



## Special Issue on Abiotic Stress in Plants

### Call for Papers

Plants, being immobile organisms, encounter various environmental challenges. Abiotic stresses, including high temperatures, low temperatures, water scarcity, heavy metal contamination, and salinity, pose significant risks to plant growth and overall productivity. In order to adapt to these stressors, plants have evolved intricate mechanisms to either evade or tolerate stress conditions. The effectiveness of their response to abiotic stress largely hinges on their perception of stress signals, which subsequently triggers a series of signaling cascades and activates resistance genes. The goal of this special issue is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in this area of **abiotic stress in plants**.

In this special issue, we invite front-line researchers and authors to submit original research and review articles that explore **abiotic stress in plants**. In this special issue, potential topics include, but are not limited to:

- Salt stress in plants
- Complex interaction between foliar nutrition with drought and salinity stresses
- Impact of multiple abiotic stresses on crops production
- Role of bioecological remote sensing and abiotic stresses mitigation
- Interaction relation of abiotic factors and pests Management
- Irrigation modeling and crops management under abiotic stress conditions
- Phosphate starvation in plants
- Flooding stress
- Extremes of temperature
- The role of TFs and genes in certain abiotic stress situations
- Complexity in researching on sensors
- Signal transduction
- Systems biology approach to abiotic stress
- Potential mechanisms of abiotic stress tolerance in crop plants
- Metabolic responses to abiotic stress in plants
- Genetic and molecular mechanisms underlying plant adaptation to abiotic stress
- Physiological and biochemical changes in plants under abiotic stress conditions
- Strategies for enhancing abiotic stress tolerance in crops and plants
- Impact of abiotic stress on plant growth, development, and yield
- Signaling pathways and gene regulatory networks involved in abiotic stress responses
- Role of antioxidants and reactive oxygen species in plant adaptation to abiotic stress
- Cellular and molecular mechanisms of osmotic stress and water deficit tolerance



in plants

- Effects of abiotic stress on plant immune responses and defense mechanisms
- Ecophysiological adaptations and plant strategies for coping with abiotic stress in natural environments

Authors should read over the journal's [For Authors](#) carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal's [Paper Submission System](#).

Please kindly specify the “**Special Issue**” under your manuscript title. The research field “**Special Issue –Abiotic Stress in Plants**” should be selected during your submission.

Special Issue timetable:

|                     |                     |
|---------------------|---------------------|
| Submission Deadline | December 28th, 2025 |
| Publication Date    | February 2026       |

**Guest Editor:**

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For further questions or inquiries

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