ABSTRACT

TOTAL PHENOLIC COMPOUNDS, FLAVONOID, CHLOROPHYLL AND ANTIOXIDANT ACTIVITIES IN VARIOUS SWEET POTATO LEAVES GENOTYPES (*Ipomoea batatas L.)*

By

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This study was aimed to determine the levels of total phenol, flavonoids, chlorophyll and antioxidant activity in various clones of local sweet potato leaves which growth in POLINELA experimental gardens. The non-factorial experiment was arranged in a Completely Randomized Block Design (CRBD) with fifteen levels of treatment and two replications. The homogenies and additivities of the data were tested using Bartlett and Tuckey test, then were analyzed using ANOVA, if there is significant effect between treatment, the data then were further tested using Duncan Multiple Range Test at the level of 5% to see the differences among treatment. The result showed that the total phenol content in various sweet potato leaf clones ranged from 317.73 to 628.51 mgGAE / 100g. Total flavonoids ranged from 696.48 to 989.61 mgQE / 100g, while the total chlorophyll content produced ranged from 2.87 to 9.35 mg / L. The value of antioxidant activity from various sweet potato leaf clones ranged from 83.58 to 87.29%.P[

Keywords: *Antioxidant, flavonoid, leaves, phenol, sweet potato.*

ABSTRAK

KANDUNGAN TOTAL FENOL, FLAVONOID, KLOROFIL DAN AKTIVITAS ANTIOKSIDAN PADA BERBAGAI KLON DAUN UBI JALAR

Oleh

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Penelitian ini bertujuan untuk mengetahui kadar total fenol, flavonoid, klorofil serta aktivitas antioksidan pada berbagai klon daun ubi jalar lokal yang ditanam di kebun percobaan POLINELA. Penelitian ini menggunakan Rancangan Acak Kelompok Lengkap (RAKL) nonfaktorial dengan 15 taraf perlakuan dan 2 kali ulangan. Data yang diperoleh dianalisis kesamaan ragamnya dengan uji Bartlett dan kemenambahan data diuji dengan uji Tuckey, selanjutnya data dianalisis sidik ragam untuk mengetahui pengaruh antar perlakuan. Data dianalisis lebih lanjut menggunakan uji DMRT (Duncan's Multiple Range Test) pada taraf 5%. Berdasarkan hasil penelitian dapat disimpulkan bahwa kadar total fenol dalam berbagai klon daun ubi jalar berkisar antara 317,73 hingga 628,51 mgGAE/100g. Total flavonoid berkisar antara 696,48 hingga 989,61 mgQE/100g, sedangkan kadar total klorofil yang dihasilkan berkisar antara 2,87 hingga 9,35 mg/L. Nilai aktivitas antioksidan dari berbagai klon daun ubi jalar berkisar antara 83,58 hingga 87,29%.

Kata kunci: *Antioksidan, daun, flavonoid, fenol, ubi jalar.*