

# Publications and seminars

## Institute publications

### *Books*

Rice tungro disease management. 2000. 166 p.

IRRI 1999-2000: the rewards of rice research. 2000. 72 p.

The quest for nitrogen fixation in rice. 2000. 354 p.  
Systems research for optimizing future land use in South and Southeast Asia. 1999. 266 p.

Program report for 1999. 2000. 175 p.

Carbon and nitrogen dynamics in flooded soils. 2000. 188 p.

Redesigning rice photosynthesis to increase yield. 2000. 293 p.

Characterizing and understanding rainfed environments. 2000. 488 p.

### *Periodicals/serials*

International rice research notes, vol. 25, nos. 1-3.

IRRI discussion paper series, Nos. 38-41.

IRRI limited proceedings series, Nos. 2-5.

## **Agricultural Engineering**

Alam M, Bell MA, Mortimer AM, Hussain MD, Bakker RR, Castro EC Jr, Razote EB. 2000. Pesticide application techniques of rice farmers in the Philippines and options to improve application and protect the environment. In: Proceedings of the 14<sup>th</sup> Memorial CIGR World Congress, 28 Nov-1 Dec 2000, Tsukuba, Japan. p 29-35.

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Bakker RR, Rickman JF, Bell MA. 2000. Improving productivity in direct-seeded rice: the rule of mechanization. In: Proceedings of the 14<sup>th</sup> Memorial CIGR World Congress, 28 Nov-1 Dec 2000, Tsukuba, Japan.

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## Outposted staff

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## Rice research seminars

Yield and productivity trends in the intensive rice-based cropping systems of Asia. Dr. D. Dawe.  
The burden of a treasure: IRRI's long-term experiments. Dr. A. Dobermann.

The virology program at IRRI: what happened in the last five years? Dr. O. Azzam.

Ecological characterization of biotic constraints to rice production. Dr. G.C. Jahn.

Rural-urban migration, urbanization, and alleviation of poverty: the Bangladesh case. Dr. M. Hossain and Dr. R. Afsar, research fellow, Bangladesh Institute of Development Studies.

- Rice seed health for crop and pest management. Dr. T.W. Mew.
- Striga, a major cause of food insecurity and poverty, can be beaten. Dr. A. Watson.
- Ecological effects of gene flow from transgenic crops to weeds. Dr. A. Snow, associate professor, Ohio State University.
- Predicting durable resistance based on cost of pathogen adaptation. Dr. J.E. Leach.
- Breaking the spiral of nonsustainability. Dr. S.P. Kam.
- Study of lowland-upland interactions in mountainous areas of the Red River Basin (Vietnam): implications for innovation diffusion. Dr. J.-C. Castella.
- Soil organic matter, nitrogen availability, and the yield decline under intensive lowland rice cropping. Dr. D. Olk, consultant.
- Performance of converted *Bt* corn hybrids against Asiatic corn borer under limited field release condition in the Philippines. Dr. E.C. Fernandez, university researcher and deputy director, Institute of Plant Breeding, University of the Philippines Los Baños.
- International collaboration in crop improvement research: the case of wheat and rice. Dr. P.L. Pingali, director, Economics Program, International Maize and Wheat Improvement Center, Mexico.
- Sugarcane viruses: old and new. Dr. G.R. Smith, senior research scientist, David North Plant Research Centre, Bureau of Sugar Experiment Stations, Australia.
- Fighting micronutrient deficiency—improving food and nutrition vs supplementation. Prof. M.B. Krawinkel, MD, professor of human nutrition, Nutrition in Developing Countries, University of Giessen, Germany.
- Aerobic rice breeding and production in China. Prof. Wang Hua Qi, chief, Upland Rice Laboratory, Department of Plant Genetics and Breeding, China Agricultural University, China.
- New approaches to assessment: the case of IPM research at the IARCs. Dr. H. Waibel, professor, agricultural economics, Hanover University, Germany.
- Management of research institutions at different stages of development. Dr. F.A. Bernardo, consultant.
- Exploiting biodiversity for sustainable pest management: from concepts to practice. Ms. I. Revilla.
- Can anything be done to prevent yield barriers limiting future rice production? Dr. J. Sheehy.

## Division seminars

### **Crop, Soil, and Water Sciences**

- Increasing the soil microbial biomass in rice-wheat crop rotation system may help to reduce environmental risk. Dr. K. Inubushi, professor of horticulture, Chiba University, Japan.
- Effects of controlled-release coated urea in microbial biomass in three paddy soils. Mr. S. Acquaye, PhD student, Chiba University, Japan.
- Alternative rice straw management practices in California: new avenues to enhance its viability. Dr. C. van Kessel, professor and agronomist, University of California-Davis, USA.
- Interaction of diazotrophic endophytes with rice: factors governing colonization and nitrogen fixation. Dr. G. Prasad.
- Calmodulin-binding channels in plants: targets for manipulating heavy metal tolerance? Dr. S. Ramanjulu, candidate, plant physiologist.
- Photosynthesis and possible nonphotosynthetic growth regulation under elevated CO<sub>2</sub>. Dr. S. Seneweera, candidate, plant physiologist.
- Tillage and crop establishment research in the rice-wheat consortium. Dr. P.R. Hobbs, Rice-Wheat regional representative, Centro Internacional de Mejoramiento de Maiz y Trigo, South Asia Regional Office, Kathmandu, Nepal.
- Groundwater: an endangered resource from intensive rice-based cropping system Mr. A. Castañeda.
- Yield gaps in farmer's fields of two intensive irrigated rice systems. Mr. G. Simbahan.
- Tolerance for drought and temperature extremes in cowpea. Dr. A.M. Ismail, candidate, plant physiologist.
- Techniques for measuring hydraulic conductivity in plants (pressure chambers, root pressure probe). Mr. B. Stumpf, Department of Plant Ecology, University of Bayreuth, Germany.

Effect of climate, agrohydrology, and management on rainfed rice production in Central Java, Indonesia: a modeling approach. Ms. A. Boling.

Methods for nonradioactive detection in microplates: fluorescence, fluorescence polarization, time-resolved fluorescence, luminescence, absorbance, and nephelometry. Dr. J. Balmer, director, BMG Labtechnologies Pty. Ltd., Victoria, Australia.

On-farm seed priming to reduce risk and increase yield in rainfed environment. Dr. D. Harris, University of Wales, Bangor, UK.

Methods and equipment developed in Silsoe and Rothamsted for manipulation of soil strength, study of root growth in strong soil, and associated changes in the plant, the root, and the root tip. Dr. L. Clark, research scientist, Silsoe Research Institute, Bedford, UK.

Development of a leaf color chart (LCC) for rice varieties in California. Dr. R. Mutters, University of California Cooperative Extension, Oroville, California, USA.

Analysis of zinc deficiency tolerance in rices in the IRRRI problem soil germplasm database. Ms. C. Guerta.

Simple and cost-efficient method of determining short- and long-term anaerobic and aerobic microbial activity and the response on specific manipulating agents by digital manometry. Mr. M. Robertz, Tintometer GMBH, Germany.

Product demonstration of photosynthesis analyzer. Mr. S. Bonnage, ADB Bioscientific, England.

### Entomology and Plant Pathology

Bacterial wilt of potato caused by *Ralstonia solanacearum* biovar 2A: ecology and management of the pathogen in Nepal. Dr. P. Pradhanang, candidate, affiliate scientist.

Molecular genetic analysis of microbial populations. Dr. D. Pearce, candidate, affiliate scientist.

Control of planthoppers and leafhoppers in rice by the spider *Atypena formosana*. Dr. L. Sigsgaard.

Managing weeds with disease. Dr. A. Watson.

*Burkholderia cepacia*—a complex example of polyphasic taxonomy. Dr. P. Vandamme,

Laboratory of Microbiology, University of Gent, Belgium.

Characterization of the nucleotide sequence of dianthovirus RNA1-like genome detected in grassy stunt disease of rice plants. Dr. G.J. Miranda.

Natural and transgenic resistance to tungro viruses. Dr. F. Sta Cruz.

Tungro here, there, and everywhere. Mr. R. Cabunagan.

### Plant Breeding, Genetics, and Biochemistry

Genetics of high iron rice. Tin Htut, PhD scholar.

Hybrid rice business of Mitsui Chemicals. Atsushi, Nakamura, Mitsui Chemicals, Inc., Japan.

Rice blast resistance: development of NILs and genetic analysis. Dr. H. Tsunematsu, consultant, IRRI-Japan Collaborative Project.

Apomixis: an inducible hybrid phenotype for crop improvement. Dr. J.G. Carman, Utah University, Logan, USA.

Molecular genetics of seed vigor in *Beta vulgaris*. Dr. B. delos Reyes, USDA-ARS, East Lansing, Michigan, USA.

Genes and promoters for apomictic rice. Dr. A. Kathiresan.

Wheat transformation at CIMMYT: introducing PR protein genes for disease resistance. Dr. A. Pellegrineschi, CIMMYT, Mexico.

Genetic analysis and development of near-isogenic lines for resistance to bacterial blight in rice cultivars. Dr. Kyu-Seong Lee.

Effect of WA cytoplasm on some biotic stresses and grain quality traits in some Basmati rice hybrids. Mr. Faiz Ahmad Faiz, research scholar.

### Social Sciences

Mapping rice: today and tomorrow. Mr. A. Rala.

Early experiences of hybrid rice adoption in Bangladesh: socioeconomic assessment. Mr. M. Husain, Bangladesh Rural Advancement Committee, Bangladesh.

Impact of agricultural research on economic growth and poverty reduction in both China and India. Dr. S. Fan, International Food Policy Research Institute, Washington, D.C.

The role of agricultural research in poverty reduction. Dr. K. Otsuka, Tokyo Metropolitan University, Tokyo, Japan.

Sustainability of intensive rice-wheat systems in Indian Punjab. Dr. J. Singh, Punjab Agricultural University, India.

How has the working woman fared? A village-level case study of rural landless laborers in Indian households, 1977-99. V.K. Ramachandran, Indian Statistical Institute.

Using ENSO climate data to enhance food security in Indonesia. Drs. W. Falcon, R. Naylor, and D. Rochberg, Stanford University, USA.

Multi-agent simulation: an approach to integrated natural resource management. F. Bosquet.