Special Issue

Botanical Effects of Nanomaterials and Their Applications in Agriculture

Message from the Guest Editors

The presence of nanomaterials in soil has become an unavoidable issue, so it is worth conducting in-depth research on their effects on crops (plants), soil quality, and soil microorganisms to understand whether they are beneficial or harmful to plant production. It is also important to balance the advantages and disadvantages of nanomaterials. Nanoagriculture is currently a popular research topic, as are the development, effectiveness, and potential risks of nanofertilizers and nanopesticides. This Special Issue is dedicated to studying the impact and utilization effects of nanomaterials on plant production with the aim of addressing their sustainable development within agriculture.

Guest Editors

Prof. Dr. Yukui Rui

Dr. Zhiqiang Tan

Prof. Dr. Fei Wang

Deadline for manuscript submissions

30 September 2025



Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/231435

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34

mdpi.com/journal/plants

plants@mdpi.com





Plants

an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 7.6 Indexed in PubMed



About the Journal

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.

Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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)

