

***Efficiency Of Use Of NPK Fertilizer Doses And Rhizobium Application On
Peanut Growth Green On Alley Cropping***

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ABSTRACT

Land use for annual crops needs to be optimized by using an alley cropping system and one of them is by planting legumes. One of the legume plants that can be used is green bean plant. This research aims to examine the timing of rhizobium application and the correct dose of NPK fertilizer on growth and yield of green beans. This research was carried out on the grounds of the Jember State Polytechnic from December 2023 to February 2024. The research was conducted using a nested randomized block design (nested design) using 2 factors and 3 replications. The 10 ml/liter Rhizobium treatment nested from the NPK treatment consisted of 3 levels, namely seed treatment, giving rhizobium at 14 DAT, and giving rhizobium at 21 DAP. The NPK fertilizer dose treatment consists of 3 levels, namely a 25% reduction in the standard dose, a 50% reduction in the standard dose, and a standard dose. The research results showed that rhizobium treatment had no significant effect on all variables. Meanwhile, NPK fertilizer treatment at a dose of 25% of the standard dose showed a significant difference to dry pod weight in standard dose NPK fertilizer treatment with a value of 19.26 grams and the 50% dose of NPK fertilizer treatment showed a significant difference to the wet pod weight in the NPK fertilizer dose treatment. 25% of the standard dose with a value of 26.85 grams. Green bean plants develop faster if combined with the right dose of NPK fertilizer and rhizobium.

Keywords : alley cropping, NPK fertilizer, production, Rhizobium bacteria