Plant Nitrogen Nutrition: From Cell to Field
SPECIAL ISSUE

Edited by Guohua Xu
This JXB special issue covers the topics of Nitrogen (N) transport, N metabolism, N sensing and signaling networks, N interaction with water, N in plant-microbiota association, and N use efficiency from cell to field.

**Invited reviews**

Barbara Reinhold-Hurek  Microbial nitrogen cycling in association with plants

Alia Dellagi and Bertrand Hirel Can interactions between arbuscular mycorrhizal fungi and soil bacteria improve plant N acquisition?

Richard Broglie Patterns of nitrogenase expression in the rhizosphere in wild type and remodeled diazotrophs

Nico von Wiren  Nitrogen-dependent changes in root system architecture: from Arabidopsis to cereals

Alain Gojon  Nitrate signaling mechanisms in Arabidopsis

Yinbo Gan and Brian G. Forde  Progress of nitrate regulate lateral root and root hair development in plants

Herbert Kronzucker  The intersection of nitrogen nutrition and water use in plants: Understanding new paths toward improved crop productivity under changing climate conditions

Joseph Swift and Gloria Coruzzi  A balancing act: How nitrogen and drought signaling combine to regulate plant responses

Mechthild Tegeder and Michael Udvardi  From nodule to sink: Nitrogen partitioning processes in legumes

Xiaorong Fan, Anthony J. Miller and Guohua Xu  Plant nitrogen uptake and assimilation – regulation of cellular pH homeostasis

Chengcai Chu  Rethinking of NRT1.1: Mechanisms and applications in plants

Kunhsiang Liu  Protein phosphorylation in nitrate signaling

Anne Krapp  Novel perspectives on the molecular crosstalk mechanisms in plant responses to mineral nutrient availability

Le Luo, Yali Zhang and Guohua Xu  How does nitrogen shape plant architecture?

Fusuo Zhang and Lixing Yuan  Breeding for high yield and nitrogen use efficiency in maize: Past and future

On the reverse: Aerial view of the growth of a core collection of rice germplasms in a paddy field with three different levels of N fertilization (courtesy of Prof. Guohua Xu).

**Free print copy**

To reserve a print copy, please send your name and postal address to

[mailto:j.exp.bot@lancaster.ac.uk](mailto:j.exp.bot@lancaster.ac.uk)

or leave your details at the JXB stand.