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ROLE OF ACC-DEAMINASE CONTAINING PLANT GROWTH PROMOTING RHIZOBACTERIA ON NODULATION IN MUNG BEAN (*VIGNA RADIATA*)

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Inoculation of plants with ACC-deaminase containing plant growth promoting rhizobacteria (PGPR) may alter the endogenous levels of ethylene (C_2H_4), which subsequently leads to changes in the growth and development of inoculated plants. Endogenous C_2H_4 synthesis has been found to act as a potent negative regulator of nodulation, therefore, 2 effective ACC-deaminase containing strains, *Psuedomonas putida* and *Psuedomonas fluorescence,* were selected for co-inoculation with *Rhizobium japonicum* on *Vigna radiata* (mung bean). Co-inoculation with ACC-deaminase containing PGPR increased Number of nodules, and fresh and dry weights of nodules significantly as compared to Rhizobium alone, most likely by decreased C_2H_4 levels in the plant roots during early stages of nodule development. It is highly likely that ACC-deaminase containing PGPR could be employed to increase nodulation in legumes.