RINGKASAN

Penelitian ini bertujuan untuk mengetahui pengaruh dan konsentrasi ekoenzim terhadap pertumbuhan dan hasil *microgreens* sawi yang dilakukan di halaman rumah di Sokaraja Tengah, Sokaraja, Banyumas. Perlakuan pemberian ekoenzim, yaitu: 0 ml ekoenzim/l air; 2,5 ml ekoenzim/l air; 5,0 ml ekoenzim/l air; 7,5 ml ekoenzim/l air; 10,0 ml ekoenzim/l air; dan 12,5 ml ekoenzim/l air dengan 4 ulangan yang disusun berdasarkan Rancangan Acak Kelompok Lengkap (RAKL). Pengamatan yang dilakukan terdiri atas: tinggi tanaman, jumlah daun, panjang akar, luas daun, volume akar, bobot segar tanaman, bobot segar tanaman bagian atas, bobot segar tanaman bagian bawah, bobot kering tanaman bagian atas, dan bobot kering tanaman bagian bawah. Uji F (ANOVA) pada taraf kesalahan 5% dilakukan untuk mengetahui apakah perlakuan berpengaruh pada variabel yang diamati. Uji BNT pada taraf kesalahan 5% dilakukan apabila uji F nyata.

Hasil penelitian menunjukkan bahwa pemberian ekoenzim pada *microgreens* sawi berpengaruh terhadap panjang akar, luas daun, bobot segar total tanaman, dan bobot segar tanaman bagian atas. Namun tidak berpengaruh terhadap tinggi tanaman, jumlah daun, volume akar, bobot segar tanaman bagian bawah, bobot kering tanaman bagian atas, dan bobot kering tanaman bagian bawah. Pemberian konsentrasi ekoenzim 2,5 ml ekoenzim/l air hingga 12,5 ml ekoenzim/l air menaikkan pertumbuhan panjang akar. Panjang akar yang diberi konsentrasi 12,5 ml ekoenzim/l air menghasilkan rerata nilai paling tinggi. Luas daun yang diberi konsentrasi 2,5 ml ekoenzim/l air menghasilkan rerata nilai paling tinggi. Bobot segar total tanaman dan bobot segar tanaman bagian atas yang diberi konsentrasi 10 ml ekoenzim/l air menghasilkan rerata nilai paling tinggi.

SUMMARY

This research was conducted to determine the effect and concentration of ecoenzyme on the growth and yield of microgreens plants which was carried out in the home yard in Sokaraja Tengah, Sokaraja, Banyumas. Ecoenzyme application treatment, namely: 0 ml ecoenzyme/l water; 2.5 ml ecoenzyme/l water; 5.0 ml ecoenzyme/l water; 7.5 ml ecoenzyme/l water; 10.0 ml ecoenzyme/l water; and 12.5 ml ecoenzyme/l water with 4 replications arranged based on a Randomized Completely Block Design (RCBD). Observations made consisted of: plant height, number of leaves, root length, leaf area, root volume, plant fresh weight, leaf fresh weight, stem fresh weight, root fresh weight, leaf dry weight, stem dry weight, and root dry weight. The F test (ANOVA) at an error level of 5% was carried out to find out whether the treatment affected the observed variables. The LSD test at an error level of 5% is carried out if the F test is significant.

Results showed that the application of ecoenzymes to mustard microgreens had an effect on root length, leaf area, total plant fresh weight, and upper plant fresh weight. However, it had no effect on plant height, number of leaves, root volume, fresh weight of lower plants, dry weight of upper plants, and dry weight of lower plants. Giving ecoenzyme concentrations of 2.5 ml ecoenzyme/l water to 12.5 ml ecoenzyme/l water increased root length growth. The root length given a concentration of 12.5 ml ecoenzyme/l water produced the highest mean value. Leaf area treated with a concentration of 2.5 ml ecoenzyme/l water produced the highest mean value. Total fresh weight of plants and fresh weight of upper plants treated with a concentration of 10 ml ecoenzyme/l water produced the highest mean value.