

Growth and Yield Response of Three Varieties of Chili (*Capsicum frutescens* L.) On Dosing Of Cow Manure Bokashi

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ABSTRACT

Each variety has genetic differences that can affect the growth and yield of chili. High production will be achieved if the varieties planted have high yield potential. Bokashi manure is a type of organic fertilizer derived from livestock manure, which decomposition process is added by decomposing microbes, and contains complete nutrients, both macro and micro nutrients that are readily absorbed by plants, so that optimum growth and yield of chili can be achieved. This study aims to determine the response to growth and yield of three varieties of chili on cow dung bokashi dose. This research was conducted in Pereng Kulon Hamlet, Pereng Village, Prambanan District, Klaten Regency, Central Java. The method used in this study was the completed randomized design (CRD) which consisted of 2 factors of 3x4 each repeated 3 times, in order to obtain 360 plant units. The first factor is chili varieties: V1 = OR Kencana variety; V2 = Mhanu variety; V3 = Lojana variety. The second factor is the dose of cow dung bokashi: B0 = 0 tons / ha, B1 = 10 tons / ha (equivalent to 490 grams / plant), B2 = 20 tons / ha (equivalent to 980 grams / plant), B3 = 30 tons / ha (equivalent to 1470 grams / plant). The research parameters included plant height, leaf area, plant stem diameter, plant dry weight, root volume, flowering age, number of productive branches, number of fruit planted, number of fruit plots, fruit weight per plot, fruit weight per plot, fruit length and fruit diameter. Data were analyzed by Analysis of Variance (ANOVA) at the 5% level. To find out that there was a significant difference between treatments, the 5% level of Duncan's Multiple Range Test (DMRT) was conducted. The results showed that there was an interaction between the use of three varieties of chili and the dose of bokashi with cow dung, in OR Kencana (V1), Mhanu (V2), and Lojana (V3) varieties, the better dose of bokashi was 30 ton / ha (B3). At a dose of 0 tonnes / ha (B0), 10 tonnes / ha (B1), 20 tonnes / ha (B2), and 30 tonnes / ha (B3), the better varieties are Mhanu (V2).

Keywords: Growth and Yield of Chili, Varieties, Bokashi.