

IMPROVING MAIZE YIELD BY INOCULATION WITH PLANT GROWTH PROMOTING RHIZOBACTERIA

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ABSTRACT

Maize seeds inoculated with four isolates of rhizobacteria Azotobacter and Pseudomonas both in combination and separate treatments were sown in the field receiving NPK @ 150-100-100 kg ha⁻¹, respectively. Uninoculated control was kept for comparison. Results revealed that combined inoculation of Azotobacter and Pseudomonas significantly increased grain yield (19.8%), cob yield (21.3%), cob length (20.6%), 1000-grain weight (9.6%), plant height (8.5%) and nitrogen concentration in grain and straw (19.8 and 18.0%) compared with uninoculated control. Inoculation with separate isolates of Azotobacter and Pseudomonas also gave promising results.