

ABSTRACT

Karisa Nur Azizah. B1610263. Physicochemical Characteristics of Kombucha Made from Cascara (Coffee Skin) and Dragon Fruit Peel. Supervised by Sri Rejeki Retna Pertiwi and Muhammad Rifqi.

Kombucha is a tea which fermented by bacteria and yeast, resulting in various beneficial properties that make it a functional drink. The production of functional kombucha utilizing coffee cherry (cascara) waste is carried out by incorporating dragon fruit peel waste was. This research aims to determine the influence of adding dragon fruit peel in specific proportions on the production of cascara kombucha. The research employs a Completely Randomized Design with one factor, involving five treatment concentrations of dragon fruit peel addition: 0%, 0.5%, 1%, 1.5%, and 2%. All treatments were tested fphysicochemically for parameters including total soluble solids, pH value, total titratable acidity, alcohol content, antioxidant activity, and steviol glycoside content. Microbiological tests encompass the presence of *E. coli* and *Salmonella* bacteria, along with hedonic sensory evaluation. The best treatment was selected based on the physicochemical and microbiological characteristics that met the specifications of the Draft Uganda Standard 2022, as well as being most preferred by the panelists. According to the research findings, cascara kombucha with 2% added dragon fruit peel was identified as the best treatment.

Keywords: functional drink, fermented, spesification, hedonic test

ABSTRAK

Karisa Nur Azizah. B1610263. Karakteristik Fisikokimia Kombucha Berbahan Baku Cascara (Kulit Kopi) dan Kulit Buah Naga. Di bawah bimbingan Sri Rejeki Retna Pertiwi dan Muhammad Rifqi.

Kombucha adalah teh yang difermentasi oleh bakteri dan khamir sehingga menghasilkan berbagai macam manfaat yang menjadikannya minuman fungsional. Pembuatan minuman fungsional kombucha dengan memanfaatkan limbah kulit kopi (*cascara*) dilakukan dengan penambahan limbah kulit buah naga. Penelitian ini bertujuan mengetahui adanya pengaruh penambahan kulit buah naga dalam perbandingan tertentu pada pembuatan kombucha cascara. Penelitian ini menggunakan model Rancangan Acak Lengkap satu faktor dengan lima konsentrasi perlakuan penambahan kulit buah naga yaitu 0%, 0,5%, 1%, 1,5%, dan 2%. Semua perlakuan diuji secara fisikokimia pada parameter total padatan terlarut, nilai pH, total asam tertitrasi, kadar alkohol, aktivitas antioksidan, dan kadar glikosida steviol, lalu uji mikrobiologi yaitu cemaran bakteri *E. coli* dan *Salmonella* serta uji sensori hedonik. Perlakuan terbaik dipilih berdasarkan hasil karakteristik fisikokimia serta mikrobiologi yang memenuhi *spesifikasi Draft Uganda Standard 2022* serta yang paling disukai oleh panelis. Berdasarkan hasil penelitian, kombucha cascara dengan penambahan 2% kulit buah naga adalah perlakuan terbaik.

Kata kunci: minuman fungsional, fermentasi, spesifikasi, uji hedonik