

ABSTRAK

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PENGARUH KONSENTRASI MINYAK ATSIRI DAUN KARI (*Murraya koenigii* (L.) Spreng) DAN MADU TERHADAP KARAKTERISTIK MINUMAN FUNGSIONAL

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(xiv+63 halaman; 20 gambar; 8 tabel; 18 lampiran)

Daun kari (*Murraya koenigii* (L.) Spreng) banyak dimanfaatkan sebagai bumbu masakan. Daun kari memiliki kandungan flavonoid, alkaloid, terpenoid, dan minyak atsiri yang memiliki potensi sebagai antioksidan. Tujuan dari penelitian ini adalah pemanfaatan minyak atsiri daun kari dengan penambahan madu pada pembuatan minuman fungsional. Penelitian ini dibagi menjadi 2 tahap. Penelitian pendahuluan mendapatkan minyak atsiri daun kari dengan proses hidrodilatasi, analisis karakteristik fisikokimia dan aktivitas antioksidan dari minyak atsiri daun kari. Penelitian utama dilakukan pembuatan minuman fungsional dengan menggunakan konsentrasi minyak atsiri daun kari (0,05%; 0,10%; 0,15%) serta konsentrasi madu (5%; 10%; 15%). Seluruh formulasi minuman fungsional dilakukan uji sensori (skoring dan hedonik) dan fisikokimia (pH, uji total padatan terlarut, dan uji warna). Minuman fungsional terpilih berdasarkan hasil uji sensori dan fisikokimia dianalisis total fenolik dan aktivitas antioksidan. Minyak atsiri daun kari dilakukan analisis komposisi kimia menggunakan metode GC-MS dengan senyawa utama, antara lain *Humulene* (7,56%) dan *β -Phellandrene* (3,80%) fungsi sebagai antibakteri, sedangkan *caryophyllene* (20,45%), *phytol* (1,99%), *Copaene* (0,80%), dan *α -cubebene* (0,29%) fungsi sebagai antioksidan. Minyak atsiri daun kari menghasilkan rendemen 0,44%, berat jenis sebesar 0,9596 g/mL, memiliki warna kuning jernih, memiliki total fenolik $2,21 \pm 0,09$ mg GAE/g, dan aktivitas antioksidan (%RSA) sebesar 77,95% pada konsentrasi 90000 ppm. Formulasi minuman fungsional terpilih adalah konsentrasi minyak atsiri daun kari sebesar 0,05% dan konsentrasi madu sebesar 15% dengan pH 6,03, Total Padatan Terlarut 12,03°Brix, *Lightness* 53,91, °*Hue* 87,98, nilai penerimaan keseluruhan agak suka. Minuman fungsional terpilih memiliki total fenolik sebesar 4,13 mg GAE/L dan aktivitas antioksidan (%RSA) sebesar 79,41% pada konsentrasi 700000 ppm.

Kata kunci : daun kari, minyak atsiri, minuman fungsional, madu, fenolik, antioksidan

Referensi : 122 (2005-2021)

ABSTRACT

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THE EFFECT OF CURRY LEAVES (*Murraya koenigii* (L.) Spreng) ESSENTIAL OIL AND HONEY CONCENTRATION ON CHARACTERISTICS OF FUNCTIONAL DRINK

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Curry leaves (*Murraya koenigii* (L.) Spreng) are widely used as a spice for cooking. Curry leaves have high content of flavonoids, alkaloids, terpenoids, and essential oils that have potential as antioxidants. The purpose of this study was to utilize the essential oil of curry leaves in made of functional drink with the addition of honey. This research was divided into 2 stages. The preliminary stage was done to get the essential oil of curry leaves through hydrodistillation process. The essential oil were analyzed for its physicochemical properties and antioxidant activity. The main research was carried out by making functional drinks using different concentration of the essential oil of curry leaves (0,05%; 0,10%; 0,15%) and different concentration of honey (5%; 10%; 15%). All formulation of the functional drinks were tested for the sensory attributes (scoring and hedonic) and physicochemical properties (pH, total soluble solids, and color test). The best formulation of functional drink was selected based on the best results from the sensory test and physicochemical tests. Total phenolic content and antioxidant activity analysis were done on the best functional drink. Chemical components of the essential oil of curry leaves were determined by GC-MS and the main compounds found were *Humulene* (7,56%) and β -*Phellandrene* (3,80%) as antibacterial, whereas *caryophyllene* (20,45%), *phytol* (1,99%), *Copaene* (0,80%), and α -*cubebene* (0,29%) as antioxidant. Curry leaves produced essential oil with a yield of 0,44%, density of 0,9596 g/mL, clear yellow color, total phenolic content of $2,21 \pm 0,09$ mg GAE/g, and antioxidant activity (%RSA) of 77,95% at the concentration of 90000 ppm. The best formulation of functional drink is the addition of essential oil of curry leaves at 0,05% and honey at 15% with resulted in the pH value of 6,03, total soluble solids of 12,03°Brix, Lightness of 53,91, °Hue of 87,98, value of overall reception is moderately like. The best functional drink has a total phenolic content of 4,13 mg GAE/L and antioxidant activity (%RSA) of 79,41% at the concentration of 700000 ppm.

Key words : curry leaves, essential oil, functional drink, honey, phenolic, antioxidant

References : 122 (2005-2021)