RINGKASAN

Penambahan unsur hara di dalam tanah dapat meningkatkan produksi tanaman kailan. Salah satu cara yang dapat dilakukan yaitu dengan memanfaatkan limbah kulit nanas sebagai pupuk organik cair. Penelitian bertujuan untuk mengetahui konsentrasi pupuk organik cair (POC) limbah kulit nanas yang terbaik untuk pertumbuhan dan hasil tanaman kailan, mengetahui frekuensi pemberian POC limbah kulit nanas yang terbaik untuk pertumbuhan dan hasil tanaman kailan, dan mengetahui kombinasi antara konsentrasi dan frekuensi pemberian POC limbah kulit nanas yang terbaik untuk pertumbuhan dan hasil tanaman kailan.

Penelitian dilaksanakan di *screen house* Fakultas Pertanian Universitas Jenderal Soedirman Purwokerto pada bulan Juli sampai dengan September 2018. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok Lengkap (RAKL) faktorial dengan 2 faktor perlakuan dengan 3 ulangan. Faktor pertama adalah konsentrasi pupuk organik cair limbah kulit nanas yaitu konsentrasi 0%, 10%, 20%, dan 30%. Faktor kedua adalah frekuensi pemberian pupuk organik cair limbah kulit nanas, yaitu 4 hari sekali, 7 hari sekali, dan 10 hari sekali. Variabel pengamatan meliputi tinggi tanaman, jumlah daun, luas daun, bobot tajuk segar, bobot tajuk kering, bobot tanaman segar, bobot tanaman kering, bobot akar segar, dan bobot akar kering.

Hasil penelitian menunjukkan bahwa konsentrasi pupuk organik cair (POC) limbah kulit nanas terbaik yaitu 10%. Frekuensi pemberian POC limbah kulit nanas tidak berpengaruh nyata terhadap pertumbuhan dan hasil tanaman kailan. Kombinasi terbaik untuk pertumbuhan dan hasil tanaman kailan yaitu konsentrasi 10% dan frekuensi POC limbah kulit nanas 10 hari sekali.

SUMMARY

Addition of nutrients in the soil can increase the production of kailan. One way that can be done is by utilizing pineapple peel waste as a liquid organic fertilizer. This research aims to know the best concentration of liquid organic fertilizer of pineapple peel waste for growth and yield of kailan, to know the best frequency of fertilization with liquid organic fertilizer of pineapple peel waste for growth and yield of kailan, and to know the best combination of concentration and frequency of fertilization with liquid organic fertilizer of pineapple peel waste for growth and yield of kailan.

The research was conducted at screen house of Faculty of Agriculture, Jenderal Soedirman University from July until September 2018. The experiment design used was Completely Randomized Block Design with treatments of 2 factors and 3 replications. The first factor was the concentration of liquid organic fertilizer of pineapple peel waste, namely 0%, 10%, 20%, and 30%. The second factor was the frequency of fertilization with liquid organic fertilizer of pineapple peel waste, namely 4 days, 7 days, and 10 days. Observational variables included plant height, leaf number, leaf area, fresh canopy weight, dry canopy weight, fresh plant weight, dry plant weight, fresh root weight, and dry root weight.

The results showed that the best concentration of liquid organic fertilizer of pineapple peel waste was 10%. The frequency of fertilization with liquid organic fertilizer of pineapple peel waste had no significant effect on the growth and yield of kailan. The best combination for growth and yield of kailan was the concentration of 10% and the frequency of fertilization with liquid organic fertilizer pineapple peel waste 10 days.