

# Effect of Microbial Inoculation on Yield and Yield Components in Low Land Rice

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## ABSTRACT

A field trial was conducted at Agricultural Research Station, Amaravathi during *Kharif*, 2001-02 to study the effect of combined inoculation of *Azospirillum* and phosphate solubilising bacteria (*Pseudomonas* sp.) on low land rice. Different yield contributing characters like number of effective tillers  $m^{-2}$ , number of grains per panicle, percent chaff etc, varied significantly due to different levels of nitrogen and inoculation. The effective tillers  $m^{-2}$  significantly decreased due to the application of both nitrogen and inoculation. The number of grains per panicle significantly increased due to both microbial inoculation and nitrogen application. The highest grain yield of  $45.87 \text{ q ha}^{-1}$  was obtained when combined inoculation of *Azospirillum* and phosphate solubilising bacteria was given along with 100 per cent recommended dose of nitrogen (RDN). However it was statistically on par with the grain yield ( $42.27 \text{ q ha}^{-1}$ ) obtained with 75% RDN and combined inoculation of *Azospirillum* and Psolubilising bacteria (*Pseudomonas* sp.)

**Key words :** *Azospirillum*, Nitrogenous fertilizers, phosphate solubilising bacteria (PSB),