

Isolation and phenotypic characterization of *Alysicarpus* from arid region

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In this research work, nodulation in *Alysicarpus vaginalis* were studied and also root nodulating bacteria were phenotypically characterized. Nodules were found associated with tap roots as well as on lateral roots. The number of nodules/plants varied according to the sampling site characterized by type of soil, soil moisture and nutrients. In *Alysicarpus vaginalis*, number of nodules (>100) in well water conditions was found. In field conditions too the number of nodules/ plants was high in *Alysicarpus vaginalis*. Rhizobia have been isolated from root nodules of *Alysicarpus vaginalis* a native legumes species growing in arid and semi arid regions of Western Rajasthan. Rhizobia isolates were Gram negative, small rods. Typical rhizobial colonies (raised, lens shaped, white translucent, watery, some time gummy, mucous etc.) were obtained, purified and used for phenotypic characterization. Rhizobial isolates from *Alysicarpus vaginalis* observed to be slow growing hence, low acid production was observed. It possessed sensitivity toward test antibiotics used in this study.

Key Words : Nodulation, Legumes, Arid region, Bacterial colony, Slow growing rhizobia

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