

ABSTRACT

EFFECT OF TIWUL FLOUR AND WHEAT FLOUR TO THE PHYSICAL, CHEMICAL, AND SENSORY PROPERTIES OF COOKIES

By

MEGANTARA SYAMSI

Tiwul *off grade* was a by product of tiwul production which has small or large granules that it cannot be sold, and need diversification products made from tiwul. The research objective was to determine the effect of wheat flour and tiwul flour on the physical, chemical and sensory properties of cookies and to get the best proportions. The research was arranged in a Completely Randomized Block Design (CRBD) with a single factor, namely the ratio of tiwul flour and wheat flour. The research treatment used 6 levels of ratio of tiwul flour and wheat flour (w / w), T1 (0: 100), T2 (10:90), T3 (20:80), T4 (30:70), T5 (40. : 60) and T6 (50:50) with 4 repetitions. The data obtained were analyzed for similarity of variance with the *Bartlett* test and the additional data was tested with the Tuckey test. The data were analyzed for variance to determine the effect between treatments and the data were analyzed further with the Least Significant Difference Test (LSD) at the 5% level. The results showed that the proportion of tiwul flour and wheat flour had a significant effect on the crunchy texture, smoothness, color, aroma, taste, overall acceptability, and expansion volume of the cookies, but did not significantly affect the moisture content and penetrometry test. The best treatment was T5 (50% tiwul flour: 50% wheat flour), cookies had a crunchy texture, brownish color, a slightly distinctive aroma of tiwul, a slightly distinctive taste of tiwul, overall acceptance likes, 18.06% expansion volume, 3.67% moisture content, ash content of 0.99%, protein content of 7.45%, fat content of 25.27%, and carbohydrate content of 71.88%.

Keywords : *Cookies, tiwul flour, wheat flour*

ABSTRAK

PENGARUH PROPORSI TEPUNG TIWUL DAN TEPUNG TERIGU TERHADAP SIFAT FISIK, KIMIA DAN SENSORI PADA *COOKIES*

Oleh

MEGANTARA SYAMSI

Tiwul *off grade* adalah hasil samping dari produksi tiwul yang memiliki bentuk butiran-butiran kecil atau besar yang tidak dapat dijual, sehingga perlu diversifikasi produk berbahan dasar tiwul. Tujuan penelitian adalah untuk mengetahui pengaruh proporsi tepung terigu dan tepung tiwul terhadap sifat fisik, kimia dan sensori *cookies* serta mendapatkan proporsi yang terbaik. Penelitian disusun dengan metode Rancangan Acak Kelompok Lengkap (RAKL) dengan faktor tunggal yaitu perbandingan tepung tiwul dan tepung terigu. Perlakuan pada penelitian ini menggunakan 6 taraf perbandingan tepung tiwul dan tepung terigu (b/b) yaitu T1 (0:100), T2 (10:90), T3 (20:80), T4 (30:70), T5 (40:60) dan T6 (50:50) dengan ulangan sebanyak 4 kali. Data yang diperoleh diuji kesamaan ragamnya dengan menggunakan uji Bartlett dan kementerian data diuji dengan uji Tuckey. Data dianalisis dengan sidik ragam untuk mengetahui pengaruh perlakuan dan dilanjutkan dengan uji lanjut BNT pada taraf 5%. Hasil penelitian menunjukkan proporsi tepung tiwul dan tepung terigu berpengaruh nyata terhadap tekstur kerenyahan, tekstur kehalusan, warna, aroma, rasa, penerimaan keseluruhan, dan daya kembang *cookies* tiwul, tetapi tidak berpengaruh nyata terhadap kadar air dan uji penetrometer. Perlakuan terbaik adalah T5 (tepung tiwul 50% : tepung terigu 50%) menghasilkan *cookies* tiwul dengan tekstur renyah, warna kecoklatan, aroma agak khas tiwul, rasa agak khas tiwul, penerimaan keseluruhan suka, daya kembang 18,06%, kadar air 3,67 %, kadar abu 0,99 %, kadar protein 7,45 %, kadar lemak 25,27 %, dan kadar karbohidrat 71,88 %.

Kata kunci: *Cookies*, tepung tiwul, tepung terigu