

ABSTRACT

EFFECT OF TANNIA FLOUR AND SOY FLOUR FORMULATION ON THE PHYSICAL, CHEMICAL AND SENSORY CHARACTERISTICS OF COOKIES

By

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Cookies are snack foods made from wheat flour that contain gluten. The addition of talas kimpul flour is known to be able to substitute wheat flour in cookie production. Talas kimpul flour has a low protein content, therefore the addition of soybean flour, which is high in protein, is required. This study aimed to determine the effect of the ratio between talas kimpul flour and soybean flour on the characteristics of cookies, as well as to identify the best ratio that meets the requirements of SNI 2973-2018. The study used a Completely Randomized Block Design (CRBD) with a single factor and six different treatment levels. The ratios of talas kimpul flour and soybean flour used in this study were P1 (100:0), P2 (90:10), P3 (80:20), P4 (70:30), P5 (60:40), and P6 (50:50). Data were analyzed using Bartlett and Tukey tests, followed by ANOVA and the Honestly Significant Difference (HSD) test at the 5% level. The P3 ratio (80 g talas kimpul flour : 20 g soybean flour) produced the best cookies with a moisture content of 1.63%, ash content of 2.47%, hardness of 2405.8 gf, brownish-yellow color, texture score of 4.00 (crispy), aroma score of 3.80 (without beany odor), favored by panelists in terms of taste and overall acceptability, and containing 16.81% protein. The protein content obtained was higher than that of commercial cookies, which contained 9% protein.

Keywords: tannia flour, soy flour, cookies

ABSTRAK

PENGARUH PERBANDINGAN TEPUNG TALAS KIMPUL (*Xanthosoma sagitifolium*) DAN TEPUNG KACANG KEDELAI TERHADAP KARAKTERISTIK FISIK, KIMIA DAN SENSORI *COOKIES*

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Cookies merupakan makanan ringan berbahan dasar terigu yang mengandung gluten. Penambahan tepung talas kimpul diketahui dapat menggantikan penggunaan tepung terigu pada pembuatan cookies. Tepung talas kimpul memiliki kandungan protein yang rendah sehingga diperlukan penambahan tepung kacang kedelai yang tinggi protein. Penelitian bertujuan untuk mengetahui pengaruh perbandingan tepung talas kimpul dan tepung kacang kedelai terhadap karakteristik *cookies* serta mengetahui perbandingan terbaik yang mendekati SNI 2973-2018. Penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) menggunakan faktor tunggal dengan enam taraf perlakuan yang berbeda. Perbandingan tepung talas kimpul dan tepung kacang kedelai yang digunakan pada penelitian ini yaitu P1 (100:0), P2 (90:10), P3 (80:20), P4 (70:30), P5 (60:40), dan P6 (50:50). Data dianalisis menggunakan uji *Barlett* dan *Tukey*, dilanjutkan dengan uji ANOVA dan uji BNJ (Beda Nyata Jujur) pada taraf 5%. Perbandingan P3 (tepung talas kimpul 80 g : tepung kacang kedelai 20 g) menghasilkan *cookies* terbaik dengan kadar air 1,63%, kadar abu 2,47%, *hardness* 2405,8 gf, berwarna coklat kekuningan, memiliki nilai tekstur 4,00 (renyah), aroma 3,80 (tidak berbau langu), disukai panelis dari segi rasa dan penerimaan keseluruhan, serta mengandung kadar protein 16,81%. Kadar protein yang dihasilkan memiliki nilai yang lebih tinggi dibandingkan *cookies* komersial dengan kandungan protein sebesar 9%.

Kata kunci: tepung talas kimpul, tepung kacang kedelai, *cookies*