Special Issue

Advances in Nitrogen Nutrition in Plants

Message from the Guest Editor

Nitrogen is an essential major element for all living things because N is a constituent element in amino acids, proteins, nucleic acids, and other important biomolecules. Animals, including humans, cannot assimilate the inorganic N compounds, so they depend on the organic nitrogen compounds originally assimilated by plants. Most terrestrial plants absorb nitrate or ammonium in soils, but the availability of N often restricts plant growth and crop yield. Plants cannot fix atmospheric N2 by themselves, but some plants can use N2 fixed by nitrogen-fixing symbiotic bacteria. An understanding of the processes of N absorption, transport, and assimilation in plants is fundamental to improving plant characteristics and agricultural practices to increase crop yield and quality. Much remains to be discovered in the field of N nutrition in plants, such as the sensing of N, regulation of N uptake, transport, and assimilation, etc. We will highlight the recent advances in N nutrition in plants, including N absorption, assimilation, transport, and protein synthesis in sink organs.

Guest Editor

Prof. Dr. Takuji Ohyama

Laboratory of Biochemistry in Plant Productivity, Department of Agricultural Chemistry, Tokyo University of Agriculture, Tokyo 156-8502, Japan

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Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/plants

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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.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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