

PENGARUH SUBSTITUSI TERIGU DENGAN TEPUNG TEMPE TERHADAP SIFAT KIMIA DAN ORGANOLEPTIK DONAT

THE EFFECT OF SUBSTITUTION WHEAT FLOUR WITH TEMPEH FLOUR ON CHEMICAL PROPERTIES AND ORGANOLEPTIC DONUTS

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ABSTRACT

This study aims to determine the effect of tempeh flour substitution on chemical and physical properties donuts. The study used a complete randomized design (CDR) with one factor that was tempeh flour 0%, 5%, 15%, 25%, 35%, and 45% and repeats 3 times so that 18 experimental units were obtained. Parameters observed were protein levels, moisture content, ash content, color (oHue and L), texture, and organoleptic (scent, flavor, texture, inside color, and outside color). Observed data were analyzed for diversity with a real level of 5% using Co-stat. If there was a real difference, further analysis was carried out Orthogonal Polynomial Method (OPM) and Honestly Significant Difference at the level of 5%. Treatment P3 (25% tempeh flour : 75% wheat flour) was the best treatment based on the protein level 8,78%, moisture content 27,17%, ash content 1,47%, hardness 7,24 N, outside color (oHue) 75,95, inside color (oHue) 81,67, outside color (L) 58,97, inside color (L) 68,06, and mildly flavored with tempeh, slightly savory tasted, rather soft, outside color light brown, and inside color yellow and somewhat preferred by panelists.

Keywords: Tempeh flour, Donuts, Substitution

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung tempe pada terhadap sifat fisik dan kimia donat. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) satu faktor yaitu persentase substitusi tepung tempe 0%, 5%, 15%, 25%, 35%, 45% serta ulangan sebanyak 3 kali sehingga didapat 18 unit percobaan. Parameter yang diamati yaitu kadar protein, kadar air, kadar abu, warna (oHue dan L), tekstur, dan organoleptik (aroma, rasa, tekstur, dan warna). Data hasil pengamatan dianalisis dengan analisis keragaman (ANOVA) pada taraf 5% dengan menggunakan software Co-Stat dan diuji lanjut dengan Beda Nyata Jujur (BNJ) pada taraf 5%. Perlakuan terbaik adalah perlakuan P3 (25% tepung tempe : 75% tepung terigu) merupakan perlakuan terbaik dengan kadar protein 8,78%, kadar air 27,17%, kadar abu 1,47%, nilai hardness 7,24, warna luar (oHue) 75,95, warna dalam (oHue) 81,67, warna luar (L) 58,97, warna dalam (L) 68,06, serta aroma agak beraroma tempe, rasa agak gurih, agak lembut, warna luar coklat muda, dan warna dalam kuning serta agak disukai panelis.

Kata Kunci : Tepung tempe, Donat, Substitusi