



an Open Access Journal by MDPI

Plant Growth Promoting Bacteria

Guest Editor:

Dr. Carmen Bianco

Instutute of Biosciences and BioResources, National Research Council, 80131 Naples, Italy

Deadline for manuscript submissions: closed (20 July 2023)

Message from the Guest Editor

Dear colleagues,

Over one-third of the world's crop yields are lost due to pests, diseases, and environmental stresses, it is very important to exploit the functions of plant-associated microbes—the plant microbiome. An important part of the plant microbiome includes plant growth-promoting bacteria (PGPB), which can reside in the rhizosphere and phyllosphere or can colonize the plant's interior tissues (endophytic bacteria). PGPB may promote plant growth directly by facilitating nutrient acquisition or modulating hormone levels or indirectly by reducing the negative effects of pathogens on plant growth and development.

The articles (original research papers, perspectives, hypotheses, opinions, reviews etc.) selected for publication in this Special Issue will focus on the following: plant genes and metabolic pathways involved in the recruitment of protective root PGPB; PGPB functions recruited to stressed plants; microbe benefits; and the role of the host immunity system in the selection of PGPB. Study levels of interest include metagenome sequencing, gene regulatory network, metabolite profiles, plant–microbe phenotyping, and bioinformatics.









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Dilantha Fernando Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2. Canada

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and community.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

Contact Us

Plants Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/plants plants@mdpi.com X@Plants_MDPl