

**Aplikasi PGPR (*Plant Growth Promoting Rhizobacteria*) dan Peletakan Akar  
terhadap Produksi dan Mutu Benih Tanaman Padi (*Oryza sativa* L.)**  
*Application Of (Plant Growth Promoting Rhizobacteria) and Root Position to  
Productivity and Quality Of Rice Testing (*Oryza sativa* L.)*

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***ABSTRACT***

*Application Plant Growth Promoting Rhizobacteria (PGPR) and root position treatment is one of the effort that can be used to increase rice production. Aim of this research was to stimulate vegetative and generative growth plant. This research held on August until December 2016 at State Polytechnique of Jember field, by using Randomized Block Design factorial (RBD) with 2 factors and 4 replications. First factor is PGPR treatment (0; 12,5; 15; and 17,5 ml/lit). Second factor is vertical root position and horizontal root position. The result showed that PGPR with concentration of 17,5 ml/lit gave a significant up to high significant effect on the high growth of rice plants aged 4 to 6 weeks after planting (WAP), plant height accretion 6-8 WAP, productive sapling amount, number of grains per panicle, number of grains meaty per panicle, production each hectare, and potential resulted each hectare. Second factor showed the treatment horizontal root position has high significant effect to sapling amount of pady plant 6 WAP, pady plant 8 WAP, productive sapling amount, production each hectare and potential resulted each hectare.*

***Key words:*** PGPR Bacteria ,Rice Production, Root Withdrawal