

# Inspiration of Different Bio Fertilizer on Germination and Seedling Growth of Rice (*Oryzasativa*L.) by Seed Treatment Method

L. R. Rathod<sup>1</sup>, N. B. Pawar<sup>2</sup>, D. V. Rajmane<sup>3</sup> & R. C. Jitekar<sup>4</sup>

Department of Botany

Mahatma Phule Arts, Science and Commerce College, Panvel<sup>1,2,3,4</sup>

**Abstract:** Bio fertilizers are natural fertilizers which are living microbial inoculants of bacteria, algae, fungi alone or in combination and they augment the availability of nutrients to the plants. The role of biofertilizers in agriculture assumes special significance, particularly in the present context of increased cost of chemical fertilizer and their hazardous effects on soil health. For the evaluation of impact of various fertilizers on Rice (*Oryzasativa*L.) cultivar Karjet were collected from Kharland Research station, Panvel. Biofertilizers such as *Azospirillum brasilense* (Agrosun), *Bacillus megaterium* (Biostila), *Pseudomonas fluorescens* (Remonas), *Trichoderma viride* (Bhparistricho), Blue green algae, and Mycorrhizae (Reap Mycorrhiza) were purchased from Agharkar Research Institute Gopal Ganesh Agarkar Road, Pune, Maharashtra. The Chemical fertilizer (19:19:19-Paras) were collected from Authorized Private Agro Centre, Panvel. The seeds are with inoculated viz. *Azospirillum brasilense*, *Bacillus megaterium*, *Trichoderma viride*, *Pseudomonas fluorescens*, Blue green algae and Mycorrhizae in single and with different combinations. The results of germination percentage of highest in seeds treated with triple inoculants ( $T_{11}$ : *A. brasilense* + *B. megaterium* + *P. fluorescens*, 97.66, 10.609 and 19.214 similarly seedling growth on 7<sup>th</sup> days of sowing were significantly higher than those recorded in single and double inoculation as compare to untreated seeds control ( $T_0$ ). Overall results suggest that Biofertilizers inoculation improves germination percentage and seedling growth of Rice.

**Keywords:** Rice (*Oryzasativa*L.), Biofertilizers, and Germination root length, shoot length and Seedling growth.

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