**ABSTRACT**

The use of novel PGPR as bioinoculant is an alternative sustainable agricultural practice to improve soil health, controlling soil borne pathogens, increase crop productivity and conserve biodiversity. Group of bacteria that colonize roots of plant and help in plant growth and disease suppression by various direct and indirect mechanisms is named as Plant Growth Promoting Rhizobacteria (PGPR). The present investigation was carried out to isolate, screen and characterize the PGPR from the rhizosphere soil of banana. Four bacterial strains were isolated from Banana rhizosphere. These strains were characterized morphologically and biochemically and studied for their plant growth promoting activities such as IAA production, GA production, Phosphate solubilisation and biocontrol traits of the isolates such as siderophore production and HCN production.