

# Rice-Wheat Information Sheet

No. 27

## News

### **Consortium web site takes “hits” !**

Since inception in Jun 97, the Consortium's web site (<http://www.cgiar.org/rwc>) has taken 3,363 hits (visits by people). Considering the interest of the “net surfers”, we have to update and improve the site with technical information and research news. Hence we would request the partners/scientists to send us information on current activities, pictures, etc. by e-mail or by surface mail.

### **Funds for the Consortium**

Based on the request made by the RSC Members to the CGIAR Chairman, World Bank has provided “emergency funds” to the Consortium for 1997 during the Mid Term Meetings of the CGIAR held in May 97. This would mean that the activities of the Consortium can be carried out without hindrance.

## Happenings

### **Irrigated Rice Research Consortium (IRRC)**

International Rice Research Institute (IRRI) has taken an initiative to develop the concept of an Irrigated Rice Research Consortium. The consortium will bring together scientists from different institutions and disciplines together to develop multidisciplinary and international research agendas to address key issues related to sustainability of intensively cultivated irrigated rice based systems in Asia. In recent years IRRI has been collaborating with institutions across Asia in the area of Integrated Pest Management (IPM) and ‘Reversing Trends in Declining Productivity-‘Mega Project’. While these projects are addressing important aspects in raising and sustaining productivity of the irrigated rice ecosystem, the objective to organize activities in a Consortium mode is to capture the potential for developing synergism among scientists from different countries, institutes and disciplines working in the above and related projects. To review and guide the activities of the Consortium, an Oversight Committee has been set up and its first meeting was held on September 4-5 at IRRI in Los Banos. The committee has senior research managers of the National Agricultural Research Systems of several Asian countries as member. The Facilitator was invited as a resource person to share experience in organizing the efforts of Rice-Wheat Consortium. We believe there will be much to learn and share from each others' activities as we progress.

### **Regional Training Workshop on Nematode Pests in the Rice-Wheat-Legume Cropping Systems, 1-5 September.**

A training workshop was sponsored jointly by the Indian Council of Agricultural Research (ICAR), Rice-Wheat Consortium, and ICRISAT at the Department of Nematology, Haryana Agricultural University (HAU). Thirteen scientists from Bangladesh, India, and Nepal and 12 resource persons from Cornell University, USA, CAB International, UK, ICAR, HAU and ICRISAT participated. The objectives of the training were:

- to impart training in newer techniques for nematode diagnosis and management,
- to sensitize the participants to the cropping systems-based approach to IPM of nematodes

- to develop a working group of nematologists on the rice-wheat-legume systems.

The training workshop was inaugurated by Mangala Rai, Deputy Director General (Crops), ICAR. There were 15 technical sessions supported by laboratory and field exercises. The lecture sessions were on varied topics such as

- an overview of the rice-wheat cropping systems research,
- diversification of the rice-wheat systems, research thrust on nematodes in the rice-wheat-legume cropping systems,
- use of newer molecular techniques to develop nematode diagnostic tools,
- lesser known potentially important nematodes,
- cultural practices and their effects on nematodes,
- use of geographical information systems in research on nematode pests,
- approaches to sustainable management of nematodes,
- mechanisms of suppression of nematodes and their damage by green manure,
- beneficial nematodes,
- approaches for eradicating ear-cockle nematodes.

The participants were also given training in the use of trypan blue method (developed at ICRISAT) to diagnose the root-knot and the reniform nematode infections. A trip to one of the major rice-wheat growing areas (Kaul) of the state was organized and discussions were held with researchers at the Regional Rice Research Station. During this workshop a Nematology Working Group for Rice-wheat-Legume Cropping Systems was formed. The objectives, locations, approach, priority nematodes, collaborators, country representatives, and work plan were discussed. A Task Force was created to develop approaches for eradicating the ear cockle nematode. S B Sharma (ICRISAT) was nominated as interim Technical Coordinator of the Nematology Working Group.

The participants were encouraged to present their project work and status of nematology work in their state/country during poster and lecture sessions.

**Workshop on Harmonization of databases for Geographic Information System (GIS) analysis of cropping systems in the Asia Region and a training program on use of GIS in analysis of Cropping Systems.**

The two workshops were conducted in succession at ICRISAT Asia Center in Patancheru during 18-19 Aug and 20-29 Aug 97 respectively. The objective of the workshop/training were to provide

- (a)an update on appropriate GIS software options and establish protocols for interchangeability of GIS formats
- (b)discuss database requirements and their availability
- (c)establish database storage and exchange procedure
- (d)update on options for GIS outputs, and
- (e)develop recommendations for optimizing regional interaction in use of GIS for cropping system analysis.

## **Training Program**

- (a) provide updated background information on potential for using GIS and related technologies (e.g., remote sensing, crop modeling) in analysis of cropping systems in the Indo-Gangetic Plains.
- (b) provide hands-on experience in conducting such an analysis on data assembled by the participants, and
- (c) identify constraints to adoption of GIS and related technologies in cropping systems analysis.

The workshop/training were jointly sponsored by ICRISAT, Cornell University, and Rice-Wheat Consortium. GIS experts from CIMMYT, ICRISAT, IRRI, CIAT, International Center for Integrated Mountain Development (ICIMOD), Nepal provided resource support to the participants and delivered lectures during the training workshop. 8 Participants from Bangladesh, India, Nepal, Sri Lanka attended the workshops.

During the hands-on training, participants were exposed to handling different data sets (environmental, socio-economic, and agricultural production data bases) combining remote sensing, crop modeling, and GIS and they prepared the drafts of standardized case studies to analyze the cropping systems. The outcome (case studies) of the workshop will be discussed and refined in detail in the forthcoming workshop on Legumes in rice-wheat cropping systems in the IGP - Constraints and Opportunities to be held during 15-18 Oct 97 at ICRISAT.

## **Planning Ahead**

ICAR moves ahead on NATP with a focus on Rice-Wheat Cropping System

Enhancing productivity and sustainability of rice-wheat systems has been identified a major thrust area for research by ICAR under the National Agricultural Technology Project (NATP) being negotiated for funding by the World Bank. R K Gupta, Rice-Wheat and NATP Coordinator informs us that the Council has invited project proposals from scientists in ICAR Institutes, and the State Agricultural Universities in five thematic areas viz. Integrated Pest Management, Integrated Nutrient Management, Tillage and Crop Establishment and Socio-economic aspects. Two National Workshops are proposed to be held during 6-14 Nov 97 and 1-5 Dec 97 to refine and revise the proposals in the respective theme areas. Consortium is supporting these workshops and have invited experts/scientists from the partner institutions.

## **Training Workshop on Quantification of Yield Losses due to Pests in Rice-Wheat / Rice based production systems**

Any efforts to improve pest (diseases, insects, weeds) management or to adopt strategies to changing situations calls for characterization to define domains for research and technology development and subsequent technology extrapolation. Characterization, in turn requires that reliable and representative field data is collected using appropriate survey methodologies to provide an adequate account of existing diversity. These data must then be analyzed adopting appropriate statistical / other technologies to resolve the observed diversity to a degree that allows meaningful interpretation. In recent years scientists at IRRI. (S Savary, Paul Teng and others) have developed and successfully tested survey portfolios for characterizing Pest constrains in Rice based production systems. In the RTCC meeting held in Kathmandu it was decided that crop protection scientists working in Rice-Wheat areas be provided an opportunity to learn these new methodologies for adopting under their respective regions. The training workshop is now planned to be held at IRRI in Philippines during 12-16 January 1998. We expect that 12 scientists from the four Consortium countries will be able to participate.

## **Publication**

**Selvarajan, S, Aggarwal, P.K., Pandey S, Lansigan, F.P. and Bandhopadhyay, S.K.** 1997

Systems approach for analyzing tradeoffs between income, risk and water use in rice-wheat production in northern India. *Field Crops Research* 51:147-161.

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**Ahmed, S.M. and Meisner, C. A.** 1996. Wheat Research and Development in Bangladesh. Bangladesh-Australia Wheat Improvement Project and CIMMYT, Bangladesh pp 201.

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## **Food for thought**

Most people resist change, yet this is the only way that brings success - Anonymous.