

Dendy Adji Kristian, NIM 210311100094. Pengaruh Pupuk Kandang Sapi dan Pupuk NPK Terhadap Pertumbuhan dan Hasil Tanaman Bawang Merah (*Allium Ascalonicum* L.) Varietas Tajuk. Dibawah Bimbingan Dr. Catur Wasonowati, S.P., M.Si dan Dr. Agr. Eko Setiawan, S.P., M.Si

ABSTRAK

Bawang merah merupakan salah satu komoditas utama sayuran di Indonesia dan mempunyai banyak manfaat. Pemberian pupuk kandang sapi dan pupuk NPK Mutiara 16:16:16 yang tepat dapat meningkatkan pertumbuhan dan hasil tanaman bawang merah. Penelitian ini bertujuan untuk mengetahui pengaruh aplikasi pupuk kandang sapi dan pupuk NPK Mutiara 16:16:16 terhadap pertumbuhan dan hasil tanaman bawang merah varietas tajuk. Penelitian ini dilaksanakan di Greenhouse dan Laboratorium Fakultas Pertanian Universitas Trunojoyo Madura, pada bulan April – Juni 2025. Penelitian menggunakan Rancangan Acak Kelompok Faktorial yang terdiri dari dua faktor. Faktor pertama yaitu pupuk kandang sapi (K) terdiri dari 4 taraf yaitu K0 = (kontrol), K1 = 40 g/polybag (10 ton/ha), K2 = 80 g/polybag (20 ton/ha), K3 = 120 g/polybag (30 ton/ha), perlakuan pupuk NPK Mutiara 16:16:16 terdiri dari 4 taraf yaitu, P0 = (kontrol), P1 = 0,8 g/polybag (200 kg/ha), P2 = 1 g/polybag (250 kg/ha), P3 = 1,2 g/polybag (300 kg/ha). Parameter yang diamati adalah panjang tanaman (cm), jumlah daun (helai), jumlah umbi (siung), diameter umbi (cm), bobot basah per rumpun (g), bobot kering per rumpun (g), bobot basah per umbi (g), bobot kering per umbi (g), susut bobot (%), produksi per hektar (ton/ha). Data pengamatan dianalisis secara statistik dan dilanjutkan dengan uji lanjut DMRT taraf 5%. Hasil penelitian menunjukkan pupuk kandang sapi berpengaruh nyata terhadap panjang tanaman dan jumlah daun dengan perlakuan terbaik K3 (120 g/polybag). Perlakuan pupuk NPK Mutiara 16:16:16 berpengaruh nyata terhadap berat basah dan berat kering per umbi, perlakuan terbaik dosis P2 (1 g/polybag). Interaksi pemberian pupuk kandang sapi dan pupuk NPK Mutiara 16:16:16 tidak nyata terhadap semua parameter pengamatan.

Kata kunci: *Bawang merah, pupuk kandang sapi, pupuk NPK*

Dendy Adji Kristian, NIM 210311100094. *The Effect of Cow Manure and NPK Fertilizer on the Growth and Yield of Red Onion (*Allium Ascalonicum* L.) of the Tajuk Variety*. Under the Guidance of Dr. Catur Wasonowati, S.P., M.Si and Dr. Agr. Eko Setiawan, S.P., M.Si

ABSTRACT

Shallots (*Allium ascalonicum* L.) are one of the main vegetable commodities in Indonesia and offer various benefits. The proper application of cow manure and NPK Mutiara 16:16:16 fertilizer can enhance the growth and yield of shallot plants. This study aimed to determine the effects of cow manure and NPK Mutiara 16:16:16 fertilizer on the growth and yield of Tajuk variety shallots. The research was conducted in the greenhouse and laboratory of the Faculty of Agriculture, University of Trunojoyo Madura, from April to June 2025. A factorial randomized complete block design (RCBD) was used with two factors. The first factor was cow manure (K), consisting of four levels: K0 = control, K1 = 40 g/polybag (equivalent to 10 tons/ha), K2 = 80 g/polybag (20 tons/ha), and K3 = 120 g/polybag (30 tons/ha). The second factor was NPK Mutiara 16:16:16 fertilizer, consisting of four levels: P0 = control, P1 = 0.8 g/polybag (200 kg/ha), P2 = 1 g/polybag (250 kg/ha), and P3 = 1.2 g/polybag (300 kg/ha). Observed parameters included plant height (cm), number of leaves, number of bulbs, bulb diameter (cm), fresh weight per clump (g), dry weight per clump (g), fresh weight per bulb (g), dry weight per bulb (g), weight loss (%), and yield per hectare (tons/ha). The data were analyzed statistically and followed by a DMRT (Duncan's Multiple Range Test) at the 5% significance level. The results showed that cow manure significantly affected plant height and number of leaves, with the best result at K3 (120 g/polybag). NPK Mutiara 16:16:16 fertilizer significantly affected fresh and dry weight per bulb, with the best result at P2 (1 g/polybag). There was no significant interaction between cow manure and NPK Mutiara 16:16:16 on all observed parameters.

Keywords: Shallot, cow manure, NPK fertilizer