Special Issue

Genetic Resources and Molecular Breeding for Stress Resilience in Forage Crops

Message from the Guest Editors

The increasing environmental stresses, such as heat, drought, salinity, and nutrient limitations pose significant challenges to forage productivity and quality. With the rapid development of genomic technologies and molecular breeding strategies, exploring and utilizing stress-resistant gene resources in forage species has become critical for improving crop resilience and ensuring a stable forage supply under changing climatic conditions. This Special Issue aims to present and share the most recent advances in the identification, characterization, and utilization of stress-resistance gene resources in forage crops. We welcome contributions focusing on genomic discovery, molecular mechanisms, and breeding strategies that enhance stress tolerance in forage species. Topics include but are not limited to the following:

- Genomic and pan-genomic analyses of forage crops;
- Genetic diversity and germplasm resources of forage crops;
- Identification and functional characterization of stress-responsive genes;
- Molecular and epigenetic mechanisms of stress tolerance;
- Multi-omics approaches for understanding stress responses;
- Molecular breeding and genetic improvement for stress tolerance.

Guest Editors

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