

Novita Apriliya. (190311100086). Respon Pertumbuhan dan Hasil Dua Varietas Tomat (*Lycopersicum esculentum* Mill.) Terhadap Aplikasi Pupuk NPK. Dibimbing Oleh: Nurholis, S.P., M.Si dan Dr. Ir. Gita Pawana, M.Si

ABSTRAK

Tanaman tomat merupakan tanaman yang banyak dibudidayakan secara komersial, karena memiliki nilai ekonomi tinggi. Konsumsi tomat di Indonesia mengalami peningkatan. Namun sebaliknya, produksi tomat mengalami fluktuasi. Salah satu upaya dalam meningkatkan produksi tomat yaitu dengan melakukan perbaikan budidaya seperti pemilihan varietas dan pemupukan NPK yang tepat. Penelitian ini bertujuan untuk mengetahui pengaruh varietas dan pupuk NPK terhadap pertumbuhan dan produksi tanaman tomat. Penelitian ini dilaksanakan di lahan percobaan Agroekoteknologi Universitas Trunojoyo Madura pada bulan November 2022 sampai Februari 2023. Rancangan penelitian yang digunakan yaitu Rancangan Acak Kelompok (RAK) Faktorial. Faktor pertama yaitu varietas tomat meliputi V1 (Servo) dan V2 (Tymoti). Faktor kedua yaitu dosis pupuk NPK, meliputi dosis P0 (0 g/polybag), P1 (3,14 g/polybag), P2 (4,40 g/polybag), dan P3 (5,65 g/polybag). Data dianalisis dengan *Analysis of variance* (ANOVA) taraf 5% dan apabila terdapat pengaruh nyata maka dilakukan uji lanjut dengan DMRT taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan varietas berpengaruh nyata pada parameter tinggi tanaman, diameter batang, volume akar, bobot basah tanaman, dan bobot kering tanaman. Rata-rata tertinggi akibat perlakuan varietas yaitu terdapat pada perlakuan V2 (Tymoti). Perlakuan pupuk NPK berpengaruh nyata pada parameter tinggi tanaman, jumlah daun, diameter batang, volume akar, jumlah buah per tanaman, bobot buah per tanaman, diameter buah per tanaman, bobot basah tanaman, dan bobot kering tanaman. Rata-rata tertinggi akibat perlakuan pupuk NPK yaitu terdapat pada P3 (5,65 g/polybag). Interaksi antara varietas dan pupuk NPK hanya terdapat pada parameter jumlah daun.

Kata kunci: dosis pupuk, pupuk NPK, varietas tomat

Novita Apriliya. (190311100086). Response of Growth and Yield of Two Tomato Varieties (*Lycopersicum esculentum* Mill.) to Application of NPK Fertilizer. Guided by: Nurholis, S.P., M.Si and Dr. Ir. Gita Pawana, M.Si

ABSTRACT

Tomato plants are plants that are widely cultivated commercially, because they have high economic value. Consumption of tomatoes in Indonesia has increased. On the other hand, tomato production has fluctuated. One of the efforts to increase tomato production is by improving cultivation, such as choosing the right variety and NPK fertilization. This study aims to determine the effect of varieties and NPK fertilizers on the growth and production of tomato plants. This research was conducted in the Agroecotechnology Experimental Field of Trunojoyo University Madura from November 2022 to February 2023. The research design used was a Factorial Randomized Block Design (RBD). The first factor is tomato varieties including V1 (Servo) and V2 (Tymoti). The second factor was the dose of NPK fertilizer, including doses of P0 (0 g/polybag), P1 (3.14 g/polybag), P2 (4.40 g/polybag), and P3 (5.65 g/polybag). Data were analyzed by Analysis of variance (ANOVA) at 5% level and if there was a significant effect, then a further test was carried out with DMRT at 5% level. The results showed that the varietal treatment had a significant effect on the parameters of plant height, stem diameter, root volume, plant fresh weight and plant dry weight. The highest average due to the variety treatment was found in the V2 (Tymoti) treatment. NPK fertilizer treatment significantly affected the parameters of plant height, number of leaves, stem diameter, root volume, number of fruits per plant, fruit weight per plant, fruit diameter per plant, plant fresh weight, and plant dry weight. The highest average due to NPK fertilizer treatment was found in P3 (5.65 g/polybag). The interaction between varieties and NPK fertilizers is only found in the number of leaves parameter.

Keywords: fertilizer dose, NPK fertilizer, tomato varieties