

INTISARI

PERUBAHAN KARAKTERISTIK BIOKIMIA DAN TINGKAT PENERIMAAN KONSUMEN KOPI ROBUSTA PREMIUM PETIK MERAH DARI BERAGAM PROSES PENGOLAHAN DI KABUPATEN KEPAHIANG, BENGKULU

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Kepahiang merupakan Kabupaten di Provinsi Bengkulu yang ditetapkan sebagai area pengembangan kopi menerapkan beragam proses pengolahan kelas premium pada kopi Robusta petik merah. Proses pengolahan menentukan kualitas karakteristik biokimia dan tingkat penerimaan konsumen biji kopi hijau, bubuk dan seduh. Tujuan dari penelitian ini mengetahui pengaruh beragam pengolahan terhadap karakteristik biokimia dan tingkat penerimaan konsumen biji kopi hijau, bubuk dan seduh, mendapatkan karakteristik biokimia terbaik kopi bubuk, dan tingkat penerimaan terbaik kopi bubuk serta seduh pada kopi robusta petik merah. Sampel biji kopi hijau dan kopi bubuk dari masing-masing proses pengolahan di-uji karakteristik biokimia (kadar air, kafein, asam klorogenat, sukrosa dan lemak) dan tingkat penerimaannya. Matriks *orthogonal* $L_9 (3^4)$ dari rancangan Taguchi dengan empat faktor dan tiga level dari proses pengolahan (*full wash*, *honey*, dan *natural*), suhu (150 °C, 175 °C, 200 °C), waktu penyangraian (10 menit, 12,5 menit dan 15 menit) dan ukuran penggilingan (80 mesh, 100 mesh dan 120 mesh) digunakan untuk mendapatkan perlakuan terbaik terhadap karakteristik biokimia dan tingkat penerimaan konsumen kopi bubuk, dan seduh. Data hasil pengujian karakteristik biokimia biji kopi hijau dan bubuk, dianalisis menggunakan *One-way ANOVA*. *Grey Relational Analysis* digunakan untuk penyelesaian masalah multi respon kriteria biokimia pada kopi bubuk rancangan Taguchi sehingga didapatkan perlakuan terbaik. Sedangkan penentuan perlakuan terbaik pada tingkat penerimaan konsumen dengan *zero-one integer programming*. Hasil penelitian proses pengolahan berpengaruh nyata terhadap karakteristik biokimia pada biji kopi hijau dan bubuk dengan nilai signifikansi ($p < 0,05$). Karakteristik biokimia terbaik pada pengolahan *fullwash*, suhu dan waktu penyangraian 175°C selama 12,5 menit pada 100 mesh, dengan nilai kadar air 3,21% (db), kafein 0,81% (db), asam klorogenat 8,1% (db), sukrosa 2,58% (db), dan lemak 8,5% (db). Proses pengolahan mempengaruhi tingkat penerimaan konsumen baik pada biji kopi hijau, bubuk dan seduh. Tingkat penerimaan terbaik pada proses pengolahan *honey*, suhu dan waktu penyangraian 175°C selama 15 menit pada 80 mesh, dengan tingkat penerimaan suka (3,58) pada warna bubuk dan seduhan, aroma seduhan, rasa, kepahitan seduhan, kehalusan, kekentalan, dan penerimaan keseluruhan sementara aroma kopi bubuk, keasaaman dan kemanisan seduhan dengan tingkat penerimaan cukup suka (3,22).

Kata kunci: Biokimia, kopi, proses pengolahan, tingkat penerimaan.

ABSTRACT

Change of Biochemical Characteristics and Consumer Acceptance Rate of Premium Red Picked Robusta Coffee from Various Processing in Kepahiang Regency, Bengkulu.

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Kepahiang is a Regency in Bengkulu Province which designated as a coffee development area that applies various processing to the premium class of red-picked Robusta coffee. The processing determines the quality of the biochemical characteristics and the level of consumer acceptance of green beans, ground and brewed coffee. The purpose of this study was to determine the effect of various processing on the biochemical characteristics and consumer acceptance of green beans, ground and brewed coffee, to find out the best biochemical characteristics of ground coffee, and the best acceptance rate of ground and brewed. Samples of coffee beans and ground from each processing were tested for biochemical characteristics (moisture content, caffeine, chlorogenic acid, sucrose, and lipid) and their acceptability. The orthogonal array notation of the Taguchi method used was $L_9 (3^4)$ with four factors and three levels from processing (full wash, honey, and natural), temperature (150 °C, 175 °C, 200 °C), roasting time (10 minutes, 12,5 minutes, and 15 minutes) and milling (80 mesh, 100 mesh, and 120 mesh) was used to get the best treatment for the biochemical characteristics and consumer acceptance of ground and brewed coffee. The results of testing the biochemical characteristics of green coffee beans and ground coffee were analyzed using one-way ANOVA. Grey Relational Analysis is used to solve the problem of multi-response biochemical criteria in Taguchi-designed ground coffee so that the best treatment is obtained. While determining the best treatment at the level of acceptance with zero-one integer programming. The results of the processing research have a significant effect on the biochemical characteristics of green beans and ground coffee with a significant value ($p < 0.05$). The best biochemical conditions in full wash processing, temperature, and roasting time of 175°C for 12,5 minutes on 100 mesh, with a value of moisture content 3.21% (db), caffeine 0.81% (db), chlorogenic acid 8.1% (db), sucrose 2.58% (db), and lipid 8.5% (db). Processing affects the level of consumer acceptance of both bean, ground, and brewed coffee. The best acceptance was obtained in the treatment of honey processing, temperature and roasting time of 175°C for 15 minutes at 80 mesh, with like moderately acceptance (3.58) on the color of the ground and brewed, brewed aroma, taste, brewed bitterness, fineness, viscosity, and overall acceptance, while the aroma of ground coffee, the acidity, and sweetness of brewed with the level of like slightly acceptance (3.22).

Keywords: Biochemistry, coffee, processing, consumer acceptance.



Perubahan Karakteristik Biokimia dan Tingkat Penerimaan Konsumen Kopi Robusta Premium Petik Merah

dari Beragam Proses Pengolahan di Kabupaten Kepahiang, Bengkulu

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