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Advances in Nitrogen Nutrition in Plants

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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 nitrogenfixing 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.













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Message from the Editor-in-Chief

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