



plants



an Open Access Journal by MDPI

Effects of Rhizosphere Microorganisms on the Growth of Cereal Crops

Guest Editors:

Dr. Hongbo Li

Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, Beijing 100081, China

Dr. Xiaoyan Tang

College of Resources, Sichuan Agricultural University, Chengdu 611130, China

Deadline for manuscript submissions:

closed (30 April 2025)

Message from the Guest Editors

Dear Colleagues,

Shedding light on the multiple functions of rhizosphere microorganisms and clarifying the interaction between rhizosphere microorganisms and crop plants can advance our understanding of ways to manage rhizosphere microorganisms to promote crop growth. Thus, the main scope of this Special Issue includes: (1) the mechanism of crop and rhizosphere microorganisms regulating soil C, N and P cycles, for instance, ways in which rhizosphere microorganisms and crop growth affect greenhouse gas emissions, nutrient leaching, soil carbon sequestration, etc.; (2) how rhizosphere microorganisms regulate physiological processes, root growth, defense strategies and plant–plant interaction of crop; (3) whether rhizosphere microorganisms can be regulated via agronomic management practices and then influence the multifunctionality of agriculture; and (4) how rhizosphere microorganisms respond to abiotic/biotic stress to regulate the nutrient uptake and growth of cereal.



mdpi.com/si/189850

Special Issue



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 commentaries on topics of interest to the plant research 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_MDPI](https://twitter.com/Plants_MDPI)