

Pengaruh Aplikasi Plant Growth Promoting Rhizobacteria Terhadap Produksi dan Mutu Benih Beberapa Varietas Kacang Hijau (*Vigna radiata* L). (*The Effect Application of PGPR (Plant Growth Promoting Rhizobacteria) Used on The Results Mung Bean Seed (Vigna radiata L.)*) Mia Hukama Dielista, NIM.A41160364, year 2022, yard, Agricultural Production, State Polytechnic of Jember, Dr. Ir. Nurul Sjamsijah, MP. (Main Supervisor) and Siti Muzaiyanah, S. TP, MP. (Escort Supervisor)

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ABSTRACT

*The production of mung beans in Indonesia has experienced ups and downs in the market, so it is necessary to make efforts to product mung bean. Over time, it shows a decrease in land productivity due to excessive use of inorganic fertilizers. One of the production of mung bean is by giving PGPR to several varieties of mung bean. The purpose of this study was to determine the effect of the application of Plant Growth Promoting Rhizobacteria on the production and seed quality of several varieties of mung bean (*Vigna radiata* L). This research was conducted in September-December 2019 at the Rescarch Institute for AssortedNuts and Tumbers Malang. The method use was a factorial randomized block design (RBD) consisting of three levels of PGPR, first factor namely P0 (Control), P1 (PGPR 12,5 ml/L and P2 (PGPR 15 ml/L), the second factor was three levels of variety namely V1 (Vima-1), V2 (Vima-4) and V3 (Vima-5). Based on the results and discussion of the application of PGPR to several varieties of mung bean (*Vigna radiata* L) gave a very significantly different effect on all observation parameters except plant height parameters at 15 DAP on PGPR 15 ml/L (P2) treatment. The treatment of several varieties of mung bean (*Vigna radiata* L) gave a very significant effect on the observed parameters of plant height 35 DAP, weight 100 seeds and significantly different on plant height parameter 45 DAP, pods per plant. The application of PGPR and several varieties of mung bean (*Vigna radiata* L) had a very significant effect on the PGPR treatment of 15 ml/L + Vima-1 (P2V1) variety, plant height 15 DAP (10.7 cm), 35 DAP (44.2 cm) and 45 DAT (61.0 cm). The parameters of pods per plant and weight of 100 seeds gave a significantly different effect on the PGPR 15 ml/L + Vima-4 (P2V2) variety.*

Keyword : *Mung bean, PGPR, variety*