Mr. Christopher Boomsma is completing his Ph.D. in Crop Physiology and Cropping Systems at Purdue University. His thesis title is "Intraspecific Competition and Plant-to-Plant Variability in Maize: Nitrogen Rate and Plant Density Effects." Research for the dissertation seeks to elucidate the physiological mechanisms in maize (corn) associated with intraspecific competition and plant-to-plant variability, and how these mechanisms are affected by varying N availability at multiple plant populations. Mr. Boomsma is a native of Illinois and completed his B.S. degree in 2003 at Dordt College in Sioux Center, Iowa. His career goals include work in either an academic or industrial setting as a research scientist in crop improvement at the interface of crop physiology and soil fertility. He is particularly interested in future research on the effects of limited versus optimum N availability on crop physiology under water-limiting conditions.

Miss K. Vanitha is a M.Sc. student in Crop Physiology at Tamil Nadu Agricultural University in India. Her thesis title is "Drip Fertigation and its Nutrio-Physiological Impact in Aerobic Rice (Oryza sativa L.)." Rice production and water conservation are two major factors impacting food production in India. Aerobic rice is a new concept to further decrease the water requirements in rice production, which will have major consequences for both soil and plant nutrient dynamics. The objectives of this thesis project are to: 1) evaluate the compatibility of drip-fertigation for aerobic rice culture under limited water availability, 2) to work out the production function of water and fertilizer for aerobic rice culture, 3) to standardize crop management options for enhancing aerobic rice productivity under drip-fertigation technology, and 4) to evaluate the physiological and chemical bases of performance of aerobic rice in the drip-fertigation micro-irrigation system. Miss Vanitha is a native of Bommidi in Tamil Nadu and completed her B.Sc. degree in 2006. Her career goals are to pursue a Ph.D. in abiotic stress management of crops, in particular drought tolerance.

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Christopher Boomsma



Rice

A Practical Guide to Nutrient Management

Nutrient manag Nutrient deficiend

Mineral toxicities

Tools and information

Edited by Thomas Fairhurst, Christian Witt, Roland Buresh, and Achim Dobermann

Rice: A Practical Guide to Nutrient Management Revised Edition Available for Sale and Download

in the last 5 years, site-specific nutrient management (SSNM) for rice has become an integral part of initiatives on Limproving nutrient management in many Asian countries. Nutrient recommendations were tailored to location-specific needs, evaluated together with rice farmers, and widely promoted through public and private partnerships. The first edition of Rice: A Practical Guide to Nutrient Management, published in 2002, quickly became the standard reference for printed materials on SSNM. The guide was in high demand with 2,000 copies distributed and sold to date.

Over the years, SSNM has been continually refined through research and evaluation as part of the Irrigated Rice Research Consortium. Conceptual improvements and simplifications were made particularly in N management. A standardized 4-panel leaf color chart (LCC) was produced and the promotion of the new LCC continues, with more than 250,000 units distributed to date. A new SSNM website was developed (www. irri.org/irrc/ssnm) to provide up-to-date information and local recommendations for major rice-growing areas in Asia. The revised edition of the practical guide thus became necessary to be consistent with newer information provided at the SSNM website and local training materials. This 2007 edition will be translated into a number of languages, including Bangla,

Chinese, Hindi, Indonesian, and Vietnamese. The pocketsized guide introduces the concept of yield gaps and the underlying constraints. The functions of each nutrient are explained, with a description of the deficiency symptoms and recommended strategies for improved nutrient management. The 47-page color annex provides a pictorial guide to identification of nutrient deficiencies in rice.

To make the 2nd

edition of the guide as widely accessible as possible, the publishers decided not only to sell the guide through their websites and bookstores, but also to make the guide available in electronic format (pdf) at the websites of IRRI (www.irri.org) and the Southeast Asia Program of IPNI and IPI (www.ipni.net/seasia). This arrangement uses a Creative Commons "attribution-noncommercial-share alike" license: http://creativecommons.org/licenses/by-nc-sa/3.0.