

AKTIVITAS ANTIOKSIDAN DAN ORGANOLEPTIK MINUMAN FERMENTASI KOMBUCHA JAHE MERAH DENGAN PENAMBAHAN EKSTRAK SECANG

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ABSTRAK

Latar Belakang: Penyakit kardiovaskular berkaitan stress oksidatif dan dapat dicegah dengan pangan fungsional. Jahe dan kayu secang yang memiliki kadar senyawa antioksidan tinggi dapat diolah menjadi kombucha yang mana sedang populer di Indonesia. Proses fermentasi kombucha dapat meningkatkan aktivitas antioksidan dan organoleptik minuman.

Tujuan: Menganalisis aktivitas antioksidan dan organoleptik minuman fermentasi kombucha jahe merah dengan penambahan secang.

Metode: Penelitian eksperimental rancangan acak lengkap dua faktor dengan penambahan secang (0%; 5%; dan 10%) dan lama fermentasi (7 dan 14 hari). Analisis statistik analisis kimia menggunakan uji deskriptif, total fenol diuji menggunakan *Two Way ANOVA* dilanjutkan uji *Tukey*, sedangkan aktivitas antioksidan dan uji organoleptik menggunakan *Kruskal Wallis* dilanjutkan uji *Mann-Whitney*.

Hasil: Minuman fermentasi kombucha jahe merah dengan penambahan secang 5% dan 7 hari fermentasi memiliki nilai aktivitas antioksidan sebesar 7.6270% dengan organoleptik terbaik yaitu 3,50 (agak suka)

Simpulan: Penambahan secang pada minuman fermentasi kombucha jahe merah dengan lama fermentasi 7 dan 14 hari mempengaruhi total fenol, aktivitas antioksidan, serta organoleptik warna secara signifikan

Kata Kunci: kombucha, jahe, secang, antioksidan, organoleptik

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ANTIOXIDANT ACTIVITY AND ORGANOLEPTICS OF RED GINGER KOMBUCHA FERMENTATION DRINK WITH THE ADDITION OF SECANG EXTRACT

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ABSTRACT

Background: Cardiovascular disease is related to oxidative stress and can be prevented with functional foods. Ginger and sappan wood which have high levels of antioxidant compounds can be processed into kombucha which is currently popular in Indonesia. The kombucha fermentation process can increase the antioxidant and organoleptic activity of the drink.

Objective: Analyzed the antioxidant activity and organoleptic of red ginger kombucha with the addition of Sappan wood.

Method: An experimental study with two factors completely randomized design with the addition of *Sappan* wood extract (0%; 5%; and 10%) and fermentation time (7 and 14 days). Statistical analysis of chemical analysis used descriptive tests, total phenol levels were tested using Two Way ANOVA followed by Tukey test, while the antioxidant activity dan organoleptic test used Kruskal Wallis followed by Mann-Whitney test.

Results: Red ginger kombucha with the addition of 5% Sappan wood and 7 days of fermentation has an antioxidant activity value of 7.6270% with the best organoleptic score of 3.50 (rather like)

Conclusion: The addition of Sappan wood to the fermented beverage kombucha red ginger with a fermentation period of 7 and 14 days affect the total phenol, antioxidant activity, and organoleptic color significantly.

Keywords: kombucha, ginger, sappan-wood, antioxidant, organoleptic

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