

ABSTRACT

Ria Atikah. B.1810225. Analysis of Antioxidant, Total Phenol and Physicochemical of Local Coffee Brands from Bogor. Supervised by M. Fakhri Kurniawan and Nursyawal Nacing.

In Indonesia, local coffee brands very diverse and have different flavors and reliable in terms of aroma and taste based on raw materials from each region. This study aims to analyze antioxidant activity (IC_{50}), total phenol and physically analyze local brand coffee from Bogor, Indonesia namely Cap Liong Bulan, Cap Oplet, Cap Teko and Cap Kacamata. the design used was a Completely Randomized Design (CRD) 1 factor, ANOVA varian test, followed by Duncan's test, and pearson's correlation. In the chemical test antioxidant activity of local Bogor brand coffee, the IC_{50} was 49,99 ppm and the total phenol test obtained values with a range of 0,70-2,25 mgGAE/g. Based on the pearson correlation test, the calculated r value of the relationship between total phenol and IC_{50} value was 0,880 > r table. So there is a correlation between total phenol and IC_{50} . The result of physicochemical test showed that the water content is around 1,5-3,1%, ash content range from 2,3-4,8%, pH value ranges from 5,4-5,8, bulk density range from 0,4-0,5g/mL, total dissolved solid range from 2,4-3,1°Brix and coffee extract range from 23,7-28,0%. The result of the physical test carried out are in accordance with the maximum limit set by SNI.

Keywords: Coffee, Antioxidant, total Phenol, Physicochemical

ABSTRAK

Ria Atikah. B.1810225. Analisis Antioksidan, Total Fenol dan Fisikokimia Kopi Brand Lokal Asal Bogor. Skripsi. Dibawah bimbingan M. Fakhri Kurniawan dan Nursyawal Nacing.

Di Indonesia merek kopi lokal sangat beragam serta memiliki cita rasa yang berbeda dan diandalkan dari segi aroma dan rasa berbeda berdasarkan bahan baku dari setiap daerah. Penelitian ini bertujuan untuk menganalisis aktivitas antioksidan (IC_{50}), Total Fenol dan menganalisis secara fisik kopi brand lokal asal Bogor yaitu kopi Cap Liong Bulan, Cap Oplet, Cap Teko dan Cap Kacamata. Rancangan yang digunakan yaitu Rancangan Acak Lengkap (RAL) 1 faktor, uji ragam ANOVA, dilanjut dengan uji duncan, dan korelasi *pearson*. Pada uji kimia aktivitas antioksidan kopi brand lokal Bogor didapat nilai IC_{50} sebesar 49,99 ppm dan uji total fenol didapatkan nilai dengan kisaran 0,70-2,25 mgCAE/g. Berdasarkan uji korelasi *pearson* didapat nilai r hitung hubungan total fenol dengan nilai IC_{50} yaitu $0,880 > r$ tabel, sehingga adanya korelasi antara total fenol dan nilai IC_{50} . Hasil uji fisikokimia menunjukkan bahwa nilai kadar air berkisar pada 1,5-3,1%, nilai kadar abu berkisar pada 2,3-4,8%, nilai pH berkisar pada 5,4-5,8, nilai densitas kamba berkisar pada 0,4-0,5g/mL, nilai total padatan terlarut ($^{\circ}$ Brix) berkisar pada 2,4-3,1 $^{\circ}$ Brix, dan nilai uji sari kopi berkisar pada 23,7-28,0%. Hasil uji fisik yang dilakukan telah sesuai dengan batas maksimum yang ditetapkan SNI.

Kata Kunci: Kopi, Antioksidan, Total Fenol, Fisikokimia