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Entomopathogenic Fungi as Plant Growth Promoters

Guest Editor:

Dr. Inmaculada Garrido Jurado
Department of Agronomy, University of Cordoba, Cordoba, Spain

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Message from the Guest Editor

Entomopathogenic fungi (EPF), the only control agents who act by contact, are usually applied through an inundation approach as mycoinsecticides. However, new findings concerning the associations of EPF with plants suggest they have a bi-functional lifestyle as endophytes of plants or rhizosphere competent organisms, with important applications in plant protection and plant production. EPF as endophytes have been shown to induce systemic resistance against plant pathogens due to their ability to secrete compounds with multiple biocidal activities (i.e., insecticides, antifungals, herbicides, and antivirals), as well as to enhance plant growth and metabolic state of the plants, through improving their tolerance to abiotic stresses. EPF have also been shown to provide benefits as colonizers of the rhizosphere, since they improve plant nutrient uptake, stimulate hormone production and also increase tolerance to abiotic and biotic stresses, and, therefore, promoting plant growth.

Dr. Inmaculada Garrido Jurado
Guest Editor