

Andreas Marajohan Anggi. Effect of Manure and Fertilizer Phonska To The availability of N, P, K Regosol On The Growth and Yield of Red Chili (*Capsicum annuum* L.) Under the Guidance Lelanti Peniwiratri And Dyah Arbiwati

ABSTRACT

This research aimed to determine the best dose of fertilizer phonska and some types of manure on the availability of N, P, K Regosol, growth and yield of red chili. The experiment was conducted in the village Bangunharjo, Bantul, Yogyakarta. The method used was split plot design. The main plot is manure (K) consists of two levels, namely chicken manure (K1) and cow manure (K2) at a dose recommendation 10 ton/ha (96.16 gram/pot). The subplots were doses Phonska which consists of five levels, namely P1: 0 kg/ha equivalent of 0 gram/pot, P2: 100 kg/ha equivalent of 0.96 gram/pot, P3: 200 kg/ha equivalent to 1.92 gram/pot, P4: 300 kg/ha equivalent of 2.88 gram/pot, P5: 400 kg/ha equivalent of 3.84 gram/pot. The parameters observed bulk density (BV) particle density (BJ), porosity, N-available, P-available, K-available, soil reaction (pH), plant height 42 after planting, dry mass, root length, fruit weight, amount fruit, and fruit length. The result were analyzed with a analysis of variance at 5% significance level, if the there noticeable effect be tested further with Duncan's Multiple Range test at the 5% level. Result of research manure did not significantly different to BV, BJ, Porosity, N-available, P-available, K-available, pH H₂O, plant height 42 after planting and fruit length, but the significant effect on root length, fruit weight and amount of fruit. Giving Phonska 300 kg/ha showed highest mean value on the chemical properties of N-available, P-available and highest results on plant height 42 after planting, dry mass, root length, fruit weight, amount of fruit and fruit and decrease BV, BJ and Porosity.

Keywords: Regosol, manure, Phonska, red chilli