

RINGKASAN

Penelitian ini dilakukan di Kebun percobaan Fakultas Pertanian UISU, Kelurahan Gedung Johor, Kecamatan Medan Johor, Kota Madya Medan, Provinsi Sumatera Utara dengan ketinggian ± 25 m dpl dengan topografi datar. Penelitian ini di bimbing oleh Ibu Ir.Mindalisma.MM sebagai ketua dan Ibu Ir.Rahmawati.MP sebagai anggota. Penelitian ini bertujuan untuk mempelajari Respon Pertumbuhan Dan Hasil Tanaman Pakcoy Terhadap Pemberian Pupuk Organik Cair Air Limbah Budidaya Ikan Lele (POCale) Dan Pupuk Kandang Ayam pada tanah Inceptisol.

Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) Faktorial dengan dua faktor yang diteliti yaitu : 1. Faktor pertama adalah Pupuk Organik Cair Air Limbah Budidaya Ikan Lele terdiri dari 4 taraf perlakuan, yaitu : $L_0 = 0$ Kontrol, $L_1 = 100$ ml/l air/plot, $L_2 = 200$ ml/l air/plot, $L_3 = 300$ ml/l air/plot. 2. Faktor kedua adalah Pupuk Organik Kandang Ayam yang terdiri dari 4 taraf perlakuan, yaitu : $K_0 = 0$ g kontrol, $K_1 = 0,5$ kg/plot, $K_2 = 1$ kg/plot, $K_3 = 1,5$ kg/plot). Parameter yang diamati adalah Tinggi tanaman, Jumlah Daun (helai), Bobot segar tanaman per sampel (g), Bobot segar tanaman per plot (g), Bobot bersih produksi per plot (g).

Hasil penelitian menunjukkan bahwa Pemberian pupuk organik cair air limbah budidaya ikan lele (POCale) berpengaruh tidak nyata terhadap tinggi tanaman, jumlah daun, bobot segar per sampel, bobot segar per plot, dan bobot bersih per plot tanaman pakcoy perlakuan paling tertinggi adalah L_3 (POCale 300 ml/L/plot). Pada perlakuan pupuk kandang ayam berpengaruh sangat nyata terhadap tinggi tanaman, jumlah daun, bobot segar per sampel, bobot segar per plot, dan bobot bersih per plot tanaman pakcoy perlakuan paling tertinggi adalah K_3 (pupuk organik kandang ayam 1,5 kg/ plot). Sedangkan interaksi pupuk organik cair air limbah budidaya ikan lele POCale dan pupuk kandang ayam berpengaruh tidak nyata terhadap tinggi tanaman, jumlah daun, bobot segar per sampel, bobot segar per plot, dan bobot bersih per plot tanaman pakcoy perlakuan paling tertinggi adalah L_3K_3 (POCale 300 ml/L/plot dan pupuk organik kandang ayam 1,5 kg/ plot).

Kata Kunci : POC Air Limbah Budidaya Ikan Lele, Pupuk Kandang Ayam, Inceptisol.

SUMMARY

This research was conducted at the Uisu Faculty of Agriculture experimental garden, Gedung Johor Village, Medan Johor District, Medan Municipality, North Sumatera Province at an altitude of ± 25 m above sea level with flat topography. This research was supervised by Mrs. Ir.Mindalisma.MM as chairman and Mrs. Ir.Rahmawati.MP as member. This research aims to study the response of growth and yield of Pakcoy (*Brassica rapa* L.) plants to the application of liquid organic fertilizer from catfish farming wastewater (POCale) and chicken manure on Inceptisol soil.

This research used a Factorial Randomized Group Design (RAK) with two factors studied, namely: 1. The first factor was Liquid Organic Fertilizer from Catfish Cultivation Wastewater consisting of 4 levels of treatment, namely: L0 = 0 Control, L1 = 100 ml/l water /plot, L2 = 200 ml/l water/plot, L3 = 200 ml/l water/plot. 2. The second factor is Chicken Cage Organic Fertilizer which consists of 4 treatment levels, namely: K0 = 0 g control, K1 = 0.5 kg/plot, K2 = 1 kg/plot, K3 = 1.5 kg/plot). The parameters observed were plant height, number of leaves (strands), plant fresh weight per sample (g), plant fresh weight per plot (g), net production weight per plot (g).

The results of the research showed that the application of liquid organic fertilizer from catfish cultivation wastewater (POCale) had no significant effect on plant height, number of leaves, fresh weight per sample, fresh weight per plot, and net weight per plot of pakcoy plants. The highest treatment was L3 (POCale). 300 ml/L/plot). In the chicken manure treatment, it had a very significant effect on plant height, number of leaves, fresh weight per sample, fresh weight per plot, and net weight per plot of pak choy plants. The highest treatment was K3 (organic chicken manure fertilizer 1.5 kg/ plot). Meanwhile, the interaction of liquid organic fertilizer, wastewater from POCale catfish cultivation and chicken manure had no significant effect on plant height, number of leaves, fresh weight per sample, fresh weight per plot, and net weight per plot of pakcoy plants. The highest treatment was L3K3 (POCale 300 ml/L/plot and chicken coop organic fertilizer 1.5 kg/ plot).

Keywords: POC Catfish Cultivation Wastewater, Chicken Manure, Inceptisol.