

Research Findings

Introduction

Nitrogen-Potassium Interaction in Soil-Plant Systems: A Special Session of the IPI-INI-ING at N2010, New Delhi, India

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Issues of balanced potassium fertilization and plant nutrition, especially in the context of nitrogen (N) and potassium (K) interactions, have been the focus of a special IPI-INI-ING session in the 5th International Nitrogen Conference (N2010), held during 3-7 December, 2010 in New Delhi, India. The conference on “Reactive nitrogen management for sustainable development - science, technology and policy” brought together over 400 delegates from 36 countries. The conference was coordinated by M.S. Sachdev for the Indian Nitrogen Group of the Society for Conservation of Nature, headed by Y.P. Abrol (President) and N. Raghuram (Secretary).

The nitrogen cycle is the most anthropogenically altered nutrient cycle, which has adverse impacts on food security, energy, industry, health, biodiversity, environment and climate change. Responding to these issues, the conference provided a comprehensive agenda under five sub-themes: food security, ecosystem services and biodiversity, health, energy security and industry and climate change, along with a separate session that integrated all these subthemes.

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INI: International Nitrogen Initiative

ING: Indian Nitrogen Group



Prof. Xu Guohua (Nanjing Agric. Univ.) delivers his paper on “Different Strategies for Improving Nitrogen and Potassium Use Efficiency by Biological Approaches” at the IPI-INI-ING special session during the N2010 conference, New Delhi, India. Prof. Dr. J.S. Samra (CEO, National Rainfed Area Authority Planning Commission, Government of India) and Mr. H. Magen (Director, IPI) chaired this session. Photo by E. Sokolowski.

The interactions of N with other nutrients, such as K and P, are central for integrated nutrient management programmes. The special session of IPI-INI-ING on “Nitrogen-potassium interactions in soil and plant systems” was held under the Food Security theme with three oral presentations and as many posters. A USD 500 award was also announced for the best poster presented in this session.

A Delhi Declaration was also adopted by the conference that summarized the current knowledge base and made policy and research recommendations for action under each of the five subthemes. The Declaration called upon “the UN bodies such as UNEP, FAO, UN-Habitat, WHO, UNDP, UNFCCC, CBD, CLRTAP and other regional organizations, national governments, scientific communities, including CGIAR, industries, policymakers, International Nitrogen Initiative (INI) and the civil society to address nutrient deficiencies, move towards increased efficiencies in each segment of nitrogen cycle management, in order to reduce

the adverse effects. Approaches should consider the use of incentives, make full use of recycling and ensure the treatment of discharges.... Identification, communication, and promotion of best practices require collaboration among many stakeholders including governments, scientists, practitioners, and policymakers at global, regional and national levels. The formation of the Global Partnership on Nutrient Management (GPNM), facilitated by UNEP, is a welcome development in this regard.” ■

The paper “Nitrogen-Potassium Interaction in Soil-Plant Systems: A Special Session of the IPI-INI-ING at N2010, New Delhi, India” appears also at:

[Regional Activities/India](#) and
[N-K Interaction Center](#)