ABSTRAK

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PENGARUH KONSENTRASI EKSTRAK ETANOL DAUN BINAHONG (*Anredera cordifolia* (T) Steenis) DAN KARAGENAN TERHADAP KARAKTERISTIK MINUMAN JELI

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(xiv + 61 halaman; 17 gambar; 6 tabel; 21 lampiran)

Daun binahong (*Anredera cordifilia* (T) Steenis) memiliki aktivitas antioksidan. Daun binahong memiliki kandungan flavonoid, alkaloid, tanin, dan steroid yang termasuk dalam metabolit sekunder. Kandungan flavonoid tersebut yang digunakan daun binahong sebagai antioksidan kuat. Tujuan umum dari penelitian ini adalah memanfaatkan daun tanaman binahong (*Anredera cordifolia* (Ten.) Steenis) sebagai antioksidan pada pembuatan minuman jeli. Penelitian ini dilakukan dalam dua tahap, yaitu penelitian pendahuluan dan penelitian utama. Pada penelitian pendahuluan, dilakukan ekstraksi daun binahong, analisis ekstrak daun binahong yang terdiri dari total fenolik, total flavonoid, dan aktivitas antioksidan. Pada penelitian utama, dilakukan pembuatan minuman jeli dari konsentrasi ekstrak etanol daun binahong (0,1%; 0,15%; dan 0,2%) dan konsentrasi karagenan (0,1%; 0,2%; dan 0,3%). Analisis yang dilakukan pada minuman jeli adalah total padatan terlarut, pH, sineresis, warna, tekstur, dan organoleptik (skoring dan hedonik). Minuman jeli terpilih ditentukan berdasarkan uji hedonik tertinggi. Minuman jeli yang terpilih akan dianalisis total fenolik, total flavonoid, dan aktivitas antioksidan. Ekstraksi daun binahong dilakukan dengan perbandingan jumlah sampel dan pelarut (1:5). Pelarut yang digunakan adalah etanol *food grade* 70%. Ekstrak daun binahong memiliki aktivitas antioksidan (IC_{50}) 102,57 ppm, total fenolik 70,51 mg GAE/ g ekstrak kering, dan total flavonoid 21,01 mg QE/ g ekstrak kering. Minuman jeli terpilih adalah konsentrasi ekstrak daun binahong sebesar 0,15% dan konsentrasi karagenan 0,2%. Minuman jeli terpilih memiliki aktivitas antioksidan (IC_{50}) 2800,77 ppm, total fenolik 0,12 mg GAE/ mL, dan total flavonoid 0,06 mg QE/ mL.

Kata kunci : aktivitas antioksidan, daun binahong, ekstrak daun binahong, minuman jeli

Refrensi : 84 (1994-2020)

ABSTRACT

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THE EFFECT OF ETHANOL EXTRACT BINAHONG LEAVES (Anredera cordifolia (T) Steenis) AND CARRAGEENAN CONCENTRATION ON CHARACTERISTICS OF JELLY DRINK

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Binahong leaves (Anredera cordifilia (T) Steenis) have antioxidant activity. Binahong leaves contain flavonoids, alkaloids, tannins, and steroids which are included in secondary metabolites. Flavonoids in binahong leaves have a role as powerful antioxidants. The general objective of this study was to utilize the leaves of the binahong plant (Anredera cordifolia (Ten.) Steenis) as an antioxidant in the making of jelly drinks. This research was conducted in two stages, that is preliminary research and main research. In the preliminary research consists of binahong leaf extraction, binahong leaf extract analysis consisted of total phenolic, total flavonoid, and antioxidant activity. In the main research, jelly drink was made from the ethanol extract concentration of binahong leaves (0.1%; 0.15%; and 0.2%) and carrageenan concentration (0.1%; 0.2%; and 0.3%). The analysis performed on jelly drinks was total dissolved solids, pH, syneresis, color, texture, and organoleptics (scoring and hedonic). The selected jelly drink was determined based on the highest hedonic test. The selected jelly drink will be analyzed for total phenolic, total flavonoid, and antioxidant activity. Binahong leaf extraction was carried out with a ratio of the number of samples and the solvent (1: 5). The solvent used is 70% food grade ethanol. Binahong leaf extract has antioxidant activity (IC_{50}) 102.57 ppm, total phenolic 70.51 mg GAE/ g dry extract, and total flavonoids 21.01 mg QE/ g dry extract. The selected jelly drink was the binahong leaf extract concentration of 0.15% and carrageenan concentration of 0.2%. Selected jelly drinks have antioxidant activity (IC_{50}) 2800.77 ppm, total phenolic 0.12 mg GAE/ mL, and total flavonoids 0.06 mg QE/ mL.

Keywords : antioxidant activity, binahong leaf, binahong leaf extract, jelly drink

Reference : 84 (1994-2020)