INTISARI

Biskuit merupakan produk kue kering yang selama ini terbuat dari tepung terigu yang rendah protein. Biskuit yang disubstitusi dengan tepung ubi jalar ungu dan tepung kedelai diharapkan dapat menambah kadar protein dan antioksidan alami. Tujuan dari penelitian ini adalah untuk menghasilkan biskuit dengan kadar protein tinggi dan mengandung aktivitas antioksidan alami.

Pembuatan biskuit dilakukan dengan bahan baku berupa tepung terigu, tepung ubi jalar ungu dan tepung kedelai. Desain penelitian menggunakan Rancangan Acak Kelompok dengan dua faktor. Faktor pertama yaitu proporsi tepung terigu (25% dan 50%). Faktor kedua yaitu proporsi tepung ubi jalar ungu:tepung kedelai (25%:75, 50%:50%, 75%:25%). Analisis yang dilakukan adalah kadar air, kadar abu, kadar protein, aktivitas antioksidan, tekstur, tingkat pengembangan volume, dan tingkat kesukaan. Data yang diperoleh dilakukan uji statistik dengan ANOVA, apabila terdapat perbedaan nyata maka diuji dengan DMRT pada tingkat kepercayaan 95%.

Hasil penelitian menunjukkan bahwa semakin besar penggunaan tepung kedelai maka kadar air, kadar abu, dan kadar protein semakin meningkat. Semakin besar penggunaan tepung ubi jalar ungu maka aktivitas antioksidan, tingkat pengembangan volume, dan tingkat kesukaan semakin meningkat. Biskuit perlakuan terbaik terdapat pada biskuit dengan perlakuan penggunaan tepung terigu 50%, tepung ubi jalar ungu 50% dan tepung kedelai 50% dengan kadar air 2,81% (%wb), kadar abu 1,56% (%db), kadar protein 11,12% (%db), aktivitas antioksidan 91,48% (%RSA), tekstur 3,25 kg, tingkat pengembangan volume 42,62%.

Kata Kunci: biskuit, ubi jalar ungu, kedelai, aktivitas antioksidan.

CHARACTERISTICS OF BISCUIT WITH SWEET POTATO AND SOY BEAN FLOUR SUBSTITUTION AS SOURCE ANTIOXIDANT AND PROTEIN

ABSTRACT

Biscuits are pastry products made from low protein flour. Biscuits substituted with sweet potato flour and soy bean flour are expected to increase levels of protein and natural antioxidants. The aim of this research is to produce biscuits with high protein content and contain natural antioxidant activity.

The made of biscuits was done with raw materials in the form of wheat flour, sweet potato flour and soy flour. This research was conducted by randomized block design with two factors. The first factor was the proportion of wheat flour (25% and 50%). The second factor was the proportion of sweet potato flour:soy flour (25%:75%, 50%:50%, 75%:25%). The analysis carried out were water content, ash content, protein content, antioxidant activity, texture, volume improvement level, and preference level. The data obtained were carried out statistical tests with ANOVA, if there were significant differences then it tested with DMRT at the confidence level of 95%.

The result of the research showed that the bigger use of soy flour made the water content, ash content, and protein content higher. The bigger use of sweet flour made the activity of antioxidant, volume improvement level, and preferencelevel higher. While, the most preferred biscuits were biscuits with 50% of wheat flour, 50% of sweet potato flour and 50% of soy flour with 2,81% (%wb) of water content, 1.56% (%db) of ash content, 11,12% (%wb) of protein content, 91,48% (%RSA) of antioxidant activity, texture of 3,25 kg, volume improvement level of 42,62%.

Keywords: biscuits, sweet potato, soy, antioxidant activity.