INTISARI

Penelitian berjudul Pengaruh Takaran Kombinasi Pupuk NPK dan Pupuk Organik Cair Diperkaya Mikroba Fungsional terhadap Pertumbuhan dan Hasil Mentimun (*Cucumis sativus* L.) dilaksanakan pada bulan Agustus hingga Desember 2020 di Kebun Tri Dharma Fakultas Pertanian, Universitas Gadjah Mada, Banguntapan, Bantul, Yogyakarta. Penelitian ini bertujuan untuk mengetahui takaran kombinasi pupuk NPK dan pupuk organik alami diperkaya mikroba fungsional yang memberikan pertumbuhan dan hasil optimal mentimun serta mengetahui efektivitas pupuk organik yang diperkaya mikroba fungsional sebagai pengganti sumber hara dari pupuk NPK. Penelitian disusun menggunakan Rancangan Acak Kelompok Lengkap (RAKL) dengan tiga blok sebagai ulangan. Faktor yang diuji berupa takaran kombinasi pupuk NPK dan pupuk organik diperkaya mikroba fungsional (POD) yang terdiri atas tujuh aras yaitu tanpa pupuk, 600 kg ha^{-1} NPK, 15.000 l ha^{-1} POD, 600 kg ha^{-1} NPK + 15.000 l ha^{-1} POD, 450 kg ha^{-1} NPK + 15.000 l ha^{-1} POD, 300 kg ha^{-1} NPK + 15.000 l ha^{-1} POD, 150 kg ha^{-1} NPK + 15.000 l ha^{-1} POD. Hasil penelitian menunjukkan bahwa perlakuan 600 kg ha^{-1} NPK + 15.000 l ha^{-1} POD serta 300 kg ha^{-1} NPK + 15.000 l ha^{-1} POD memberikan pengaruh ke variabel pertumbuhan yaitu luas daun dan bobot segar daun. Produktivitas belum memenuhi standar Metavy, namun kualitas buah memenuhi standar dilihat dari bobot segar, panjang, dan diameter buah.

Kata kunci: mentimun, pupuk organik, NPK, pertumbuhan dan hasil

ABSTRACT

*The research entitled The Effect of Combinaton Rates of NPK and Functional Microbes Enriched Liquid Organic Fertilizer on Growth and Yield of Cucumber (*Cucumis sativus *L.) accessions held from August to December 2020 and took place at Tri Dharma Experimental Field, Faculty of Agriculture UGM, Banguntapan, Bantul, D.I.Yogyakarta. The purpose of this research was to determine the combination rates of NPK and Functional Microbes Enriched Liquid Organic Fertilizer (EOF) that gives optimal growth and yield of cucumber and to understand the effectiveness of EOF for substituting the nutrient from NPK fertilizer. The experimental design applied the Randomized Completely Block Design (RCBD) with three blocks as the replication. The treatments consist of seven level of combination doses of NPK fertilizer and EOF: without fertilizer, 600 kg ha^{-1} NPK; 15,000 l ha^{-1} EOF; 600 kg ha^{-1} NPK+15,000 l ha^{-1} EOF; 450 kg ha^{-1} NPK+15,000 l ha^{-1} EOF; 300 kg ha^{-1} NPK+15,000 l ha^{-1} EOF; and 150 kg ha^{-1} NPK+15,000 l ha^{-1} EOF. The data was analyzed using analysis of variances (ANOVA) and then analyzed with further testing known Tukey Honestly Significant Difference with a 95% confidence level. The result showed that the 600 kg ha^{-1} NPK+15,000 l ha^{-1} EOF and 300 kg ha^{-1} NPK + 15,000 l ha^{-1} EOF treatment gave better growth parameters such as fresh-weight leaves and leaf area. The productivity result was under the Metavy standard however, the parameters of quality such as fresh weight, length, and diameter of the fruits were equal to standard.*

Key word: cucumber, EOF, NPK, growth and yield