

Anita Muhtar. (190311100064). Pengaruh Konsentrasi Pupuk Hayati Terhadap Pertumbuhan dan Hasil Tanaman Cabai Besar (*Capsicum annum* L.). Dibimbing oleh: Dr. Mustika Tripatmasari S.P., M.Si dan Syaiful Khoiri S.P., M.Si

ABSTRAK

Cabai besar (*Capsicum annum* L.) merupakan tanaman hortikultura yang potensial karena memiliki banyak manfaat dan nilai jual yang tinggi. Produksi cabai dan harga cabai di tingkat produsen maupun tingkat konsumen mengalami peningkatan cukup tajam. Peningkatan produksi dan harga cabai yang tinggi menunjukkan bahwa peluang usaha masih sangat terbuka lebar. Peningkatan produktivitas cabai dapat dilakukan dengan pengaplikasian pupuk hayati. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi pupuk hayati terhadap pertumbuhan dan hasil tanaman cabai besar (*Capsicum annum* L.). Penelitian ini dilaksanakan pada bulan Desember-Mei 2023 di Lahan Percobaan Agroekoteknologi Fakultas Pertanian Universitas Trunojoyo Madura. Penelitian ini menggunakan Rancangan Acakan Kelompok (RAK) non faktorial dengan 4 ulangan dan 6 perlakuan antara lain A0 = 0 mL L⁻¹, A1 = 1 mL L⁻¹, A2 = 3 mL L⁻¹, A3 = 5 mL L⁻¹, A4 = 7 mL L⁻¹, dan A5 = 9 mL L⁻¹. Parameter yang diamati meliputi : tinggi tanaman, jumlah daun, waktu muncul bunga, jumlah buah pertanaman, bobot buah pertanaman, bobot buah perbuah, diameter buah, panjang buah, dan biomassa. Hasil penelitian menunjukkan perlakuan pupuk hayati tidak berpengaruh nyata terhadap semua parameter. Meskipun tidak berpengaruh nyata, pengaplikasian konsentrasi 5 mL L⁻¹ cenderung memberikan perlakuan terbaik pada parameter tinggi tanaman, waktu muncul bunga, jumlah buah dan bobot buah pertanaman.

Kata kunci : Cabai, Konsentrasi, Pupuk hayati

Anita Muhtar. (190311100064). Effect of Biofertilizer on Growth and Yield of *Capsicum annum* L. Supervised by: Dr. Mustika Tripatmasari S.P., M.Si and Syaiful Khoiri S.P., M.Si

ABSTRACT

Capsicum annum L. is a potential horticultural crop because it has many benefits and high price. Production and price of chili at both producer and consumer have increased sharply. The increase indicated that business opportunities are still wide open. Increase yield of chili can be in event by application of biofertilizer. This study aimed to investigate of how biofertilizer affect the growth and yield of chili (*Capsicum annum* L.). This research was conducted in December-May 2023 at the Agroecotechnology Experimental Field, Faculty of Agriculture, University of Trunojoyo, Madura. The experiment in this research was arranged on a non-factorial Randomized Block Design (RBD) consisting 6 treatments of biofertilizer application, namely A0 = 0 mL L⁻¹, A1 = 1 mL L⁻¹, A2 = 3 mL L⁻¹, A3 = 5 mL L⁻¹, A4 = 7 mL L⁻¹, and A5 = 9 mL L⁻¹. Every treatment was replicated for 4 times, to end up on 24 experimented units. Parameters observed included: plant height, number of leaves, time of flower emergence, number of fruit per plant, fruit weight per plant, fruit weight per fruit, fruit diameter, fruit length, and biomass. The results showed that the treatment had no significant effect on all parameters. Although these was no effect on the parameters, application biofertilizer at 5 mL L⁻¹ tended to give the best result on parameters of plant height, time of flower appearance, number of fruit and fruit weigh per plant.

Keywords: Chili, Biofertilizer, Concentration