

COURSE SCHEDULE



Rice: Research to Production Course

20 May - 7 June 2013



Cornell University



National Science Foundation
WHERE DISCOVERIES BEGIN

IRRI

INTERNATIONAL RICE RESEARCH INSTITUTE



Rice: Research to Production

20 May – 7 June 2013

Sparrow Room, MSS Hall, Training Center

Course Description:

Participants will be able to get their feet wet in the rice paddies of Asia and to know how rice is connected to the international community.

The 3-week course aims to create a new generation of plant scientists that are well networked into the international community and understand the importance of innovative plant science in addressing global problems. The course will enable the participants to:

- understand the basics of rice production with field visits to the main rice production region in the Philippines;
- be familiar with the germplasm collection at IRRI and current issues related to germplasm exchange and property rights;
- appreciate the research issues of IRRI and its development partners;
- acquire hands-on skills relating to rice breeding, molecular genetic, and genomics;
- understand how to structure effective international collaborations, and
- plan and personal contacts to work effectively as part of the international research community in the future.

Schedule of Activities

2013 Basic Rice Production Course

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
|-------------------------------|--|---------------------------------|
| Day 1, 20 May (Monday) | | |
| 0800 | Registration of Participants | J Montes M Montecillo |
| 0830 | Opening Program and Course Overview | N Magor H Leung M Thomson |
| 0915 | <i>Briefing:</i> Administrative, Financial Matters and Course Evaluation | A Maningas E Castro Jr |
| 1015 | Coffee break | |
| 1030 | Getting to Know the Participants (1/4) | Participants (8) |
| 1200 | Lunch break | |
| 1300 | <i>Interactive Lecture:</i> Long Term Trends in Rice Demands and Supply | S Mohanty |
| 1415 | <i>Lecture:</i> The Rice Growing Environment | R Buresh |
| 1515 | Coffee break | |
| 1530 | Harvesting your interest and project plan | N Magor M Thomson H Leung |
| 1630 | <i>Tour:</i> IRRI facilities and local communities | E Castro Jr |

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Day 2, 21 May (Tuesday)

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| 0800 | <i>Briefing and Field:</i> Land Preparation and Leveling | L Vial |
| | <i>Field Practicum:</i> Land Preparation and Leveling | E Castro Jr L Vial |
| 1015 | Coffee break | |
| 1030 | Land Preparation and Leveling (cont'n) | E Castro Jr L Vial |
| 1200 | Lunch break | |
| 1300 | Physiology of the Rice Plant and Growth Stages with lab visit for discussion | M Dingkuhn MR Laza |
| 1430 | Introduction to Plant Breeding 101 | B Collard |
| 1515 | Coffee break | |
| 1530 | <i>Discussion:</i> RKB and Rice Doctor | K Nelson N Wunderlich |
| 1615 | Getting to Know the Participants (2/4) | Participants (8) |
| 1830 | Welcome Dinner | |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 3, 22 May (Wednesday)

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| 0800 | <i>Briefing and field practicum:</i> Methods of Planting Rice (Transplanting and Direct Seedling) | L Vial E Castro Jr |
| 1015 | Coffee break | |
| 1030 | <i>Discussion:</i> RiceCheck as practiced in Australia and Challenges | L Vial |
| | Bringing Farmers to Fore | N Magor |
| 1200 | Lunch break | |
| 1300 | <i>Interactive Lecture:</i> Conserving the Diversity of Rice & the GeneBank | R Sackville-Hamilton F Hay |
| | <i>Laboratory visit:</i> The IRRI GeneBank | |
| 1430 | Modern Plant Breeding Techniques | B Collard |
| 1515 | Coffee break | |
| 1530 | Community Seed in Unfavorable Ecosystem | D Manzanilla |
| 1630 | Getting to Know the Participants (3/4) | Participants (8) |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 4, 23 May (Thursday)

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| 0800 | Getting to Know the Participants (4/4) | Participants (5) |
| 0830 | <i>Laboratory visit:</i> Wild Rice Management | K Jena |
| 0930 | Rice and Global Climate | B Sander |
| 1015 | Coffee break | |
| 1030 | <i>Discussion:</i> Career Journey | M Thomson N Magor H Leung |
| 1200 | Lunch break | |
| 1300 | Farmer Village Visit: preparation | A Salahuddin |
| 1345 | <i>Discussion:</i> Challenges of Weed Management in Rice | J Janiya |
| 1445 | Coffee break | |
| 1500 | <i>Discussion:</i> Challenges and Transformation from Transplanted to Direct Seeded – (including weeds) | D Johnson |
| 1600 | <i>Laboratory exercise:</i> Panicle Emasculation | J Carandang A Pamplona |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 5, 24 May (Friday)

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| 0800 | Rice Post – harvest Management and Markets | M Gummert C Cabardo E Castro Jr |
| 0945 | Coffee break | |
| 1000 | Rice Post – harvest Management (cont'n) | M Gummert C Cabardo E Castro Jr |
| 1100 | <i>Laboratory exercise:</i> Pollination | J Carandang |
| 1200 | Lunch break | |
| 1300 | <i>Discussion:</i> Rice Diseases and Its Management | NV Cruz |
| 1400 | <i>Discussion and Laboratory Visit:</i> C4 | P Quick |
| 1515 | Coffee break | |
| 1530 | <i>Discussion and Laboratory Visit:</i> Transgenic Research and Product Development | I Slamet-Loedin |
| 1630 | Briefing 2: Saturday Trip | E Castro Jr |

Day 6, 25 May (Saturday)

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| 0730 | Socio-educational tour with scientists in Batangas | |
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| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 7, 26 May (Sunday)

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| 0700 | Continuation of socio-educational tour | |
| 1600 | Return to IRRI | |
| 1830 | Arrive at IRRI | |

Day 8, 27 May (Monday)

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| 0800 | Briefing on Project (1/5) | Participants |
| 0900 | Water - the valuable and scarce input in rice | R Cabangon L Humphreys |
| 1015 | Coffee break | |
| 1030 | <i>Lecture:</i> Exploring the Genetic Diversity of Rice Through SNP Markers and Next-Generation Sequencing | K McNally |
| 1200 | Lunch break | |
| 1300 | <i>Discussion forum:</i> <i>Private-public partnerships IRRI in a changing world</i> • Public, private, and civil agencies • Hybrid rice consortium | N Magor E Nissila F Xie |
| 1500 | Coffee break | |
| 1515 | Village Exercise | A Salahuddin |

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Day 9, 28 May (Tuesday)

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| 0800 | <i>Interactive Lecture:</i> INGER and Germplasm Exchange | E Redoña |
| 0900 | <i>Discussion and Laboratory Exercise:</i> Quality – the true test of rice | A Resurreccion |
| 1000 | Coffee break | |
| 1015 | Quality Rice (cont'n) | A Resurreccion RP Cuevas C Llorente L Quiatchon |
| 1200 | Lunch break | |
| 1300 | <i>Discussion:</i> Current Status of Nutrition Rice | G Barry |
| 1500 | Coffee break | |
| 1515 | Write up report on Village visit | A Salahuddin |

Day 10, 29 May (Wednesday)

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| 0800 | <i>Genomics Application:</i> Introduction and Lab exercise at the Molecular Marker Applications Lab (MMAL) | M Thomson M Reveche |
| 1000 | Coffee break | |
| 1015 | <i>Laboratory exercise:</i> Molecular Marker | M Reveche |
| 1200 | Lunch break | |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 10, 29 May (Wednesday)

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| 1300 | <i>Discussion:</i> Genomics: Breeding Applications | M Thomson E Septiningsih |
| 1430 | Coffee break | |
| 1445 | Sustainable Production Framework | S Beebout |
| 1600 | Consultation/Project Working Time (2/5) | |

Day 11, 30 May (Thursday)

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| 0800 | Building Women Leadership in Agriculture R&D – the IRRI experience with partners | T Paris |
| 0900 | <i>Panel Discussion:</i> The People Factor in Development | N Magor T Paris P Shankar A Salahuddin |
| 1015 | Coffee break | |
| 1030 | Consultation/Project Working Time (3/5) | |
| 1130 | Lunch with the Director General | B Zeigler Participants |
| 1300 | IRRI Seminar | |
| 1430 | Rice Survivor session | V Pede S Beebout K Nelson N Wunderlich |
| 1530 | Coffee break | |

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Day 11, 30 May (Thursday)

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| 1545 | Participants prepare for trip to Ifugao | E Castro Jr |
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Day 12, 31 May (Friday)

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| 0430 | <i>Socio-Educational Tour:</i> Philippine Rice Research Institute (PhilRice), Nueva Ecija | |
| 1030 | <i>Orientation:</i> • Research activities/facilities • Collaborations/partnerships | |
| 1300 | Travel to Banawe, Ifugao | |

Day 13, 1 June (Saturday)

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| 0800 | <i>Socio-Educational Tour:</i> Ifugao Provincial Agriculturist / Banawe Rice Terraces / Ifugao Farmers | |
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Day 14, 2 June (Sunday)

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| 0830 | Socio-Educational Tour (cont'd) | |
| 1300 | Travel to Nueva Ecija | |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 15, 3 June (Monday)

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| 0800 | <i>PhilRice Visit:</i> • <i>Partnership with IRRI: research and development and joint activities</i> • <i>Pinoy RKB: Uplands and food self-sufficiency:</i> | R Miranda L Abaoag |
| 1200 | Lunch break | |
| 1330 | Travel back to Manila | |

Day 16, 4 June (Tuesday)

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| 0800 | Rest Period | |
| 0900 | <i>Discussion:</i> Rodents and Its Management | G Singleton |
| 1015 | Coffee break | |
| 1030 | <i>Panel Discussion:</i> Partnerships and impact: CURE, STRASA, CSISA, and ADB project for postharvest | P Shankar N Magor A Schmidley |
| 1200 | Lunch break | |
| 1300 | Green Revolution: Pest Threats Return - Role of ecological engineering | KL Heong |
| 1400 | Digital Green innovations in extension - IRRI's pilot experience | P Shankar |
| 1500 | Coffee break | |
| 1515 | Consultation/Project working time (4/5) | |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 17, 5 June (Wednesday)

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| 0800 | <i>Lecture and field visit:</i> Integrated Nutrient Management (INM) | R Buresh |
| 0900 | <i>Discussion and Exercise:</i> Nutrient Management Practices | R Buresh |
| 1000 | Coffee break | |
| 1015 | Extension of Nutrient Management: Mobile phone devices | R Buresh |
| 1200 | Lunch break | |
| 1315 | <i>Discussion:</i> Seed Health Testing at IRRI | P Gonzales C Huelma |
| 1515 | Coffee break | |
| 1530 | Seed Health (cont'n) | P Gonzales C Huelma |
| 1600 | Consultation/Project working time (5/5) | |

Day 18, 6 June (Thursday)

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| 0815 | <i>Special Seminar Workshop:</i> Drought Breeding, Physiology and Gene Discovery – Team approach | A Kumar A Henry |
| 0900 | GIS: Mapping traits and pest management etc | A Nelson |
| 1015 | Coffee break | |
| 1030 | <i>Panel discussion:</i> Young researchers | A Henry |

| Date/Time | Topic/ Activity | Resource Person/s, Facilitator |
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Day 18, 6 June (Thursday)

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| 1200 | Lunch break | |
| 1300 | Business planning for small and medium enterprises | A Schmidley |
| 1430 | <i>Mini-workshop:</i> Communication | S Clayton |
| 1530 | Coffee break | |
| 1545 | Participants prepare for the Group Project presentation | |

Day 19, 7 June (Friday)

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| 0800 | Participants prepare for the Group Project presentation | |
| 0830 | Group Project presentation | M Thomson N Magor S McCouch |
| 1000 | Coffee break | |
| 1015 | Project presentation (cont'n) | |
| 1200 | Lunch break | |
| 1330 | Course Evaluation | |
| 1400 | Closing Program | |
| 1500 | Coffee break | |
| 1900 | Farewell Dinner | |

Participants

Australia

David Gale, *PhD Student*, Charles Sturt University

Bangladesh

Hirendra Barman, *Senior Scientific Officer*, Plant Physiology Division, Bangladesh Rice Research Institute (BRRI)

Selima Zahan, *Senior Scientific Officer*, Agronomy Division, BRRI

India

Vipin Kumar, *Consultant*, IRRI India

Pratibha Kumari, *Manager*, IRRI India

Ananda Ramaiah, *Scientist - Agronomy*, All India Coordinated Research Project, Agriculture Research Station

Swetapadma Satpathy, *Extension Agronomist*, IRRI India

Indonesia

Ratna Dewi, *Junior Researcher – Pest and Diseases Protection*, Indonesian Centre for Rice Research (ICRR)

Gagad Pratiwi, *Junior Researcher – Agronomy*, ICRR

Mozambique

Andre Macuacua, *Researcher*, IRRI Mozambique

Philippines

Jesus Cabrera, *Agricultural Technologist*, Office of the Municipal Agriculturist

Kris Royd Caburnay, *Agricultural Technologist*, Local Government Unit of BanayBanay Province of Davao Oriental

Eric Reynoso, *Senior Manager*, IRRI

Participants

Sri Lanka

Buddhima Kariyawasam, *PhD Student*, Australian National University

Sudan

Omer Mohammed, *Extensionist*, Rice Promotion Unit, Ministry of Agriculture, Animal Wealth and Natural Resources

Thailand

Kiattisak Kerdsuk, *Agricultural Extensionist*, Phitsanulok Rice Seed Center

Patcharaporn Rakchum, *Research Officer*, Sakon Nakhon Rice Research Center

United Kingdom

Chris Bournnell, *Research Assistant*, University of Cambridge

Philip Kear, *PhD Student*, Cornell University

United States

Patrick Bell, *MS Student*, Oklahoma State University

Alexis Erwin, *PhD Student*, Cornell University

Carl Jensen, *MS Student*, University of California

Emilie Kirk, *MS Student*, University of California

Jehiel Oliver, *PhD Student*, Cornell University

Brian Pfeiffer, *MS Student*, Texas A&M University

Haley Sater, *MS Student*, University of Arkansas

Maegen Simmonds, *PhD Student*, University of California

Hans Spalholz, *MS Student*, University of Arizona

Jennifer Spindel, *PhD Student*, Cornell University

Resource Persons



Gerard Barry
Product Team Leader
Healthier Rice Varieties



Sarah Beebout
Scientist, Soil Chemist
Crop and Environmental Sciences Division (CESD), IRRI



Roland Buresh
Principal Scientist
CESD, IRRI



Romeo Cabangon
Associate Scientist
CESD, IRRI



Christopher Cabardo
Assistant Scientist
CESD, IRRI



Jerome Carandang
Assistant Scientist
Plant Breeding, Genetics and Biotechnology Division (PBGB), IRRI



Sophie Clayton
Manager
Public Relations, IRRI

Resource Persons



Bertrand Collard
Scientist, Irrigated Breeder
PBGB, IRRI



Rosa Paula Cuevas
Post-doctoral Fellow and Grain Quality Specialist
PBGB, IRRI



Michael Dingkuhn
Senior Scientist II
CESD, IRRI



Patria Gonzales
Manager
Seed Health Unit (SHU), IRRI



Martin Gummert
Senior Scientist
CESD, IRRI



Fiona Hay
Scientist
T.T. Chang Genetic Resources Center (TTC-GRC), IRRI



Amelia Henry
Scientist
CESD, IRRI

Resource Persons



Kong Luen Heong
Senior Scientist
CESD, IRRI



Carlos Huelma
Assistant Scientist
SHU, IRRI



Elizabeth Humphreys
Senior Scientist, Water Management Specialist
CESD, IRRI



Joel Janiya
Senior Associate Scientist, Extension Agronomist
CESD, IRRI



Kshirod Jena
Senior Scientist II, Plant Breeder
PBGB, IRRI



David Johnson
Weed Scientist and Head
CESD, IRRI



Arvind Kumar
Senior Scientist, Drought Stress Breeding
PBGB, IRRI

Resource Persons



Ma. Rebecca Laza
Senior Research Manager
CESD, IRRI



Cindy Llorente
Researcher
Grain Quality and Nutrition Center (GQNC), IRRI



Digna Manzanilla
Scientist (Social Sciences), Associate CURE Coordinator
Consortium for Unfavorable Rice Environments (CURE), IRRI



Kenneth McNally
Senior Scientist, Computational Biology/Molecular Genetics
TTC-GRC, IRRI



Samarendu Mohanty
Program 5 Leader and Head
Social Sciences Division (SSD), IRRI



Andy Nelson
Senior Scientist, Geographer and Head of GIS Lab
SSD, IRRI



Katie Nelson
Consultant
Training Center (TC), IRRI

Resource Persons



Eero Nissila
Head
PBGB, IRRI



Alvaro Pamplona
Senior Research Manager
PBGB, IRRI



Thelma Paris
Senior Scientist, Gender Issues
SSD, IRRI



Valerien Pedé
Scientist, Agricultural Economist
SSD, IRRI



Lenie Quiatchon-Baeza
Assistant Scientist
GQNC, IRRI



William Paul Quick
Principal Scientist
CESD, IRRI



Edilberto Redoña
Senior Scientist Plant Breeding; Coordinator, INGER
PBGB, IRRI

Resource Persons



Adoracion Resurreccion
Associate Scientist
GQNC, IRRI



Maria Ymber Reveche
Assistant Scientist
PBGB, IRRI



Ruaraidh Sackville Hamilton
Senior Scientist, Evolutionary Biology and Head
TTC-GRC, IRRI



Ahmad Salahuddin
Consultant
TC, IRRI



Bjoern Ole Sander
Collaborative Research Scientist
CESD, IRRI



Alfred Schmidley
Scientist
CESD, IRRI



Endang Septiningsih
Scientist, Molecular Genetics – Flooding Trait Development
PBGB, IRRI

Resource Persons



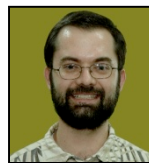
Poornima Shankar
Knowledge Management Coordinator
Training Center, IRRI India



Grant Singleton
Coordinator – Irrigated Rice Research Consortium
CESD, IRRI



Inez Slamet-Loedin
Senior Scientist II
PBGB, IRRI



Michael Thomson
Scientist, Molecular Genetics and Marker Applications
PBGB, IRRI



Casiana Vera Cruz
Senior Scientist
PBGB, IRRI



Leigh Vial
Head
Experiment Station, IRRI



Nicola Wunderlich
Consultant
TC, IRRI



Fangming Xie
Senior Scientist, Hybrid Rice Breeding
PBGB, IRRI

Course Coordinators



Dr. Noel Magor
Head, Training Center (TC)
IRRI



Dr. Susan McCouch
Professor
Department of Plant Breeding and Genetics
Cornell University
Ithaca, NY 14843 – 1901
USA



Dr. Hei Leung
Principal Scientist
Crop and Environmental Sciences Division, IRRI



Dr. Michael Thomson
Scientist
Molecular Genetics and Marker Applications
Plant Breeding, Genetics and Biotechnology
Division, IRRI



Engr. Eugenio C. Castro, Jr.
Senior Research Manager/ Course Co-Coordinator
TC, IRRI

Training Team



Dr. Noel P. Magor
Course Coordinator and Head
Training Center (TC), IRRI



Engr. Eugenio C. Castro, Jr.
*Course Co-Coordinator/
Senior Research Manager*
TC, IRRI



Maria Angeli G. Maghuyop
Senior Specialist - Training
Course Coordination
TC, IRRI



Ma. Socorro S. Arboleda
Course Co-facilitator
Senior Specialist - Training
TC, IRRI



Anilyn D. Maningas
Assistant Manager II
Scholars' Program, TC, IRRI

Training Team



Melanie Quinto
Officer, Administrative Coordination
TC, IRRI



Josemaria D. Montes
Course Secretary
TC, IRRI



Macario Montecillo
Logistics Associate
TC, IRRI



Maria Teresa A. Clabita
Training Officer
TC, IRRI

Contacts

International Rice Research Institute (IRRI)

College, Los Baños
4031 Laguna, Philippines

Telephone Numbers: + 63 (2) 580-5600; 845-0563; 844-3351 to 53
+ 63 (49) 536-2701 to 2705
+ 1 (650) 833-6620 (USA Direct)

Fax Numbers: + 63 (2) 580-5699; 845-0606
+ 63 (49) 536-7995
+ 1 (650) 833-6621 (USA Direct)

Contact Persons

| | |
|-------------------------------------|--------------------------|
| Eugene Castro Jr. (Facilitator): | ext. 2426/ 0917 874 5197 |
| Angie Maghuyop (Senior Specialist): | ext. 2538/ 0917 863 9317 |
| Jose Montes (Secretariat): | ext. 2538/ 0927 791 1208 |

Helpful Telephone Numbers

| | |
|------------------------------|----------------|
| Security (for Emergencies) | ext. 2316/2222 |
| Matron's Office/Beni or Beth | ext. 2352/2256 |

Notes

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For further information, please contact

NOEL MAGOR
Head, Training Center
International Rice Research Institute
DAPO Box 7777
Metro Manila, Philippines

Email: IRRITraining@irri.org

URL: <http://www.training.irri.org>; www.knowledgebank.irri.org

Telephone: (63-2) 580-5600

Fax: (63-2) 891-1292; 580-5699