

# **GROWTH AND YIELD OF ONION (*Allium ascalonicum* L.) ON VARIOUS DOSES OF COW MANURE AND PLANT GROWTH PROMOTING RHIZOBACTERIA (PGPR) CONCENTRATIONS**

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## **ABSTRACT**

The demand and need for shallots (*Allium ascalonicum* L.) increases every year so efforts are needed to maintain shallot productivity with organic fertilizer. This research aims to determine the interaction of applying cow dung fertilizer and PGPR concentration on the growth and yield of shallots. Factorial research method (3x3) + 1 control arranged in a Complete Randomized Block Design (RAKL). The first factor is the dose of cow dung fertilizer, namely 20 tonnes/ha, 30 tonnes/ha, 40 tonnes/ha. The second factor is the PGPR concentration, namely 10 ml/l, 15 ml/l, and 20 ml/l. Data were analyzed using analysis of variance (ANOVA) at 5% level and orthogonal contrast. Data that shows a real effect is followed by the Duncan Multiple Range Test (DMRT). There was an interaction between the parameters of plant height at 28 DAP and 42 DAP, dry tuber weight in the sun, and wet tuber weight per plant clump. The best dose of cow dung fertilizer treatment is 40 tons/ha for the number of leaves parameter 28 DAP and 42 DAP, tuber diameter, wet tuber weight per experimental plot, and tuber yield per hectare. The PGPR treatment with the best concentration was obtained at 20 ml/l on the parameters of number of leaves at 28 DAP and 42 DAP, number of tubers per clump of plants, number of tubers per experimental plot, diameter of tubers, weight of wet tubers per clump of plants, weight of wet tubers per experimental plot and tuber yield per hectare. The control treatment had a significant effect on the parameters of plant height at 28 DAP and 42 DAT, dry tuber weight in the sun and wet tuber weight per experimental plot.

**Keywords:** Shallots, Cow Manure, PGPR