ABSTRACT

Agung Nugroho. The Effect of Biomatriconditioning and Defoliation on the Growth and Yield of Kyuri (Cucumis sativus L.), supervised by Tri Endrawati.

This study aimed to determine the effect of biomatriconditioning and defoliation on the growth and yield of kyuri (Cucumis sativus L.). The research was conducted in a backyard area using polybags in Rejowinangun Village, Kademangan Subdistrict, Blitar Regency. The experimental design used was a Factorial Randomized Complete Block Design (RCBD), consisting of two factors. The first factor was biomatriconditioning treatment, and the second factor was defoliation.

Observations were made starting at 1 week after planting (WAP) with an observation interval of 7 days. The observed parameters included plant height, stem diameter, number of leaves, fruit weight, number of fruits, and fruit length.

The results showed that the combination of the application of the biological agent biomatriconditioning and defoliation had a significant effect on all aspects of growth and yield of kyuri (Cucumis sativus L.). The most effective treatment was found in the combination of B1M2, which involved biomatriconditioning using Trichoderma sp. and defoliation of the lower eight leaves of the plant.

Keywords: biomatriconditioning, defoliation, *Trichoderma sp*., kyuri.

ABSTRAK

Agung Nugroho. Pengaruh Penggunaan Biomatriconditioning dan Defoliasi Terhadap Pertumbuhan dan Hasil Tanaman Kyuri (*Cucumis sativus* L). dibawah bimbingan Tri Endrawati.

Penelitian bertujuan untuk mengetahui Pengaruh Penggunaan Biomatriconditioning dan Defoliasi Terhadap Pertumbuhan dan Hasil Tanaman Kyuri (*Cucumis sativus* L). Penelitian telah dilakukan pada lahan Perkarangan yang ada dibelakang rumah menggunakan polibag di Penelitian ini dilakukan di Desa Rejowinangun, Kecamatan Kademangan, Kabupaten Blitar. Penelitian menggunakan Rancangan Rancangan Acak Kelompok (RAK) yang disusun secara faktorial, factor pertama adalah perlakuan Biomatriconditioning dan factor kedua adalah Defoliasi.

Pengamatan dilakukan setelah tanaman berumur 1 minggu setelah tanam (MST), dengan selang waktu pengamatan 7 hari. Adapun parameter pengamatan meliputi tinggi tanaman, diameter batang, jumlah daun, bobot buah, jumlah buah dan panjang buah.

Hasil penelitian menunjukan bahwa kombinasi antara aplikasi agen hayati biomatriconditioning dengan defoliasi memberikan pengaruh signifikan terhadap seluruh aspek pertumbuhan dan hasil tanaman kyuri (*Cucumis sativus* L.). Perlakuan paling efektif diperoleh dari kombinasi B1M2, yaitu penggunaan biomatriconditioning yang dipadukan *Trichoderma* sp. dan defoliasi pada delapan daun bagian bawah tanaman

Kata kunci: biomatriconditioning, defoliasi, *trichoderma sp.* dan kyuri.