

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk organik cair paitan terhadap pertumbuhan dan hasil tanaman kailan, serta kombinasi AB mix dan pupuk organik cair (POC) paitan terbaik terhadap pertumbuhan dan hasil tanaman kailan.

Penelitian dilaksanakan pada Maret sampai April 2020 di *screenhouse* di Desa Pabuaran, Kecamatan Baturaden, Kabupaten Banyumas. Rancangan penelitian yang digunakan yaitu Rancangan Acak Kelompok (RAK) dengan 4 ulangan. Perlakuan terdiri dari P0= AB mix 1200 ppm, P1= AB mix 900 ppm + POC paitan 50 ml/l, P2= AB mix 600 ppm + POC paitan 100 ml/l, P3= AB mix 300 ppm + POC paitan 150 ml/l, dan P4= POC paitan 200 ml/l. Variabel yang diamati yaitu tinggi tanaman, jumlah daun, luas daun, bobot tajuk segar, bobot akar segar, bobot tanaman segar, dan bobot tanaman kering. Data yang diperoleh dianalisis menggunakan uji F, apabila terdapat keragaman yang nyata dilanjutkan dengan uji *Duncan Multiple Range Test* (DMRT) taraf 5%.

Hasil penelitian menunjukkan bahwa pemberian pupuk organik cair paitan ke AB mix menurunkan pertumbuhan dan hasil tanaman kailan, semakin sedikit AB mix dan semakin banyak paitan maka pertumbuhan dan hasil tanaman kailan semakin menurun. Perlakuan AB mix 1200 ppm merupakan perlakuan terbaik terhadap semua variabel pengamatan dibandingkan dengan perlakuan lain, sedangkan perlakuan AB mix 900 ppm + POC paitan 50 ml/l merupakan kombinasi terbaik dibanding kombinasi yang lain. Perlakuan AB mix 1200 ppm menghasilkan tinggi tanaman 12,93 cm, jumlah daun 10,87 helai, luas daun 720,68 cm², bobot tajuk segar 41,28 g, bobot akar segar 3,11 g, bobot tanaman segar 44,39 g, dan bobot tanaman kering 4,98 g. Perlakuan AB mix 900 ppm + POC paitan 50 ml/l menghasilkan tinggi tanaman 9,03 cm, jumlah daun 8,75 helai, luas daun 227,31 cm², bobot tajuk segar 9,89 g, bobot akar segar 1,98 g, bobot tanaman segar 11,87 g, dan bobot tanaman kering 1,46 g.

ABSTRACT

The research aims to determine the effect of paitan liquid organic fertilizer on the growth and yield of kailan plants, and determine the best combination of AB mix and paitan liquid organic fertilizer on the growth and yield of kailan plants.

The research was conducted from March to April 2020 in the screenhouse located in Pabuaran Village, Baturaden District, Banyumas Regency. The research design was Randomized Complete Block Design (RCBD) with 4 replications. The treatments consisted of P0 = AB mix 1200 ppm, P1 = AB mix 900 ppm + POC Paitan 50 ml / l, P2 = AB mix 600 ppm + POC paitan 100 ml / l, P3 = AB mix 300 ppm + POC paitan 150 ml / l, and P4 = POC paitan 200 ml / l. The observed variables were plant height, number of leaves, leaf area, fresh crown weight, fresh root weight, fresh plant weight, and dry plant weight. The data obtained were analyzed using F test, if there was diversity followed test by Duncan Multiple Range Test (DMRT) of 5% level.

The results showed that application of liquid organic fertilizer paitan to AB mix decreased the growth and yield of kailan plants, the less AB mix and the more paitan, the more decrease in growth and yield of kailan plants. The 1200 ppm AB mix treatment was the best treatment for all observed variables compared to other treatments, while AB mix 900 ppm + POC paitan 50 ml / l treatment was the best combination compared to other combinations. The treatment of AB mix 1200 ppm resulted in plant height of 12.93 cm, number of leaves 10.87 blades, leaf area of 720.68 cm², fresh canopy weight of 41.28 g, fresh root weight of 3.11 g, fresh plant weight of 44.39 g, and dry plant weight 4.98 g. The treatment of AB mix 900 ppm + POC paitan 50 ml / l produced a plant height of 9.03 cm, number of leaves 8.75 blades, leaf area 227.31 cm², fresh crown weight of 9.89 g, fresh root weight 1.98 g, fresh plant weight 11.87 g, and dry plant weight 1.46 g.