

ABSTRACT

FORMULATION OF COCONUT PULP FLOUR AND CHICKPEA FLOUR ON SENSORY AND PHYSICOCHEMICAL PROPERTIES OF BROWNIES

By

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This study aimed to determine the effect of coconut pulp flour and chickpea flour formulations on the sensory and physicochemical characteristics of brownies, as well as to identify the best formulation. The research was conducted using a non-factorial design with four replications in a Completely Randomized Block Design (CRBD). The treatments consisted of six formulation ratios of chickpea flour to coconut residue flour, namely 25%:75% (P1), 35%:65% (P2), 45%:55% (P3), 55%:45% (P4), 65%:35% (P5), and 75%:25% (P6). Data homogeneity was tested using Bartlett's test, while data additivity was tested using Tukey's test. The data were then analyzed by analysis of variance (ANOVA), followed by the Honest Significant Difference (HSD) test at a 5% significance level. Sensory evaluation was conducted with 10 trained panelists for scoring tests and 30 untrained panelists for hedonic tests, with four replications. The results showed that the treatments had a highly significant effect on both sensory and physicochemical properties of brownies. The best treatment was P5 (65% chickpea flour : 35% coconut residue flour), which produced brownies with a sweet-savory taste, compact texture, and hedonic scores for taste (2.68, like), texture (2.53, like), and overall acceptance (2.81, like). Physicochemical analysis indicated a hardness value of 275.44 g and a cohesiveness value of 0.88. The proximate analysis of the best treatment showed moisture content of 21.75%, ash content of 1.95%, protein 23.56%, fat 23.17%, and crude fiber 6.47%.

Keyword : brownies, coconut pulp flour, chickpea flour

ABSTRAK

FORMULASI TEPUNG AMPAS KELAPA DAN TEPUNG KACANG ARAB TERHADAP SIFAT SENSORI DAN FISIKOKIMIA BROWNIES

Oleh

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Penelitian ini bertujuan untuk mengetahui pengaruh formulasi tepung ampas kelapa dan tepung kacang arab terhadap karakteristik sensori dan fisikokimia brownies, serta menentukan formulasi terbaik. Penelitian ini disusun secara non faktorial dengan 4 kali ulangan dalam Rancangan Acak Kelompok Lengkap (RAKL). Perlakuan terdiri atas enam taraf formulasi tepung kacang arab : tepung ampas kelapa yaitu 25%:75% (P1), 35%:65% (P2), 45%:55% (P3), 55%:45% (P4), 65%:35% (P5), dan 75%:25% (P6). Data yang diperoleh dianalisis kesamaan ragamnya menggunakan uji Bartlett dan kemenambahan data diuji dengan uji Tukey. Data kemudian dianalisis dengan sidik ragam dan diuji lanjut dengan uji Beda Nyata Jujur (BNJ) pada taraf 5%. Pengujian dilakukan dengan 10 panelis terlatih untuk uji skoring dan 30 panelis tidak terlatih untuk uji hedonik dengan empat kali ulangan. Hasil penelitian menunjukkan bahwa perlakuan berpengaruh sangat nyata terhadap sifat sensori dan fisikokimia brownies. Perlakuan terbaik terdapat pada P5 (65% tepung kacang arab : 35% tepung ampas kelapa) yang menghasilkan brownies dengan rasa manis gurih, tekstur kompak, serta hedonik rasa suka (2,68), tekstur suka (2,53), dan penerimaan keseluruhan suka (2,81). Pengujian fisikokimia menunjukkan nilai kekerasan (*hardness*) sebesar 275,44 g dan nilai kekompakan (*cohesiveness*) sebesar 0,88. Analisis terbaik menunjukkan kadar air 21,75%, kadar abu 1,95%, protein 23,56%, lemak 23,17%, dan serat kasar 6,47%.

Kata kunci: brownies, tepung ampas kelapa, tepung kacang arab