ABSTRAK

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PEMANFAATAN KULTUR KOMBUCHA DAN METODE PROSES BIJI KOPI HIJAU ARABIKA (*Coffea arabica* L.) CIWIDEY UNTUK PENURUNAN KADAR KAFEIN DAN PENINGKATAN ASAM KLOROGENAT

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(xiv + 68 halaman; 18 gambar; 5 tabel; 12 lampiran)

Kopi hijau arabika yang berasal dari Ciwidey mengandung senyawa aktif seperti asam klorogenat, kafein, alkaloid, flavonoid, terpenoid, dan polifenol yang berpotensi sebagai antioksidan. Kopi hijau ini dapat diolah menjadi kombucha dengan kandungan asam klorogenat dan kafein. Pada penelitian ini dilakukan mengenai pengaruh dari kultur kombucha dan metode proses pengolahan biji kopi hijau terhadap kadar kafein dan asam klorogenat. Metode penelitian yang digunakan yaitu dengan melakukan fermentasi kopi hijau arabika Ciwidey dan melakukan analisis terhadap pH, total padatan terlarut, total asam tertitrasi, total bakteri asam laktat (BAL), aktivitas antioksidan, kadar kafein dan asam klorogenat serta uji sensoris. Hasil penelitian mendapatkan adanya pengaruh signifikan terhadap karakteristik kimiawi serta uji sensoris atribut mutu rasa asam kopi. Nilai pH kombucha kopi Arabika yang dihasilkan berkisar dari 2,78-2,86, total padatan terlarut berkisar dari 9,10-9,60 °Brix, total asam tertitrasi berkisar dari 2,47-3,12%, total bakteri asam laktat (BAL) berkisar dari 2,64-3,06 log CFU/mL, kadar alkohol berkisar dari 0,04-0,10%, aktivitas antioksidan berkisar dari 218,0938-480,3889 ppm, kadar kafein berkisar dari 24,52-62,38 ppm dan kadar asam klorogenat berkisar dari 86,27-325,72 ppm. Perlakuan terbaik terhadap penurunan kadar kafein dan peningkatan kadar asam klorogenat yaitu pada lama waktu 18 hari dan jenis proses pengolahan natural.

Kata Kunci : Asam klorogenat, kafein, kombucha, kopi arabika, kopi hijau
Referensi : 70 (2001-2022)

ABSTRACT

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UTILIZATION OF KOMBUCHA CULTURE AND PROCESS METHODS FOR CIWIDEY ARABICA GREEN COFFEE BEANS (*Coffea arabica* L.) TO DECREASE CAFFEINE LEVELS AND INCREASE CHLOROGENIC ACID

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Arabica green coffee from Ciwidey contains active compounds such as chlorogenic acid, caffeine, alkaloids, flavonoids, terpenoids, and polyphenols that have potential as antioxidants. This green coffee can be processed into kombucha, which contains chlorogenic acid and caffeine. This study was conducted on the effects of kombucha culture and processing methods for green coffee beans on caffeine and chlorogenic acid levels. The research method used is to ferment Ciwidey arabica green coffee and analyze pH, total dissolved solids, total titrated acid, total lactic acid bacteria (LAB), antioxidant activity, caffeine and chlorogenic acid levels, and sensory tests. The results of the study found that there was a significant effect on the chemical characteristics and sensory tests of the attributes of the coffee's sour taste. The pH value of the kombucha arabica coffee produced ranged from 2.78-2.86, total dissolved solids ranged from 9.10-9.60°Brix, total titrated acid ranged from 2.47-3.12%, total lactic acid bacteria (LAB) ranged from 2.64 to 3.06 log CFU/mL, alcohol content ranged from 0.04-0,10%, antioxidant activity ranged from 218.09 to 480.39 ppm, caffeine ranged from 24.52 to 62.38 ppm and chlorogenic acid content ranged from 86.27 to 325.72 ppm. The best treatment for decreasing levels of caffeine and increasing levels of chlorogenic acid was 18 days and a natural processing method.

Keywords : Arabica coffee, caffeine, chlorogenic acid, green beans, kombucha
Reference : 70 (2001-2022)