

PENGARUH PENAMBAHAN SUSU SKIM DAN TEPUNG UBI JALAR UNGU TERHADAP SIFAT FISIK, KIMIA, AKTIVITAS ANTIOKSIDAN DAN TINGKAT KESUKAAN *COOKIES* JAGUNG PUTIH

INTISARI

Cookies yang dibuat dari tepung jagung proteinnya masih rendah sehingga perlu ditambah susu skim dan tepung ubi jalar ungu. Tepung ubi jalar ungu yang mengandung senyawa antioksidan dapat meningkatkan aktivitas antioksidan *cookies*. Penelitian ini bertujuan mengetahui pengaruh penambahan susu skim dan tepung ubi jalar ungu terhadap sifat fisik, aktivitas antioksidan dan tingkat kesukaan *cookies* jagung putih.

Cara penelitian *cookies* jagung putih meliputi pembuatan Tepung jagung putih dibuat dengan cara jagung putih direndam dalam air selama 4-5 jam, penghancuran, pengeringan suhu 50 °C selama 8 jam dan pengayakan 60 mesh. Pembuatan *cookies* dengan suhu 150° C selama 15 menit dilakukan dengan pencampuran bahan, pencetakan, pemanggangan menggunakan oven. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok pola faktorial dengan dua faktor yaitu penambahan susu skim (5, 7 dan 9%) dan tepung ubi jalar ungu (25, 50 dan 75g). Analisis yang dilakukan meliputi analisis fisik yaitu tekstur, tingkat volume pengembangan, aktivitas antioksidan, kadar antosianin, dan tingkat kesukaan dan analisis kimia yaitu kadar air, kadar abu dan kadar protein. Data yang diperoleh dianalisis statistik dengan Univariate dan ANOVA, apabila ada beda nyata antar faktor maka dilanjutkan uji Duncan's Multiple Range Test (DMRT).

Hasil penelitian menunjukkan *cookies* dengan penambahan susu skim 7% dan tepung ubi jalar 50g merupakan *cookies* yang disukai panelis dengan nilai tekstur 2,22 kg, volume pengembangan 30,59%, aktivitas antioksidan 82,93% RSA dan aktivitas antosianin 12,05 mg/100 g, kadar air 2,68 %bb, , kadar abu 2,79 %bk, dan, kadar protein 9,60% bk.

Kata kunci : tepung jagung putih, susu skim, tepung ubi jalar ungu, aktivitas antioksidan

EFFECT OF SKIM MILK ADDITION AND PURPLE SWEET POTATO FLOUR ON PHYSICAL, CHEMICAL PROPERTIES, ANTIOXIDANT ACTIVITY AND PREFERENCE LEVEL OF WHITE CORN *COOKIES*

ABSTRACT

Cookies made from corn flour contain low protein so it needs an addition of skim milk and purple sweet potato. Purple sweet potato flour which contains antioxidant compound can increase the antioxidant activities of the cookies. This study aimed to know the influence of addition of skim milk and purple sweet potato to physical properties, antioxidant activities, and preference level of white corn cookies.

The way to research white corn cookies includes making white corn flour made by soaking the white corn in the water for 4-5 hours, crushing, drying in temperature of 50 °C for 8 hours, and sieving of 60 mesh. The making of cookies in the temperature of 150 °C for 15 minute was done with mixing materials, shaping, and roasting using oven. Experimental design used in this study was Randomized Group Design of factorial pattern with two factors of adding skim milk (5,7 and 9%) and purple sweet potato (25, 50, and 75g). The analysis was included of physical properties of texture, the loaf volume, antioxidant activity, anthocyanin content, and preference level, and chemical properties, water content, ash, and protein. The collected data was statistically analyzed with Univariate and ANOVA, if there was significant different between factors so it continued to the Duncan's Multiple Range Test (DMRT).

The result show that cookies with the adding of skim milk 7% and sweet potato flour 50g is the cookies which is preferred by panelists with a that was texture value 2,22 kg, the loaf volume 30,59%, antioxidant activity 82,93% RSA and , anthocyanin content,12,05 mg/100 g, water content 2,68 % (wb), ash 2,79 % (db), and protein 9,60 % (db).

Keywords: white corn flour, skim milk, purple sweet potato flour, antioxidant activity