

Nutrient Expert® Decision Support Tools for Maize and Wheat Launched in India

The International Plant Nutrition Institute (IPNI) is pleased to announce that the Nutrient Expert® decision support tools for maize and wheat crops were officially launched for public use in India on June 20, 2013 at the National Agricultural Science Center (NASC) Complex in New Delhi during a meeting organized jointly by IPNI and International Maize and Wheat Improvement Center (CIMMYT).

Nutrient Expert is an easy-to-use, interactive, and computer-based decision support tool that can rapidly provide nutrient recommendations for individual farmers' field in the presence or absence of soil testing data. "Beginning in 2009, under the umbrella of Cereal Systems Initiative for South Asia (CSISA), Nutrient Expert for maize and wheat were developed and extensively tested in real farm conditions with the objective of easy implementation of improved nutrient management practices in smallholder maize and wheat systems of India," said Dr. Adrian Johnston, Vice-President, IPNI Asia & Africa Programs.

The development of Nutrient Expert for a specific crop and geography was done in collaboration with target users and local stakeholders from both public and private sectors through a series of dialogues and consultations. The approach integrated Site-specific Nutrient Management (SSNM) principles, developed over the last two decades, into a user-friendly nutrient decision support tool to help Indian wheat and maize farmers achieve higher yield and profitability. "Resource constraints of the smallholder farmers, lack of access to soil testing, and absence of tillage-specific nutrient management strategies in India were adequately taken care of in these tools, making them truly location-specific tools capable of spatial and temporal management of nutrients. The tools have been validated for three consecutive years across large number of locations, in collaboration with Indian Council of Agricultural Research (ICAR), State Agricultural Universities, State Agriculture Departments, Fertiliser and Seed Industry, to assess their efficacy under contrasting management scenarios and have shown improved productivity, profitability, efficiency and reduced environmental footprints over existing fertiliser management practices," said Dr. Kaushik Majumdar, Director, IPNI South Asia Program.

The tools were released in the presence of Dr. Tom Lumpkin, Director General, CIMMYT, Dr. Swapan K. Datta, Deputy Director General (Crop Sciences), Dr. J. S. Sandhu, Agricultural Commissioner, Govt. of India, Dr. Adrian M. Johnston, Vice President, IPNI, Dr. Bruno Gerard, Director, Global Conservation Agriculture Program (GCAP), CIMMYT, and Dr. B. Mohankumar, Additional Director General (Natural Resource Management), ICAR. Directors and scientists of several ICAR Institutes namely, Directorate of Wheat Research (DWR), Karnal, Directorate of Maize Research (DMR), New Delhi, Project Directorate of Farming Systems Research (PDFSR), Modipuram, Indian Institute of Soil Science (IISS), Bhopal, Indian Agricultural Research Institute (IARI), New Delhi, and National Bureau of Soil Survey and Land Use Planning (NBSS & LUP), Nagpur, attended the launch meeting. A large number of development and validation partners of the Nutri-



Dignitaries formally launching the Nutrient Expert Tool for free public use.



Participants at the Nutrient Expert Launch Meeting.

ent Expert tools, representing State Agricultural Universities, State Agriculture Departments, Fertiliser and Seed Industry, and NGOs participated in the inaugural session as well as in the following panel discussions to chart out the future course of action for large scale dissemination of these tools for public good. As India faces many challenges to feed its growing population with changing food habits, Dr. Lumpkin emphasized the need for new tools: "We need to apply precision agriculture on each square meter; we need tools like the Nutrient Expert and remote-sensing technology to be able to do so."

The concluding session was chaired by Dr. K.D. Kokate, Deputy Director General (Extension), ICAR, and provided necessary guidance for extension of these tools through different stakeholder bodies. The meeting was coordinated by Drs. Kaushik Majumdar and M.L. Jat, CIMMYT Senior Cropping Systems Agronomist. According to Dr. Bruno Gerard, "the excellent outputs of the IPNI-CIMMYT partnership will benefit not only South Asia but also other regions." **ICASA**