



Application of Nanotechnology in Sustainable Agriculture

Guest Editors:

Dr. Sanghamitra Majumdar

U.S. Food and Drug
Administration, Little Rock, AR,
USA

Dr. Luca Pagano

Department of Chemistry, Life
Sciences and Environmental
Sustainability, University of
Parma, Parma, Italy

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Message from the Guest Editors

Advances in nanotechnology has unfolded novel avenues in the agriculture industry to address various challenges threatening global food security. However, concerns regarding their sustainable application remain unanswered. Also, mechanistic information at different hierarchical levels are required to elucidate plant response pathways involved in nanomaterial (NM) exposure. Practical efforts are necessary to assess the efficiency and benefits of NM-based products over existing agrochemicals.

In this special issue, we invite scientists to contribute original research, critical reviews, and opinions, exploring NM applications in agriculture by various means, including but not limited to crop productivity and protection, targeted/controlled delivery mechanisms, sensing plant stress and soil/water quality, or packaging. We encourage mechanistic research on NM-plant interactions using novel techniques and robust data handling, especially for crops related to human consumption or animal feed. We also encourage risk-assessment studies of NM-based products for their safe and sustainable applicability in agriculture, thereby contributing towards regulatory decision making.





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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture,
Water and Environment
Research, Charles Sturt
University, Wagga Wagga, NSW
2678, Australia

Message from the Editor-in-Chief

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Agronomy Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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