# Special Issue

# Physiological Responses of Maize to Abiotic Stress

# Message from the Guest Editors

Maize, a vital global crop, to confront escalating abiotic stresses, maize has evolved integrated physiological mechanisms for resilience. A deeper and more comprehensive understanding of maize's physiological dynamics under abjotic stresses and the underlying resilience mechanisms is of crucial importance to breed climate-resilient varieties and develop stress adaptive agronomic practices. This Special Issue compiles advances in maize stress physiology to decode adaptation mechanisms that sustain growth and yield under abiotic stress. It aims to present deeper physiological investigation of maize under stress responses, including but not limited to cellular redox regulation, osmotic adjustment, stomatal regulation and photosynthesis, omics response (metabolic shifts, transcriptomic changes, microbial community variations, etc.), and regulatory measures. These insights will support physiology-driven crop adaptation strategies and advance climate resilient breeding efforts. All types of articles, such as original research articles, opinions, and reviews, are welcome.

#### **Guest Editors**

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Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. Agriculture is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

## Editor-in-Chief

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