

ABSTRAK

Irpan Hilmi Setiadi. 2025. Pengaruh Pemberian Kompos Jerami Padi terhadap Pertumbuhan dan Hasil Tanaman Cabai Rawit (*Capsicum frutescens* L.) Varietas ORI 212. Dibawah bimbingan Budy Frasetya Taufik Qurrohman dan Irfan Muhammad

Cabai rawit (*Capsicum frutescens* L.) merupakan komoditas hortikultura strategis di Indonesia yang permintaannya terus meningkat. Penggunaan pupuk anorganik secara berlebihan telah menurunkan kualitas tanah dan menimbulkan dampak negatif terhadap lingkungan. Penelitian ini dilakukan untuk mengetahui pengaruh pemberian kompos jerami padi terhadap pertumbuhan dan hasil tanaman cabai rawit varietas ORI 212 serta menentukan dosis terbaik yang dapat direkomendasikan. Penelitian telah dilaksanakan di Lahan Kampus II UIN Sunan Gunung Djati Bandung pada Januari–Juni 2025 dengan menggunakan Rancangan Acak Kelompok (RAK) faktorial yang terdiri atas lima perlakuan, yaitu A = kontrol (tanpa kompos), B = 120 g polybag⁻¹ (15 t ha⁻¹), C = 240 g polybag⁻¹ (20 t ha⁻¹), D = 360 g polybag⁻¹ (25 t ha⁻¹), dan E = 480 g polybag⁻¹ (30 t ha⁻¹), masing-masing diulang lima kali. Parameter yang diamati meliputi tinggi tanaman, jumlah bunga, jumlah buah per tanaman, berat buah per tanaman, dan indeks panen. Hasil penelitian menunjukkan bahwa pemberian kompos jerami padi berpengaruh nyata terhadap tinggi tanaman, jumlah bunga, jumlah buah per tanaman, dan berat buah per tanaman, namun tidak berpengaruh nyata terhadap indeks panen. Perlakuan (D) 320 g polybag⁻¹ memberikan pertumbuhan vegetatif terbaik, jumlah bunga tinggi, serta berat buah yang optimal. Berdasarkan hasil tersebut, pemberian kompos jerami padi dengan dosis 25 t ha⁻¹ atau setara 320 g polybag⁻¹ direkomendasikan sebagai dosis optimal untuk meningkatkan pertumbuhan dan hasil cabai rawit varietas ORI 212 sekaligus menjadi alternatif pupuk organik yang ramah lingkungan.

Kata Kunci: Cabai rawit, Kompos, Jerami padi

ABSTRACT

Irpan Hilmi Setiadi. 2025. *The Effect of Rice Straw Compost Application on the Growth and Yield of Chili pepper (Capsicum frutescens L.) ORI 212 variety. Under the guidance of Budy Frasetya Taufik Qurrohman and Irfan Muhammad*

Chili pepper (Capsicum frutescens L.) is a strategic horticultural commodity in Indonesia with continuously increasing demand. Excessive use of inorganic fertilizers has degraded soil quality and caused negative environmental impacts. This study aimed to determine the effect of rice straw compost on the growth and yield of chili pepper variety ORI 212 and to identify the optimal dosage for recommendation. The experiment was conducted at the Experimental Field of Campus II, UIN Sunan Gunung Djati Bandung, from January to June 2025, using a Randomized Block Design (RBD) with five treatments: A = control (without compost), B = 120 g polybag⁻¹ (15 t ha⁻¹), C = 240 g polybag⁻¹ (20 t ha⁻¹), D = 360 g polybag⁻¹ (25 t ha⁻¹), and E = 480 g polybag⁻¹ (30 t ha⁻¹), each replicated five times. Observed parameters included plant height, number of flowers, number of fruits per plant, fruit weight per plant, and harvest index. The results showed that rice straw compost significantly affected plant height, number of flowers, number of fruits per plant, and fruit weight per plant, but had no significant effect on the harvest index. Treatment D (360 g polybag⁻¹) produced the best vegetative growth, higher flower production, and optimal fruit weight. Based on these findings, the application of rice straw compost at 25 t ha⁻¹ (equivalent to 360 g polybag⁻¹) is recommended as the optimal dose to enhance the growth and yield of chili pepper variety ORI 212, while also serving as an environmentally friendly organic fertilizer alternative.

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Keywords: Chili pepper, Compost, Rice straw