

SCREENING OF ACC-DEAMINASE CONTAINING RHIZOBACTERIA FOR GROWTH PROMOTION IN *ZEA MAYS* UNDER AXENIC CONDITIONS.

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Any factor/stimulus, which causes a change in the endogenous levels of ethylene in a plant results in modified growth and development. Nine rhizobacterial isolates containing ACC-deaminase activity were used to inoculate maize seedlings under axenic conditions. Results showed significant increase in root elongation, shoot length and seedling fresh weight, likely due to the ability of these ACC enriched rhizobacterial isolates to deaminate ACC the immediate precursor of ethylene. ACC-deaminase activity per unit time of the rhizobacterial isolates correlated significantly to root elongation by inoculation of that isolate. It is highly likely that ACC-deaminase trait could be effectively used for screening of plant growth promoting rhizobacteria for growth promotion in maize.