Special Issue

Plant Physiology and Nitrogen Use Efficiency

Message from the Guest Editor

Nitrogen (N) fertilizer represents a significant cost for the grower and has environmental impacts through nitrate leaching and N2O (a greenhouse gas) emissions. Nitrogen-use efficiency (NUE) can be defined as the grain dry matter yield divided by the supply of available nitrogen (N) from the soil and fertilizer, and with many countries pushing to reach a net zero target, reducing N inputs is one of the ways to achieve this goal. Nitrogen affects plant growth and development at the cellular, biochemical, and physiological levels, and its deficiency results in lower yield and productivity. An understanding is required about which traits determine yield under low N conditions in order to increase NUE and reduce the use of N fertilizer, as well as using novel approaches to rapidly measure N-efficient traits. This Special Issue of *Plants* will focus on the new phenotypic and genetic traits being investigated to study nitrogen use efficiency in plants.

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.

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