



## EVALUATION OF NEW MICROBIAL CONSORTIUM THROUGH BIOFERTIGATION FOR PRECISION FARMING OF BHENDI (COBH 1)

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### ABSTRACT

Use of carrier based inoculum for crop growth and yield is wide practice among the conventional agriculture. Precision farming is a site specific management approach whereas the conventional practice is a uniform fertilizer application. Carrier based inoculum is not suitable for precision farming system due to clogging effect. Hence the liquid microbial consortium was developed using three inoculants viz., *Azospirillum brasilense* sp 7, *Bacillus megaterium* var. *phosphaticum* and *Pseudomonas fluorescens* with suitable cell protectants of 15% glycerol. We conducted a field trail experiment to study the effect of biofertiligation on plant growth under precision farming system in bhendi (COBH 1). The result suggested the positive influence of 75% RDF of NPK + Microbial consortium application with single time (60 lit/ha) on delivery of inoculants viz., *Azospirillum* ( $5.96 \pm 0.12$  log cells/ml), *Bacillus* ( $7.00 \pm 0.12$  ml log cells/ml) and *Pseudomonas* ( $7.30 \pm 0.02$  log cells/ml), plant growth and 10% increased yield over conventional method

**Keywords:** Microbial consortium, biofertiligation, delivery of inoculants, precision farming system

### Abbreviations

RDF: Recommended dose of NPK fertilizers