Special Issue

Biostimulation for Abiotic Stress Tolerance in Plants

Message from the Guest Editors

Abiotic stress, such as drought, salinity, extreme temperatures, and nutritional deficiencies, represents one of the main challenges for modern agriculture. Biostimulation is an innovative and sustainable strategy that seeks to improve plant performance and health by activating physiological and molecular mechanisms that help plants tolerate adverse conditions better. Biostimulants include organic compounds, plant and algae extracts, beneficial microorganisms, and nutrients that improve the ability of plants to adapt to these unfavorable conditions by activating cell signaling pathways, regulating stress-related genes, and producing osmoprotectants such as proline and soluble sugars, among others. The ability of biostimulation to enhance natural defenses, improve resource use efficiency, and increase sustainable yields makes it a key component in guaranteeing food security, protecting the environment, and promoting agricultural practices that are resilient to climate change; therefore, this Special Issue will cover a wide variety of areas and contribute to the general knowledge of abiotic stress tolerance through biostimulation.

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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.

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