

ABSTRAK

PENGARUH KOMBINASI PUPUK LIMBAH CAIR TAHU DAN PUPUK HAYATI TERHADAP PERTUMBUHAN DAN HASIL MENTIMUN (*CUCUMIS SATIVUS L*)

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Produktivitas mentimun di Indonesia masih tergolong rendah, yaitu antara 10 t/ha sampai 15 t/ha, sedangkan potensi hasilnya bisa mencapai 34,5 t/ha sampai 51 t/ha. Penelitian ini bertujuan untuk mengetahui pertumbuhan dan hasil mentimun yang diberi kombinasi pupuk limbah cair tahu dan pupuk hayati dengan dosis dan konsentrasi yang berbeda. Penelitian ini dilakukan di Kebun Percobaan Fakultas Pertanian Universitas Siliwangi Kampus Mugarsari Kecamatan Tamansari Kota Tasikmalaya pada bulan Juni sampai Juli 2022. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) yang terdiri dari 9 perlakuan dosis pupuk limbah cair tahu dan konsentrasi pupuk hayati diulang sebanyak 3 kali, yaitu A = Tanpa pemberian pupuk limbah cair tahu dan pupuk hayati (kontrol), B = Pupuk limbah cair tahu 100 ml/tanaman, C = Pupuk limbah cair tahu 150 ml/tanaman, D = Pupuk limbah cair tahu 100 ml/tanaman + pupuk hayati konsentrasi 0,5%, E = Pupuk limbah cair tahu 150 ml/tanaman + pupuk hayati konsentrasi 0,5%, F = Pupuk limbah cair tahu 100 ml/tanaman + pupuk hayati konsentrasi 1%, G = Pupuk limbah cair tahu 150 ml/tanaman + pupuk hayati konsentrasi 1%, H = Pupuk limbah cair tahu 100 ml/tanaman + pupuk hayati konsentrasi 1,5%, I = Pupuk limbah cair tahu 150 ml/tanaman + pupuk hayati konsentrasi 1,5%. Hasil penelitian ini menunjukkan bahwa kombinasi dosis pupuk limbah cair tahu dan konsentrasi pupuk hayati berpengaruh terhadap tinggi tanaman, jumlah buah per tanaman, bobot buah per tanaman, dan bobot buah per petak, namun tidak berpengaruh terhadap jumlah daun, panjang buah, diameter buah, dan bobot buah per buah. Perlakuan kombinasi dosis limbah cair tahu 150 ml/tanaman dengan pupuk hayati konsentrasi 1,5% menghasilkan pertumbuhan dan hasil mentimun relatif lebih baik.

Kata kunci: Mentimun, pupuk limbah cair tahu, dan pupuk hayati

ABSTRACT

EFFECT OF COMBINATION TOFU LIQUID WASTE FERTILIZER AND BIOFERTILIZERS ON CUCUMBER GROWTH AND YIELD (*CUCUMIS SATIVUS L*)

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Cucumber productivity in Indonesia is still relatively low, which is between 10 t/ha to 15 t/ha, while the potential yield can reach 34.5 t/ha to 51 t/ha. This study aims to determine the growth and yield of cucumbers fed with tofu liquid waste fertilizer and biofertilizers with different doses and concentrations. This research was conducted at the Experimental Garden of the Faculty of Agriculture, Siliwangi University, Mugarsari Campus, Tamansari District, Tasikmalaya City from June to July 2022. This study used a Randomized Group Design (RGD) which was calculated from 9 dose treatments of tofu liquid waste fertilizer and the concentration of biological fertilizer was repeated 3 times, namely A = Without the application of tofu liquid waste fertilizer and biological fertilizer (control), B = Tofu liquid waste fertilizer 100 ml / plant, C = Tofu liquid waste fertilizer 150 ml / plant, D = Tofu liquid waste fertilizer 100 ml / plant + biological fertilizer concentration 0,5%, E = Tofu liquid waste fertilizer 150 ml / plant + biological fertilizer concentration 0,5%, F = Tofu liquid waste fertilizer 100 ml / plant + biofertilizer concentration 1%, G = Tofu liquid waste fertilizer 150 ml / plant + biofertilizer concentration 1%, H = Tofu liquid waste fertilizer 100 ml / plant + biological fertilizer concentration 1,5%, I = Tofu liquid waste fertilizer 150 ml / plant + biological fertilizer concentration 1,5%. The results of this study showed that the combination of the dose of tofu liquid waste fertilizer and the concentration of biological fertilizer affected the plant height, the number of fruits per plant, the weight of fruits per plant, and the weight of fruits per plot, but did not affect the number of leaves, fruit length, fruit diameter, and fruit weight per fruit. The combined treatment of 150 ml/plant dose of tofu liquid waste and biofertilizer with concentration 1.5% resulted in the relatively better growth and yield of cucumber.

Keywords: Cucumber, tofu liquid waste fertilizer, and biofertilizer