Special Issue

Resistance to Salt Stress: Advances in Our Molecular Understanding

Message from the Guest Editor

Saline and alkaline soils are major threats to modern agriculture, negatively impacting crop productivity. More than 7% of the total land surface and nearly 20% of irrigated land are salt-affected, leading to a significant reduction in crop yields. The further development of modern agriculture will be accompanied by climate change and lead to the spread of areas affected by salinity. In order to sustain and continue plant production in the future, we must understand the molecular mechanisms of plant salt stress tolerance. One key strategy for combating the problem of plant productivity loss under salinity is the production and creation of novel salt-tolerant crops. Salinity impairs plant growth and development via water stress and cytotoxicity due to the excessive uptake of ions such as sodium (Na+) and chloride (Cl-). Additionally, this type of stress leads to nutritional imbalance and the generation of reactive oxygen species (ROS). This Special Issue focuses on the of molecular mechanisms of plant stress regulation and tolerance, including signaling and sensing, ion transportation, osmotic adjustments, and the growth and development of salt stress conditions.

Guest Editor

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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.

Editor-in-Chief

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