Special Issue

Revolutionizing Sustainable Agriculture and Environmental Protection with Nanotechnology and Bioactive Compound

Message from the Guest Editors

A large amount of scientific work has focused on ensuring and improving food safety. Nanomaterials (i.e., carbon nanomaterials, metal nanoparticles, and metal oxide nanoparticles) and bioactive compounds derived from plants and microorganisms have demonstrated an efficient activity to protect and promote the growth of plants through the modulation of the physiological and metabolic activities. The purpose and scope of this Special Issue include exploring and collecting recent information about the application of nanomaterials and bioactive compounds that contribute to sustainable agriculture. We invite authors to submit original research and unique reviews that contribute to the knowledge in the following subtopics (but are not limited to):

- Application of nanomaterials and bioactive compounds to stimulate the growth and protection of plants.
- Formulation of controlled release systems of bioactive compounds with agricultural applications.
- The use of nanotechnology tools to deliver RNA interference (RNAi) as a pest management strategy.
- The use of Omics analysis techniques to evaluate the impact of nanomaterials and bioactive compounds in plant and phytopathogens.

Guest Editors

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Deadline for manuscript submissions

closed (10 August 2025)

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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

Editor-in-Chief

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