

ABSTRAK

PENGARUH PEMBERIAN PUPUK UREA DAN PUPUK KANDANG SAPI TERHADAP PERTUMBUHAN TANAMAN CABAI RAWIT (*Capsicum frutescens* L.)

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Cabai rawit (*Capsicum frutescens* L.) merupakan komoditas hortikultura yang banyak dikonsumsi di Indonesia, terkenal karena kandungan *capsaicin*-nya yang tinggi yang menyebabkan rasa pedas. Permintaan cabai rawit di pasar domestik dan ekspor terus meningkat. Namun, produksinya menurun karena berkurangnya luas panen. Oleh karena itu, diperlukan intensifikasi dan ekstensifikasi praktik budidaya, termasuk penggunaan strategi pertanian perkotaan dan *polybag*. Salah satu upaya intensifikasi untuk mengatasi penurunan produksi cabai rawit adalah dengan pemupukan tanaman, baik menggunakan pupuk anorganik maupun pupuk organik. Pupuk urea merupakan pupuk anorganik yang mengandung kadar nitrogen tinggi. Pupuk kandang sapi termasuk pupuk organik yang mampu meningkatkan daya serap air. Penelitian ini bertujuan untuk mengetahui efektivitas pupuk urea dan pupuk kandang sapi terhadap pertumbuhan tanaman cabai rawit dan mengetahui dosis yang efektif dari pupuk urea dan pupuk kandang sapi terhadap pertumbuhan tanaman cabai rawit. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan empat kali ulangan setiap perlakuan. Hasil penelitian menunjukkan bahwa pemberian pupuk urea berpengaruh nyata dan optimal dalam meningkatkan pertumbuhan tanaman cabai rawit selama 21 HST. Sedangkan pupuk kandang sapi kurang optimal dibandingkan dengan pupuk urea dalam meningkatkan pertumbuhan tanaman cabai rawit selama 21 HST. Pemberian pupuk urea dosis 2 g/50 mL (P_2) mampu meningkatkan pertumbuhan tanaman cabai rawit selama 21 HST pada karakter tinggi tanaman, luas daun, berat basah, dan berat kering tanaman cabai rawit.

Kata kunci: cabai rawit, pertumbuhan, pupuk urea, pupuk kandang sapi

ABSTRACT

EFFECT OF UREA FERTILIZER AND CATTLE MANURE APPLICATION ON THE GROWTH OF BIRD'S EYE CHILI (*Capsicum frutescens* L.)

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Bird's eye chili (*Capsicum frutescens* L.) is a horticultural commodity that is widely consumed in Indonesia, well known for its high capsaicin content which causes a pungent taste. The demand for bird's eye chili in domestic and export markets continues to increase; however, its production has declined due to a reduction in harvested area. Therefore, both intensification and extensification of cultivation practices are required, including the implementation of urban farming strategies using polybags. One of the intensification efforts to overcome the decline in chili production is through fertilization, either with inorganic or organic fertilizers. Urea fertilizer is an inorganic fertilizer with a high nitrogen content, while cattle manure is an organic fertilizer that can improve soil water-holding capacity. This study aimed to determine the effectiveness of urea fertilizer and cattle manure on the growth of bird's eye chili plants and to identify the most effective dosage of both fertilizers. The experiment was conducted using a Completely Randomized Design (CRD) with four replications for each treatment. The results showed that urea fertilizer had a significant and optimal effect on the growth of bird's eye chili for 21 days after planting, whereas cattle manure was less effective than urea fertilizer during the same period. The application of urea at a dosage of 2 g/50 mL (P₂) significantly enhanced plant height, leaf area, fresh weight, and dry weight of bird's eye chili plants within 21 days after planting.

Keywords: bird's eye chili, growth, urea fertilizer, cattle manure