Special Issue

Genetics and Breeding Related to Nitrogen Use Efficiency in Crop Plants

Message from the Guest Editor

Nitrogen is required to secure high crop productivity. However, nitrogen losses raise concerns in an ecological and human health context. In light of the question of how a growing world population can match food demand without magnifying environmental impacts, concepts to improve nitrogen use efficiency (NUE) through breeding are essential. New breeding methods and an unprecedented increase in genetic, genomic and phenomic knowledge and tools provide novel opportunities to address this question. In this Special Issue, authors are invited to share advances related to insights into nitrogen uptake, assimilation and remobilization in association with genetic variation and breeding in crops plants. We are open to contributions spanning the identification of relevant genetic diversity, enhanced knowledge on inheritance of NUE-related traits and breeding strategies targeting NUE improvement under field conditions. Approaches addressing technologies that allow a precise and reliable description of NUE-associated traits, helping researchers and breeders to identify outperforming genotypes, are also welcome.

Guest Editor

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Editor-in-Chief

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