GROWTH AND YIELD RESPONSE OF SOME VARIETIES OF SOYBEAN (*Glycine max* L.) TO DOSES OF MYCORIZA BIOFERTILIZATION

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ABSTRACT

Soybeans are a potential food crop that is rich in protein and utiliced by the public. The research aims to determine of the best soybean varieties and dosess of mycoriza biofertilizer on the growth and yield of soybean plants. The research was carried out in the practice garden of the Faculty of Agriculture, UPN "Veteran" Yogyakarta in September - December 2023. The research used a Split Plot Design consisting 2 factors and 3 replications. The first factor: variety of soybean that consists of 3 levels: Argomulyo, Dering 1 and Dering 2. The second factor is mycoriza doses that consists of 4 levels: 0 g, 5 g, 10 g and 15 g per plant. Data analysis used ANOVA at a real level of $\alpha = 5\%$ and followed by DMRT test at a real level of $\alpha = 5\%$. The results showed that there was a real interaction between variety treatment and mycoriza doses on plant height at 21, 28 and 35 DAP. The Dering 1 variety treatment gave better results in the plant height at 14 DAP, number of productive branches, number of pods per plant, and number of seeds per plant. Treatment with a mycoriza dose of 10 g/plant gave better results in the number of productive branches, number of pods per plant, number of seeds per plant, weight of 100 seeds, dry weight of seeds per plant, weight dry seeds per harvest plot, dry weight of seeds per hectare, and harvest index.

Keywords: *Soybean, Varieties, Mycoriza*