP MUTU ROTI TAWAR TERSUBSTITUSI TEPUNG SORGUM

THE EFFECT OF INSTANT BREAD YEAST AND CARRAGINAN CONCENTRATION ON THE QUALITY OF SORGUM FLOUR SUBSTITUTED BREAD

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ABSTRACT

This study aims to determine the effect of concentrations of instant bread yeast and carrageenan on the quality of sorghum flour-substituted white bread. The method used in this study was an experimental method carried out in the laboratory and designed using a two-factor Completely Randomized Design (CRD), namely yeast concentrations of 2%, 4%, and 6% and Carrageenan 0%, 0.2%. Observational data were analyzed using analysis of variance with a level of 5% using Cos-Stat. Significantly different data were further tested for Honest Significant Difference (BNJ) at the 5% level. Parameters observed included chemical quality (fiber content, ash content, and content), physical quality (swelling power, elasticity, and bread crumbs), and organoleptic quality (aroma, taste, texture, crust color, and crumb color). The results showed that yeast concentration of 4% and carrageenan 0.2% was the best treatment in producing white bread with a moisture content of 23.72% (according to SNI), ash content of 1.9%, crude fiber content of 5.33%, 67.83% swelling power by reducing the size of the pores so as to create uniform bread pores, 84.44% elasticity with organoleptic crust color "light brown", aroma "slightly sour", taste "not sour", texture "a bit soft" and the crumb color "yellowish white" which was liked by the panelists.

***Keywords** : bread, carrageena, yeast*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi ragi roti instan dan karaginan terhadap mutu roti tawar tersubstitusi tepung sorgum. Metode yang digunakan dalam penelitian ini adalah metode eksperimental yang dilaksanakan di Laboratorium dan dirancang menggunakan Rancangan Acak Lengkap (RAL) dua faktor yaitu Konsentrasi ragi 2%, 4%, dan 6% dan Karaginan 0%, 0,2%. Data hasil pengamatan dianalisis menggunakan analisi keragaman dengan taraf 5% menggunakan *Cos-Stat*. Data yang berbeda nyata di uji lanjut Beda Nyata Jujur (BNJ) pada taraf 5%. Parameter yang diamati meliputi mutu kimia (Kadar air, kadar abu, dan kadar serat), mutu fisik (daya kembang, elastisitas, dan crumb roti), dan mutu organoleptik (aroma, rasa, tekstur, warna crust, dan warna crumb). Hasil penelitian menunjukkan bahwa konsentrasi ragi 4% dan karaginan 0,2% merupakan perlakuan terbaik dalam menghasilkan roti tawar dengan nilai kadar air 23,72% (sesuai dengan SNI), kadar abu 1,9%, kadar serat kasar 5,33%, daya kembang 67,83% dengan memperkecil ukuran pori-pori sehingga menciptakan pori-pori roti yang seragam, elastisitas 84,44% dengan organoleptik warna crust " coklat muda", aroma "agak beraroma asam", rasa "tidak berasa asam", tekstur "agak lembut" dan warna crumb " putih kekuningan" yang disukai oleh panelis.

Kata kunci : Karagenan, ragi, roti