

Suwinta Noviana. 150311100020. Pengaruh Cekaman Air Terhadap Aktivitas Antioksidan dan Pertumbuhan Tanaman Okra Merah (*Abelmoscus esculentus* (L.) Moench) dibawah bimbingan **Ir. Suhartono, M.P.**

ABSTRAK

Tujuan penelitian ini adalah mengetahui pengaruh cekaman air terhadap kandungan antioksidan dan pertumbuhan tanaman okra merah. Penelitian ini dilaksanakan pada bulan Januari 2018 – April 2019 di Green House Agroteknologi Fakultas Pertanian, Universitas Trunojoyo Madura. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan pengulangan sebanyak 4 kali sehingga didapatkan 24 unit. Dimana setiap unit terdapat 3 tanaman. Parameter yang diamati yakni tinggi tanaman, jumlah daun, jumlah stomata, kerapatan stomata, panjang dan luas stomata, bobot basah buah, diameter buah, panjang buah, warna buah, bobot basah tanaman, bobot kering tanaman, panjang akar primer, rasio tajuk akar, Aktivitas antioksidan total. Data pengamatan dianalisis dengan Analysis of Variance (ANOVA) kemudian dilanjutkan dengan uji Beda Nyata Jarak Duncan (BNJD). Hasil penelitian terbaik adalah perlakuan P6 (140%) tinggi tanaman, jumlah daun, panjang buah, diameter buah, bobot basah buah, bobot kering tanaman. Perlakuan terbaik Perlakuan terbaik aktivitas antioksidan (%) inhibisi perlakuan P3 dengan nilai 83.54%.

Kata kunci : Okra merah, Cekaman, Pertumbuhan, Antioksidan

Suwinta Noviana. 150311100020. *Effect of Water Stress on Antioxidant Activity and Growth of Red Okra Plants (Abelmoscus esculentus (L.) Moench) under the guidance of Ir. Suhartono, M.P.*

ABSTRACT

The purpose of this study was to determine the effect of water stress on antioxidant content and growth of red okra plants. This research was conducted in January 2018 - April 2019 at the Green House Agrotechnology Faculty of Agriculture, Trunojoyo Madura University. This study used a Completely Randomized Design (CRD) with 4 repetitions so that 24 units were obtained. Where each unit has 3 plants. The parameters observed were plant height, leaf number, stomata number, stomata density, stomata length and area, fruit wet weight, fruit diameter, fruit length, plant wet weight, plant dry weight, primary root length, root canopy ratio, Total antioxidant activity. Observation data were analyzed by Analysis of Variance (ANOVA) then continued with the Duncan Distance Distinction Test (BNJD). The best results were P6 (140%) treatment of plant height, leaf number, fruit length, fruit diameter, fruit wet weight, plant dry weight. The best treatment the best treatment of antioxidant activity (%) inhibition of treatment P3 with a value of 83.54%.

Keywords: Red Okra, stress, growth, antioxidants