Welcome to this issue of the SP-IPM electronic newsletter. Please feel free to share this newsletter with others who might be interested, and encourage them to subscribe to subsequent issues.

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From the Secretariat

SP-IPM Chairman off to University of Stellenbosch

Richard A. Sikora, University Professor emeritus, University of Bonn, Germany and Chairman of the Steering Committee of the CGIAR (Consultative Group of International Agricultural Research), Systemwide Program on IPM was awarded a six-month fellowship at the Stellenbosch Institute for Advanced Studies at the University of Stellenbosch, South Africa.

Africa, once considered the breadbasket of the world, is now highly dependent on food imports. Steady increases in African populations, high food and input prices, and a shortage of food surpluses worldwide will require significant increases in production on the continent in the coming two decades. Many solutions to solve this problem are based on agricultural concepts coming from developed countries, whereas others are based on ideological concepts of production.
Using his extensive agricultural experience in and outside of Africa, he plans to connect the realities of small-scale grassroots agricultural production, where 80 percent of Africans live on < 2 ha of land, with applicable traditional and modern technologies. An attempt will be made to formulate multidisciplinary based concepts for dealing with the food security in Sub-Saharan Africa. The basic and applied scientific knowledge developed in South Africa will add weight to the concepts proposed.

His findings on food security issues will be presented in lectures as well as presented in review papers and strategic documents that: (1) Critically review the complex factors impacting food security in SSA (2) Evaluate the multitude of concepts put forward to solve food security problems in Africa and (3) Make proposals for innovative solutions to improve food production.

Prof Sikora will start his new assignment in August 2012.

At the annual meeting of the Austrian Alliance for Life Sciences, Food, Veterinary Expertise and Agriculture (ALVA), held on 4-5 June 2012 in Vienna, Austria, the SP-IPM Chairman gave a plenary presentation on Plant Health and Food Security in a World of Diminishing Resources. The meeting's overall theme was Ernährung sichern - trotz begrenzter Ressourcen (Food security - despite limited resources).

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**Weedsbook: a social network for weed science students and professionals**

Weedsbook is an open-access collaborative platform that enables students and professionals, to share information and publications on weeds (e.g., management, identification, biology, ecology, distribution) and any other relevant issues (e.g., events, funding opportunities, scholarships, conferences, workshops), with a broad community of peers working in or for Africa. While membership to Weedsbook is free of charge and obligations, it enables access to a myriad of information sources, contacts with colleagues, and the possibility to participate in discussion fora. Weedsbook can also facilitate wider dissemination of your own outputs (such as research findings and products) and may as such enhance the impact of your work. Weedsbook can be accessed through the portal AFROweeds (http://www.afroweeds.org) by clicking on “Collaborative platform”. This portal also give access to an online weed identification tool which is connected to a independently and freely accessible database containing photos and botanic, biological, and ecological descriptions of around 200 weed species and directions for their control. The medium-term aim is to make Weedsbook the communication platform for an “African weed science network”. For more information, check out the website or contact Jonne Rodenburg

**PARASITE: Preparing African rice farmers against parasitic weeds in a changing environment**

PARASITE is an exciting multidisciplinary research project of Wageningen University, Africa Rice Center (AfricaRice), and the National Agricultural Research Systems (NARS) of Benin (INRAB), Côte d'Ivoire (CNRA), and Tanzania (MARI) funded through the Integrated Programme scheme of The Netherlands Organisation for Scientific Research, Science for Global Development (NWO-WOTRO). The overall aim of the project is to prepare the rice sector in threatened areas against projected increases in infestation levels of parasitic weeds such as the upland species *Striga asiatica* and *S. hermonthica*, and the hydromorphic-lowland species *Rhamphicarpa fistulosa*. The project focusses on closing the knowledge gaps on the biology, ecology, economy, and management of parasitic weeds in rice-based cropping systems in SSA, and how this is affected by changing environmental conditions, and identifying and facilitating the institutional innovations required to timely address newly occurring biotic production constraints. More information on the different Postdoc and PhD projects and the overall progress of the project can be found on: http://www.parasite-project.org/ or by contacting Jonne Rodenburg
**A risk minimizing argument for traditional crop varietal diversity use to reduce pest and disease damage in the agricultural ecosystem of Uganda**

Much of the world’s annual harvest loss to pests and diseases occurs as a consequence of crops grown in monocultures, or cultivated varieties with uniform resistant. This uniform resistance is met by the continuing evolution of new races of pests and pathogens that are able to overcome resistance genes introduced by modern breeding, creating the phenomenon of boom and bust cycles. One of the few assets available to small-scale farmers in developing countries to reduce pests and disease damage is their local crop varietal diversity, together with the knowledge to manage and deploy this diversity appropriately. Local crop varietal diversity of banana and plantain (Musa spp.) and common bean (Phaseolus vulgaris) was measured at the community and household levels within farmers’ fields in four agroecological areas of Uganda. Resistance of traditional and modern varieties of  *P. vulgaris* to anthracnose, angular leaf spot, and bean fly and of traditional and modern varieties of *Musa* spp. to black sigatoka, banana weevils and nematodes was assessed from participatory diagnostics of farmer knowledge and cross-site on-farm and on-station trials. By performing cross-site on-farm experiments, it was possible to identify traditional varieties with higher resistance to pest and diseases when grown outside their home sites. Increased diversity of crop varieties, measured by number of varieties (richness) and their evenness of distribution, corresponded to a decrease in the average damage levels across sites and to a reduction of variance of disease damage. In sites with higher disease incidence, households with higher levels of diversity in their production systems had less damage to their standing crop in the field compared to sites with lower disease incidence. The results support what might be expected of a risk minimizing strategy for use of diversity to reduce pest and disease damage. The full article can be downloaded here.

For further information contact Devra Jarvis

**“Beating Begomoviruses” project off to a flying start**

The three year “Beating Begomoviruses: Better livelihoods for farmers in tropical Asia with begomovirus-resistant tomato, hot pepper and mungbean and integrated disease management” project (2012 - 2015) is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) through The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and is led by scientists from AVRDC-The world vegetable Center. Project partners from the Plant Virus Research Division c/o BBA, Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH., Germany (DSMZ), Tamil Nadu Agricultural University, India (TNAU), Kasetsart University Kamphaeng Saen Campus, Thailand (KU-KPS), Hanoi University of Agriculture, Vietnam (HUA), and Plant Resources Center, Hanoi, Vietnam (PRC) came together with staff from AVRDC South Asia (India), AVRDC Southeast Asia (Thailand), and AVRDC Headquarters (Taiwan) for the project inception workshop held at the Saen Palm Training Home, Kamphaeng Saen, Nakhon Pathom, Thailand, on 1-4 May 2012. Dr Annamai Damnet, Assistant to the Vice President of Kasetsart University (KU), on behalf of Dr Sombat Chinawong, Vice President of KU, gave the welcome remarks and formally opened the workshop.

The project will cover three broad areas of investigation. First, baseline information will be collected on the prevalence and diversity of begomoviruses and their vector whiteflies in tomato, hot pepper, and mungbean in the target countries, and on the socioeconomic impact the diseases cause to various stakeholders in the production systems. Secondly, the project will search for new sources of resistance to the viruses, evaluate already-identified and new resistances, and develop molecular tools to aid in introgressing the resistances into locally preferred varieties. The third component of the project is to improve and validate integrated pest management approaches based on biological control, natural enemies, and biopesticides to control the populations of vector whiteflies, as this should help increase the durability of host resistances.

Dr Lawrence Kenyon, AVRDC’s virologist and project leader, facilitated the discussions during the inception workshop, which covered the different project activities in each country as well as the specific assignments of each participating organization. Each of the project partners also gave brief presentations on their respective organizations including their facilities and expertise relevant to the project. Dr Stephan Winter (virus and whitefly identification, DSMZ) kicked off the diagnostic survey component of the project by distributing kits to the project partners for sampling whiteflies and infected plants from the field. Work planning for several students who will be attached to the project (at HUA/PRC, KU and TNAU) was initiated. Dr Buncha Chinnasri (Assistant Dean for International Affairs and Nematologist, KU Bangkhen Campus, Bangkok) gave a presentation on the International Institute for Tropical Agriculture (IITA)-led sister project “Safe and effective pest and crop management strategies to strengthen the vegetable value chain in the humid tropics.” The two projects will cooperate in sharing germplasm and results, and in running a resistance screening workshop in Thailand in 2013.
On the third day of the workshop, KU project partners Dr Pissawan Chiemottom and Dr Sirikul Wasee organized a tour of the KU Kamphaeng Saen Campus, which included visits to the Insect Dome, the rice mill and the Department of Plant Pathology Plant Clinic. The group also visited AVRDC East and Southeast Asia’s research facilities and demonstration garden located on the same campus. Dr Sombat Chinawong gave the closing remarks on the last day of the workshop.

For further information contact Lawrence Kenyon

➢ Upcoming events

- 2012 APS Annual Meeting comes up in U.S.A. between 4 - 8 August, 2012
- 24th International Congress of Entomology in Daegu, South Korea, 19-25 August, 2012
- Tropentag 2012 in Gottingen-Kassel/Witzenhausen, Germany, 19-21 September, 2012
- IOBC Pheromones and other Semiochemicals Conference in Bursa, Turkey, 1-5 October, 2012
- The 1st International CSPP/IAPPS Symposium in Beijing, China, 25-26 October, 2012
- 12th International Plant Virus Epidemiology (IPVE) symposium in Arusha, Tanzania, 28 January – 1 February, 2013
- IISC 2013 – IV International Insect Science Congress in Karnataka, South India, 14-17 February, 2013

➢ Who is Who in SP-IPM

Dr Mustapha El Bouhssini is a graduate of Kansas State University, Manhattan, USA, where he earned his MS (1986) and Ph.D (1992) degrees. His research topic was on resistance of wheat to Hessian fly and biotypes. When he joined the International Center for Agricultural Research in the Dry Areas (ICARDA) in Aleppo (Syria) in 1996, his research expanded to cover integrated pest management (IPM) of cereals and legume crops in North Africa and West and Central Asia (CWANA). His major research areas include biological control (parasitoids and entomopathogenic fungi) and host plant resistance (screening of germplasm, mechanisms of resistance and biotypes characterization through differential and molecular techniques). Recently the scope of his IPM program expanded to include insect pests of date palm. More than a decade of dedicated work has yielded significant contributions to the development of IPM options that are now being increasingly used in CWANA. Mustapha has also been heavily involved in human resources development, including giving graduate and short-term training courses, mentoring individual trainees, and supervising graduate students. Based on his scientific achievements in the area of entomology, Mustapha was recognized by a number of awards including the International Plant Protection Award of Distinction from the International Association for the Plant Protection Sciences (2007) and the ICARDA Scientist of the Year (1998).
Dr Fen Beed is a plant pathologist at the International Institute of Tropical Agriculture (IITA) based in Dar es Salaam, Tanzania. He is responsible for supporting IITA’s Africa-wide research and development activities related to diseases of maize, soybean, cowpea, cassava, banana and vegetables. Before joining IITA in 2000, he simultaneously worked as a research scientist at the University of Nottingham, UK and as a consultant for ADAS (executive arm of UK government’s Ministry of Agriculture). His studies on winter wheat elucidated the interactions between crop physiology and pathogen epidemiology as influenced by environmental conditions; towards optimizing profits from yield by recommending when and when not fungicide applications were necessary. Prior to this he worked and studied at the Universities of Sheffield, Strathclyde, and University College London, UK where he focused on biochemical interactions between plant hosts and their fungal pathogens. His first position in IITA was in Benin where he developed a weed biological control program using fungal pathogens with targets such as water hyacinth, speargrass, and *Striga* and, due to demand, developed a plant pathogen diagnostic clinic and reference collection. He moved in 2007 to IITA Kamaapia, Uganda and developed systems for the surveillance, diagnostics, and management of banana disease across the Great Lakes Region. In 2010 he moved to the IITA regional hub in Tanzania where he has focused on studies to determine the prevalence of mycotoxins and biological control of aflatoxins, biological control of *Striga*, characterization and management of Asian soybean rust, determination of IPM and seed health strategies for vegetables to reduce losses and increase consumer safety, and is determining links between cassava health in the field and microbial contamination post harvest.

You can contribute to make this a successful information tool by providing the SP-IPM Secretariat with any news about yourself, your projects, new publications, and upcoming events. Kindly send such information to SP-IPM@cgiar.org. We also appreciate any comment and feedback.

Thanks to those who have provided input for this issue.