

Isolation and characterization of bacterial endophytes in neem and aloe vera

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ABSTRACT

Neem and Aloe vera have various medicinal properties in agriculture which act as plant growth promoters, natural pesticides, soil conditioners. In this study, Endophytic bacteria associated with Neem(*Azadirachta indica*) and Aloe vera(*Aloe vera barbadensis*) were isolated to assess their plant growth promoting traits, biotic and abiotic stress tolerance activities. About 101 endophytic bacteria were isolated from different plant tissues of neem and aloe vera which include leaf, branches, terminals and roots. Further cultural characterization was done for the endophytic bacterial isolates based on colony shape, opacity, margin, form, pigmentation and colony elevation.

Keywords: *Biotic and Abiotic stress, Cultural characterization. Endophytic bacteria and Plant growth promotion*