

Desy Meilinda Putri Firdauzi 180311100089. Pengaruh Biostimulan Terhadap Pertumbuhan dan Hasil Tanaman Sawi (*Brassica juncea* L.). Pembimbing Ir. Slamet Supriyadi, M.Si dan Ir. Sinar Suryawati, M.Si

ABSTRAK

Sawi (*Brassica juncea* L.) merupakan sekelompok tumbuhan dari marga Brassica yang dimanfaatkan daun atau bunganya sebagai bahan pangan (sayuran), baik segar maupun diolah. Tujuan penelitian ini adalah mengetahui pengaruh biostimulan terhadap pertumbuhan dan hasil tanaman sawi (*Brassica juncea* L.). Penelitian dilaksanakan di Green House Agroekoteknologi Universitas Trunojoyo Madura, yang terletak pada ketinggian ± 5 mdpl, dari Mei 2023 hingga Juni 2023. Percobaan pada penelitian ini disusun menurut Rancangan Acak Lengkap (RAL), dengan perlakuan pemberian biostimulan dengan 5 taraf yaitu : (B1) tanpa biostimulan (kontrol), (B2) 2 mL/L air basfoliar, (B3) 2 mL/L air POC, (B4) 4 mL/L air POC, dan (B5) 6 mL/L air POC. Data hasil pengamatan dianalisis menggunakan Analisis of Variance (ANOVA), untuk mengetahui ada tidaknya pengaruh perlakuan dan jika perlakuan berpengaruh dilanjutkan dengan Uji Duncan Multiple Range Test (DMRT) taraf 5%. Hasil penelitian menunjukkan bahwa parameter panjang tanaman pada umur 15, 20, 25, 30, dan 35 hst berpengaruh nyata, dan luas daun pada umur 30 dan 35 hst berpengaruh nyata, namun tidak berpengaruh nyata terhadap parameter jumlah daun, bobot basah tanaman, dan bobot kering tanaman. Perlakuan B2 panjang tanaman pada umur 15, 20, dan 35 hst memiliki nilai rata-rata tertinggi, perlakuan B3 panjang tanaman memiliki nilai rata-rata tertinggi pada umur 25 hst, dan perlakuan B1 memiliki nilai rata-rata tertinggi pada umur 35 hst, namun pada perlakuan B5 panjang tanaman pada umur 15, 20, 25, 30, dan 35 hst memiliki nilai rata-rata terendah. Perlakuan B2 luas daun memiliki nilai rata-rata tertinggi pada umur 30 dan 35 hst, namun pada perlakuan B1 luas daun pada umur 30 dan 35 hst memiliki nilai rata-rata terendah.

Kata kunci: Sawi, Biostimulan, Pupuk organik cair

Desy Meilinda Putri Firdauzi 180311100089. The Effect of Biostimulants on the Growth and Yield of Mustard Greens (*Brassica juncea* L.). Supervisor Ir. Slamet Supriyadi, M.Si and Ir. Sinar Suryawati, M.Si

ABSTRACT

Mustard greens (*Brassica juncea* L.) are a group of plants from the Brassica clan whose leaves or flowers are used as food (vegetables), both fresh and processed. The purpose of this study was to determine the effect of biostimulants on the growth and yield of mustard greens (*Brassica juncea* L.). The study was conducted at the Agroecotechnology Green House, Trunojoyo University, Madura, which is located at an altitude of ± 5 meters above sea level, from May 2023 to June 2023. The trials in this study were arranged according to a Completely Randomized Design (CRD), with biostimulant treatment with 5 levels, namely: (B1) without biostimulants (control), (B2) 2 mL/L basfoliar water, (B3) 2 mL/L POC water, (B4) 4 mL/L POC water, and (B5) 6 mL/L POC water. Observational data were analyzed using Analysis of Variance (ANOVA), to determine whether there was a treatment effect and if the treatment had an effect it was continued with the Duncan Multiple Range Test (DMRT) at 5% level. The results showed that the parameters of plant length at the age of 15, 20, 25, 30, and 35 HST had a significant effect, and leaf area at the ages of 30 and 35 HST had a significant effect, but no significant effect on the parameters of the number of leaves, plant fresh weight, and plant weight. dry plants. The B2 treatment of plant length at 15, 20, and 35 dap had the highest average value, the B3 treatment of plant length had the highest average value at 25 dap, and the B1 treatment had the highest average value at 35 dap, but In the B5 treatment, plant length at ages 15, 20, 25, 30, and 35 DAP had the lowest average values. In treatment B2 leaf area had the highest average value at 30 and 35 dap, but in treatment B1 leaf area at 30 and 35 dap had the lowest average value.

Keywords: Mustard, Biostimulants, Liquid organic fertilizer