

**THE EFFECTIVENESS OF ADDING SUPERPHOSPHATE AND
BIOFERTILIZER FERTILIZER ON THE GROWTH AND OF
PRODUCTION RATOON (*Oryza sativa* L)**

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ABSTRACT

Ratoon is a rice cultivation that is carried out by maintaining rice shoots that grow after harvest. Ratoon rice has several advantages, that are faster harvest and lower production costs than the parent plant. However, ratoon has a drawback, namely the level of production is still low. Therefore in this study using superphosphate and biofertilizer to increase production. Phosphorus is expected to increase the rate of growth and formation of rice grains. This research was conducted from April to July 2020 in Tegalgede Jember. This study was designed using a two factorial split plot design with 4 replications. He first factor being superphosphate fertilizer and the second factor being biofertilizer. The first factor consisted of 3 levels, namely 50 kg/ha⁻¹, 75 kg/ha⁻¹ and 100 kg/ha⁻¹, while the second factor consist of 3 levels, namely 30 g/ha⁻¹, 60 g/ha⁻¹ and 90 g/ha⁻¹. The variables observed consist of plant height, number of tillers, number of productive tillers, number of grain per panicle, number of empty panicles, number of panicle grain, leaf area, number of leaves, panicle length and chlorophyll. Observational data were analyzed using ANOVA if the results showed significantly different or very significant differences, then further tested using DMRT 5%. The results of this study showed that 50 kg/ha⁻¹ superphosphate fertilization and 60 g/ha⁻¹ biofertilizer gave the best effect on the number of productive tillers (24.18 stems), while 50 kg/ha⁻¹ superphosphate fertilization gave the best effect on the number of productive tillers. pithy grain per panicle that is (69.4 grains).

Keywords: *Ratoon, Superphosphate, Biofertilizer.*