

INTISARI

Tanaman cabai rawit merupakan salah satu tanaman yang banyak dibudidayakan oleh petani di Indonesia dikarenakan permintaan cabai rawit yang tinggi sehingga diperlukan peningkatan produksi untuk memenuhi kebutuhan. Permasalahan dalam melakukan budidaya tanaman cabai adalah penurunan kualitas tanah. Penurunan kualitas tanah dapat diatasi dengan pemberian bahan organik yaitu pemberian pupuk kascing. Pupuk kascing dapat bekerja secara optimal jika dikombinasikan dengan pemberian PGPR untuk memperbaiki kualitas tanah. Tujuan penelitian ini adalah untuk mengetahui interaksi dan mendapatkan takaran pupuk kascing dan dosis yang tepat untuk pertumbuhan dan hasil tanaman cabai rawit. Penelitian ini menggunakan rancangan acak kelompok (RAK) faktorial yang terdiri dari 3 blok sebagai ulangan. Faktor pertama pupuk kascing (kontrol, takaran 5 ton.ha⁻¹, takaran 10 ton.ha⁻¹) dan faktor kedua dosis PGPR (kontrol, dosis 20 ml, dosis 40 ml). Hasil penelitian menunjukkan bahwa terdapat interaksi antara pemberian pupuk kascing dengan dosis PGPR terhadap pertumbuhan tanaman cabai rawit pada variabel panjang akar, kadar nitrogen tanaman dan tinggi tanaman. Pemberian pupuk kascing 10 ton.ha⁻¹ memberikan hasil lebih tinggi pada panjang akar total 8 MST, Volume akar 8 MST, Luas permukaan akar 4 MST, tinggi tanaman 16 MST, Berat segar tanaman 8 MST dan berat segar buah total. Pemberian PGPR dengan dosis 40 ml. tanaman⁻¹ memberikan hasil lebih tinggi pada panjang akar total 8 MST, Luas permukaan akar 4 MST, berat segar tanaman 8 MST, tinggi tanaman 16 MST dan berat segar buah total.

Kata kunci: cabai rawit, pupuk kascing, PGPR

ABSTRACT

Cayenne pepper plants are one of the crops that are widely cultivated by farmers in Indonesia due to the high demand for cayenne pepper so that increased production is needed to meet demand. The problem in cultivating chili plants is a decrease in soil quality. The decline in soil quality can be overcome by the provision of organic matter, namely the provision of vermicompost fertilizer. Vermicompost fertilizer can work optimally if combined with PGPR to improve soil quality. The purpose of this study was to determine the interaction and get the right dose of vermicompost fertilizer for the growth and yield of cayenne pepper plants. This study used a factorial randomized block design (RAK) consisting of 3 blocks as replicates. The first factor was landfill fertilizer (control, 5 tons.ha⁻¹, 10 tons.ha⁻¹) and the second factor was PGPR dosage (control, 20 ml dosage, 40 ml dosage). The results showed that there was an interaction between the application of vermicompost fertilizer and PGPR doses on the growth of cayenne pepper plants on root length variables, plant nitrogen levels and plant height. The application of 10 ton.ha⁻¹ vermicompost fertilizer gives higher results in total root length 8 MST, root volume 8 MST, root surface area 4 MST, plant height 16 MST. Application of 10 ton.ha⁻¹ fertilizer gave higher results in total root length 8 MST, root volume 8 MST, root surface area 4 MST, plant height 16 MST, plant fresh weight 8 MST and total fruit fresh weight. PGPR application at a dose of 40 ml. plant-1 gave higher results in total root length 8 MST, root surface area 4 MST, plant fresh weight 8 MST, plant height 16 MST and total fruit fresh weight.

Keywords: cayenne pepper, Vermicompost fertilizer, PGPR

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