A maize rhizosphere isolate was phenotypically and genotypically characterized and identified as Enterobacter spp. bacterium. Germinated seeds were inoculated, the plantlets were sown in vermiculite and in soil and grown under laboratory and field conditions, respectively. The adherence, colonization and plant growth promotion capability of Enterobacter sp. UAPS03001 was evaluated in "Rojo-Criollo" maize under laboratory conditions. Twenty days after inoculation, the treated plantlets showed larger biomass than non-inoculated ones. In field grown plants, the kernel biomass was also greater in inoculated than in non-inoculated plants. The inoculation of maize sprouts with plant growth-promoting bacteria before their sowing in the field would be an alternative practice for achieving successful yield in temporal agriculture.

Keywords
Inoculated plantlets, PGPR, Maize, Enterobacter spp.

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