

Detection and characterization of *Albizia procera*-*Rhizobium* for stress tolerance

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SUMMARY

A polybag experiment was conducted in glass house of Department of Agricultural Microbiology, College of Agriculture, Raipur, Chhattisgarh during the year 2011-12 taking *Albizia procera* (Safed siris) as test plant for nodulation with the objective to isolate and characterize the *Rhizobium* sp. from *A. procera* nodule. Inoculating effective stress tolerant *A. procera*-*Rhizobium* will improve nodulation and biomass production, above all for the production of healthy nursery stocks for afforestation programme. *Rhizobium* isolate from nodulated *A. procera* plant was tested for its sensitivity towards salt and acidity tolerance. The *A. procera*-*Rhizobium* is tolerant upto 30,000 ppm salt concentration whereas maximum growth was seen at 10,000 ppm. The isolate was found good in its growth at pH range of 6.5-7.5 but can tolerate pH 5.0. So it may be useful for tropical acidic rainfed areas of C.G. plain to support the growth of *A. procera* in afforestation programme and wasteland management.

Key Words : Acidity tolerance, *Albizia procera*-*Rhizobium*, Isolation, Nodulation, Salt concentration

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