Special Issue

Nitrogen-Fixing Plants

Message from the Guest Editor

Nitrogen fixation is a vital process for enhancing plant productivity in both agricultural and natural systems. As an alternative to nitrogen-based fertilizers, nitrogen fixation has the potential to support plant growth while reducing the harmful effects of nitrogen pollution and its accompanying problems of toxicity in ground water that result from nitrate accumulation and the creation of dead zones in downstream waters due to eutrophication. Nitrogen-based fertilizers have the further disadvantage of requiring huge amounts of fossil fuel for their synthesis in the Haber Bosch process. In many developing countries, the high cost of nitrogen fertilizers makes their use prohibitive. This Special Issue will explore current developments concerning the limitations and potential promises of nitrogen fixation in plants as well as advances in the fundamentals of physiology, ecology, and molecular biology.

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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