ABSTRAK

PENGARUH EKSTRAK LIMBAH UDANG, EKSTRAK DAUN LAMTORO, DAN LARUTAN *ECO-ENZYME* DENGAN NUTRISI AB MIX TERHADAP PERTUMBUHAN DAN HASIL TANAMAN SAYURAN SAWI (*Brassica juncea* L). SECARA HIDROPONIK NFT.

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Keterbatasan lahan pertanian, perlu media alternatif tanpa menggunakan tanah. Salah satu upaya untuk menggantikan media tanam serta meningkatkan hasil dan kualitas tanaman sawi dengan menerapkan sistem teknologi budidaya secara hidroponik. Penelitian ini bertujuan untuk mengetahui komposisi terbaik pupuk organik cair berbahan dasar ekstrak limbah udang, ekstrak daun lamtoro, dan *eco-enzyme* untuk pertumbuhan dan hasil tanaman sawi (*Brassica juncea* L*)* pada sistem hidroponik NFT. POC yang digunakan pada penelitian berbahan dasar limbah udang, ekstrak daun lamtoro, dan laritan *eco-enzyme*. Penelitian ini menggunakan rancangan acak lengkap (RAL), menggunakan 4 macam perlakuan yang terdiri dari P1 (AB mix 100%), kontrol P2 (AB mix 75% + Ekstrak limbah udang 15%+ Ekstrak daun lamtoro 10%), P3 (AB mix 75% + Ekstrak limbah udang 15%+ Ekstrak daun lamtoro 10% + Larutan *eco-enzyme* 1 ml/l), dan P4 (AB mix 75% + Ekstrak limbah udang 15%+ Ekstrak daun lamtoro 10% + Larutan *eco-enzyme* 2 ml/l). Hasil penelitian menunjukan bahwa komposisi pupuk organik cair beberbahan dasar ekstrak limbah udang, ekstrak daun lamtoro, dan *eco-enzyme* yang menghasilkan hasil terbaik adalah AB mix 75% + Ekstrak limbah udang 15%+ Ekstrak daun lamtoro 10% + Larutan *eco-enzyme* 2 ml/l. Hal tersebut ditunjukan pada variabel tinggi tanaman, panjang daun, jumlah daun, diameter batang, bobot kering daun, dan tingkat kehijauan daun.

Kata Kunci: Tanaman sawi, *eco-enzyme*, pupuk organik cair limbah udang, pupuk organik cair ekstrak daun lamtoro.

ABSTRACT

THE EFFECT OF SHRIMP WASTE EXTRACT, LAMTORO LEAF EXTRACT, AND ECO-ENZYME SOLUTION WITH AB MIX NUTRITION ON THE GROWTH AND YIELD OF MUSTARD VEGETABLES (Brassica juncea L.) BY NFT HYDROPONICS.

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Limited agricultural land requires alternative media without using soil. One effort to replace the growing medium and increase the yield and quality of mustard greens is by implementing a hydroponic cultivation technology system. This study aims to determine the best composition of liquid organic fertilizer based on shrimp waste extract, lamtoro leaf extract, and eco-enzyme for the growth and yield of mustard greens (Brassica juncea L.) in the NFT hydroponic system. The POC used in the study was based on shrimp waste, lamtoro leaf extract, and eco-enzyme solution. This study used a completely randomized design (CRD), using 4 types of treatments consisting of P1 (AB mix 100%), control P2 (AB mix 75% + Shrimp waste extract 15% + Leucaena leaf extract 10%), P3 (AB mix 75% + Shrimp waste extract 15% + Leucaena leaf extract 10% + Eco-enzyme solution 1 ml / l), and P4 (AB mix 75% + Shrimp waste extract 15% + Leucaena leaf extract 10% + Eco-enzyme solution 2 ml / l). The results showed that the composition of liquid organic fertilizer based on shrimp waste extract, Leucaena leaf extract, and eco-enzyme that produced the best results was AB mix 75% + Shrimp waste extract 15% + Leucaena leaf extract 10% + Eco-enzyme solution 2 ml / l. This was shown in the variables of plant height, leaf length, number of leaves, stem diameter, leaf dry weight, and leaf greenness level.

Keywords: Mustard greens, eco-enzyme, liquid organic fertilizer made from shrimp waste, liquid organic fertilizer made from lamtoro leaf extract.