



Influence of Rhizobacteria on Induction of Plant Resistance to Stresses

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Abstract : Biotic and abiotic are the most serious stresses affecting plant growth and productivity. Plants responding to stresses produce several protective compounds and proteins such as pathogenesis related (PR) proteins, directly disease related proteins and other proteins. Plant growth-promoting bacteria (PGPB) are bacteria that can enhance plant growth and protect plants from disease and abiotic stresses through a wide variety of mechanisms; those that establish close associations with plants, such as the endophytes, could be more successful in plant growth promotion. Rhizobacteria are microorganisms that reside within plants. Among them are species that contribute to plant's vigour and ability to cope with pests and harsh environments. Several important bacterial characteristics, such as biological nitrogen fixation, phosphate solubilization, ACC deaminase activity, and production of siderophores and phytohormones, can be assessed as plant growth promotion (PGP) traits. This review presents an overview of the importance of soil-plant-microbe interactions to be developed for the improvement of tolerance to biotic and abiotic stresses.

Key Words: Rhizobacteria, Plant resistance, biotic and Abiotic stresses.

Wafaa M. Haggag *et al* /International Journal of PharmTech Research, 2016,9(12): 416-421.
