PGPR (Plant Growth Promoting Rhizobacteria) APPLICATION AND PROVISION OF KIND OF ORGANIC INGREDIENTS IN MEDIA PLANTING ON GROWTH AND PRODUCTION PEANUT PLANTS (Arachis hypogea L.)

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ABSTRACT

Peanuts (Arachis hypogeae L.) are legumes or legumes which are the most important nuts after soybeans in Indonesia. The need for peanuts has increased along with the increase in population. However, national peanut production is still very low while market demand is increasing. Utilization of PGPR as organic fertilizer and the role of organic matter in planting media as a soil enhancer can be a solution to overcome the decline in land productivity as well as to increase crop production. This research was conducted to determine the application time of PGPR and organic matter on peanut production. This research was conducted at the Jember State Polytechnic in Sumbersari Village, Sumbersari District, Jember. This study used a factorial randomized block design (RBD) with 2 factors, 12 treatments and 3 replications. PGPR factor 3 levels, namely control, 0 DAP, and 14 DAP. The organic matter factor is 4 levels, namely mineral soil, manure, husk charcoal, and straw bokashi. The data were analyzed using ANOVA and then further tested using DMRT 5%. The results showed that PGPR application had a significant effect on plant height (28 DAP), number of pithy pods, wet weight of pods, dry weight of pods, wet seed weight, and wet seed weight.

Keywords: PGPR, Peanuts, Organic matter