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Isolation and Characterization of Agriculturally Important Microrganisms (AIMs) from Seed Spice *Coriandrum sativum* L. (Coriander) Soils of Hadoti Region of Rajasthan

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ABSTRACT: The worldwide increases in both environmental damage and human population pressure have the unfortunate consequence that global food production may soon become insufficient to feed all of the world's people. It is therefore essential that agricultural productivity be significantly increased within the next few decades. To this end, agricultural practice is moving toward a more sustainable and environmentally friendly approach. This includes the increasing use of agriculturally important microorganisms as a part of mainstream agricultural practice. Rhizospheric soil samples of *Coriandrum sativum* L. (Coriander) seed spice were collected from Hadoti area (Kota, Baran, Anta, Ramganj mandi, Jhalawar) of Rajasthan. Isolated microorganisms were cultured on Nutrient Agar media and characterized by carrying out several common tests, e.g. urease, oxidase, catalase, starch hydrolysis, carbohydrate degradation, indole production etc. Total 124 bacterial cultures were isolated, out of them 44 were positive for phosphate solubilizing ability, 18 were positive for nitrogen fixation, 35 positive for indole production test and 49 positive for citrate utilization test. After primary screening of biochemical characterization of total isolated bacterial cultures, total 18 agriculturally important bacterial cultures were selected for further molecular characterization and sequencing studies.

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