"Short" Notes from the IAPPS Secretary General

To more effectively promote global IPM, IAPPS must develop closer ties to other international, regional and national plant protection organizations worldwide. Step 1 in developing these ties is an awareness of the other organizations and their activities in promoting IPM. Thus, I am in the process of developing a list of these organizations with a link to their home page which I will post on the IAPPS website (http://plantprotection.org). However, I need your help on this project. I have included the tentative list and instructions below. Please respond to my request.

Please join me in welcoming new IAPPS Governing Board member, Francis Nwilene, a rice entomologist at WARDA in Ibadan, Nigeria (see below). Francis is a member of the planning committee for the Africa Rice Congress, Bamako, Mali 22-26, 2010 which is sponsored by the Africa Rice Center (WARDA), Malian Institut d’Economie Rurale (IER) and the International Rice Research Institute (IRRI). Please see the announcement below. I am making my plans to attend this congress as I am a former WARDA and IRRI employee and currently am a consultant on a IPM CRSP rice IPM project with ITA in Senegal and IER in Mali.

We have a large number on new IAPPS members. We welcome you all to IAPPS and look forward to working with you this coming year. We will be looking for input into planning for the 2011 IPPC in Honolulu, Hawaii. Program Chairman Bill Tweedy has developed an excellent program committee and I will report on their activities in the next issue.

I recently took a vacation trip to Colorado and New Mexico. One pest-type observation was the tremendous number of lodgepole pine trees being destroyed by the bark beetle in the Rocky Mountains. The increased wildfire threat created by millions of beetle-killed pines could be the "Katrina of the West" according to Colorado Senator Ken Salazar. While visiting the Great Sand Dunes National Park in Colorado (see left photo below) I noticed large areas of dead deciduous trees (probably Aspen) which I assumed were destroyed by insects and or disease.

I will be going to El Salvador on INTSORMIL business so will report on that trip in the next Newsletter issue.

Short
eheinric@vt.edu

Great Sand Dunes National Park in southern Colorado, June 12, 2009.
Views taken from two locations within 100 m of each other. Looking south (left photo) and north (right photo). Note dead trees at left (due to insects or diseases?).
Introduction

Africa Rice Congress 2010 will have as its main theme: ‘Innovation and partnerships to realize Africa’s rice potential’. The Congress will bring together representatives from the public and private sector, civil society organizations, farmer associations and research and extension communities engaged in the development of Africa’s rice sector.

The Congress will take stock of advances in rice science and technology aimed at enhancing rice productivity in farmers’ fields, while protecting environmental services and coping with climate change. The Congress will also provide opportunity to discuss institutional innovations, policies and key investments needed to significantly increase rice production in sub-Saharan Africa, develop competitive and equitable rice value chains, reduce imports and enhance regional trade.

The Africa Rice Congress will be organized by the Africa Rice Center, in collaboration with the Malian agricultural research institute (‘Institut d’économie rurale’) and the International Rice Research Institute, under the distinguished patronage of the Malian Authorities.

Rationale

Four years after the first Africa Rice Congress, held in Tanzania, the world has seen a further deterioration of global rice stock levels and wildly fluctuating rice prices, mirroring increased demand for rice and insufficient and uncertain production capacities in Asia. Africa is especially at risk as it currently consumes far more rice than it produces. The gap between demand and supply in sub-Saharan Africa reached approximately 10 million tonnes of milled rice in 2008, costing the region an estimated US$ 3.6 billion for imports. Riots broke out in 2008 in major African capitals because of high food prices in general and rice prices in particular.

Africa’s dependence on rice imports is clearly no longer sustainable. It is, therefore, of great importance to realize Africa’s huge rice potential and turn the current rice deficit into an engine for economic growth across the continent. Recent country-wide initiatives in West Africa have shown that it is indeed possible to significantly raise rice production. This Congress will allow debating
the actual state and potential of Africa’s rice economy, and the technological and institutional innovations, policies and partnerships needed to realize Africa’s rice potential in a sustainable and equitable manner, while adapting to climate change.

**Objectives**

The Africa Rice Congress 2010 will bring together stakeholders from the public and private sector, civil society organizations, farmer organizations and research and extension communities that have a stake in the development of Africa’s rice sector.

The objectives of the Congress are to:

1. Assess advances in rice science and technology aimed at improving rice productivity while preserving environmental services and coping with climate change
2. Assess advances in rice science and technology aimed at increasing grain quality and adding value from seed to plate
3. Identify partnerships, institutional innovations and services to enhance the competitiveness of value chains and promote equitable sharing.
4. Identify effective policy instruments and investments for the sustainable development of Africa’s rice sector

**Themes**

The main theme of the Africa Rice Congress 2010 is: ‘**Innovation and partnerships to realize Africa’s rice potential**’.

The following sub-themes will be discussed:

1. Africa’s rice economy, performance, potential and competitiveness
2. Linking rice genomics, breeding and farmer and consumer preferences
3. Sustainable rice productivity enhancement adapted to climate change
4. Supporting rice value chains
5. Policy instruments and investments for rice sector development
6. New R4D partnerships for rural learning and impact

Keynote papers will be presented for each of the sub-themes during the first day, followed by presentation of selected papers during parallel sessions on the second and third day. The fourth day of the Congress will be devoted to round table discussions and network meetings. A field trip to the ‘Office du Niger’ rice irrigation scheme, in Mali, will be organized during the last day of the Congress.
Braima James to new position

Long time IAPPS Governing Board Member, Braima James has recently taken up a new position and has requested to be relieved of his responsibilities as Governing Board Member for Region IV, West/Central Africa. Braima is managing an IITA/USAID Trust Fund multi-country project in Freetown, Sierra Leone. There he will be dealing with plant protection problems to assure availability of healthy/quality vegetative planting material (cassava stems) of improved cassava varieties. He indicates that post-production and market linkages are severe challenges.

Braima will be missed as he very actively supported IAPPS and tirelessly worked to increase membership from the West/Central Africa Region. On behalf of IAPPS management and all members I express my sincerest appreciation to Braima for his tireless work in promoting IAPPS and Global IPM. We wish him success in his new responsibilities and look forward to his contributions to the IAPPS Newsletter describing his plant protection activities in Sierra Leone.

Francis Nwilene, New IAPPS Governing Board Member

Dr. Francis Nwilene has been selected to replace Braima James as Governing Board Member and Regional coordinator, Region IV, West/Central Africa. Francis is a rice entomologist and is currently Principal entomologist and Africa Rice Center (WARDA) Liaison scientist. Francis is a Nigerian with a broad range of expertise in integrated pest management. He has extensive experience in crop protection research in highly valued food crops (maize, cassava, sorghum and rice) in multicultural environments. Francis received the 2005 WARDA Director General’s Citation Award for his impressive record of scientific publications. He has made excellent contributions to the management of Rice Yellow Mottle Virus (RYMV), a major constraint to rice production in West Africa. I find his selection especially pleasing as he assumed my position as entomologist when I left WARDA. The IAPPS Board and Management look forward to his contributions to IAPPS in the West/Central Africa Region.
Locusts swoop down on Ethiopia

Tue Jun 23, 12:03 pm ET

ADDIS ABABA (AFP) – Crops in large swathes of Ethiopia risk being destroyed by swarms of locusts coming from northern Somalia, the UN Office for the Coordination of Humanitarian Affairs (OCHA) said Tuesday.

The Food and Agriculture Organisation (FAO) "reports that locust swarms have been confirmed in seven regions in the country, including in areas where there is no previous record of infestation," a statement said.

"The government is expected to present a response plan specifying immediate and medium-term actions to be taken during the week," OCHA said.

It added that 1,390 hectares of land in several regions, mainly in southeastern Ethiopia had been sprayed in ground and air operations.

The vast majority of Ethiopia's 77 million inhabitants depend on subsistence agriculture and have been badly hit by successive infestations of voracious locusts that destroy every plant in their path.
IAPPS Members: Please (1) provide urls of missing regional and national (not state or provincial) organizations in your region and (2) provide home page urls for the question marks (???????) if you know them. Send comments to: eheinric@vt.edu

Thanks!

EAH

Potential IAPPS Website http://www.plantprotection.org/

Links

Acarology & Arachnology Societies
Entomology Societies, Associations & Organizations
Nematology Societies
Plant Pathology Societies, Associations & Organizations
Plant/Crop Protection, Plant Health or IPM Societies, Associations & Organizations
Weed Science Societies, Associations, Organizations & Networks
Other Societies & Organizations

Acarology & Arachnology Societies

Acarological Society of Japan

International Society of Arachnology
http://www.arachnology.org/
Systematic and Applied Acarology Society
http://www.nhm.ac.uk/hosted_sites/acarology/saas/

**Entomology Societies, Associations & Organizations**

African Association of Insect Scientists (AAIS)
????????????????????

Asociación Española de Entomología
http://www.aee.ua.es/AEE.html

Australian Entomological Society -

Chilean Society of Entomology
http://www2.udec.cl/~insectos/

Croatian Entomological Society
http://www.agr.hr/hed/

Czech Entomological Society
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Danish Entomological Society
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Egyptian Entomological Society
http://www.ees.eg.net/

Entomological Society of America
http://www.entsoc.org/

Entomological Society of Canada
http://www.esc-sec.ca/

Entomological Society of China
http://entsoc.ioz.ac.cn/list/e-ji.htm

Entomological Society of India
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Entomology Society of Iran
http://www.entsociran.org.ir/

Entomological Society of Israel
http://entomology.org.il/english/englishabout

Entomological Society of Japan
Entomological Society of Latvia
http://leb.daba.lv/

Entomological Society of New South Wales (Australia)
http://entsocnsw.netfirms.com/

Entomological Society of New Zealand
http://www.ento.org.nz/

Entomological Society of Queensland (Australia)

Entomological Society of Southern Africa
http://journals.sabinet.co.za/essa/

Entomological Society of the Republic of China
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Flemish Entomological Society
http://webh01.ua.ac.be/vve/Root/EIndex.htm

Gazi Entomological Research Society (Turkey)
http://www.entomol.org/society.html

Italian Entomological Society
http://journals.sabinet.co.za/essa/
Japanese Society of Applied Entomology and Zoology
http://odokon.org/en/

Korean Society of Applied Entomology
http://www.entomology.or.kr/ (Japanese)
http://www.entomology.or.kr/e_2s_1.html (English)

Nederlandse Entomologische Vereniging
http://www.nev.nl/index.php

Netherlands Entomological Society
http://www.nev.nl/

Norwegian Entomological Society
http://www.entomologi.no/eng_index.htm

Österreische Entomologische Gesellschaft
http://www.biologiezentrum.at/oeg/

Philippine Association of Entomologists
http://www.laguna.net/pae/

Polish Entomological Society
http://pte.au.poznan.pl/index_en.html

Royal Belgian Entomological Society

Royal Entomological Society of London
http://www.royensoc.co.uk/

Russian Entomological Society

Scandinavian Society of Entomology
http://scanentom.se/

Sociedad Chilena de Entomología
http://www.insectachile.cl/

Sociedad Colombiana de Entomologia
http://www.socolen.org.co/portal/

Sociedad Entomológica Aragonesa (Spain)
http://www.sea-entomologia.org/

Sociedad Entomológica Argentina

Sociedad Entomológica del Perú
http://www.sepperu.net/

Sociedad Española de Entomología Aplicada
http://www.seea.es/

Sociedad Mexicana de Entomologia
http://www.iztacala.unam.mx/sme/

Sociedad Venezolana de Entomología
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Società Entomologica Italiana
http://www.socentomit.it/eng/

Societe D'Entomologie Africaine
http://www.entomoafricana.org/

Société Entomologique de France
http://www.lasef.org/

Société Entomologica de Italiana
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Ukrainian Entomological Society
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Nematology Societies

Afro-Asian Society of Nematologists
http://www.ifns.org/membership/aasn.html

Australasian Association of Nematologists
http://nematologists.org.au

Brazilian Nematological Society
http://www.ciagri.usp.br/~sbn/sbn_i.htm

Chinese Society of Plant Nematologists
http://www.ifns.org/membership/cspn.html

Egyptian Society of Agricultural Nematology
http://www.ifns.org/membership/esan.html

International Federation of Nematology Societies
http://www.ifns.org/

Italian Society of Nematologists
http://www.ifns.org/membership/sin.html

Japanese Nematological Society
http://www.ifns.org/membership/jns.html

Nematological Society of India
http://www.ifns.org/membership/nsi.html

Nematological Society of Southern Africa
http://www.ifns.org/membership/nssa.html

Organization of Nematologists of Tropical America
http://onta.ifas.ufl.edu/

Pakistan Society of Nematologists
http://www.ifns.org/membership/psn.html

Russian Society of Nematologists
http://www.scri.sari.ac.uk/rjn/rsocnem.htm
Society of Nematologists
http://www.nematologists.org/

Plant Pathology, Societies, Associations, Organizations & Networks

American Phytopathological Society
http://www.apsnet.org/

Asian Association of Societies for Plant Pathology
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Asociación Colombiana de Fitopatología y Ciencias Afines
http://www.telesat.com.co/ascolfi

Asociación Latinoamericana de Fitopatología
http://www.fitopatologia.org/

Asociación Peruana de Fitopatologia
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Australian Plant Pathology Society

Bangladesh Phytopathological Society
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Brazilian Society for Plant Pathology
http://www.sbfto.com.br/

British Society for Plant Pathology
http://www.bspp.org.uk/

Canadian Phytopathological Society
http://www.cps-scp.ca/index.html

Chilean Society for Phytopathology
http://www.fitopatologiachile.cl/

Chinese Society for Plant Pathology
http://www.cspp.org.cn/

Czech Phytopathological Society
http://www.vurv.cz/cspp/index_en.html

Danish Society for Plant Pathology
Korean Society of Plant Pathology
http://www.kspp.org/

Kyrgyz Society for Plant Pathology
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Latin American Association for Phytopathology
http://www.fitopatologia.org/

Mediterranean Phytopathological Union
http://www.unifi.it/istituzioni/mpu/

Royal Netherlands Society of Plant Pathology
http://www.knpv.org/

Norwegian Society for Plant Pathology
http://www.planteforsk.no/nppf/index.htm

Pakistan Phytopathological Society
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Peruvian Association for Phytopathology
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Philippine Phytopathological Society
http://www.philphytopath.org/

Phytopathological Society of Japan
http://www.ppsj.org/index_en.html (English)
http://www.ppsj.org/ (Japanese)

Plant Pathology Society of Kenya
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Polish Phytopathological Society
http://www.au.poznan.pl/ptfit

Portuguese Phytopathological Society
http://www.spfitopatologia.org/

Royal Netherlands Society of Plant Pathology
http://www.knpv.org/

Russian Phytopathological Society
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Sociedad Chilena de Fitopatologia
http://www.fitopatologiachile.cl/

Sociedad Española de Fitopatología
http://www.sef.es/ef/

Sociedad Mexicana de Fitopatología
http://www.sociedadmexicanadefitopatologia.com.mx/

Sociedad Venezolana de Fitopatología
http://www.sovefit.org/

Società Italiana di Patologia Vegetale (SIPaV)
http://www.agr.unipi.it/sipav/sipavhp.htm

Société Française de Phytopathologie
http://www.sfp-asso.org/

Societies, Organizations – Plant Pathology Internet Guide Book (PPIGB)
http://www.pk.uni-bonn.de/ppigb/society.htm
Society of Irish Plant Pathologists

Southern African Society for Plant Pathology
http://www.saspp.co.za/

Spanish Society for Phytopathology

Sudanese Society for Plant Pathology

Swedish Society of Biopathology

Taiwan Phytopathological Society

Thai Phytopathological Society

Venezuelan Society for Phytopathology
http://www.sovefit.org/

Plant/Crop Protection, Plant Health or IPM Societies, Associations & Organizations

AfricanCrops.net
http://www.africancrops.net/
Arab Society for Plant Protection (ASPP)
http://www.arabscientist.org/english/pages/references/aspp/

Belgian Society for Crop Protection

British Crop Protection Council
www.bcpc.org

Caribbean Society for Plant Protection

Chinese Society for Plant Protection (CSPP)
http://www.ippcaas.cn/ippc/ippcaas_e/ippcaas_e.htm

Crop Protection Society of Ethiopia

Deutsche Phytomedizinische Gesellschaft E.v. (DPG)
http://www.phytomedizin.org/

Ethiopian Crop Protection Society

European and Mediterranean Plant Protection Organization (EPPO)
http://www.eppo.org/

European Crop Protection Association
http://www.ecpa.eu/

European Group for Integrated Pest Management in Development Cooperation
http://www.ipm europe.org/

European Network for the Durable Exploitation of Crop Protection Strategies
http://www.endure-network.eu/

German Crop Protection Association

French Association for Plant Protection
http://www.afpp.net/

Global IPM Facility
http://www.fao.org/ag/agp/agpp/ipm/

Integrated Plant Protection Center
http://www.ipmnet.org/
IPM Collaborative Research Support Program (CRSP)
http://www.oired.vt.edu/ipmcrsp/IPM_2008/draft_home.htm

International Plant Protection Convention
https://www.ippc.int/IPP/En/default.jsp

IPMnetNEWS
http://www.ipmnet.org/IPMNews/news.cfm

Italian Association for Plant Protection
http://www.aipp.it/home.cfm

Malaysian Plant Protection Society
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Moroccan Association for Plant Protection
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New Zealand Plant Protection Society
http://www.nzpps.org/index.php

Nigerian Society for Plant Protection
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Plant Protection Society of Finland
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Schweizerische Gesellschaft für Phytomedizin (SGP) (Swiss)
http://www.sg-phytomed.ch/index.html

Singapore Plant Protection Society
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Society for Plant Protection in the Caribbean (Trinidad and Tobago)
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Swiss Society for Phytiatry (English)

Weed Science Societies, Associations, Organizations & Networks

Asian Pacific Weed Science Society
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Associación Latinoamericana de Malezas (ALAM)
http://gcrec.ifas.ufl.edu/ALAM/
Canadian Weed Science Society
http://www.weedscience.ca/home

Council of Australian Weed Science Societies (CAWSS) -
http://home.vicnet.net.au/~weedss/

Cuban Weed Science Society
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European Weed Research Society (EWRS)
http://www.ewrs.org/

Hungarian Weed Research Society
????????????????????????

Indian Society of Weed Science
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International Allelopathy Society
http://www-ias.uca.es/

International Parasitic Plant Society (IPPS)
http://www.ppws.vt.edu/IPPS/SocietyInfo.html

International Parthenium Research News Group
http://www.iprng.org/

International Weed Science Society (IWSS)
http://www.iwss.info/default.asp

Italian Weed Research Society
http://www.unipg.it/~agronomy/sirfi/

North Eastern Weed Science Society Cyprus
????????????????

Sociedad Española de Malherbología (SEMh)
http://www.semh.net/

Sociedad Venezolana Para el Combate de Malezas (SOVECOM)
http://www.sovecom.org.ve/

Southern African Weed Science Society
http://www.geocities.com/saweedsciencesociety/
OR:
???? Note: this is the HRAC website...link to SAWSS does not work
Venezuelan Society for Weed Control

Venezuelan Weed Science Society
http://www.socecom.org.ve/

Weed Science Society of America
http://www.wssa.net

Weed Science Society of Japan
http://wssj.acAFFrc.go.jp/E_index.html

Weed Science Society of Pakistan
http://www.wssp.org.pk/131216.htm

Weed Science Society of the Republic of China
http://140.127.10.25/weed/wssroc.htm

Other Societies, Committees & Organizations

Association National pour la Production la Protection et l'Amélioration Végétale

Association of Applied Biologists
www.aab.org.uk

Association of Applied IPM Ecologists
http://www.aaiie.com

Association of Natural Biocontrol Producers
http://www.anbp.org/

AVRDC-The World Vegetable Center
http://www.avrdc.org/

CABI IPM Forum
www.cabi-publishing.org/IPM/index.htm

CGIAR Systemwide Program on IPM
http://www.spipm.cgiar.org/

Community IPM, FAO IPM Facility
www.communityipm.org
Consortium for International Crop Protection - IPMnet
www.ipmnet.org

CropLife International
http://www.agr.hr/hed/

East African Phytosanitary Information Committee
https://www.ippc.int/servlet/CDSServlet?status=ND0xMzM2My4yMTAxODEmNj1lb1YzMy1ldmVudHMmMzc9aW5mbw~~

Federal Research Centre for Cultivated Plants – Julius Kuehn Institute (JKI) (Germany)
http://www.keytonature.eu/wiki/Julius_K%C3%BChn_Institute_%E2%80%93_Federal_Research_Institutefor_Cultivated_Plants

ICIPE (African Insect Science for Food and Health)
http://www.icipe.org/

Inter-African Phytosanitary Council IAPSC
https://www.ippc.int/servlet/CDSServlet?status=ND0xNDU5OSZjdG5faW5mb192aWV3X3NpemU9Y3RuX2luZm9fdmlld19mdWxsYj9ZW4mMzM9KiYzNz1rb3M~

Pesticide Science Society of Japan
http://wwwsoc.nii.ac.jp/pssj2/eng/index.html

Society for Invertebrate Pathology
http://www.sipweb.org/
Bacterial wilt, caused by a soil borne bacterium, *Ralstonia solanacearum* is a serious disease of crops such as tomato, eggplant and peppers in the tropical countries. To overcome this disease problem IPM CRSP has been implementing a technology of grafting scions of high yielding and locally acceptable varieties of eggplants and tomatoes to the wild species of eggplants such as *Solanum sisymbriifolium* and *S. torvum* in Bangladesh and the Philippines for the past 10 years. This technology not only provides resistance to bacterial wilt but also proves resistance to root knot nematodes and increases the duration of the productive period of the crop over 15 to 25%. In 2005, this technology was transferred to Uganda and in 2008 to India. Recently this grafting technology has been transferred to Honduras mostly for extending the production period of eggplant crop.

In Bangladesh, grafting of eggplants has reduced the mortality of plants by 93%; and increased the fruit yield by 249% and income by 305%. Similar results were also reported from the Philippines.

Dr. Sally Miller, Professor of Plant Pathology at the Ohio State University who has been involved in implementing the grafting program in Bangladesh and the Philippines, and her colleague who was involved in Uganda are currently introducing this technology to tomato growers in Ohio by conducting workshops in various counties. In fact, a graduate student from Bangladesh, Mr. Mohammad Abu Masud, studying at Ohio State University supported by IPM CRSP is also participating in this technology transfer activity.

This is one of the examples of the technologies developed and implemented in the developing countries by the USAID funded IPM CRSP being introduced and adopted to benefit the public in the United States of America.

Dr. R. Muniappan and F. Steed
IPM CRSP, Virginia Tech
Blacksburg, VA 24061-0334, USA
E-mail: ipm-dir@vt.edu

**WHY TAXONOMY MATTERS**

The origins of taxonomy - the science of discovering and naming life on earth - lie in the 18th century when Linnaeus developed his famous naming system. His students and their successors have devoted lifetimes to collecting specimens and poring through literature up to 250 years old in their quest to name and describe species. At first glance, the outcomes of their work may not
look relevant to society. In fact, taxonomists are often perceived as specialists pursuing eccentric interests relevant only to natural history museums and universities.

Some ask: is this a science that is needed in the 21st century?

We say it is. Taxonomy does matter. It is very relevant to today's challenges. Whether you live in the centre of London, the outskirts of Timbuktu, or in a high mountain valley in Nepal, taxonomic knowledge can improve and, at times, even save your life. Taxonomy and the work of taxonomists should not be underestimated. Its impacts on society are often beneficial, sometimes in unpredictable ways. Did you know that the work of taxonomists has improved Namibian roads and ensures the safety of Chinese medicine?

In this series of case studies we see Why Taxonomy Matters. We see how taxonomic knowledge is applied around the world to save LIVES, save CROPS, save HABITATS, save SPECIES, save MONEY and more... For the full set of case studies, see the Why Taxonomy Matters pages of BioNET’s website: www.bionet-intl.org/why.

To contribute your case study, see the guidelines: http://www.bionet-intl.org/opencms/opencms/caseStudies/contribute/contribute.jsp.

Dr. E. Watson and R. Smith
BioNET
E-mail: bionet@bionet-intl.org

2ND BIOPESTICIDE INTERNATIONAL CONFERENCE (BIOCICON-2009)

The 2nd Biopesticide International Conference (BIOCICON-2009) is being organized from 26 to 28 November, 2009, by the Crop Protection Research Center, Department of Advanced Zoology and Biotechnology, St. Xavier's College (Autonomous), Palayamkottai, India. This conference is in continuation of a BIOCICON-2007 held previously in the same department promoted by Department of Science and Technology (DST), New Delhi; Council for Scientific and Industrial Research (CSIR), New Delhi and Tamilnadu State Council for Science and Technology (TNSCST), Chennai. BIOCICON-2009 is aimed to promote basic and applied research and development for ecofriendly pest and disease management in agriculture and forestry.

The conference will include the following sessions:

- Pests: microbes and animals - diversity, bionomics, impacts on crops
- Microbes: bacteria, fungi, virus, nematodes - formulations and applications
- Natural enemies: predators, parasitoids - biology, bio-efficacy, augmentation, evaluations and bio-safety on non-target organisms
- Botanicals: isolation, formulation, evaluation and integration
- Biotechnology-product developments: biotechnology, nanotechnology, semiochemicals, gm crops, eco-friendly agrochemical based industries and IPM.

For more information please contact:

Dr. K. Sahayaraj
Organizing Secretary - ‘Biocicon-2009’
Crop Protection Research Centre
St. Xavier's College
The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in Crop Protection to members and other subscribers. Crop Protection, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to a the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described here.

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

Dr. Manuele Tamo, Editor
IAPPS Newsletter
Biological Control Center for Africa, IITA-Benin
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin
E-mail: m.tamo@cgiar.org
The 2011 IAPPS/IPPC Program Committee has been finalized by the Chair, Bill Tweedy and is described in the IAPPS Newsletter Number XII, December 2009 in the Crop Protection journal (see end of this Newsletter for the list). Dr. Falko Feldman, Managing Director of the German Phytomedicinal Society has been added to the committee. He will be serving as the Host Country Rep. for the XVIII IPPC on the IAPPS Governing Board and will be representing the three German Societies who will be organizing the IPPC in Berlin in 2015.

Bill Tweedy and I had a recent conference call with the APS/IAPPS Management to establish a working relationship for planning the 2011 joint APS/IAPPS IPPC to be held in Honolulu. Prof. John Sherwood, Prof. and Head, Dept. of Plant Pathology, University of Georgia will be APS President in 2011 and will thus coordinate the Congress planning with IAPPS.

As a consultant for the IPM CRSP, India site project I have been making annual trips to India to visit collaborators at the Tamil Nadu Agricultural University (TNAU) and the Tata Energy Research Institute who are conducting vegetable IPM research and demonstrations on tomatoes, eggplant and okra. Based on a recent trip I have included a report of a training program on grafting for the management of soil borne vegetable diseases and a number of photos on pests and diseases in this Newsletter.

Until next month.

eheinric@vt.edu
The American Phytopathological Society will join the International Association for the Plant Protection Sciences for the 2011 APS/IAPPS Annual Meeting in Honolulu, Hawaii. Hawaii’s central location in the Pacific Rim will attract attendees and speakers from around the world, making this a truly unique experience for plant pathologists and plant health scientists.

**The Call for Papers will be open February 1 – March 15, 2011**

**The American Phytopathological Society** (APS)

**The International Association for the Plant Protection Sciences** (IAPPS)
Summary of the Training on “Integrated Vegetable Grafting Technology for Managing Soil-Borne Diseases” at Thondamuthur, Coimbatore, India on August 25, 2009

Tamil Nadu Agricultural University (TNAU), Coimbatore in collaboration with AVRDC – The World Vegetable Center, Taiwan, USAID supported IPM CRSP, Virginia Tech, Blacksburg, USA and State Department of Horticulture, Tamil Nadu jointly organized a training on “Integrated vegetable grafting technology for managing soil-borne diseases and increasing tolerance to flooding in the hot-wet season” at Thondamuthur block, Coimbatore district on 25.08.2009.

Dr. E.A. Heinrichs, IPM CRSP Consultant, Virginia State University, USA and Dr. R. Srinivasan, Entomologist, AVRDC gave special addresses emphasizing the needs of vegetable grafting and prospects achieved with the training in different countries. Dr. A. Chandrasekaran, Director, Centre for Plant Protection Studies (I/C), Professor and Heads and scientists from Dept. of Plant Molecular Biology and Biotechnology and Agricultural Entomology, TNAU participated in the training. From the State Department of Horticulture, Thiru. M. Thangarasu, Deputy Director of Horticulture, Coimbatore and Thirumathi. R. Rajamani, Assistant Director of Horticulture, Thondamuthur also participated in the programme.

Members of Dheeran Chinnamalai Precision Farmers Association, Pullagoundanpudur participated and benefitted from the training. Out of 58, twenty three women farmers also actively participated. The participants were divided in to six groups. The farmers were explained regarding construction of tunnel-type grafting chamber, which is the pre-requisite for establishment of vegetable grafted seedlings using locally available materials. Grafting technique was explained and a hand on training was imparted using pro-tray raised seedlings of tomato, brinjal and chillies. After training, a session was arranged to have discussion between scientists and farmers.
Dr. R. Srinivasan, AVRDC emphasizing the needs of vegetable grafting technique

Thiru. M. Thangarasu, Deputy Director of Horticulture, Coimbatore addressing the gathering

Demonstration of grafting technique to participants

Hands on experience in vegetable grafting technique

Professor and Head (Agricultural Entomology) TNAU interacting with farmers about IPM of papaya mealybug

Professor (Plant Pathology) TNAU interacting with farmers
### Photo Gallery

**TNAU, Coimbatore, Tamil Nadu and TERI, Bengarpet, Karnataka IPM CRSP Research and Demonstration Farmers’ Field Plots, 24-27 August 2009**

<table>
<thead>
<tr>
<th><img src="image1" alt="Papaya mealybug Paracoccus marginatus on a papaya leaf." /></th>
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<tr>
<td>Papaya mealybug <em>Paracoccus marginatus</em> Williams and Granara de Willink on a papaya leaf.</td>
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<th><img src="image2" alt="Papaya mealybug Paracoccus marginatus on a papaya fruit." /></th>
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<td>Papaya mealybug <em>Paracoccus marginatus</em> on a papaya fruit.</td>
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Papaya mealybug, *Paracoccus marginatus*, infested brinjal field at Pullagoundanpudur village, Thandamuthur block, Coimbatore.

First instar Papaya mealybug, *Paracoccus marginatus*, crawlers on a brinjal (eggplant) leaf at Pullagoundanpudur village, Coimbatore.
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<tr>
<td><img src="image1" alt="Papaya mealybug, Paracoccus marginatus, ovisacs on a brinjal fruit at Pullagoundanpudur village, Coimbatore." /></td>
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<tr>
<td><img src="image2" alt="Malformation of okra (causal agent not determined) at Bengarpet, Kolar District, Karnataka." /></td>
<td>Malformation of okra (causal agent not determined) at Bengarpet, Kolar District, Karnataka.</td>
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</table>
Yellow vein mosaic virus on okra at Bengarpet, Kolar District, Karnataka.

*Mylabris pustulata* feeding on an okra flower at Bengarpet, Kolar District, Karnataka.

Tomato fruitworm, *Helicoverpa armigera*, virus, Alternaria fruit rot (?) and environmental stress damaged tomatoes at Bengarpet, Kolar District, Karnataka.
| Image 90x525 to 381x720 | Tomato fruitworm, *Helicoverpa armigera*, damage on a young tomato fruit at Bengalpet, Kolar District, Karnataka. |
| Image 90x318 to 381x513 | Tomato fruitworm, *Helicoverpa armigera* larva on a tomato plant at Bengalpet, Kolar District, Karnataka. |
| Image 90x111 to 381x306 | Alternaria fruit rot (?) on a tomato fruit at Bengalpet, Kolar District, Karnataka. |
Septoria leaf spot on a tomato at Bengarpet, Kolar District, Karnataka.

Wilt on tomato at Bengarpet, Kolar District, Karnataka.
Mr. Thimmarya Reddy, Village Battegoudanur, Bengarpet Taluk, Karnataka in the TERI-IPM CRSP tomato IPM demonstration plot.

Mr. Thimmarya Reddy, TERI-IPM CRSP collaborator, Village Battegoudanur, Bengarpet Taluk, Karnataka in front of his newly constructed house (behind the paddy field). Because of the high yields of tomatoes and other vegetables Mr. Reddy has harvested the last two years and the premium prices paid for his fruit he has been able to purchase additional land and constructed a new house (seen in rear) in the last year.
LaStraw, a new organic salt-based product developed by the Bio-Control Research Laboratories, Bangalore is effective against a wide range of sucking insects and mites.

Mealybug infested plant (left) and healthy plant (right) treated with LaStraw in Bio-Control Research Laboratories tests.
The organization of the 2011 International Plant Protection Congress (IPPC) has begun. The Organizing Committee has been selected and ideas for a theme and also for several symposia are being considered. Organizing Committee members are:

**Bill Tweedy**  
Chairman  
Plant Pathology, IPM  
Industry-Consultant for Albaugh, Inc.  
bgtweedy@aol.com

**Geoff Norton**  
IAPPS President  
Entomology, IPM  
University of Queensland  
g.norton@cbit.uq.edu.au

**E. A. "Short" Heinrichs**  
IAPPS Secretary General  
Entomology, IPM  
University of Nebraska  
eheinric@vt.edu

**Ray Martyn**  
Plant pathology  
Purdue University  
rmartyn@purdue.edu

**Ron Stinner**  
Modeling  
NSF Center for IPM  
rstinner@cipm.info

**R. Muniappan**  
Program Director  
IPM CRSP  
ipm-dir@vt.edu

**Baruch Rubin**  
Weed Science  
Hebrew University of Jerusalem  
rubin@agri.huji.ac.il

**Jim Bone**  
Weed Science  
Industry-DuPont  
jim.bone@usa.dupont.com

**Dale Shaner**  
Weed Science  
USDA ARS/University  
dale.shaner@ars.usda.gov

**Alethia Brown**  
Bio-organic Chemistry  
Industry- DuPont  
alethia.m.brown@usa.dupont.com

**Keith Jones**  
Industry- Crop Life International  
johnburd@ars.usda.gov
The Congress will be held in Honolulu, Hawaii, August 6-10, 2011, jointly with the American Phytopathological Society. Mark this date on your calendar. For more information and full addresses of the members check [www.plantprotection.org](http://www.plantprotection.org)

Bill Tweedy  
Chairman of the Organizing Committee  
E-Mail: [bgtweedy@aol.com](mailto:bgtweedy@aol.com)

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**ON-FARM RESEARCH WEBCASTS HELP GROWERS MAKE SCIENCE-BASED MANAGEMENT DECISIONS**

Extension specialists and agribusiness use on-farm research to make better management decisions. The On-Farm Research Conference, held at Iowa State University and recorded for online webcasting, can help many independent-minded growers develop research programs on their own farms to enhance the management and production of their crops. Project organizers designed the conference to provide basic information that helps growers complete, recognize, and understand scientifically sound crop production research; and it's their hope the new web resource will give growers and agriculture professionals another tool in farming decisions.

"Many growers and agribusinesses are inundated with data, which they use to make critical decisions about production practices," said Daren Mueller, Iowa State University extension specialist and lead organizer of the event. "We want them to be able to recognize and understand scientifically sound crop production research that will help promote wise crop production and protection decisions, which is an integral goal of integrated pest management."

The webcasts cover three main subject areas: the basics of on-farm research design, data collection methods, and ways to improve data quality. Speakers include faculty and extension specialists...
staff from Iowa State University, the University of Wisconsin-Madison, and the University of Nebraska-Lincoln. Current presentation titles include:

- Planning an Experiment
- How to Improve Chances of a Successful Trial
- Tools for Conducting On-Farm Research
- Soil Fertility On-Farm Research Methods and Measurements
- Basics of Data Collection
- Managing Data in On-Farm Research
- Collecting Agronomic Production Data
- Methods for Collecting Plant Disease Data
- Collecting Insect Data
- Weather/Climate Information for Agricultural Research
- Economics and On-Farm Research
- Instrumentation, Sample, and Data Handling

All the presentations can be found on the Plant Management Network, a nonprofit online publisher of science-based agricultural and horticultural information. The presentations are specifically located at www.plantmanagementnetwork.org/onfarm.

The "Planning an Experiment" webcast is freely accessible for all. The other webcasts can be accessed by staff and students of the Plant Management Network's partnering universities and companies, and by current individual subscribers. Others must subscribe for an annual fee ranging from $38 to $45. Subscription provides unlimited access to all of the Plant Management Network's eleven online crop protection and production resources. To subscribe or learn more, visit www.plantmanagementnetwork.org/subscriptions.

"The site will allow people to learn what it takes to organize and conduct scientifically valid on-farm research," said Mueller.

The On-Farm Research Conference was funded jointly by the Iowa State University Corn and Soybean Initiative and the North Central Integrated Pest Management Center. For more information:

Phil Bogdan
The Plant Management Network
E-mail: pbogdan@scisoc.org

A PARASITOID TO TACKLE THE MENACE OF THE MEALYBUG PEST OF COTTON IN INDIA

The mealybug Phenacoccus solenopsis Tinsley (Hemiptera: Pseudococcidae) is a native of North America. It was first collected and described from New Mexico in 1897. In 1990, it was first reported as a pest of cotton in Texas. It remained in the U.S. until 1992 before moving into Central America, the Caribbean, and Ecuador. In 2002, it was reported in Chile and Brazil. Now it is known to occur in Ghana, Nigeria, Israel, Pakistan, India, Indonesia, Thailand and China.
Since its introduction, it has been reported to cause havoc to the cotton crop in India, Pakistan and Israel. In 2008, all these countries contacted the California Department of Agriculture for possible collaboration in identification, collection, rearing and supply of natural enemies of this mealybug for classical biological control.

Meanwhile a parasitoid has been found to occur in India parasitizing P. solenopsis. Recently this parasitoid has been described as Aenasius bambawalei (Hymenoptera: Encyrtidae) by Dr. Mohammad Hayat, Aligarh Muslim University, India in the journal Biosystematica (2009) 3: 21-26. In addition, a hyperparasitoid, Promuscidea unfasciativentris Girault (Hymenoptera: Aphelinidae) was also found on A. bambawalei, which may cause some reduction in efficacy of this parasitoid.

Aenasius bambawalei is reported to parasitize about 60% of the mealybug population in the field and the scientists in India are very enthusiastic about finding this parasitoid and they think it is going to solve the menace caused by P. solenopsis to cotton crop.

R. Muniappan
Program Director
IPM CRSP
E-mail: ipm-dir@vt.edu
The 2011 IAPPS Program Committee welcomes suggestions for symposia titles from IAPPS members. If you have any suggestions in the areas of (1) Multidisciplinary (IPM, Biocontrol, Education, Technology Transfer, Training, Modern Communication Technologies, Climate Change, Biodiversity, Quarantine, Invasive Species, (2) Entomology, (3) Industry/Genetic Engineering, (4) Plant Pathology and (5) Weed Science please send them to the subcommittee chairs listed in the letter from Bill Tweedy to the committee members below or send them to me and I will forward them. We need your title suggestions by January 20, 2010. I will provide profiles on two program committee members in each Newsletter throughout 2010.

The Tweedy letter gives further details including hotel rates. I have provided a couple of photos of the two Congress hotels and the Hawaii Conference Center where the meeting will take place. Both hotels are within a 5 minute walk of the Conference Center. To receive announcements go to http://www.apsnet.org/meetings/APS-IAPPS/ and click on the “Sign Up for Updates.” If you have friends or colleagues who should receive the congress updates send me their email addresses and I will take care of seeing that they get the updates.

If you have an interest in the identification of insect pests and their natural enemies, nematodes, weeds or plant diseases you will be interested in the information I have copied from the CBIT News from the Centre for Biological Information Technology at the University of Queensland, Brisbane, Australia <www.cbit.uq.edu.au.IAPPS>. IAPPS President Geoff Norton has been a pioneer in the development of the Lucid software. Lucid software is a special type of expert system, specifically designed for identification and diagnostic purposes, which enables expert knowledge to be “cloned” and distributed to a wide audience via CD or the Internet.

I introduce two new IAPPS Governing Board Members: Dr. Noriharu Ken Umetsu, Professor at Tokyo University and Managing Director of Otsuka Chemical Company replaces Dr. Tadashi Miyata as the coordinator for Region VII: East Asia. Professor James Steadman, Head, Department of Plant Pathology at the University of Nebraska replaces Dr. J.R. James as IAPPS Treasurer. For more details, please see the February 2010 IAPPS Newsletter below.

I recently had the opportunity to visit the Mali INTSORMIL Production-Marketing Project where farmers using the recommended cultural practices have had significant millet and sorghum yield increases. I will include photos in the January 2010 Newsletter.

Best wishes for 2010,
The American Phytopathological Society will join the International Association for the Plant Protection Sciences for the 2011 APS/IAPPS Annual Meeting in Honolulu, Hawaii. Hawaii’s central location in the Pacific Rim will attract attendees and speakers from around the world, making this a truly unique experience for plant pathologists and plant health scientists.

The Call for Papers will be open February 1 – March 15, 2011

The American Phytopathological Society (APS)

The International Association for the Plant Protection Sciences (IAPPS)
Dear member of the IAPPS IPPC Program Organizing Committee:

This is in regard to details for organizing the 2011 IPPC to be held in Honolulu, Hawaii. We have worked out several details with APS with whom we will be jointly meeting with us. The APS will be playing a key role in making this Congress a success. We met with APS during the 1979 Congress and it was a great success and a pleasure to work with them. APS will handle registration and many details regarding the Congress, thus, we can concentrate our efforts on developing a great program for the Congress. In addition to the program, there will be commercial exhibits and poster sessions. If you know any company that you think would like to have an exhibit, let me or Short know and the contacts will be made. Short has been working on a list of potential exhibitors and will be sending it to APS. He is also developing a global list of email addresses (currently has about 10,000) which he will submit to APS for Congress announcements. If you know of email lists of plant protection types please send to him at <eheinric@vt.edu> ASAP.

**Symposia.** We plan to have 12 to 15 symposia. The symposia will be developed as follows: Our organizing committee will be divided into four subcommittees. These subcommittees are (1) Multidisciplinary, (2) Entomology, (3) Industry/Genetic Engineering, (4) Plant Pathology and (5) Weed Science. Each subcommittee will have a leader. The leaders and members for the respective subcommittees are:

**Multidisciplinary-** (IPM, ICM, Biocontrol, Education, Technology Transfer, Training, Modern Communication Technologies, Climate Change, Biodiversity, Quarantine, Invasive Species) - Ron Stinner (Muni Muniappan, Geoff Norton, Short Heinrichs, Ray Martyn, Baruch Rubin, Irmgard Hoeschle-Zeledon, Falko Feldman)

**Entomology-** Short Heinrichs (Geoff Norton, Ron Stinner, John Burd)

**Industry/Genetic Engineering and Biotechnology-** Jim Bone (Keith Jones, Alethia Brown, Kelly Chamberlin)

**Plant Pathology-** Ray Martyn (Jenifer McBeath, Kelly Chamberlin)

**Weed Science-** Baruch Rubin (Dale Shaner, Jim Bone, Muni Muniappan)
I encourage you to discuss potential symposia ideas with your colleagues and get their input and suggestions. Please note that you are welcome to offer suggestions for each of the disciplines. If that case please contact the respective leader. The more ideas we have, the better the program. If you would like to serve on an additional committee, please indicate your preference. Each of you will be responsible for chairing a symposium. A co-chair most likely will be selected from among the APS membership.

Each symposium will consist of three to four speakers with a break in the middle. Symposium duration will be a half day (3.5 to 4 hours). At this time, you should not contact any speakers. We only want ideas and then the Organizing Committee will review the recommended symposia and select the symposia. At that time you will be free to contact speakers.

**Funds.** Currently, we do not have any funds designated to support the speakers. However we hope to have limited funds later. As you all know, the availability of funds to scientific meetings is limited. When we get further along, you are free to acquire your own funds. Each participant will be discounted $60 dollars if they are an IAPPS member. Membership is $50 for members from industrialized countries and $35 from developing countries. All active members in 2010 will receive this discount Short will be pleased to accept payment for them to become a member.

**Timing of Symposia Recommendations.** Please provide your recommendations for Symposia topics to me with cc to Short no later than February 15, 2010.

**Plenary Session Speakers:** To be selected by the presidents of IAPPS (Geoff Norton) and APS (John Sherwood). If you have a speaker in mind, please inform Geoff.

**Hotel Rooms.** APS has negotiated a very reasonable rate with two fine hotels – the Doubletree and the Hilton Hawaiian Village. The rates are as follows:

- **Doubletree.** $172
- **Hilton garden view** $185
- **Partial ocean view** $205
- **Ocean view** $235
- **Government** $177

Rates do not include taxes

**Reminder. We need your inputs for the symposia no later than Feb. 15, 2010.**

If you have any question or need a clarification regarding your responsibility please contact me at: (H) 618-893-4232; (C) 618-521-0324; bg Tweedy@aol.com

In closing, please note that I appreciate your support of IAPPS and the IPPC by providing your expertise in developing a relevant and attractive program.

Sincerely yours,

*Bill Tweedy*
The 2011 IPPC Hotels

- Hilton Hawaiian Village Hotel
- Waikiki, Honolulu
- Doubletree Alana Hotel

Site of the 2011 IPPC /APS Joint Meeting: Hawai’i Convention Center
Profiles of IAPPS 2011 IPPC Program Committee Members
Bill Tweedy, Chair
Discipline: Plant Pathology/IPM/Industry

Dr. Bill Tweedy
Consultant for Albaugh, Inc.
2135 Union Springs Rd.
Cobden, IL 62920

E-mail: Bgtweedy@aol.com

Curriculum Vitae

PROFESSIONAL EXPERIENCE

Consultant
Consultant to Griffin Corporation - 5/93 to present. Design and place research programs concerned with Environmental Chemistry and Residue Chemistry at various contract laboratories, monitor progress of studies, review study reports, write reports to satisfy EPA requirements, and interact with EPA personnel on registration and science issues. In addition, I have done short term consulting for other companies on related issues.

Ciba Corporation, Greensboro, NC

Director of Metabolism - Agricultural Division - 10/88 to April 1, 1993 Provide direction to a department of 83 full-time and 8 part-time scientists with the objective of defining the metabolic fate of agricultural chemicals in plants, animals, and the environment. Other responsibilities include application of computers to acquire, calculate, and format data from automated instrumentation, maintenance of a laboratory building housing 145 scientists and support personnel, and synthesis of radioactive compounds used in metabolism studies.

Director of Biochemistry - 10/78 to 9/88 Provide direction to a department of 48 to 78 full-time scientists conducting studies to define the metabolism and magnitude of residues of agricultural chemicals in plants and animals.

Manager of Residue Studies - 8/73 to 9/78 Provide direction to a group of 20 to 28 scientists conducting studies to determine the magnitude of residues of agricultural chemicals in plant and animal studies.

University of Missouri - Columbia, MO - 9/65 to 8/73
Teaching and research appointment to the faculty in the Department of Plant Pathology. Began as Assistant Professor and advanced to the rank of Professor in May of 1973. Taught courses in Fruit Pathology, Techniques and Instrumentation for Biochemical Research, Fungal Physiology, and Comparative Pathology. Directed five doctoral students to completion of degrees, also two post doctorates and two technicians. Acquired grants from USDA, EPA, industry and NSF amounting to approximately $300,000 during the eight years at Missouri. Conducted basic and applied research programs which resulted in approximately twenty publications in refereed journals and several annual growers spray bulletins to fruit growers.

**US Department of Agriculture - Cooperative State Research Service - 9/71 to 6/72**

(Leave of absence from University of MO) - Administered $500,000 in special CSRS grants, was the liaison between USDA and EPA on pesticide related matters, served on the President's Task Force on PCBs and the Federal Working Group for Pesticides, conducted CSRS departmental reviews for 18 departments at 11 Land Grant Universities, and reviewed numerous Hatch and State projects. Served on EPA and NIH grant review panels during and after working for USDA. Retained a 25% appointment to CSRS after returning to the University of Missouri.

**Boyce Thompson Institute - 9/61 to 8/65**

Conducted research on mechanism of fungicides and the fate of chemicals in the environment. Was co-principal investigator of an NIH grant.

**PUBLICATIONS**

Senior editor of one book, author of 21 research papers in refereed journals and six invitational papers to books.

**INTERNATIONAL EXPERIENCE**

Leader of US/People's Republic of China Project on Integrated Pest Management. 1980 - 1981. Made two official visits to PRC and received two groups from PRC.

Leader of US/USSR Project on Integrated Pest Management. 1972 - 1981. Traveled to USSR six times and received seven groups from USSR.

Member of Standing Committee for International Congress for Plant Protection from 1975 to present. Chairman of Organizing Committee to IXth ICPP held in Washington, DC in 1979.

**EDUCATION**

Numerous courses in administration including courses at The University of Virginia, Virginia Polytech Institute, and in-house courses at Ciba.

Southern Illinois University, Carbondale, IL - B. S. in Agriculture (Horticulture_ 1956.

**HONORS**

Outstanding Achievement Award-College of Agriculture, Southern Illinois University, Carbondale, IL - 1995.
Awarded Outstanding Alumnus-College of Agriculture, Southern Illinois University, Carbondale, IL - 1980.

COMMUNITY/PROFESSIONAL INVOLVEMENT
American Phytopathological Society - Served on APS Foundation Board and was chairman for four years, served on numerous committees. Member since 1958.
Weed Science Society of America - past chairman of International Committee.
Guilford Technical Community College - Served on GTCC Foundation Board and was president of Foundation Board for six years.
Rotary International - Served on Board of Directors, past vice president, and past president. Active in Local Baptist Church.

Baruch Rubin, Chair, International Advisory Committee
Discipline: Weed Science/University

Dr. Baruch Rubin
Jacob and Rachel Liss Professor of Agronomy & Weed Science
Department of Field Crops, Vegetables & Genetics
Faculty of Agric. Food & Environmental Sciences
The Hebrew University of Jerusalem
Rehovot 76100, Israel
Tel: ++972-(0)8-948-9248
Fax: ++972-(0)8-936-2083
E-mail: rubin@agri.huji.ac.il

Curriculum Vitae
Born, 1943; Married; Five children; Military Service: 1961-1964;

Education: B.Sc., Faculty of Agriculture, Hebrew University of Jerusalem (HUJ), 1969; M.Sc. in Weed Science, HUJ, 1971 (Magna cum Laude); Ph.D. in Weed Science, HUJ, 1976;

Main Research Interests:
Behavior and environmental fate of herbicides in plant, soil and ecosystems; Physiology and biochemistry of herbicide action (selectivity); Herbicide resistance in plants and weeds, including transgenic crops; Environmentally safe herbicide formulations. Weed biology and ecology; Integrated weed management (IWM) in field and horticultural crops. Herbicide and the. Reduced herbicides input in agriculture.

Educational activities:
At the Faculty of Agr. - Teaching 4 courses in Wee Science to under- and post-graduate students. Teaching FAO International Course in Herbicide Resistance in Weeds and Crops. University of San Paulo, Jaboticabal, Brazil (1997); Teaching in a course "Use of Herbicides in Modern Agriculture: University of Cordoba, Spain (1999).

More than 55 M.Sc. and Ph.D. students conducted their theses under my supervision. At present, 3 Post-doctoral fellows, 7 Ph.D. and 9 M.Sc. students are working in the group.

Academic Activities
1982-present Member, Editorial Board of "Phytoparasitica"
1983-1984 On Sabbatical Leave: Res. Biochemist - Pesticide Chemistry and Toxicology Laboratory, Dept. of Entomology, UC, Berkeley, California, USA.
1984 Teaching International Course in Weed Science, INIA, Mexico.
1987-present Member, Advisory Committee for Herbicides Registration, Ministry of Agriculture, Israel.
1990-present Member, Senate of The HUJ.
1991-1994 Head, Research Committee, Fac. of Agric., HUJ.
1990-1993 HUJ Committee for Long-Term Planning of Studies and Research in Environmental Sciences.
1991-1995 Vice President and Member of the Executive Committee, MESAEP - Mediterranean Scientific Association of Environmental Protection.
1996-present Member, Editorial Board - J. Environmental Sci. and Health - Part B.
1996-present Chairman, Division of External Studies, Faculty of Agric., Food & Environm. Sci., HUJI, Israel.
1997-present Member, Japan-Israel Committee, co-operation in Plant Protection.
1996-present FAO consultant, IPM (integrated Pest Management).
1996-present Member, EHRWG - European Herbicide Resistance Working Group
1997 Teaching FAO International Course in Herbicide Resistance in Weeds and Crops. University of San Paulo, Jaboticabal, Brazil.
1999-present Vice President, IAPPS - International Association of Plant Protection Sciences.

Society Membership:
WSSI - Weed Science Society of Israel.
WSSA - Weed Science Society of America.
EWRS - European Weed Research Society.
Welcome to Lucidcentral

http://www.lucidcentral.org/

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**Lucid** tools are powerful and highly flexible knowledge management software applications designed to help users with identification or diagnostic tasks.

**Description**

Lucid software is a special type of expert system, specifically designed for identification and diagnostic purposes, which enables expert knowledge to be “cloned” and distributed to a wide audience via CD or the Internet. The large number of functions incorporated in the software and the ability to include multi-media makes the creation and use of identification and diagnostic keys easy, effective and enjoyable.

Lucid identification keys are currently being used by a wide range of end-users, from primary, high school and university students to taxonomists, quarantine identifiers, biodiversity scientists and conservation managers.

**Lucid3** users who wish to identify an entity in the group for which the key has been built can "describe" their specimen to the key by choosing features that match the specimen. The key progressively eliminates entities that do not match the chosen features until only one or a few remain - multimedia fact sheets and images provide further information for making an identification.

**Lucid Phoenix** is a computer based dichotomous or pathway key Builder and Player that enables traditional paper based identification keys to be published on the Internet or CD. Phoenix keys are interactive, can be enhanced with multimedia, and delivered across the Internet seamlessly.
The Lucid software development team is located at the Centre for Biological Information Technology (CBIT) at the University of Queensland, Australia.

**Function**
- Taxonomy
  - Identification tools, keys
- User interface
  - Personal use

**Why use this tool?**
- Identification or diagnostic

**Who will use this tool?**
- Data users
  - Expert
  - Interest groups
  - General public

**How will the tool be used?**

Lucid tools are available both as online keys and distributed as a desktop application on CD. Of most interest to the ALA would be the online keys.

The Lucid keys can be used online through one of two Players – the Lucid3 On-line Player and the Lucid3 Applet.

The keys can be hosted on any internet domain.

**Lucid3 On-line Player**

- Requires a web server to deliver content, eg Linux/Apache or Windows Server/IIS. Uses Tomcat and Java based technology.
- Browser based, platform independent
- Will work on PDA and mobile phones
- Uses Standard for Descriptive Data (SDD) data format
- Currently under development, in pre-release phase

**Lucid3 Applet**

- Java applet
- Browser based, platform independent
- User input is required

**Lucid Phoenix**

- Phoenix keys can be directly embedded within web pages
- Cross platform, operates on Windows, Mac, Unix
- Java required
Lucid 3.3 FREE OFFER

Lucid is celebrating the 10th anniversary of its initial release of the "Lucid Professional?identification tool by providing Lucid v3.3 free*. Lucid 3.3, which was released in 2006, operates on Windows98/ME/NT/2000/XP/2003/Vista, Mac-OSX, Linux, and Solaris and is capable of producing keys for deployment on CD or the Internet.

This offer is likely to be of particular interest to lecturers and trainers who can now provide their students with free Lucid key builders for project and field work, although anyone is eligible to download this free product. Lucid 3.3 is compatible with the latest Lucid 3.5 builder, so that any keys developed using Lucid 3.3 can be imported to Lucid 3.5.

To take advantage of this FREE offer, please visit www.lucidcentral.org and click on the Lucid 3.3 free offer link.

[* Conditions apply - Free for non-commercial use. Self support offered via the Lucidcentral.org forums]

The wait is over. This latest version of Lucid brings a number of exciting new features. One of the most anticipated new features is the Natural Language Template Editor. Lucid’s new easy to use template editor will allow you to generate sophisticated taxonomic descriptions from your key matrix with ease. Together with a number of other new features, including auto attachment of descriptions, key authoring has never been faster. Click here to find out more about version 3.5
Lucid 3.5 Workshop

A two day Lucid workshop was recently held on The University of Queensland (UQ) campus. With over 20 participants, this workshop was the largest ever held in Australia. The workshop presenters were Matt Taylor and Damian Barnier of CBIT and Dr Shaun Winterton who has a joint appointment at UQ's School of Biology and Queensland Primary Industries and Fisheries. Since there were more prospective participants than places available, another Lucid workshop is likely to be organised in the New Year, probably at UQ.

If you are interested in finding out more about this 2010 workshop, please contact enquiries@lucidcentral.org

The wait is over. This latest version of Lucid brings a number of exciting new features. One of the most anticipated new features is the Natural Language Template Editor. Lucid’s new easy to use template editor will allow you to generate sophisticated taxonomic descriptions from your key matrix with ease. Together with a number of other new features, including auto attachment of descriptions, key authoring has never been faster. Click here to find out more about version 3.5.
Featured Keys

*Pest Thrips of North America*

*Suburban and Environmental Weeds of South East Queensland*
We are welcoming **Dr. Noriharu Ken Umetsu**, Professor at Tokyo University of Agriculture and Senior Managing Director, Otsuka Chemical Co., Ltd., as the new Coordinator, Region VII: East Asia.

Prof. Umetsu received his Ph.D., Agricultural Chemistry, in 1974, and his M.S, Agricultural Chemistry, in 1971, both from the Tohoku University, Japan. Originally an agricultural chemist with expertise in rice blast disease and its associated toxins, during 1974-1981, Dr. Umetsu was a postdoctoral trainee and visiting scientist in the University of California, Riverside, where he conducted research on the adverse effect of impurities existing in technical organophosphorous insecticides. He also worked on the design of new carbamate insecticides and their mode of action, conducted metabolism studies, and succeeded in commercializing several products for practical use in cooperation with Otsuka Chemical Co. Ltd. On returning to Japan, Dr. Umetsu continued his research on the development of commercial agrochemicals with Otsuka Chemical Co. During a 15 year period as research manager and head (Director on Board) of the Otsuka Agricultural Chemicals Division, Dr. Umetsu and his colleagues developed six new agrochemicals (insecticides, acaricides and fungicides) and many useful fertilizers for horticulture. Of those, an insecticide, benfuracarb launched in 1984 was commercialized in over 50 countries and made a significant contribution to the field of crop protection and production globally. He also worked on an advanced crop production systems and put the new system called "fertigation system" (computer equipped drip irrigation system for vegetables) into commercial use.

During the past 20 years, Dr. Umetsu has served on campaigns to enlighten the public on the benefit and safety of agrochemicals. The activities include a number of lectures for the public at meetings sponsored by different organizations, and also lectures for university students and senior foreign trainees (average 10-15 lectures per year). His wide range of activities also include contributions to an e-mail magazine, presentations at international scientific meetings, publications in scientific journals and books, and appearances on television.

Dr. Umetsu's research has been published in more than 65 scientific articles and some patents. He is the author or co-author of six books. He is a member of many scientific societies such as Pesticide Science Society of Japan (PSSJ), the Japanese Society of Applied Entomology & Zoology, ChemoBio Integrated Management Society and the International Society for the Plant Protection Sciences (IAPPS). Dr. Umetsu was President or Vice President of the PSSJ for a total of six years, conference chair of the 3rd Pan-Pacific Conference of Pesticide Science held in Hawaii and vice president of the Biochemistry Assay Society of Japan.

Dr. Umetsu’s administrative experience includes: General Manager of Naruto Research Center,
Executive Managing Director of the Department of Agricultural Chemicals and Executive Managing Director of the Corporate Strategy at Otsuka Chemical Co. Ltd., Senior Managing Director of Otsuka Chemical Holdings Co. Ltd., Director of AgriBest Co., Ltd., and Director of Zhangjiagang Otsuka Chemical Co. Ltd, (China). He is currently a visiting professor at the Tokyo University of Agriculture and East China University of Science and Technology. On behalf of the Governing Board, let me warmly welcome Dr. Umetsu to the IAPPS family, while at the same time I would like to thank his predecessor, Dr. Tadashi Miyata for his valuable contribution to IAPPS.

I also have the pleasure to welcome Dr. James R. Steadman, Professor and Head, Plant Pathology Department at the University of Nebraska, as the new IAPPS Treasurer. Dr. Steadman obtained his M. Sci., Plant Pathology, in 1968 and his Ph. D., Plant Pathology, in 1970, both at the University of Wisconsin, Madison.

Dr. Steadman’s international career began when he was invited to present a lecture on the influence of plant architecture on diseases and consult with the bean program scientists at Centro Internacional de Agricultura Tropical (CIAT) in 1978. From this interaction with CIAT scientists, the need for, and opportunities to do research in the developing countries of the Americas became apparent. Dr. Steadman was part of the initial group of bean scientists to work in what has become the Bean/Cowpea Collaborative Research Support Program (CRSP, a unique component of the predominantly development-oriented USAID Agriculture Mission). The initial thrust of the Bean/Cowpea CRSP was in bilateral agreements with individual countries. Dr. Steadman was a member of a delegation of USAID-Washington and Caribbean officials who, in 1989, negotiated successfully with the local Mission to retain the B/C CRSP bean research effort in the Dominican Republic when macroeconomics was driving USAID officials to abandon portfolio objectives that supported local bean producers. It was through training of Dominican scientists, release of improved varieties with improved yields and development of disease management strategies that led to the Dominican Republic becoming self-sufficient in bean production in the late 1990's.

Dr. Steadman, through the Bean/Cowpea CRSP, has been contributing to Dominican Republic agriculture for over 25 years. The CRSP has trained two Ph.D. and 18 MS scientists who are now contributing to all aspects of Dominican agriculture. Dr. Steadman is the only remaining Principal Investigator from the first Bean/Cowpea CRSP five-year project of 25 years ago. He served as the Chair of the Technical Committee that has oversight of the research activities in East, West and Southern Africa and Latin America, and the Caribbean, and served as chair of the LAC Regional project.

In a similar way, Dr. Steadman had a seminal role in Sclerotinia Workshops. In 1974 he was one of four scientists who organized the first International Workshop and has served on the organizing committee or was the organizer of the 12 additional workshops that were presented over the past 30 years, most recently in England and New Zealand. He is the only member of the first organizing committee still active and has continued work with Sclerotinia forty years later. He also was a co-convener of the first Australasian Sclerotinia Workshop in Tasmania and has served as external examiner of Sclerotinia related Ph.D. theses in Canada and Sweden. Dr. Steadman presently serves as the Chair of the Sclerotinia Subject Matter committee of the International Society of Plant Pathology.

Dr. Steadman has dedicated nearly 40 years to international research training and outreach. He
has had an impact on in-country research infrastructure, research impact such as disease management strategies, disease resistant germplasm and variety releases. In addition, the funding generated for this international research has had an impact on Nebraska and US agriculture. For example, the nearly $3 million in USAID funding over the past 28 years has enabled the Nebraska bean breeding and disease management programs to continue to make contributions and impacts to local and national bean improvement. Invited lectures and talks in places as distant as Argentina, Australasia, Costa Rica, Sweden, England, South Africa, Egypt and Tanzania also have brought information to many foreign scientists. Please join me in welcoming Dr. Steadman on the Governing Board of IAPPS, and also to thank the outgoing Treasurer, Dr. J.R. James for the precious services rendered to the IAPPS community.

Dr. E. A. "Short" Heinrichs
IAPPS Secretary General
E-mail: eheinric@vt.edu

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**JOBC GLOBAL WORKING GROUP ON PARTHENIUM**

The International Organization for Biological Control of Noxious Animals and Plants has approved the formation of the Global Working Group on Parthenium. Convenors of this working group are: Kunjithapatham Dhileepan, Alan Fletcher Research Station, Queensland, Australia; Wondi Mersie, Virginia State University, Petersburg, Virginia; and Rangaswamy Muniappan, IPM CRSP, Virginia Tech, Blacksburg, Virginia.

The general aim of this working group is to promote the use of sustainable, environmentally safe, economically feasible, and socially acceptable control methods, including biological control, of Parthenium hysterophorus L. (Asteraceae) in the invasive plant's introduced range (Africa, Asia, and Australia).

Parthenium weed is a neotropical plant that has become a weed of global significance in recent decades. Around 1955, it got introduced to Australia and India and it is now established in many tropical countries around the world. It causes human and animal health problems, agricultural (crop and pasture) losses, environmental degradation, and reduction in biodiversity, heavily impacting on the livelihoods of people particularly in developing countries. Despite the extent, severity and impact of invasion by parthenium weed in many countries, at present only Australia, India, South Africa and Ethiopia have active biological control programs on this weed. Awareness by policy makers of the possibilities for managing this weed is limited in many developing countries. There is therefore a need to disseminate current information and promote research on biological control and management of this weed, and implementation of control measures. Specific aims of the working group are to promote a) implementation of classical biological control in the countries wherein it has invaded, b) integration of biological control with other control methods including chemical and mechanical control, and the use of competitive plants to displace parthenium, c) facilitate cooperation amongst researchers and stakeholders for management of parthenium weed, d) dissemination of information on recent developments in management of parthenium to policy makers, researchers, extension specialists, and other stakeholders. First meeting: A first workshop on Biological Control and Management of Parthenium will be held in Nairobi, Kenya, August/November 2010. It is a joint workshop with the Global Working Group on
Chromolaena.

Dr. R. Muniappan  
Program Director, IPM CRSP  
E-mail: ipm-dir@vt.edu

The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in Crop Protection to members and other subscribers. Crop Protection, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described here.

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

Dr. Manuele Tamo, Editor  
IAPPS Newsletter  
Biological Control Center for Africa, IITA-Benin  
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin  
E-mail: m.tamo@cgiar.org
"Short" Notes from the IAPPS Secretary General

I am currently in the Sao Paulo airport waiting for my flight back to the USA after two marvelous and productive months in Brazil. I continue to marvel at the “amizade” (friendliness) of the Brazilians and the excellent collaboration and support received in the fulfillment of the second phase of my Fulbright Fellowship in the area of rice IPM. I will report further in the next Newsletter on my research activities which were supported by UNISINOS, (a university in Sao Leopoldo, RS), IRGA (Instituto Riograndense do Arroz), the state rice extension and research organization in Cachoeirinha, RS, The Fundacao Zoobotanico in Porto Alegre) and others.

For now, I want to report on the activities of the Sociedade Entomológica do Brasil (SEB). During my time in Brazil I had the opportunity to take a weekend trip to Londrina, Parana, where I visited an old friend, Antonio Panizzi, a soybean entomologist and new President of the Sociedade Entomologica do Brasil. Antonio was an MSc. student in Curitiba, Parana when I was in Porto Alegre on the USAID- funded soybean program in 1972-1975 and we had the opportunity to collaborate at that time. Thus a lifelong friendship was established and now, 37 years later, we meet again in Londrina (one of the joys of old age and many exciting experiences in the past). I had the opportunity to visit the new headquarters of the SEB in Londrina and report on the current status of the society. Incidentally, I attended the first meeting of the society in 1972 and am delighted to see the progress made by this vibrant entomological society. And this message to IAPPS members! I would also like to report on your society and if you provide the material (script and photos) I would be delighted to inform other IAPPS members of your activities etc. in the Newsletter.

UNISINOS and IRGA, my Fulbright hosts in Brazil are hosting the SICONBIOL (Biological Control Society of Brazil) biennial meeting June 1-5 in Bento Goncalves, RS (in the heart of the grape region where Italian immigrants settled). I have included a poster announcement and the tentative program (in portuguese but scientific portuguese is similar to English so I am sure that you can read it).

Until next month!

Short in the Sao Paulo Airport

eheinric@vt.edu

Antonio Panizzi, Soybean Entomologist, Embrapa, Londrina, PR, Brazil and President of the Sociedade Entomologica do Brasil (SEB)
Sociedade Entomológica do Brasil (SEB)

The Sociedade Entomológica do Brasil (SEB) is a nonprofit entity that is composed of members of many nationalities. It was founded 22 February 1972 in Uruçuca, Bahia, during the Reunião de Entomologia Agrícola which was held on 21 - 25 February at CEPLAC. The society was founded by 43 entomologists.

Objectives:

- Provide a forum for the meeting of professors, scientists, technical specialists and persons interested in insects to promote the study of applied entomology and advance the profession for the benefit of humanity.

- Promote entomological studies and research having in view the scientific advance and the promotion of SEB at a national and international level.

- Stimulate the academic study of entomology at all levels.

- Maintain contact with institutes and entomological societies within Brazil and internationally.

- Promote and encourage interchange among professionals in the area of entomology.

- Promote entomological and other specialty congresses in Brazil.

- Publication of the journal, *Neotropical Entomology*;

- Publish the newsletter, *Informativo da Sociedade Entomológica do Brasil*;

- Promote entomological knowledge by means of publishing books, monographs, bulletins, CD-ROM videos and others.

- Stimulate the improvement of human resources in the area of entomology as necessary for the development of the country.

- Maintain a historical documentation center for the field of entomology.

- Honor entomologists who provide exemplary service of relevance to the area of teaching, research and extension.

- Promote and support entomologists and research centers in the various enological specialties.
**PRESIDENTE**

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**SECRETÁRIO TESoureiro**

Antônio M. Dias  
EMPARN  
Natal - RN

**Conselheiros**

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<td>Embrapa Uva e Vinho</td>
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**Editor da Neotropical**

**Editor da Bioassay**
Message from the President (from the SEB website)

Dear SEB Members,

I would like to report on the results of the 12 December 2008 of the SEB Board of Directors at which time we officially inaugurated the first office of the SEB which has been established in Londrina, Paraná. Until now the headquarters of SEB has been in the home of the President. At this meeting the following actions were taken:

1. X SICONBIOL (2009) – The President of the next symposium to be held in Bento Goncalves, RS June 1-5. Coordinator is Professora Lídia M. Fiúza of UNISINOS, Sao Leopoldo,RS and a website for the event has been established <http://www.unisinos.br/eventos/siconbiol/>

2. XXIII CBE (2010) – President of the Congresso Brasileira Entomologica, Marcone C. M. das Chagas has developed a contract with the Convention Center in Natal, site of the next congress.

3. Neotropical Entomology – The Chief Editor, Fernando L. Cônsoli discussed the transfer of the journal to the new editorial staff and explained his plans for the revision of the journal.

4. Bioassay – The Chief Editor, Celso Omoto discussed problems confronted by the journal since its inaugural issue. He suggested that the journal should become a journal with a mix of scientific articles, thematic subjects and article on technologies.

5. ISEB – Editor of the newsletter Informativo do SEB Gilberto S. Albuquerque presented suggestion for the improvement of the Newsletetter.

6. Treasurer – The Treasurer, Lauro Morales discussed the procedure for the transfer of the administration to Londrina and the changes to be made at the new site. Members will be able to make their annual dues payments via Visa credit card.

7. Secretary – The secretary Pedro J. Neves will revise the statutes and implement the functioning of the regional secretaries.

8. New site of the SEB – Executive Editor Sueli Martinez presented plans for the new SEB site
9. Participation in the Global meeting of presidents of entomological societies – President Panizzi reported on his participation at the meeting of presidents of entomological societies held during the ESA Meeting in Reno, Nevada, USA 17 November, 2008. Representatives were present from the USA, Canada, Australia, China, South Korea, the Czech Republic and Brasil. A memorandum of agreement was developed to promote global collaboration among the entomologists of the various national and regional societies.

Um forte abraço entomológico a todos.

A.R. Panizzi
Presidente

SEB board of directors in front of the new site of the SEB
Reunião da Diretoria da SEB (from left: Celso Omoto, Sueli Martinez, Antônio Panizzi, Marcone Chagas, Roberto Zucchi, Pedro Neves, Fernando Cônsoli e Lauro Morales).
SEB office in Londrina, Parana
With President Panizzi in front of SEB office in Londrina, PR
Bento Gonçalves-RS in the Serra Gaucha is known for its vineyards, wineries and natural beauty.
# PROGRAMAÇÃO PRELIMINAR DO XI SICONBIOL (Tentative)

## PALESTRAS INTERNACIONAIS

1. Toxinas de *B. thuringiensis* – Dra. Isabelle Larget-Thiéry - França ou Dr. Donald Dean - USA  
2. Mosquitos na Área de Saúde Pública – Dr. Jimmy B.- USA ou Dr. Juan García - Argentina  
3. Organismos Geneticamente Modificados – Dr. Nick Birch - Inglaterra ou Dr. Gary Fitt - Austrália  
4. Fungos entomopatogênicos – Dr. Richard Humber - USA  
5. Plantas Inseticidas – Dra. Catherine Regnault - França  
6. Controle Biológico em frutíferas – Dr. Kent Daane - USA

## PALESTRAS NACIONAIS

1. Vírus Entomopatogênicos – Dr. Flávio Moscardi –EMBRAPA/CNPSO  
2. Vetores de Doenças – Dr. Leon Rabinovich - FIOCRUZ  
3. Parasitóides – Dr. José Roberto C. Parra - ESALQ  
5. Microrganismos Endofíticos – Dr. João Lúcio de Azevedo - ESALQ  

## MESAS REDONDAS

**1- Microrganismos Entomopatogênicos – Bactérias/vetores**  
Coordenador: Dr. Leon Rabinovitch – FIOCRUZ/IOC  
Integrante 1. Dra Leda Regis – FIOCRUZ/CPqAM  
Integrante 2. Dra Lúcia Mardini - Secretaria da Saúde /RS ou Dra. Maria Alice Varjal  
FIOCRUZ/CPqAM ou Sônia E. A. da Silva – FIOCRUZ/IOC  

**2- Microrganismos Entomopatogênicos – Bactérias/Agricultura**  
Coordenador: Dra. Lídia Mariana Fiúza - UNISINOS  
Integrante 1. Dr. Pasqual Gantet – CIRAD ou Dr. Emmanuel Guiderdoni - CIRAD  
Integrante 2. Dr. Jeroen Van Rie - Bayer BioScience, Ghent ou Dra. Cristina Nielsen-Leroux - INRA  
Integrante 3. Dr. Ricardo Polanczyk – Universidade Federal do Espírito Santo

**3- Microrganismos Entomopatogênicos – Fungos**  
Coordenador: Dr. Augusto Schrank - UFRGS  
Integrante 1. Dr. Cirano Ulhoa - Universidade Federal de Goiás  
Integrante 2. Dra Neiva Monteiro de Barros - UCS
Integrante 3. Dr. Daniel Sosa-Gomez - Embrapa - CNPSO

4- Microrganismos Entomopatogênicos – Vírus
Coordenador: Dr. Bergmann Moraes Ribeiro - UNB
Integrante 1. Drª Maria Elita Batista de Castro – EMBRAPA/Cenargen
Integrante 2. Dr. Basil M. Arif - Canadá

5- Microrganismos fitopatogênicos
Coordenador: Drª Marilene Westein – UFRGS
Integrante 1. Drª Rute T. Silva-Ribeiro – UFRGS
Integrante 2. Drª Aida Matsumura - UFRGS
Integrante 3. Dr. Marcelo Morandi – Embrapa/CNPMA

6- Semioquímicos
Coordenador: Dr. Evaldo Vilela – Universidade Federal de Viçosa
Integrante 1. Dr. Maurício Bento - ESALQ
Integrante 2. Dr. Josué Sant’Ana – UFRGS

7- Coleções entomológicas como fontes para estudos taxonômicos e de biodiversidade
Coordenador: Drª Jocélia Grazia - UFRGS
Integrante 1. Dra. Vanda Helena Paes Bueno - Universidade Federal de Lavras
Integrante 2. Drª Elena Diehl
Integrante 3. Pesquisador a ser indicado (Canadá ou Viçosa)

8- Parasitóides
Coordenador: Dr. José Roberto P. Parra - ESALQ
Integrante 1. Dr. Fernando Cônsoli - ESALQ
Integrante 2. Dr. Odnei Fernandes – Monsanto

9- Nematóides
Coordenador: Dr. Mácio Voss – Embrapa/CNPT
Integrante 1. Drª Carla Ruth – Universidade Federal de Pelotas - RS
Integrante 2. Dr. Alcides Moino Jr. – Universidade Federal de Lavras – MG

10- Toxinas que conferem resistência de insetos e fitopatógenos
Coordenador: Dra. Célia Carlini - UFRGS
Integrante 1. Dra. Maria de Fátima Grossi de Sá – Embrapa/Cenargen
Integrante 2. Pesquisador a ser indicado

11- Controle Biológico no Manejo Integrado de Pragas de Lavoura
Coordenador: Dr. Ricardo Panizzi - Embrapa/CNPSO
Integrante 1. Dr. José Roberto Salvadori – Embrapa/CNPT
Integrante 2. Valmir Menezes - IRGA

12- Organismos Geneticamente Modificados
Coordenador: Dr. Giancarlo Pasquali – UFRGS
Integrante 1. Dra. Maria B. Zanettini – UFRGS/ULBRA
Integrante 2. Drª Deise Maria Fontana Capalbo – Embrapa/CNPMA
Integrante 3. Dr. Itamar Soares de Melo – Embrapa/CNPMA

13- Predadores e Vetores de Doenças
Coordenador: Dr. Rogério Pires da Silva – UFRGS/Agronômica
Integrante 1. Dr. Fernando Zanotta da Cruz – UFRGS/Agronômica
Integrante 2. Gervásio Silva Carvalho - PUCRS
Integrante 3. Dr. Élio Corseuil – PUCRS

14- Mosquitos na área da Saúde Pública
Coordenador: Dr. Carlos J. P. C. A. Coutinho - Instituto Butantan
Integrante 1. Drª Clara de Fátima Cavados – FIOCRUZ/IOC
Integrante 2. Drª Maria Helena Silva Filha - FIOCRUZ/CPqAM

15- Silenciamento Gênico
Coordenador: Dr. Marcelo Gravina de Moraes -UFRGS
Integrante 1. Dr. Rogério Margis -UFRGS
Integrante 2. Dr. Osmar Nickel – Embrapa/CNPUV

16- Manejo da Resistência
Coordenador: Celso Omoto - ESALQ
Integrante 1. José Magid Waquil – Embrapa/CNPMS
Integrante 2. Dr. José Francisco Martins – Embrapa/CPACT
Integrante 3. Dr. Vilmar Machado - UCS

17. Produtos, Registros e Patentes
Coordenador: Dra. Francys Villela - CESIS
Integrante 1. Dr. Fernando Valicente – Embrapa/CNPMS
Integrante 2. Dra. Rose Monnerat - Embrapa/Cenargen

18. Legislação, importação e exportação de produtos biológicos
Coordenador: Dr. Emerson Luís Nunes Costa – MAPA
Integrante 1. Dr. Fernando Tambasco – Embrapa/CNPMA
Integrante 2. pesquisador a ser indicado – IBAMA
Integrante 3. pesquisador a ser indicado – ANVISA

19. Agentes de Controle Biológico, Interações e Seletividade de Produtos Fitossanitários
Coordenador: Dr. Jerson Guedes - UFSM
Integrante 1. Pedro Manuel Oliveira Janeiro Neves - UEL
Integrante 2. pesquisador a ser indicado

20. Controle Biológico e Manejo de Pragas em Frutíferas
Coordenador: Dr. Marcos Botton – Embrapa/CNPUV
Integrante 1. Dr. Adalécio Kovaleski – Embrapa/CNPUV
Integrante 2. pesquisador a ser indicado

21- MONSANTO
Coordenador: Samuel Martinelli - MONSANTO
Integrante 1. pesquisador a ser indicado
Integrante 2. pesquisador a ser indicado
I. Hoeschle-Zeledon, formerly coordinator for the Global Facilitation Unit for Underutilized Species (GFU) within Biodiversity International (BI), and extensively experienced with IPM in developing countries, has taken up the SP-IPM coordinator reins from entomologist B. James, and relocated from Rome, ITALY, to the headquarters of the International Institute of Tropical Agriculture at Ibadan, NIGERIA, host center for the SP-IPM.

The Systemwide Program on IPM (SP-IPM) spearheads forward-looking research and outreach programs on crop pest management by pulling together the individual strengths and expertise of several CGIAR Centers and their partners.

The goal of the re-organized SP-IPM is to enhance the achievements of the CGIAR System Priorities and the related Millennium Development Goals through innovative IPM research.

Its mission is to make a significant contribution to the development of more productive and healthy agro-ecosystems through technological innovation and adaptation for improved pest and disease management.

The beneficiaries of SP-IPM are the stakeholders of the international agricultural community, especially in countries of the South, who will adapt the technologies for improved IPM and apply them to their crop management systems.

Future collaborative research undertaken by SP-IPM members will take place in three areas highly relevant to the efforts of the international agricultural community to secure adequate production of affordable and healthy food.

These three areas are:

1. Climate Change
2. Food and Feed Safety
3. Agro-ecosystem Resilience

**Climate change**
Climate change and climate variability are considered major threats to the increasing demand for food in a world with an ever increasing population. The predicted higher variation in current climate patterns will expand the movement of pests and diseases accelerate their population dynamics, and raise damage intensity levels making farmers vulnerable to both newly introduced pests and diseases, and endemic organisms. SP-IPM research plans to adapt IPM to the
challenges of climate change and variability and to provide solutions that assist farmers in the
developing world to cope with such outbreaks.

**Food and Feed Safety**
The right to adequate amounts of food is also the right to healthy food. In addition to the health
risks presented by pesticide residues and heavy metals in food and animal feeds, contamination
with mycotoxins causes serious food safety problems. Their carcinogenic and immune-
suppressing effects in humans and animals have prompted strict regulatory limits on the quantity
of these toxins, especially aflatoxins, permitted in food and feeds in many countries. As a
consequence, these limits represent a severe non-tariff barrier to trade affecting in particular
African countries were infestation levels are high but regulatory controls are largely ineffective.
SP-IPM carries out research to reduce contaminants that include pesticides and mycotoxins in
foods, feeds and the environment to ensure a supply of safe food and animal feed, and increase
the marketability of agricultural products.

**Agro-ecosystem Resilience**
Agro-ecosystems are complex and diverse biological systems that need to be managed carefully
to restore or improve soil, root and plant health which is required for enhanced agricultural
production. The ecological relationships between the various components of agro-biodiversity in
the various cropping systems are yet to be fully understood. Research undertaken by SP-IPM will
broaden the understanding of functional agro-biodiversity and develop habitat management
options for the control of important soil and plant pests in key agricultural production systems.

These three research areas will be further strengthened by multidisciplinary cooperation with
other scientific disciplines and by expanding knowledge on IPM technologies through capacity
building at the NARS in cooperating countries.

For further information, please contact the SP-IPM Secretariat hosted by the International
Institute of Tropical Agriculture.

These reports, as well as many other documents published by the SP-IPM since 2000, can be
downloaded from [http://www.spipm.cgiar.org](http://www.spipm.cgiar.org) by clicking on “SP-IPM reports.”
NEW ONLINE INFORMATION FOR CROP PESTS

The Australian Grains Research and Development Corporation (GRDC) has recently added to its website an extensive resource, including Australian and international research findings, that provide valuable information of relevance to Integrated Pest Management (IPM).

This online facility is part of the GRDC's Crop Protection Program which aims "to develop IPM strategies that reduce reliance on the use of broad spectrum pesticides, to facilitate a national extension network and to maintain a national capacity in invertebrate pest research through better use of resources and the provision of training opportunities".


Prof. Geoff Norton
IAPPS President
E-mail: g.norton@cbit.uq.edu.au

AAIS 18TH BIANNUAL MEETING AND SCIENTIFIC CONFERENCE FIRST ANNOUNCEMENT

The African Association of Insect Scientists is announcing its 18th biannual meeting and scientific conference titled "Insect pest and vector management for sustainable environment and food security in Africa: current developments", to be held in Ouagadougou, Burkina Faso, November 16-20, 2009.

The scientific program will include keynote addresses, symposia and exhibitions, invited and contributed papers. Papers on any of the sub-themes (see below) are invited for scientific presentations. In addition, we would like to encourage roundtable meetings / workshops / symposia for specific working groups. Members who wish to hold such meetings may please indicate the topic to the AAIS Secretariat.

Sub themes:

1. Current trends in the management of transboundary/migrant pests
2. Arthropod pests and vectors, and their sustainable control in Africa
3. Biotechnology, biosafety and genetically modified organisms (GMO)
4. Monitoring and forecasting as decision tools in pest and vector management
5. Pollinating insects and other useful insects
6. Climate changes and emerging issues in insect pest and vector management in Africa
The second announcement with more details will be sent to those who would have submitted their intent to participate following this first announcement. However, an early response of potential participants is highly recommended to ensure an effective follow up of the information for a successful conference.

**Important dates to remember:**

Mid-February 2009: publication of the second announcement  
March - July: (closing date): reception of the abstracts

For further details please contact:

**Prof. Karamoko Diarra,**  
The Hon. Secretary, AAIS  
Faculty of Sciences and Applied Sciences,  
University C. A. Diop of Dakar, Box 5005, Dakar - Fann, Senegal  
E-mail: kdiarra@ucad.sn or aaais@icipe.org

**MICROBIAL PRODUCTS: EXPLOITING MICROBIAL DIVERSITY FOR SUSTAINABLE PLANT PRODUCTION**

The New Zealand Plant Protection Society (NZPP) is announcing a pre-conference symposium to be held on Monday 10 August 2009, at Dunedin, South Island, New Zealand

**Background**

Microbes and their metabolites are poised to play an increasingly important role in agricultural systems as plant protection and growth promotion agents. The impetus for change has been driven by consumer and market demands for products with "no-detectable" chemical residues that are produced with minimal environmental impacts. Microbes contain an enormous diversity of genes with a broad range of functional attributes that are of potential value to agriculture. The symposium will be based around the development of Microbial Products relating to plant protection and plant growth promotion. The symposium will highlight opportunities to tap in to this renewable resource and outline steps towards their commercialization, including sessions determining potential of new organisms, production, formulation and investment and uptake by end-users

**Symposium organisation**

Submissions of original research, case studies or reviews covering any of the areas described above are welcome. Oral presentations will range from 10-20 minutes and will be published as a book. Please discuss potential submissions with the organizers, Sue Zydenbos (zydenbos@xtra.co.nz) or Trevor Jackson (trevor.jackson@agresearch.co.nz), and for further information visit [http://www.nzpps.org/conference2009.php](http://www.nzpps.org/conference2009.php)

The symposium will be held before the annual New Zealand Plant Protection Society Conference scheduled on 11-14 August 2009 at the Otago Museum Conference Centre, on Great King St, Dunedin, New Zealand.

**Dr. Trevor A. Jackson**  
IAPPS Coordinator Region X: Oceania  
AgResearch, Lincoln, New Zealand  
E-mail: trevor.jackson@agresearch.co.nz
The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in *Crop Protection* to members and other subscribers. *Crop Protection*, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described [here](#).

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

**Dr. Manuele Tamo, Editor**  
*IAPPS Newsletter*  
*Biological Control Center for Africa, IITA-Benin*  
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin  
E-mail: [m.tamo@cgiar.org](mailto:m.tamo@cgiar.org)
As the photos below indicate, I am back in Brazil to complete the second half of my Fulbright Fellowship. I am in Porto Alegre where I am involved in a rice IPM project with colleagues at the Universidade do Vale do Sinos (UNISINOS) at Sao Leopoldo (see photo below) and at the Instituto de Rio Grandense do Arroz (IRGA) in Cachoeirinha, both cities being near Porto Alegre. We are conducting a study on the population of rice insects and their natural enemies in pesticide treated and non-treated irrigated rice in three locations in the state of Rio Grande do Sul. It has been interesting to compare the species of insect pests and natural enemies here with my studies conducted in Asia and Africa.

I had the opportunity to take a weekend trip to Londrina, Parana, via an 18 hr. bus trip from Porto Alegre. Londrina is known for being the site of the National Soybean Center (CNPSO Embrapa). I was with the Center when Embrapa was inaugurated in 1973 and left for IRRI in the Philippines when it moved to Londrina in 1975. I was amazed at how soybeans have replaced coffee and are virtually grown everywhere in Parana. My view from the bus at times was soybeans as far as the eye could see, in all four directions! The development of varieties that yield well further north has resulted in the movement of soybean production into Parana and Mato Grosso where today some of the largest soybean farms in the world are found.

I had the privilege of meeting IAPPS Governing Board member, Claudia Godoy who is the soybean rust expert for Brazil (see photo). I was hosted by a long time friend, Antonio Panizzi, a stink bug expert and new President of the Sociedade Entomologica Brasileira. I will report on the activities of the SEB in my next Newsletter.

I have mentioned a number of meetings of interest in the Newsletter. If you are coming to the International IPM Symposium I invite you to attend the “Global Food Shortages” workshop of which I am a co-organizer (see the yellow box in the schedule on page 2.

Claudia Godoy, IAPPS Governing Board and Coordinator for Region XII, Latin America/ Caribbean at the Embrapa Soybean Center, Londrina, PR, Brazil.
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<tr>
<th>Time</th>
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<th>Thursday, March 26</th>
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<td>45/42 how successful is area wide pest management - Elliott</td>
<td>3/47 Entomopathogens and IPM – P Stock</td>
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<td>21/24 PM</td>
<td>24/18 Implementation of IPM in corn and soybean transgenic landscape - Gray</td>
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<td>20/45 IPM strategies for thrips and tospovirus outbreaks - Pappu</td>
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<td>64/1 EPA Partnerships - Glick</td>
<td>39/91 Transcending boundaries w/ Innovation in IPM for School and Childcare Facilities - Green</td>
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<td>22/100 PM</td>
<td>41/21 Collaborating on School IPM – Bartholomew/Simmons</td>
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<td>52/99 green pest management - Green</td>
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<td>28/89 Transcending farm boundaries: cropping systems using protein marking techniques – Goodell/Mueller</td>
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<td>5/14 Utilizing Communications &amp; Technology to Deliver your IPM Message – Auman-Bauer</td>
<td>12/11 It’s not easy to be simple – delivering ipm lawn care outreach messages – Malinoski</td>
<td>16/79 The challenges of developing and implementing IPM programs for bark beetle infestations in Western North America – ayes</td>
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<td>42/64 Soil quality management as an approach to pest management: examples from organic research – Zehnder/Sooby</td>
<td>13/81 The IPM explosion in CA retail stores - Davidson</td>
<td>10/33 distance education in IPM by the IPM3 training consortium – Ascerno</td>
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<td>59/90 mitigating or eliminating pesticide - Jepson</td>
<td>6/52 IPM working groups in the North Central U.S. – Wright/Jepson</td>
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<td>36/8 History, causes and challenges of insecticide and herbicide resistance – Gore/Adamczyk/Koger/Stockel</td>
<td>16/79 The challenges of developing and implementing IPM programs for bark beetle infestations in Western North America – ayes</td>
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<td>1/8 Creating Temporal and Spatial Refugia for biological control in tree fruits and nuts - Knight</td>
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<td>41/21 Collaborating on School IPM – Bartholomew/Simmons</td>
<td>49/65 Termite baiting systems – Tolley</td>
<td>Brainstorming Session - Adoption: Taking IPM to the Streets</td>
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<td>58/20 tools for fostering ipm success in residential environments – Bushway</td>
<td>53/71 IPM and Healthy Homes – Seikel/Neltner</td>
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<td>Brainstorming Session - Adoption: Taking IPM to the Streets</td>
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<td>17/3 Global Food Shortages</td>
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<td>Rice Soybeans Sorghum/Millet Maize Vegetables - Heinrichs, Fostet, Muniaipan</td>
<td>12/11 It’s not easy to be simple – delivering ipm lawn care outreach messages – Malinoski</td>
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**6th International IPM Symposium Schedule**

**Tuesday, March 24**
- 1:30–3:30 PM: Evaluating Impacts of IPM - Swinton
- 3:45–5:30 PM: Economics of IPM in Developing Countries - Alwang

**Wednesday, March 25**
- 9:00–11:00 AM: Integrated crop management - Nechols
- 1:00–3:00 PM: how successful is area wide pest management - Elliott
- 3:30–5:30 PM: Brainstorming Session - Adoption: Taking IPM to the Streets

**Thursday, March 26**
- 8:30–10:30 AM: Expanding IPM into IVM: integrated vegetative mgmt – Noe/Vickery
Dear IAPPS Members,

I am very happy to inform you that in continuation of our previous biopesticides international conference (BIOCICON2007) we plan to conduct the second biopesticides international conference (BIOCICON2009) from 26 - 28 November 2009 at St. Xavier’s College, Tamil Nadu, India. Please find herewith the details and invitation for your consideration. I am very grateful, if you give wide publicity to this conference. Please inform your Newsletter readers that if they are interested in delivering special lectures on ecofriendly pest management please contact me directly). Thank you for your assistance.

Thanking you,

Yours sincerely,

K. Sahayaraj
Organizing Secretary
BIOCICON2009
Tamil Nadu, India
Biocon2009@gmail.com
Title (Prof/Dr/Mr/Mrs/Ms) ————————————
First Name :
Second Name :
Age ———— Sex : Male / Female ————
Full Postal Address ————————————

State/Province ————————————
Pin code ————
Country ————————————
Phone No: ———— (O) ———— (Resi.)
Fax : ———— (O) ———— (Resi.)
Cell : ———— (O) ———— (Resi.)
E-mail : ———— (O) ———— (Resi.)

Please tick in appropriate places:
I/we will attend the conference _
I/we will submit oral presentation _
I/we will submit poster presentation _
I/we will be accompanied by———person(s) _
I/we need accommodations _
Tentative title of my/our presentation is :

Authors Name (s) : ————————————
* Kindly underline the presenting author

Sessions of the conference:
_ IPM _ Pests
_ Microbes _ Botanicals
_ Natural enemies _ Biotechnology–product developments

Registration Fee Payment Details:
DD No. ———— Date ————
Drawer bank details ————————————
Place :
Date : Signature

N. B: 1. Kindly display this form in your Institution/Department notice board.
2. This form can be photocopied.
3. Please mail this registration form to the corresponding address (Biocon2009@gmail.com) before 28th May 2009.
New Virology Book

I received the following from Safaa Kumari of ICARDA <S.KUMARI@CGIAR.ORG> which was sent to all Arab Society of Plant Protection members regarding the publication of a new virology book by the Society. I apologize to those of you who do not read Arabic but do not have an English version of the announcement. I apologize to Safaa if I got the pages reversed! If you need more information please contact Safaa.

EAH
**Plant Protection and Plant Health in Europe**

You still have time to register for this symposium. Details were included in my last Newsletter.

EAH

[Image: DPG BCPC symposium logo]

http://dpg-bcpc-symposium.de/programme.html

13-16 May 2009

**The Symposium Topic**

Plant production has to meet considerably mounting demands in the future. Expanding global markets and the competition of food and non-food uses require further significant progress in productivity levels. In Europe as well as globally, increased production will have to be achieved on the same or decreasing area of arable land. If global welfare is to be maintained or improved an increased efficiency per unit area is required. At the same time, climatic changes may aggravate the conditions of growth in less favourable locations. Thus, the scenario which agriculture is facing is further intensified crop rotations with a limited number of high-yielding crops for the food or raw materials market, under aggravated climatic conditions. Altogether, these developments will result in a significant increase in problems caused by biotic and abiotic stresses, which will inevitably limit yield levels.

One way out will be improvement of cultivars. Breeding programmes are currently set up to meet the new challenges. Recent biotechnological progress has opened new avenues for further and faster advances in crop breeding. Cultivars with better resistance to biotic and abiotic stress are becoming a real option. However, a number of emerging questions need to be answered. What will be the major threats in crop production systems over the next few decades? Which traits are needed and which can be expected to become available in new cultivars within the next few years? How can the new biotechnologies be helpful in producing cultivars harbouring the desired new traits?

This symposium seeks to gather experts from the fields of crop production, crop protection, plant breeding and crop plant biotechnology in order to stimulate answers to these questions. In particular, this symposium will address the following topics:

**Driving forces for modifications of production systems in a changing world.**

This topic will gather knowledge on the main factors influencing crop production systems and will seek to project how crop production systems might look like in Europe in the next decade, taking into account diversity in product uses, altered markets and a changed climate.
New challenges for crop protection through changed climate and markets. Based on the current status we expect reports on new emerging pests and diseases resulting from altered crop rotations and a changed climate. The economic impact will be estimated for major crops based on the relative damage potential of the various stress factors.

Resistance in crop plants – current status. Status reports will be presented highlighting the currently available resistance traits in the most important European crops and crop cultivars.

Resistance in crop plants – current potential and future innovations. Current potential and future innovations in crop resistance to biotic and abiotic stress will be outlined. The role of modern biotechnology vs. conventional breeding technology is to be critically reviewed.

BCPC News

If you are interested in receiving the BCPC News weekly via email please send a note to:

"BCPC News" News@bcpc.org

The BCPC News  23 February 2009 contains the following items:

+------------------------------------------+
    Pesticide Regulation
    Pesticide Exposure
    GM Crops
    Organic Crop Production
    Bio-Fuels
    Agricultural Policy
    Bees
    Environment
    Invasive Aliens
    Climate Change
    Agricultural R&D & KT
    Nanotechnology
    Risk Assessment
+------------------------------------------+

The following is an example of an article in the GM crops section:
Flickr/Luciano Ghersi

[CHICAGO] An ambitious attempt to bioengineer cassava into a "complete meal" took a step forward last week with the approval of field trials for the plant by Nigeria's National Biosafety Committee.

The genetically modified cassava contains 30 times as much beta-carotene, a precursor of vitamin A, as its normal counterpart. Ultimately it is hoped the cassava will contain increased levels of iron, protein, zinc and vitamin E that will meet the minimum daily allowance in a 500 gram meal.

"This is one of the most ambitious projects ever attempted in a major crop plant," said Richard Sayre of the Donald Danforth Plant Science Center in St Louis, Missouri, who spoke at the annual meeting of the American Association for the Advancement of Science, held in Chicago, the United States last week (13 February).

Sayre directs the BioCassava Plus programme, which began in 2005 under the Grand Challenges for Global Health Programme. The challenge is to provide complete nutrition in a single staple crop.

Some 250 million people in Sub-Saharan Africa — and 800 million people globally — rely on cassava as their main source of energy. But it is low in nutrients, vulnerable to plant viruses, and it lasts only two days without processing.

As well as adding extra nutrients, the team has successfully produced varieties with increased virus resistance, decreased amounts of poisonous cyanides — which can remain in cassava if the crop is poorly processed — and a longer shelf life.

"We're transforming it into a staple that will provide complete nutrition," Sayre told SciDev.Net. Laboratory and greenhouse tests have been successful — for example, iron levels were increased ninefold, zinc fourfold and protein fourfold. The next stage is
confined field trials — small-scale field trials to evaluate the performance of the crop under stringent conditions.

If those succeed, there will be nutrition trials, first in animals and then in humans. Nigeria's approval is the first it has granted for a GM confined field trial, said Sayre — though the document awaits the signature of the country's environment minister. The Nigerian National Root Crops Research Initiative will oversee the trials.

So far the traits have been introduced individually into plants. The first product with multiple traits is likely to contain just elevated vitamin A, iron and protein as well as virus resistance.

"To add the other four is going to be technologically more challenging," said Sayre.

The team also hopes to begin confined field trials in Kenya, to be overseen by the Kenya Agricultural Research Institute, before the end of 2009.

"We are now in the process of training African scientists in our labs. They are going to learn the technology to make a transgenic cassava plant. They will return and make the final products themselves," said Sayre.

New Book

**Biotechnological Approaches for Pest Management and Ecological Sustainability**

I received this message from George Kenney of Taylor and Francis Books, USA regarding a new book written by IAPPS Governing Board member Hari Sharma of ICRISAT, India. Please note the 20% discount for IAPPS members.

EAH

“I apologize for the informality of this email, as I am attempting to reach those that should have an interest in our recently published book, Biotechnological Approaches for Pest Management and Ecological Sustainability. I have attached a discount offer for this important reference book. Please feel free to use the attached discount order form should you wish to order copies of this book. You might share this form with your cohorts so that they too can realize the discount. Thank you for your effort. If you are interested in information on a purchase in quantity for training or promotion please let me know and I can work out the details.”
Regards

George Kenney

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561-361-6049, fax
561-329-7533, mobile
george.kenney@taylorandfrancis.com

Biotechnological Approaches for Pest Management and Ecological Sustainability
Hari C Sharma

List Price: $129.95

Cat. #: 21631
ISBN: 9781560221630
ISBN 10: 1560221631
Publication Date: December 17, 2008
Number of Pages: 546
Availability: In Stock
Preview / Search within the Book
Examines how bioassay techniques can be used to evaluate mapping populations and the bio-efficacy of transgenic plants for pest management

Presents an in-depth analysis of the interaction of transgenic plants with non-target organisms in the environment

Discusses issues related to the biosafety of food, feed, and forage derived from genetically modified crops

Covers the consequences of gene flow and the development of resistance to the transgene and selection markers

Includes biotechnology applications for the improvement of bio-pesticides and the discovery of new insecticide molecules

Due to increasing problems occurring from massive applications of pesticides, such as insect resistance to pesticides, the use of biotechnological tools to minimize losses from insect pests has become inevitable. Presenting alternative strategies for alleviating biotic stresses, Biotechnological Approaches for Pest Management and Ecological Sustainability explores how the modern tools of biotechnology can be used in pest management for sustainable crop production, the biosafety of transgenic crops, and environmental conservation. This comprehensive work covers a gamut of issues ranging from host plant resistance to insect pests to the application of molecular approaches for pest management. It discusses phenotyping transgenic plants, mapping populations for insect resistance, physico-chemical and molecular markers associated with insect resistance, the potential of insect-resistant transgenic crops for pest management, and the use of biotechnological tools for diagnosing insects and monitoring insect resistance to insecticides. The author examines how genetic engineering can be used to produce robust natural enemies and more virulent strains of entomopathogenic microbes. He also studies issues related to gene flow, resistance to transgenes and selection markers, the biosafety of food derived from genetically engineered plants, and the potential application of molecular tools for solving some of the intricate pest problems in the future. Focusing on how to make the development and deployment of biotechnology-derived products for pest management safe and cost-effective, this book will enable readers to make informed decisions on genetically engineered organisms for pest management and sustainable crop production.

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1ST CHINA-KOREA JOINT SYMPOSIUM ON INSECT BIOTECHNOLOGY

The above mentioned symposium was held at Zhongnan Garden Hotel, Wuhan, P. R. China during August 20-23, 2008, to initiate a scientific research network in the Asia-Pacific Rim intended for international academic and industrial institutions and professionals in this area.

The scientific program consisted of 5 plenary lectures, 17 oral presentations and a total of 52 posters. During the symposium, subjects ranging from mode of action of insecticides, mechanisms of insecticide resistance, molecular phylogeny and insects taxonomy, development of high active enzymes from invertebrate microbes, etc. were discussed. The afternoon of Aug. 22 was dedicated to a half-day trip for enabling all participants to visit the nearby Huazhong Agricultural University in Wuhan.

There were about 50 participants from China, 40 from Korea, 5 from the USA, 1 from Japan and 1 from UK. Throughout the symposium all presentations were held in the same conference room and most of attendants stayed in the same hotel, thus facilitating formal and informal interactions between the participants on subjects of mutual interest in the field of insect biotechnology. During the closing ceremony, the organizing committee awarded special recognitions to excellent student presentations. This is the first symposium of this kind jointly organized by Huazhong Agricultural University, China and The Korean Society for Insect Biotechnology, Korea. The next symposium will be held in Pusan, Korea in 2009.

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SEQUEL TO THE ARTICLE 'IPM INCLUDES THE USE OF PESTICIDES'

In the recent discussion article on "IPM Includes the Use of Pesticides" in the last (January 2009) issue of the IAPPS newsletter, it has been mentioned that "farmers in India have indiscriminately used the least expensive broad spectrum insecticides to control sucking pests in Bt cotton and this has resulted in disaster, as mealybugs have infested the cotton fields in the absence of their natural enemies." This statement is not correct. In the past, mealybugs were not a problem in cotton. Farmers might have controlled mealybugs with insecticides used for control of bollworm and other pests in the non-Bt cotton fields and prevented the flare up of mealybugs. The truth of the matter is that the current outbreak of the mealybug in Bt cotton and vegetable fields in India is due to the establishment of a new species of mealybug which has been introduced in the past couple of years. It is known as Phenicoccus solenopsis Tinsley (Hemiptera: Pseudococcidae), a native of North America. It was first collected and described from New Mexico in 1897. In 1990, it
was first reported as a pest of cotton in Texas. It remained in the U.S. until 1992 before moving into Central America, the Caribbean, and Ecuador. In 2002, it was reported in Chile and Brazil. In 2007 it has been reported from Ghana and in 2008 from Nigeria.

Currently *Phenacoccus solenopsis* is also causing serious damage to cotton in Pakistan but this mealybug has been incorrectly identified as *Phenacoccus gossypiphilous* which is a *nomen nudum*. Israel, Pakistan and India have already contacted the California Department of Agriculture for possible collaboration in identification, collection, rearing and supply of natural enemies of this mealybug for classical biological control.

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**VIRGINIA TECH WINS GRANT FOR IMPROVING FOOD SECURITY IN AFRICA**

Amid global concerns about food security, Virginia Tech's Office of International Research, Education, and Development has been awarded a $1 million grant from USAID to improve agricultural productivity and ease trade barriers in Africa.

The African Food Security Initiative: Quality Food Production, Availability, and Marketing will focus on enhancing production of staple food commodities including the tomato-one of the most important cash crops for small-scale growers in Africa-and rice and maize, both major sources of dietary carbohydrates on the continent. The three-year project is funded by USAID's Bureau for Economic Growth, Agriculture and Trade.

The project will address food security and trade issues in the sub-Saharan countries of Mali and Senegal in West Africa and Uganda in East Africa. Both Mali and Senegal have stable governments interested in addressing agricultural issues and trade constraints. In Senegal, the least self-sufficient country in West Africa for rice production, the government has committed to growing all of its own rice by 2015.

Uganda, part of the East Africa Community that also includes Kenya, Tanzania, Rwanda, and Burundi, is eager to strengthen trade both locally and with the European Union, a major trading partner. Entebbe's international airport is an embarkation point for agricultural exports to Europe worth $25.5 million annually. The African Food Security Initiative, by setting up pest diagnostic labs and developing human resources in plant health and inspection, will help assure European importers that food coming from Africa meets international safety standards.

Techniques developed by the program will extend science-based food production methods that will increase yields, reduce crop risks such as virus diseases and insect pests, and lay the foundation for long-term productivity growth.

Virginia Tech will partner with Ohio State University as well as organizations in each of the targeted countries: the Office of the Upper Niger Valley and the Institute of Rural Economy in Mali, the Senegal Institute of Agricultural Research, and the National Agricultural Research Organisation and Makerere University in Uganda.

The project is an associate award to Virginia Tech's Integrated Pest Management Collaborative Research Support Program, also funded by USAID, which has been working in sub-Saharan Africa for 15 years.
"This award represents a tremendous opportunity for Virginia Tech," said S.K. De Datta, associate vice president for international affairs and director of the Office of International Research, Education, and Development. "Through our past success in international agricultural research, we have built a good reputation both overseas and with donor agencies. In this time of rising food prices worldwide, I'm honored that we've been selected to manage this critically important project."

Miriam Rich  
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The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in Crop Protection to members and other subscribers. Crop Protection, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described here.

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin  
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“Short” Notes from the IAPPS Secretary General

The XVII IPPC (APS/IAPPS Joint Meeting) is less than two years away now and we will begin giving you regular updates regarding the planning for this Congress to be held in Honolulu, Hawaii August 6-10, 2011. The website has been set up so please go to http://www.apsnet.org/meetings/APS-IAPPS/ and click on “Sign Up for Updates” and complete the form to receive periodic updates about the 2011 APS - IAPPS Joint Meeting.

Bill Tweedy, Chair, has formed an excellent 2011 PPC Program Organizing Committee. The Committee is a diverse group covering all of the plant protection disciplines. We will keep you informed as to their progress in establishing a relevant program for 2011. Keep in mind that you can have a role in establishing the program and I invite all of you IAPPS members to contact the committee member in your particular discipline. I have included the list of committee members and their email addresses in this Newsletter.

IAPPS Governing Board Member for Southeast Asia K. L. Heong from IRRI sent me a note regarding the “Ricehoppers blog.” This blog is providing useful information for anyone involved in the management of the rice brown planthopper, Nilaparvata lugens an infamous rice pest in Asia. I probably have more publications on this insect than all of my other publications combined. As indicated in the blog, this pest is rearing it’s ugly head in Asia again and challenging IPM specialists. K.L. has also posted an article regarding the 50th anniversary of Integrated Pest Control (IPC). It was October 1959 when the Integrated Pest Control (IPC) concept was first published by Vernon M. Stern, Ray F. Smith, Robert van den Bosch and Kenneth S. Hagen in Hilgardia, a publication of the University of California, Division of Agriculture and Natural Resources. The world’s farmers owe a huge debt to these four visionary thinkers and those who have come along after to fully develop the concept of Integrated Pest Management.

I was recently in Mali serving as a rice IPM consultant for the USAID Mali, VA Tech African Food Security Initiative Project. I have included a summary of my trip a report and a photo gallery depicting some of the plant protection problems for which the Malian rice farmers are anxiously awaiting a solution.

Short
eheinric@vt.edu
The 2011 APS /IAPPS Joint Meeting (XVII IPPC) site is up.

http://www.apsnet.org/meetings/APS-IAPPS/

We are now in the process of adding content.

Save the Date!

August 6 – 10, 2011
Honolulu, Hawaii

The American Phytopathological Society will join the International Association for the Plant Protection Sciences for the 2011 APS/IAPPS Annual Meeting in Honolulu, Hawaii. Hawaii’s central location in the Pacific Rim will attract attendees and speakers from around the world, making this a truly unique experience for plant pathologists and plant health scientists.

The Call for Papers will be open February 1 – March 15, 2011

The American Phytopathological Society (APS)

The International Association for the Plant Protection Sciences (IAPPS)
IAPPS 2011 IPPC Program Organizing Committee

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Note from K. L. Heong, IRRI regarding the “Ricehoppers blog”

Dear colleagues
We have just posted the Project brochure in project news. It describes the rationale, objectives, outputs, activities, research collaborators and funding partner. You can download this at
<http://ricehoppers.net/> http://ricehoppers.net/project-news/.

We have included a section on "Publications" to share pdfs of publications. Please send pdfs of related papers to me or Dr M.M. Escalada (m.escalada@gmail.com) and we will "park" them in this section for downloading.

The Ricehoppers blog is to enhance communication, sharing of information, research techniques, results and opinions. So please send us materials for posting or leave a comment.

With the help of Dr Escalada, we started the Ricehoppers blog to serve as a platform for discussions and information sharing on rice planthopper problems in various regions. Please feel free to send us news, field reports, observations, methods, research findings and comments. For comments click at the word "comment" at the end of each posting.

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A few days ago Professor Dale Bottrell of the University of Maryland brought to my attention this important event. In October 1959 the Integrated Pest Control (IPC) concept was first published by Vernon M. Stern, Ray F. Smith, Robert van den Bosch and Kenneth S. Hagen in Hilgardia, a publication of the University of California, Division of Agriculture and Natural Resources. It was exactly 50 years ago. The University of California, Agriculture and Natural Resources, News and Information Outreach recently published “The 50th anniversary of a great idea”, recalling how these four pioneering scientists deviate from the norm and outlined a new way of thinking about pest control, establishing a pest management framework that made significant changes in many parts of the world.

The scientists proposed 4 basic principles that are essential to achieve sustainable pest management. In today’s agriculture, more than ever, these principles are most applicable:

- Recognition that agriculture is part of the larger ecosystem, comprised of all the living organisms of an area and their environment.
- Supervision of insect levels so chemical applications take place only when and where they are absolutely necessary.
Promotion of beneficial insects through conservation and augmentation.
Use of products and application timing to target specific pests, minimizing the effect of treatment on pests’ natural enemies.

IPM training and media campaigns

IPM, introduced to rice production in later 1970s, contributed significantly to rationalizing pesticide use. Training and media programs in the 1990s reached millions of rice farmers, reducing their insecticide use by more than 50%, increasing farmers’ profits and reducing their exposure to toxic pesticides. Rice production in Asia had enjoyed a period of minimal pest outbreaks and the success in rice has been frequently cited. However in the last few years, the pest that had threatened the Green Revolution in Asia, the brown planthopper (BPH), is beginning to show up in outbreaks in some of the intensive cultivation areas in Bangladesh, Cambodia, China, Japan, Korea, Laos, Malaysia, Thailand and Vietnam. Read the various reports in this blog. In addition another planthopper species, the white backed planthopper (WBPH) which had been a minor problem has become a major concern in many areas. In temperate China, another species, the smaller brown planthopper (sBPH) is doing more damage than ever before. Planthopper species have also developed multiple fold resistance to some insecticide active ingredients, like imidacloprid. For details of that report, click here.

Perhaps the years when IPM had been successful had led to complacency, reduced support and neglect. Has IPM become a victim of its own success? Today unnecessary spraying of insecticides in rice production is higher than ever before (see report on that here) which often leads to the destruction of essential ecosystem services. Plant protection structure and policies continue to favor the “yin” forces thus creating a conducive environment that encourages unnecessary insecticide spraying (see report of that here). On the 50th anniversary of the IPM concept, we now need to re invent IPM as the 4 basic principles that Stern et al (1959) proposed are needed more than ever in our attempts to reduce poverty and protect environmental sustainability.
TRIP REPORT
August 6-13, 2009

Workplan Finalization: African Food Security Initiative (AFSI)- Quality Food Production, Availability and Marketing Project
Rice Component: Mali

E. A. ‘Short’ Heinrichs, Consultant, VA Tech
Ozzie Abaye, Agronomist, VA Tech

Summary

The objective of this trip was to obtain information to facilitate the development of a final workplan for the Mali components of the IPM CRSP: African Food Security Initiative (AFSI)- Quality Food Production, Availability and Marketing Project, Award Number EDH-A-00-08-00015-00.

The trip included meetings at our hotel in Bamako with scientists of IER (Institut d’Economie Rurale), visits to Niena village women’s rice project and M’pegnesso village, both in Sikasso region; IER Sikasso Station in Sikasso; OPIB (Office du Perimetre Irrigué de Baguineda) in Baguineda; IER Station in Sotuba and the USAID AEG team at the USAID Mission in Bamako. A photo gallery provides a visual snapshot of agencies and persons visited farmer activities and constraints to production.

The major constraints according to the meetings with IER scientists and farmers were in order of importance as follows: Niena Women’s Project: Rice Yellow Mottle Virus (RYMV), insects soil fertility and shortage of seeds of high yielding and RYMV resistant varieties. Note that weeds are not considered as constraints as they feel that the problem can be managed by hand weeding. However, weeds appeared to be causing severe yield losses as rice plants in weeded fields were stunted due to weed competition prior to weeding and were damaged in the weeding process. M’pegnesso village: RYMV, a type of disease (unidentified) that stunts and kills young plants (4-5” tall) (a bacterial disease, “kresek like”? …they emphasized the seriousness of this particular “disease”), shortage of seeds of high yielding and RYMV resistant varieties, rice “blast” Pyricularia oryzae, brown leaf spot, Helminthosporium oryzae, stem borers and termites. OPIB Baguineda: RYMV, AfRGM (African Rice Gall Midge) and shortage of seeds of high yielding and RYMV and AfRGM resistant varieties.

Based on the perceived constraints to rice production at the three sites a workplan has been developed in collaboration with the IER and IICEM. OPIB Baguineda: Abdoulaye Hamadoun has developed a plan to conduct a survey and prepare a map indicating the spatial distribution and intensity of insect and disease damage throughout the OPIB Baguineda (Elaboration d’un Référentiel Spatial pour le suivi des nuisibles du riz dans le Périmètre Irrigué de Baguineda). Niena Women’s Project: Demonstration plots using the best management practices available for lowland rice production will be established. Components will include the monitoring...
of rice pest and disease intensity and rice plant damage and populations and the cultural management of insects, diseases and weeds with emphasis on RYMV. Also, seed production activities will be conducted in Niena with the women’s farmer group. M’pegnesso village: Demonstration plots using the best management practices available for lowland rice production will be established. Components will include the monitoring of rice pest and disease intensity and rice plant damage and populations and the cultural management of insects, diseases and weeds with emphasis on RYMV.

**Photo Gallery**

*Sikasso and Baguineda Regions, Mali, 8-12 August 2009*

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<th>Photo</th>
<th>Description</th>
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<td><img src="image1.jpg" alt="Photo" /></td>
<td>IER Scientific Coordinator Irrigated Crops (Rice and Legumes), Niamoye Yaro (left) and Virginia Tech Agronomist, Ozzie Abaye at hotel meeting, Bamako, Mali.</td>
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<td><img src="image2.jpg" alt="Photo" /></td>
<td>Niena village, site of the 130 ha women’s rice project supported by USAID/IICEM.</td>
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<td>Leader of the Niena village women’s rice project supported by USAID/IICEM.</td>
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<td>“Weeds, the scourge of rainfed lowland rice production.” Weeding at the Niena village women’s rice project. Woman at left has a baby on her back.</td>
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<td>M’pegnesso village women rice farmers.</td>
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<td>M’pegnesso villagers explaining their constraints to rice production with IER scientists.</td>
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<td>Image 1</td>
<td>“Panichure jaune” or Rice Yellow Mottle Virus (RYMV) infected plant at M’pegnesso village. Note the yellow, rusty color.</td>
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<td>Image 2</td>
<td>As panicles of rice ripen women harvest the selected with a sickle in M’pegnesso village.</td>
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<td>Image 3</td>
<td>Meeting the IER Sikasso Station Research Director Harouna Kossi (right). Djiguiba Kouyate, IICEM/ACDI VOCA (left) provided our transportation to Sikasso.</td>
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<td>Image 4</td>
<td>Moro Traore, IER Sikasso plant pathologist in front of a diagram depicting the transversal profile of a bas fond (lowland rice production area) showing the hydromorphic area.</td>
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<td>Mme Gambye, IER Sotuba Entomologist and Abdoulaye Hamadoun, IER Sotuba Station Director and Rice Entomologist discussing rice pest problems (RYMV and AfRGM) occurring at the OPIB (Office des Périmètres Irrigués de Baguineda) (Baguineda Irrigation Scheme Intensification Project)</td>
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<td>Nursery to produce seedlings for varietal resistance screening to the African Rice Gall Midge (AfRGM) <em>Orseolia oryzivora</em> at the OPIB, Baguineda. Dr. Abdoulaye Hamadoun is the project leader.</td>
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<td>OPIB Baguineda rice farmer explaining his pest constraints to rice production.</td>
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Panichure jaune (Rice Yellow Mottle Virus) infected plant at OPIB, Baguineda. Note the yellow leaves.
“Silver shoot” or “onion shoot” (gall) caused by the African Rice Gall Midge (AfRGM) *Orseolia oryzivora* at the OPIB, Baguineda. The adult fly emerged through a hole produced by the larva before pupation near the tip and the tip above the emergence hole is broken and hanging down.
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<td>![Image](90x552 to 281x720)</td>
<td>Feeding damage (removal of the chlorophyll layer) caused by the caseworm larva <em>Nymphula</em> sp. At OPIB, Baguineda.</td>
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<td>![Image](90x397 to 274x535)</td>
<td>Unidentified damage (disease?) to rice in the OPIB, Baguineda.</td>
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<td>![Image](90x245 to 269x379)</td>
<td>Cleaning rice seed in the IER Laboratoire des Semences Sotuba.</td>
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<tr>
<td>Removing impurities (red rice seed etc.) and grading rice seed for certification in the IER Laboratoire des Semences, Sotuba.</td>
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| The “benefactors” of rice technology transfer. Children of M’pegnesso village attending the meeting with parents where the farmers discussed their constraints to rice production and explained their needs regarding rice production technology. |

| “Malian sunset” in the Kayes region near Mauritania. |
NEW GUIDE ON RICE STEMBORERS

The Africa Rice Center (WARDA) just published a new field guide and technical manual on rice stem borers including their biology, ecology and control.

In his preface, WARDA Director General Dr. Papa A. Seck states: "The WARDA-NARS Task Forces on Integrated Pest Management (IPM) of the Rice Research Network for West and Central Africa (ROCARIZ) recognize rice stem borers as major biotic constraints limiting rice production in West and Central Africa. However, there is no field guide or technical manual available which provide technical information on different aspects of the biology, ecology and control of these pests. Much of the information available remains obscured in unpublished reports and articles. This guide provides a basic knowledge and understanding of the biology, ecology and recognition of the pests, a prerequisite for successful control intervention. It is intended for agricultural researchers,
technicians, trainers, extension specialists, non-governmental organizations and entomologists involved in managing stem borers of rice. It is also intended to provide a reference source for research and training of M.Sc and Ph. D students. Theintension is to make existing information more easily accessible and to present it in a simple and understandable way. Thus, technical terms have been kept to a minimum, and those used have been explained. The references provided at the end of the book are not intended to be exhaustive, but rather represent suggested reading for more technical detailed information on the subject. WARDA permits reproduction of this guide for non-profit purposes."

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**RICEHOPPERS BLOG**

The Ricehoppers blog was initiated in December 2008 as a platform for sharing knowledge on issues related to planthopper problems in rice production in Asia. In the last 5 years the intensive rice areas have been experiencing devastating infestations by planthoppers. The three main species are *Nilaparvata lugens* (brown planthopper (BPH)), *Sogatella furcifera* (White backed planthopper (WBPH)) and *Laodelphax striatellus* (Smaller brown planthopper (sBPH)). The recent changes in importance of the WBPH seem closely associated with wide hybrid rice adoption but the emerging problems with the sBPH in temperate areas seem less understood. Also associated with the outbreaks are increase in insecticide use in the intensive areas, in many cases 3 or 4 fold and the development of insecticide resistance. In some areas in China and Vietnam resistance to imidacloprid is greater than 500 folds. As rice planthoppers are secondary pests caused by ecological disruptions and structural distortions favoring such disruptions, the need to develop sustainable ways of management is needed. This niche blog is part of the Rice Planthopper Project, a collaborative research network with national scientists in Asia co-funded by IRRI and ADB.

The search for sustainable ways to manage these problems is now along several fronts. First is to identify genes and develop rice varieties that will have sustainable resistance to planthoppers. Second is to develop ecological engineering methods that will restore and enhance important ecosystem services to provide adequate crop health. Third is to understand farmers’ decision making and to develop communication strategies to motivate policy decision makers and farmers to adopt sustainable practices.

The blog, hosted by Wordpress, reports on the Rice Planthopper Project activities,
sharing of research techniques and provides a platform for postings and reports from the field. Visitors can also comment on the postings and share their observations. In addition one can also follow the Ricehoppers through Twitter. Started in December 2008, the blog has received about 14,000 visitors from all over the world (see below map).

The blog is posted at [http://ricehoppers.net](http://ricehoppers.net), and it is administered by Drs M.M. Escalada and K.L. Heong. If you have some observations, experiences, news or research results, please send them a post to share with our bloggers. You can email them to:

m.escalada@gmail.com or
kheong@cgiar.org

**A NEW PROGRAM TO TRAIN PLANT HEALTH PRACTITIONERS**

Individuals with broadly integrated knowledge and management skills are needed to deal with the complex and frequently interacting challenges in managing plant systems. These individuals must be able to incorporate new research and technological developments into integrated pest and plant management systems that remain economically, environmentally and socially sustainable. Individuals with these talents and training are needed worldwide in today's agriculture.

To meet these challenges a new professional program, the Doctor of Plant Health (DPH) program, has been created at the University of Nebraska - Lincoln. The DPH Program is a rigorous doctoral-level degree program that trains practitioners across all plant-related disciplines (entomology, plant pathology, plant science, soil science and weed science). Rather than focusing on research, like the M.S. and Ph.D. degrees, the DPH degree provides extensive experiential learning opportunities to enable students to integrate their multidisciplinary training to field situations in diagnosing and managing plant health problems and in developing sustainable plant management systems. This new program is only the second of its kind in the United States. The primary prerequisite for entrance to the program is a B.A. or B.S. degree in a biological or related field. Those entering with a master's degree in one of the core disciplines in the program will receive credit toward graduate course work taken. Students can expect to earn the DPH degree in three to four years, depending on their background and course load.
The program was established to address needs from the seed, chemical and consulting industry, along with those of extension and regulatory agencies. It is hoped that in addition to the strong demand for individuals with this type of training within the United States, that these Plant Doctors would become extremely valuable in addressing international plant health issues both in developed and developing countries where there is extensive need to develop sustainable food production systems that fit the economic and cultural context.

For more information on the DPH program, visit the website http://dph.unl.edu/home or contact

**Dr. Gary Hein,**  
Program Director  
E-mail: ghein1@unl.edu

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The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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IAPPS Newsletter  
Biological Control Center for Africa, IITA-Benin  
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin  
E-mail: m.tamo@cgiar.org
Since my last Newsletter I have been in El Salvador, Mali and India. Sorghum work for INTSORMIL in Salvador, rice IPM in Mali and vegetable IPM in southern India for the IPM CRSP. I will be providing photo galleries on these trips in further issues of the Newsletter but have too many other items to report in this issue.

First, in regard to the 2011 IPPC, which is a joint meeting of the APS annual meeting and the quadrennial International Plant Protection Congress (IPPC) sponsored by IAPPS, I have included the first version of the meeting website. We will now begin adding content and invite your comments as to type of content that you would like to see and would find useful in planning for your participation and travel. Please plan to put the date, August 6-11, 2011 on your travel calendar.

If you have suggestions for IPPC 2011 symposia or other Congress activities please do not hesitate to contact Chair Bill Tweedy <bgtweedy@aol.com>, me or your regional governing board member.

The University of Nebraska Entomology Department is offering a new online distance education course on "invasive pests and international trade." This course can be taken for undergraduate or graduate credit. It is being offered this current semester but if you are interested in taking this course in the future please contact Prof. Foster for more information.

Please note the announcement for the 10\textsuperscript{th} Arab Congress of Plant Protection to be held in Beirut, Lebanon. I attended the 2007 Congress in Damascus and can attest to the quality and relevance of this Congress.

Wishing you success in your plant protection activities. I look forward to seeing you next month.
The 2011 APS /IAPPS Joint Meeting (XVII IPPC) site is up. http://www.apsnet.org/meetings/APS-IAPPS/ We are now in the process of adding content.

Save the Date!

August 6 – 10, 2011
Honolulu, Hawaii

The American Phytopathological Society will join the International Association for the Plant Protection Sciences for the 2011 APS/IAPPS Annual Meeting in Honolulu, Hawaii. Hawaii’s central location in the Pacific Rim will attract attendees and speakers from around the world, making this a truly unique experience for plant pathologists and plant health scientists.

The Call for Papers will be open February 1 – March 15, 2011

The American Phytopathological Society (APS)

The International Association for the Plant Protection Sciences (IAPPS)
New Online Distance Education Course  
Fall 2009  
Invasive Pests and International Trade  
(Course no. ENTO 496/896 – 3 credits)

- This course will focus on the issues of invasive pests and international trade. Topics will include linkages between pests and trade, pathways of pest invasions, and the social, environmental, and economic impacts of the introduction of agricultural pests. The course will be delivered in three modules. Module 1 covers the history of pest introductions and its impact on global agriculture and trade. Module 2 covers pest risk analysis and practices from a global perspective. Module 3 covers international approaches and cooperation in preventing and controlling exotic pests. Principles of plant quarantine, regulatory approaches, the benefits of collaboration, and some key practical examples will be reviewed.

- This course will benefit and be of interest to students of agronomy, biology, entomology, plant pathology, weed science, agricultural economics, social sciences, environmental systems and biodiversity research. Furthermore, Development Leaders and Managers, NGOs, non-profit organizations, extension services, Peace Corps Volunteers, international development experts, legislators and policy makers, and regulatory agencies, such as customs border inspectors and quarantine agents, will find the course useful in enhancing their knowledge and careers.

- For more information, contact Prof. John Foster, Department of Entomology, University of Nebraska, Lincoln by Email at ifoster1@unl.edu or by phone at (402) 472-8686.
10th Arab Congress of
Plant Protection

Organized by
Arab Society for Plant Protection
in Collaboration with
National Council for Scientific Research
26-30 October, 2009
Crowne Plaza Hotel, Beirut, Lebanon

E-mail acpp2009@cnrs.edu.lb

Website: www.asplantprotection.org
INVITATION

Dear colleague,

It gives us pleasure to send you the second announcement of the 10th Arab Congress of Plant Protection to be held in Beirut, Lebanon, 26-30 October 2009. The Congress is organized by the Arab Society for Plant Protection in collaboration with the National Council for Scientific Research in Lebanon. This announcement provides an outline of the congress program and full information on registration, submission of abstracts and other important issues.

Over 400 scientists from most Arab countries have already responded to the first announcement of the 10th Arab Congress of Plant Protection. This early and large response reflects the wide interest of scientists for sharing their research results with others and the desire to present and discuss recent developments in the different disciplines of plant protection. We also consider this wide interest as an encouraging signal to the Congress Committees who are trying their best to make the 10th Arab Congress of Plant Protection, similar to previous congresses, a big success.

Beirut is among the oldest cities of the Mediterranean Sea, and includes many historical sites, in addition to the newly re-built commercial district which is considered an architectural masterpiece for an Arab capital. There are many other old cities in Lebanon, such as Tripoli, Sidon, Tyr, Zahle, Baalbeck. Anjar, Beiteddine, Byblos and Deir El-Kamar ....etc., in addition to many other picturesque locations which encourage participants to extend their stay in Lebanon few more days to capture this opportunity.

It is a great honor for us to welcome you and your families and invite you sincerely to attend the 10th Arab Congress of Plant Protection and enjoy the visit of our beautiful and hospitable country.

Looking forward to see you in Beirut.

The Organizing Committee
CONGRESS SECRETARIAT
Correspondence should be addressed to:
ACPP2009 Secretariat
Arab Society for Plant Protection
P.O. Box 113-6057, Beirut, Lebanon
Fax: 00961-1-809173
E-mail: acpp2009@cnrs.edu.lb

DATE AND LOCATION
The Congress will be held from 26 to 30 October 2009 at Crowne Plaza Hotel, Ras Beirut, Hamra Street, Beirut, Lebanon.

CONGRESS PROGRAM
The program of the Congress includes various sessions. Each session will include a number of contributed papers and posters. The congress will also organize symposia on some important plant protection topics in the Arab world, where distinguished speakers are invited to participate.

The Program includes:

A) Paper Presentation Sessions
1. Economic insect and animal pests,
2. Fungal, bacterial and viral plant diseases,
3. Nematodes,
4. Weeds and parasitic flowering plants,
5. Pesticides,
6. Spiders and mites,
7. Rodents and Birds,
8. Use of biotechniques for pest control,
9. Integrated pest management,
10. Geographical distribution of diseases and insects of quarantine significance in the Arab countries,
11. Safe use of agrochemicals in the Arab countries.

B) Symposia
Symposium one: New Developments in Pest Management
1. New developments in nematode management.
2. New developments in viral diseases management.
3. New innovations in the management of post harvest diseases.
5. The use of GIS and remote sensing in pest management.
Symposium two: Novel Teaching and Training Methodologies in Plant Protection for Professional Practitioners and Farmers
1. Teaching plant health management for university students (APS).
2. Plant protection through Farmers Field Schools in the Middle East.
3. Role of organic agriculture organizations in training facilitators and farmers in soil and crop health management: a case study from Egypt.
4. Plant protection training needs from the industry perspective.

Symposium three: Invasive Pest Species: Importance in the Arab Region and Risks Associated with their Spread
1. Emerging races of wheat rusts: a continuous threat to wheat production in the world.
2. Infestation and management of the red date palm weevil in the Arab World and the Mediterranean.
3. Fruit flies in the Mediterranean and Arab world: how serious a threat are they?
4. Tomato leaf miner (Tuta absoluta), a serious threat to vegetable crops in the Arab and Mediterranean region.

Symposium four: Systems, Standards and Information Sharing in Plant Protection
2. Pesticide management systems.
3. IPM systems in industrial crops and trade: Campbell Soup’s example
4. The role of the policy environment for the implementation of IPM.

Symposium five: Biotechnology and Plant Protection
1. Harpin seed treatment—a new approach for pest control.
2. Can GM crops reduce the need for herbicides?
3. Biosafety and risk assessment: is the Arab region prepared to deal with GM crops?
4. BT crops (cotton and corn): associated benefits and problems in the developing world after years of their use.
The history of IPM in Turkey goes back as far as the early 1900's. Biological control was introduced as an alternative pest control method in citrus orchards; *Rodolia cardinalis* was released against *Icerya purchasi* in 1910, *Cryptolaemus montrouzieri* (in 1965) and *Leptomastix dactylopii* (in 1969) were released against *Planococcus citri*. *R. cardinalis* eventually got established and solved the problem as long as it was preserved and no pesticides were sprayed. However, the other two could not survive in winter and needed to be released each spring once or twice.

Nevertheless, the actual beginning of IPM in Turkey started with a research project on cotton pests which initiated in 1970. That project was followed by apple and hazelnut IPM projects in 1972. The results of these projects were put into practice by larger implementation projects soon after. Moreover, forecasting and warning systems, in apple orchards and vineyard, was established against *Cydia pomonella* and *Venturia inaequalis* based on the results obtained from the IPM research projects. Forecasting and warning projects against *C. pomonella* and *V. inaequalis* were implemented throughout the country in 1981-1988. In the following years, forecasting and warning projects against grape berry moth (*Lobesia botrana*), vineyard downy mildew (*Plasmopara viticola*) were carried out as well. These projects were in fact the first practical IPM projects. Thousand millions Turkish Liras of crop losses were prevented and pesticide consumption and control expenditures were decreased thanks to these projects. For example, the number of sprays against apple scab and grape berry moth were decreased from 7-8 to 1-3 and from 7-8 to 1-4, respectively. In 2007, with the assistance and support of the research institutes, control measures were applied according to the forecasting and warning principles, on 11,924,200 apple trees which were in an inception area of 147 station (115 electronic and 32 mechanic station) in 35 provinces (89 counties), and also 1,301,650 vine stock at the inception area of 50 stations in 17 provinces (44 counties). IPM projects on wheat, tobacco, vineyard, citrus, peach and cabbage were also initiated afterwards. The major pests; their biology, population dynamics, natural enemies and control methods have been investigated. Regional IPM programs have been implemented for each of them.

**IPM Policies and Strategies.** One of the cornerstones of IPM in Turkey is a set of decisions taken during a meeting organized by Turkish Ministry of Agriculture and Rural Affairs (MARA) on IPM in 1994, whereby policies and strategies in plant protection were determined as IPM and the needs were determined as research, implementation and training. General policies and strategies were designated as follows:
• Plant protection research projects must be considered as countrywide and crop-based IPM projects aimed to solve plant protection problems.
• It is mandatory to establish a National IPM Network for each IPM project.
• IPM projects are jointly coordinated by research institutes, universities, agricultural provinces and county directorates, farmer unions and farmer cooperatives.
• It is aimed to increase the number of IPM projects that will be carried out with the coordination and the collaboration of the other research institutes attached to the Ministry of Agriculture and Rural Affairs, General Directorate of Agricultural Research, Universities, TÜBİTAK (Turkish Science and Technology Research Association), the Ministry of Environment, and the International Organizations such as the World Bank, UNDP, FAO, EU, NATO, GTZ and other countries.
• A technical guide is prepared for each crop where IPM is being implemented.
• Preparation of the new IPM projects on wheat, chickpea, lentil, citrus, peach and vineyard in 1994 and putting them into action in 1995 were decided at the mentioned meeting.

The initial 16 IPM projects initiated in Turkey in 1995 reached the number of 25 in 2008. These projects are now prepared based on a new understanding. On one hand, research results obtained up to now are being integrated and implemented by the coordination of the research institutes, agricultural directorates of the provinces and counties, farmers and farmer associations. On the other hand, the research topics necessary for developing IPM programs are being carried out as subprojects by the research institutes and the results obtained are being integrated in the main IPM program.

The Turkey Agricultural Research Project (TARP), funded by the World Bank, FAO/UNDP operated in 1992-1999. Afterwards, its operation and funding was taken over by the national budget. The objectives of this project is primarily to assist the Government of Turkey in establishing a network of formal cooperation and collaboration between research, training and extension entities, and to develop and apply IPM for implementation by the farmer community in order to reduce the national dependency on agricultural pesticides and to avoid the detrimental effects of these chemicals on the environment, human and animal health, and on the marketability of the production.

IPM implementation. The IPM Central Commission was established to coordinate IPM programs nationwide. This commission consists of 9 members, 2 from General Directorate for Agricultural Research, 1 from the General Directorate of Prevention and Control, 2 from the Plant Protection Departments of the universities and 4 among the IPM National Coordinators.

The Plant Protection and Agricultural Research Institutes are the regional coordinator for each crop in their region, and the experts of the different institutes train the technicians that carried out the project in their provinces or counties. It is clear that the main focus of IPM programs is on empowering growers to become IPM specialists in their own fields, orchards and vineyards. Governmental institutions will only give technical assistance and make training programs; farmers will make their own decisions concerning suitable control measures against pests, diseases and weeds in their fields. It is essential for the Turkish Agricultural Chambers Union (TZOB) and the other grower unions to participate actively both with their budget and man power to the IPM programs, as the IPM projects are prepared for farmers and must be applied by them. Together with the growers, IPM technicians visit the field/orchard, check the plants for problems, and identify solutions to them in full participatory mode.

IPM Projects are implemented according to technical guides prepared by IPM specialists for each
crop, first to be used and validated at specific locations where IPM program are being carried out, and later on the guides are disseminated for countrywide implementation.

Growers who have received IPM training pass on the information about IPM and its methods to their neighbors, relatives and friends. In fact, a specific pilot area for an IPM project remains active for 3-5 years, after which period the pilot area is changed to allow other growers to profit from the IPM training and assistance in the project. However, even previously trained growers still remain in contact with the local agricultural directorate for further assistance and also to obtain updates on improved IPM methodologies.

The control strategy is determined as follows:

- Implementation of sound agricultural practices primarily to grow healthy plants
- Early measures for preventing pest infestation and colonization
- Modification of the crop design and creation of adverse biotic conditions that reduce survival of individuals in an area in such a way that a large proportion of the pest population is reduced
- The use of forecasting and warning models for pest management
- Mass trapping and disruption techniques whenever this is possible and available
- Conservation and augmentation of natural enemies as the basis for biological control
- Introduction of biological control agents if needed

The main strategy in chemical control is based on pesticide selection. Correct timing and correct application of chemicals at the correct dosage are essential. The effectiveness of the pesticide on the pest population, and also the side effects of the pesticide are considered when making a choice of the right pesticide. In fact, pesticide selection is made according to the risk assessment formula provided by Matthews (1984).

**Training activities in IPM projects.** Researchers, project coordinators and leaders are the first to be trained. They prepare the IPM program, including technical guides for implementation and training curricula. Following this, researchers train the IPM trainers, technicians and facilitators, who, on their turn, train the growers. However, researchers also participate in the training activities for the growers at the beginning of the IPM project implementation.

The training programs include the following subjects for each level.

- IPM concept, principles and benefits
- Diagnosis of pest and natural enemies
- Cultivation and fertilization
- Agro-ecosystem analysis
- Control measures and alternative control methods and agents
- Selection of pesticides, the side effects, correct timing and application

Technical instructions, brochures, tablet, and farmer field days are organized for each locality, and news or information programs are prepared for TV channels, radio and newspapers in order to create more awareness and mass training on IPM. Films were prepared and broadcasted for
the National Channel in the framework of the Broadcast Training of the Grower Project (YAYÇEP).

However, there are still a few problems related to the implementation and diffusion of IPM at the country level. For instance, IPM implementation remains largely limited to pilot areas. Also, there are logistic problems such as inadequate dissemination of information, insufficient numbers of trained technician, but also the fact that there are no incentives for implementing IPM, as well as the lack of sanctions for incorrect or abusive pesticide application. On the research side, there are still some crops for which no IPM program has been designed yet, and this is mainly due to the insufficient numbers of researchers dealing with IPM. From the grower side, the main problem is that some of the IPM methods such as sampling/scouting, economic threshold are still quite complex notions. Also, sometimes it is easier to follow the advice of pesticide retailers who advocate for blanket spraying.

Although IPM programs are not implemented throughout the country, there are indeed some alternative methods which have been widely used outside the official IPM projects, such as yellow sticky traps, forecasting and warning methods, and preserving natural enemies. For more information, please contact

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“The message is very clear,” IRRI’s director general, Robert S. Zeigler, said. “We have the scientific expertise, knowledge, and partnerships to grow the rice Asia needs and now.” — This statement in the “Rice Action Plan” endorsed by the Southeast Asian nations (see p. 11) indicates that there currently is technology available to solve the food security problem but much of the available technology has not been transferred to farmers. We are certainly finding this to be true in the INTSORMIL Program in regard to our African projects. Also, the article by Muni Muniappan and Annie Steed of the IPM CRSP in the May 2009 Issue of the IAPPS Newsletter in Crop Protection (see p. 15) on the “Integrated Pest Management Package for Vegetable Crops in the Tropics” supports this premise. Yes, farmers following recommended technology practices are doubling yields of sorghum and millet at INTSORMIL project sites in Mali and Niger. The value of excellent transfer of technology programs (extension services) is evident in irrigated rice in Brazil where farmers are obtaining high yields (see photo at right below). However, the potential losses in kg/ha due to pests and diseases are also high due to the high yields. Thus, the objective of my Fulbright Fellowship in Brazil the last two rice cropping seasons was to assist my Brazilian colleagues in the development of a more effective rice IPM program. I completed the second phase of my Fulbright Fellowship this March and returned to the University of Nebraska and my INTSORMIL activities but will continue to assist IRGA and UNISINOS in the development of illustrated guides and keys to aid in the identification of rice insect pests and their natural enemies. I already have 500 photos of insects that are awaiting Adobe Photoshop improvement and I expect to take many more later this year.

March 24-26 I participated in the International IPM Symposium in Portland, Oregon, USA. The theme was “Transcending Boundaries.” IAPPS was a co-sponsor of a workshop on “Global Food Shortage: the Role of IPM.” More than 700 IPM professionals representing 25 countries attended the two and a half day symposium. The IPM CRSP won the International IPM Award for Excellence (see p. 2). If you are in the South America region you have the opportunity to attend two excellent meetings: SICONBIOL, a biological control symposium presented by the Sociedade Entomologica do Brasil in collaboration with UNISINOS and the “XLII Brazilian Congress of Phytopathology” (see pp. 5 and 10 respectively).

See you next month.

eheinric@vt.edu
IPM CRSP wins International Award

By Miriam Rich
(540) 231-4153, mrich@vt.edu

BLACKSBURG, Va., April 7, 2009 – An agricultural research program managed at Virginia Tech has won an international award for its work with pest-management practices that show economic benefits with minimal impact on health and the environment.

The Integrated Pest Management (IPM) Collaborative Research Support Program (CRSP), managed by Tech’s Office of International Research, Education, and Development (OIRED), was honored at the 6th International IPM Symposium on March 24. The IPM Excellence Awards are given every three years in conjunction with the symposium to individuals or organizations that show significant impact in realizing the economic benefits of IPM activities, reducing health risks for pest management practices, and minimizing adverse environmental impacts of pesticide usage.

S. K. Debate accepting the award.

“It is a great honor to receive this award, but even more of a tribute to the hard work of our many collaborators around the world,” said S.K. De Data, administrative principal investigator for the program and director of OIRED in his remarks on behalf of the IPM CRSP project. “We know that, at a conservative estimate, the IPM CRSP has brought $500 million in benefits to the countries where we have had programs.” The IPM research program is one of eight Collaborative Research Support Programs (CRSPs) funded by the U.S. Agency for International Development (USAID). It was cited for its work to raise living standards, reduce malnutrition, and ameliorate health and environmental problems through IPM methods in some of the poorest parts of the world. The program’s research now involves 22 U.S. universities, 57 foreign institutions, and several international agricultural research organizations and non-governmental organizations in 32 developing countries on four continents.
These development projects include field schools that build farmers’ knowledge and strengthen their connections both within and beyond their communities. The program also provides graduate-level education to foreign students who then reinvest their knowledge and expertise in their home countries. Some of the most successful projects are biocontrol of insects and diseases in vegetables; eggplant and tomato grafting to resist soil pathogens; and the use of pheromone lures to monitor pest populations.

Working closely with local farmers, the IPM CRSP encourages them to take part in IPM program development. Research projects are often conducted in fields where the farmers can see firsthand how effective the new methods and modern technology are, an incentive to continued participation and successful implementation. Other elements of the IPM CRSP include developing strong ties between non-government and government organizations, training trainers, and facilitating technology transfer.

For more information about the IPM CRSP, visit:

http://www.oired.vt.edu/ipmcrsp/

CONTACT: Miriam Rich (540) 231-4153; mrich@vt.edu
Representatives of the IPM CRSP at the International IPM Symposium in Portland, Oregon, USA, March 24-26, 2009.
Bento Gonçalves, RS in the Serra Gaucha is known for its vineyards, wineries and natural beauty.
**Período:** 1 a 5 de junho de 2009  
**Local:** Hotel Dall'Onder - Bento Gonçalves/RS

**Presidente do evento**  
Presidente: Lidia Mariana Fiuza

**Promoção**  
Universidade do Vale do Rio dos Sinos - Unisinos  
Sociedade Entomológica do Brasil - SEB  
Instituto Rio Grandense do Arroz - Irga  
Fundação Oswaldo Cruz – Fiocruz

**Conferências**

Os títulos e palestrantes serão confirmados pela Comissão Organizadora a partir das propostas apresentadas pelos membros do Conselho Científico que estão divididos nos seguintes temas:

- Microrganismos entomopatogênicos  
- Microrganismos fitopatogênicos  
- Semioquímicos  
- Predadores  
- Parasitóides  
- Nematóides  
- Plantas inseticidas  
- Controle biológico no Manejo Integrado de Pragas
Organismos geneticamente modificados
Taxonomia x Controle biológico
Mosquitos na área da saúde pública
Silenciamento gênico
Métodos de controle biológico na produção orgânica
Manejo e evolução da resistência
Produtos, Registros e Patentes
Legislação, importação e exportação de produtos biológicos
Controle biológico e seletividade de produtos

PROGRAMAÇÃO PRELIMINAR: PALESTRA S

Genômica e engenharia de baculovírus de insetos
Dr. Basil Arif - Great Lakes Forestry Centre - Canadá

Agentes de biocontrole de origem vegetal: perspectivas para a agricultura sustentável
Dra. Catherine Regnault-Roger - Université de Pau et des Pays de l'Adour - França

Alterações recentes na classificação dos Zygomycetes com ênfase nos Entomophthorales
Dr. Richard Humber - USA

Técnicas de biologia molecular aplicadas aos estudos com fungos Entomophthorales
Dra. Ann Hajek - USA

Resultados do uso das plantas geneticamente modificadas na Austrália
Gary Fitt - CSIRO/Austrália

Status dos programas de plantas geneticamente modificadas na França
Nicole Sige - Cirad - França

Controle biológico de mosquitos na área da saúde pública
Dr. Jimmy Becnel - USA

Os avanços obtidos e desafios futuros quanto ao uso de vírus entomopatogênicos
Dr. Flávio Moscardi - Embrapa/CNPSO

Taxonomia de Bacillus e gêneros correlatos entomopatogênicos
Dr. Leon Rabinovitch - Fiocruz/IOC

Técnicas de criação de inimigos naturais: situação atual e gargalos
Dr. José Roberto C. Parra - ESALQ

Toxinas vegetais no controle biológico de insetos
Dra. Célia Carlini - Ufrrgs

Microrganismos endofíticos e seu papel na conservação ambiental
Dr. João Lúcio de Azevedo – ESALQ
PROGRAMAÇÃO PRELIMINAR: MESAS-REDONDAS

• Bactérias entomopatogênicas: controle biológico de vetores e inseticidas larvicidas
  Coordenador: Dr. Leon Rabinovitch - Fiocruz/IOC

• Controle Biológico usando vírus de insetos: passado, presente e futuro
  Coordenador: Dr. Bergmann Moraes Ribeiro - UNB

• Bacillus thuringiensis: caracterizações, interações e aplicações no controle microbiano de pragas
  Coordenador: Dra. Lídia Mariana Fiúza - Unisinos

• Fungos entomopatogênicos utilizados no controle biológico
  Coordenador: Dr. Augusto Schrank - Ufrgs

• Controle biológico de microrganismos fitopatogênicos
  Coordenador: Drª Rute T. Silva-Ribeiro - UCS

• Os institutos nacionais de ciência e tecnologia em semioquímicos e controle biorracional de insetos e suas implicações para o avanço das práticas do controle biológico no Brasil
  Coordenador: Dr. Evaldo Vilela - UFV

• Estado da arte do reconhecimento das espécies de predadores que atuam no controle biológico
  Coordenador: Drª Jocélia Grazia - Ufrgs

• Parasitóides e o futuro do controle biológico
  Coordenador: Dr. José Roberto C. Parra - ESALQ

• Importância dos estudos taxonômicos na biodiversidade e controle biológico de insetos
  Coordenador: Dr. Rogério Pires da Silva - Ufrgs/Agronômica

• Controle biológico com nematóides
  Coordenador: Edson Tadeu Iede- Embrapa/Florestas

• As plantas geneticamente modificadas e o controle biológico: resultados e expectativas
  Coordenador: Drª Deise Maria Fontana Capalbo - Embrapa/CNPMA

• Silenciamento gênico no controle de vírus de plantas: princípios e aplicações
  Coordenador: Dr. Marcelo Gravina de Moraes - Ufrgs

• Controle biológico no Manejo Integrado de Pragas de plantas cultivadas
  Coordenador: Dr. Antônio Ricardo Panizzi - Embrapa/CNPSO

• Controle biológico na agricultura orgânica
  Coordenador: Dr. Emerson L. N. Costa - Mapa

• Estratégias de manejo da evolução da resistência de pragas aos agentes de controle
  Coordenador: Dr. Vilmar Machado - UCS

• Controle biológico na fruticultura brasileira
  Coordenador: Dr. Dori Edson Nava - Embrapa/CPACT

• Entomopatógenos em saúde pública
Coordenador: Dr. Carlos J. P. C. A. Coutinho - Instituto Butantan

Desenvolvimento de produtos e registro de patentes aplicados no controle biológico
Coordenador: Dra. Rose Monnerat - Embrapa/Cenargen

Regras governamentais para o desenvolvimento de produtos para controle biológico na agricultura
Coordenadora: Dra. Luciana Gusmão - Mapa

Efeito de pesticidas sobre organismos benéficos
Coordenador: Dr. Jerson Guedes - UFSM

Vigilância em saúde: vetores de importância em saúde pública
Coordenador: Dra. Lúcia Beatriz Mardini - Secretaria da Saúde/RS

For more information and to register for the SICONBIOL 2009 see website at:

http://www.unisinos.br/eventos/siconbiol/
Dear Colleagues,

We are pleased to announce the "XLII Brazilian Congress of Phytopathology" to be held in the Windsor Barra Hotel, Rio de Janeiro, 03 to August 07, 2009, under the chairmanship of Dr. Paulo Sergio Torres Brioso (Área de Fitopatologia/ DEF/ IB/ UFRRJ) and Dr. Ricardo Moreira de Souza (Laboratório de Entomologia e Fitopatologia/ UENF) with the support of staff from various institutions (UENF, MAPA, SEAPPA-RJ, IPJBRJ, PESAGRO, ANDEF, Embrapa, Itograss and other companies) showing its scope and level of integration to the network of Teaching, Research, Extension and provision of service to the Society within the area of plant health in the country.

According to the theme of the event (Phytopathology: Science, Evolution and Perspectives in the Biotechnology Era), the Organization (with the support of Acessi Rio Informática, Meta Marketing Eventos), Scientific Program (Talks, Round Tables, Poster and Oral Sessions, Discussion Groups, Mini-courses) and Social Program, of the broad infrastructure of leisure, of the excellent tourist points, of the reception and the Rio host population affection, expects to be without doubt an effective participation of the scientific community and their accompanying.

Please disclose in their institutions/companies and directly to students, teachers, researchers, technicians and others interested in participating in one of the major events related to plant health, quality and international nature, made by SBF.

The site is already in the air as well as the possibility of early registration: http://www.fitob2009.com/

without a doubt, this event will be unforgettable for the entire scientific community and their families in the form of scientific knowledge as well as the social and human aspect.

Welcome and participate with the same enthusiasm by the dedicated team organizing the event.

Dr. Paulo Sergio Torres Brioso
Scientists Identify Rust Resistance Genes in Soybeans
Source: USDA
Author: Jan Suszkiw

Researchers at the U.S. Department of Agriculture's Agricultural Research Service (USDA ARS), Iowa State University in the U.S., and the Brazilian Agricultural Research Corporation (Embrapa) have successfully identified a "cluster" of soybean genes that provide resistance to the fungus Phakopsora pachyrhizi, which causes Asian soybean rust (ASR). The press release says the discovery will help defend soybean plants against ASR, "through conventional breeding or biotechnological means." Michelle Graham of ASR says that although fungicide use is effective against ASR, providing farmers with resistant cultivars is more sustainable. The researchers' work has been published in a recent edition of the journal Plant Physiology. The press release can be viewed online at the link below.

http://greenbio.checkbiotech.org/news/scientists_identify_rust_resistance_genes_soybeans

The BuZz
Newsletter of the Integrated Pest Management Collaborative Research Support Program, March 2009 (Issue 1)

This is a new newsletter produced by the IPM CRSP. If interested in receiving this newsletter online contact: ipmcrsp@vt.edu

24 October 2008

Southeast Asian Nations Endorse Rice Action Plan

Hanoi, Vietnam – The world’s biggest rice-exporting and -importing nations have collectively endorsed a new Rice Action Plan targeting many of the problems that triggered this year’s rice price crisis.
At a meeting of the ten-nation Association of Southeast Asian Nations (ASEAN) in the Vietnamese capital Hanoi this week, ministers of agriculture unanimously endorsed a seven-point action plan presented by the International Rice Research Institute (IRRI). ASEAN includes two of the world’s largest rice exporters, Thailand and Vietnam, and several importing nations as well.

The endorsement came at the 30th annual meeting of the ASEAN Ministers of Agriculture and Forestry (AMAF). It was presented as part of a comprehensive food security strategy being developed for the region, home to more than 500 million rice consumers, including some of Asia’s poorest.

“The message is very clear,” IRRI’s director general, Robert S. Zeigler, said. “We have the scientific expertise, knowledge, and partnerships to grow the rice Asia needs and now—with this endorsement by these nations—we have strong political support. The only thing missing are the financial resources needed to implement this.”

Dr. Zeigler told the ministers that IRRI needs an additional US$15 million a year for the next ten years to adequately support the ASEAN Rice Action Plan. “At a time of trillion-dollar bailouts for the global financial sector, $15 million a year is barely the annual bonus of a former Wall Street executive,” Dr. Zeigler said.

The Rice Action Plan was developed by IRRI earlier this year during the rice price crisis in consultation with its partners around the region. It includes the following measures:

1. **Bring about an agronomic revolution to reduce existing yield gaps.**
   Depending on production conditions, an unexploited yield gap of 1–2 t/ha currently exists in most farmers’ fields in the rice-growing areas of Asia. This yield gap can be reduced through the integrated use of stress-resistant varieties and better crop management practices. This requires funding support to programs aimed at improving farmers’ skills in practices such as land preparation, water and nutrient management, and the control of various pests, diseases, and weeds.

2. **Accelerate the delivery of new postharvest technologies to reduce losses.**
   Postharvest includes the storing, drying, and processing of rice. Considerable losses occur in terms of both the quantity and quality of rice during postharvest operations because of the use of old and inefficient practices. The active promotion of exciting new technologies that are currently available for on-farm storage and drying will reduce losses considerably.

3. **Accelerate the introduction and adoption of higher-yielding rice varieties.**
   New rice varieties are available today that can increase production, but farmers are not using them because the systems that introduce new varieties are under-resourced. Enhancing germplasm exchange, variety testing, and release pipelines can make current high-yielding stress-resistant varieties and hybrids more widely available to farmers in irrigated and rainfed lowland areas of Asia.
4. **Strengthen and upgrade breeding pipelines for developing new varieties and hybrids.**

Funding for the development of new rice varieties has declined steadily over the past decade or more. This must be reversed in order to develop the next generations of new rice varieties that will be required for productivity growth in sustainable agriculture. Several opportunities are available to accelerate the development of new rice varieties and hybrids with higher yield, better grain quality, and increased tolerance of abiotic stresses and with multiple resistances to insects and diseases through new molecular breeding approaches.

5. **Accelerate research on the world’s thousands of rice varieties so scientists can use the vast reservoir of untapped genetic resources they contain.**

Working with IRRI, the world’s nations have spent decades carefully collecting thousands of rice varieties. More than 100,000 rice types are now being carefully managed and used at IRRI and in Asian nations. However, only a small fraction of these vital genetic resources has been characterized in detail or used widely. New molecular methods have now opened the door for revealing the valuable genetic characteristics in each variety.

6. **Develop a new generation of rice scientists and researchers for the public and private sectors.**

Part of the current rice crisis reflects the lack of investment in science, including human capital investment. The education and training of young scientists and researchers are also vital concerns for the rice industry. Asia urgently needs to train a new generation of rice scientists and researchers to enable the region to exploit the latest developments in modern science more effectively.

7. **Provide rice policy support.**

Conducive policy environments are needed to achieve the fuller use of technology for rapid production growth in an efficient, equitable, and sustainable manner. Rice production is being affected by several dynamic economic factors and their potential impact can be manipulated through suitable policy reforms. The identification of policy constraints, the generation of alternative policy options, and policy advocacy are therefore essential.

For more information on the Rice Action Plan, including detailed budgets, please visit [http://solutions.irri.org/](http://solutions.irri.org/).
A new research brief titled "Incorporating Integrated Pest Management into National Policies" is now available. The IPM Research Brief series is part of the Consultative Group for International Agricultural Research (CGIAR) Systemwide Program on IPM (SP-IPM) strategy for promoting information exchange among stakeholders. Its purpose is to build public awareness and understanding of the benefits of integrated pest management and to encourage the full integration of this approach into mainstream agriculture.

The past five decades have seen great improvements in agricultural productivity in many countries. High-yielding crop varieties and policies to promote the use of inputs such as fertilizers and pesticides have led to substantial yield increases. But these gains have not touched all regions: sub-Saharan Africa in particular lags behind. And the increased reliance on synthetic pesticides has brought environmental and health problems of its own. New approaches, capitalizing on the potential of IPM, are needed in order to maintain existing yield gains, and to support more productive agriculture in lagging areas. National implementation of IPM strategies cuts across numerous sectors, government departments, and public and private initiatives. This brief examines the context and prospects for integrating IPM with national policies, both within existing plant protection policies and in the wider national and global policy environments. A range of policy and regulatory tools are described, as well as key steps for putting IPM policy into practice. Drawing on a wide range of examples and illustrative cases, the brief provides policy makers in developing countries with a
INTEGRATED PEST MANAGEMENT PACKAGE FOR VEGETABLE CROPS IN THE TROPICS

Vegetables are important crops in subsistence and commercial production in the tropics. Essential to the food security of millions of poverty stricken people, vegetable production using IPM tactics increases income, decreases pesticide use, and increases the availability of nutritional vitamins and minerals.

Components of IPM have been developed and practiced at varying levels throughout the tropics. The IPM CRSP has been assisting in development of additional components of IPM for vegetable crops in developing countries in seven different regions of the world for the past decade and a half. Recently it has been concentrating on selecting and combining these individual components into a package that integrates all the elements into an IPM program for vegetable crops. It provides solutions to alleviate pesticide-induced problems and increase crop production. Its approach to vegetable production in the tropics reveals a new paradigm of integrated crop management.

Instead of managing for one or two pests attacking a crop, the vegetable IPM package manages the plant production from pre-plant to start with healthy seedlings by applying bioagents, and using less synthetic fertilizers and toxic pesticides.

While each country has its own pest problems characteristic to its own specific situation (climate, topography, geography, etc.), many pest problems are similar across the board. Several of the technologies developed in one country could be transferred to other countries with some efforts to integrate them to the local conditions.

A comprehensive IPM CRSP vegetable package includes:

1) Soil preparation: Preparing the soil before planting will result in raising healthy plants. Using tactics such as soil solarization and fertilization with combination of compost, neem cake or mustard cake and Vesicular arbucular micorrhizae (VAM) improve the nutrients available to
vegetable crops and reduce the incidence of nematodes and weeds. Additionally, they contribute to the build-up of beneficial soil microbes that assist in nutrient availability to the plants.

2) **Selection of seeds:** Selecting seed varieties that produce plants resistant to pests and diseases, produce high yields and are acceptable to consumers in the market can be predicative to a reduction in pesticide costs and an increase in yields of products that guarantee profits.

3) **Seed treatment:** Treating seeds with the fungus Trichoderma sp. and the bacteria Pseudomonas florescens and Bacillus subtilis protects seedlings from fungal, bacterial and nematode attacks and induces defense in seedlings against diseases. An important exception includes seeds that are already treated with a fungicide called "Thiram." These seeds should not be treated with Trichoderma, as the fungicide will kill this fungus. However, seedlings raised from those seeds should be treated with Trichoderma before planting, as the fungicide will have dissipated and will no longer affect Trichoderma.

4) **Seedling nursery:** Media used for raising seedlings should be sterilized. The nursery should be screened to prevent infestation by insect pests, especially vectors of virus diseases and irrigation should be regulated to prevent excessive watering, which increases the incidence of fungal diseases.

5) **Seedling selection:** All seedlings in the nursery should be closely examined for diseases. Virus-infected and unhealthy seedlings should be eliminated from the planting material.

6) **Physical/mechanical Tactics:** Using physical IPM tactics such as staking, mulching, and other tactics are important to reduce the incidence of pests and diseases. For instance, staking tomatoes to keep them off the ground, away from moisture, can reduce late blight infection and fruit rot.

7) **Grafting:** Grafting of high yielding scions on disease resistant rootstock can control soil borne fungi, bacteria and nematodes. Grafting is a rapidly spreading technology that not only helps to increase the yield and robustness of plants such as tomato, eggplant, cantaloupe, and watermelon, but it also creates jobs, often for women in developing countries.

8) **Traps and biopesticides:** The setting up of yellow sticky traps in fields will help reduce pest populations such as aphids, thrips and whiteflies.

Several sex pheromone traps for monitoring key pests are available. For example, sex pheromone traps for the tomato fruit worm (Helicoverpa armigera) and army worm (Spodoptera litura) should be set up in tomato field. Once pests are found in the traps, the field should be monitored and a specific biopesticide, a nuclear polyhedrosis virus (NPV, a viral formulation) available in most countries for both of these pests, should be used. These biopesticides are nontoxic to humans and do not have non-target negative effects. Similarly, pheromone traps for the fruit borer (Earias fabia) of okra and the eggplant shoot and fruit borer (Leucinodes orbonalis) are available, and they should be set up in the appropriate fields to monitor the pest population. Currently, there are no viral formulations available for okra fruit borer and eggplant shoot and fruit borer. Spraying with neem formulations that are either prepared on the farm with neem seeds or obtained commercially from formulations available in the market will control these pests. Pheromone traps for pests of cabbage and its related crops and gourds are also available in most countries. Additionally, formulations of the fungi Verticillium, Metarhizium and Beauveria, and nematode formulations of Heterorhabditis and Steinernema are used for control of whiteflies, thrips and leafminers. Biopesticides have little or no impact on parasitoids and predators of pests. For this reason, these natural enemies will continue to serve as effective regulators of a variety of pests and will prevent their resurgence. By using these biopesticides, one can totally negate the use of synthetic pesticides and thus produce pesticide-free produce for consumers.

9) **Natural enemies:** Using local natural enemies such as predatory mites for control of phytophagous mites in strawberries reduces the need for pesticide applications. Inundative release parasitoids such as Trichogramma spp. and Bracon spp. are frequently adopted in control of caterpillar pests in vegetable crops.

Adopting this IPM package, farmers can produce certified organic produce that will yield higher profits, help to improve the health of farmers and consumers and alleviate the negative impacts of synthetic pesticide use.
The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in Crop Protection to members and other subscribers. Crop Protection, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world’s crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described here.

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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Biological Control Center for Africa, IITA-Benin
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin
E-mail: m.tamo@cgiar.org
The time has come to start planning activities for the 2011 IPPC to be held in Honolulu, Hawaii in collaboration with the American Phytopathological Society (APS). IPPC Program Chair Bill Tweedy has developed an excellent program committee with a wide diverse of plant protection expertise (see below). IAPPS plans to develop about 10 symposia for the Congress. We invite IAPPS members to suggest symposia titles in their area of interest and if you have recommendations please contact one of the program committee members listed, Bill Tweedy or me. We want you to be a key part of the IPPC and want to hear from you.

We are always trying to think of ways to inform the world’s plant protection scientists about the value of IAPPS membership. Thus we have posted an article describing IAPPS on Global Development Commons Wiki at: http://www.developmentcommons.org/wiki/index.php/IAPPS (see below). If someone wants to know more about IAPPS please refer them to this article.

I have included an article submitted by IAPPS member Nilgün Yaşarakınıc, on greenhouse IPM in Turkey. His notes on the achievements, problems and prospects for IPM in Turkey are interesting.

I recently visited El Salvador where INTSORMIL/CENTA scientists are developing recipes and sorghum milling procedures and working with bakers to transfer the technology.

I will be going to Mali on an IPM CRSP rice project for a week and will report on that activity in my next Newsletter.
The *International Association for the Plant Protection Sciences* (IAPPS) is an international scientific organization devoted to the global implementation of sustainable plant health management strategies. IAPPS was formally inaugurated during the XIV International Plant Protection Congress (IPPC) in Jerusalem, Israel on 28 July 1999. Recognizing the needs and opportunities in global plant protection, the Standing Committee (SC) of the IPPCs established the Future Directions Committee (FDC) in 1995 and charged it to examine and elaborate upon the goals and objectives of the IPPC and to recommend organizational/structural changes necessary to meet the communication and integration needs and challenges of the plant protection sciences for the 21st century and beyond. One recommendation made by the FDC (and subsequently approved by the SC was the establishment of the International Association for the Plant Protection Sciences (IAPPS). The purpose of IAPPS is not only to provide an umbrella organization for the IPPCs but also to provide a forum and structure for the coordination and integration of the plant protection sciences on a global basis. With members from more than 60 nations, the organization seeks to stimulate the development and exchange of plant protection information among researchers (entomologists, plant pathologists, hematologists, weed scientists, plant breeders, social
scientists, economists, and crop production and marketing specialists), extension specialists, growers, policy makers, administrators, crop protection consultants, and environmental and other interested groups. IAPPS provides a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies which are economically, environmentally, and socially acceptable. IAPPS promotes the development and transfer of Integrated Pest Management tactics through the International Plant Protection Congresses, held at four year intervals, and through a scientific journal and newsletters. Membership Benefits: IAPPS Membership is open to anyone. All members receive online access to the Crop Protection journal, IAPPS Newsletter and the Secretary General’s Newsletter and discounted registration fees at International Plant Protection Congresses. IAPPS Vision: A global forum of scientists providing information and policy advice on sustainable plant health management practices. IAPPS Goal: To insure production of sufficient quality of food/feed/fiber for a growing world population. IAPPS Mission: To advocate implementation of sustainable plant health management strategies.

### Publications

IAPPS sponsors the:

- [Crop Protection journal](#)
- [IAPPS Newsletter](#)
- [Secretary General’s Newsletter](#)

### Links

- [IAPPS Home Page](#)
- [Arab society for Plant Protection](#)
IAPPS Website: Missing **URL Links to Plant Protection Associations/Organizations/Societies**

IAPPS members note: If you know the URLs to any of the below please inform me at eheinric@vt.edu

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Sudanese Society for Plant Pathology
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Greenhouse IPM in the Aegean Region of Turkey

Nilgün Yaşarakançı, Ph.D
Agricultural High Engineer, T.R. Agricultural and Rural Affairs Ministry
Turkey

The IPM project was initiated in 1991 with research projects in Aegean Region of Turkey. After having the preliminary results of the research, in 1994 the IPM implementation program was prepared and the dissemination project was launched through intensive training programs for both technicians and growers. The IPM technical instruction, training and dissemination program was prepared by the researchers, and implemented together with the trained technicians and growers throughout the Aegean Region.

The technicians were trained on IPM principles, IPM compatible control methods and materials, sampling techniques, economic thresholds, agro-ecosystem analysis, biology and conservation of natural enemies at the Plant Protection Research Institute.

The technicians were trained in greenhouses. The pests and their natural enemies were identified, population densities determined; and decisions were made on thresholds and control measures.

The project was initiated by the demonstrations as practical training for technicians in the first year of IPM implementation project in a few greenhouses in each province.

Sign boards advertising the demonstrations to farmers were placed at visible locations near a public road, in order to inform growers of the IPM project being carried out in the greenhouse.
The IPM greenhouses were visited weekly by technicians together with the growers in that localities. The cultured plants were inspected, the observations were made and decisions discussed together with the researchers, extension technicians and the IPM growers during the first month. Then, researchers joined the visits only when technicians needed help. The technicians and the growers carried out all activities together throughout the season.

Farmers’ Field Days were organized in each locality. The Information, on the IPM project and IPM concept and principles, were given to the media to provide awareness of the public. The growers, Agricultural society of the rural area joined the activities. The information on projects, IPM and alternative techniques are presented. The growers examine the cultured plants and discussed together.

The inspection began from the beginning of the cultivation to the end of the season. The neighbor IPM growers came together in one of the greenhouses once or twice a month. They inspected the plant and all the cultivation activities and discussed the new and the old methods. They decided on the control measures. The growers then applied the selected measures in their greenhouses.

In 1995, the yellow sticky traps were not found on the markets. Thus, technicians taught the growers ‘How to make sticky traps and place them’.

Theoretical lectures at the rural areas
The technicians and growers make the sticky traps together.

They hung the sticky traps together and the growers shared the knowledge with their neighbors.

The yellow sticky traps are now available in the market where the growers purchase them. In the last decade, hydroponic greenhouses have been constructed and modern cultivation systems and techniques have been applied.

Some of the pesticide companies and biological agent marketing retailers have applied IPM in some areas in order to market their materials. The IPM programs mostly use materials that they sell.

Some private consultant companies also apply IPM products depending on the materials available in the market and the consumer preferences.

**IPM implementation for healthy tomato production**

The main point is to take preventive measures (well equipped and constructed greenhouses, quarantine measures, microclimate management, sanitation) during cultivation and after harvest.

The healthy seedlings are supplied by the modern producer companies or are produced by the growers themselves. The grafted seedling is used as a tactic to manage soil-borne diseases and nematodes.

**Commercial nursery greenhouse**

Mulching is used to increase soil temperatures in cold greenhouses and also for taking measures against pests like leaf miners and thrips which complete life cycles in the soil.

**Growers' nursery**

The microclimate management and ventilation for optimum humidity and temperature to prevent disease outbreak.
Insect proof net prevents insect attack and also prevents insect-vectored virus attack. The ventilation openings are also covered by the insect proof netting. Side and roof openings are covered with netting.

The roof sprinkler irrigation system (above) is used against frost. The drip irrigation system (below) is used for convenient irrigation and prevention of pest occurrence.

Mostly in the southern Aegean Region the soil is disinfected against soil borne diseases and root-knot nematode by solarization. Bio-fumigation + solarization or use of chemicals is used to treat against nematodes. In some greenhouses in the northern region solarization has been applied for 2-3 years where 2 or 3 cultivations are achieved in a year or summer plants are cultivated.

The soilless culture has become prevalent in the newly constructed commercial greenhouses.

**Inspection**

The inspection and diagnoses are made with the consultant and growers. They together make a decision and choose appropriate measures against the problems. The growers apply the control methods by themselves.

The unknown pests were collected and sent to the specialist for identification.
Control Methods

Biological control is based on the conservation and augmentation of natural enemies, and classical biological agent. The biological agents are introduced when specific insect pests occur.

Correct pesticide selection, correct timing and application to reach to the correct target pest is essential in chemical control.

The pesticide is selected according to Matthews (1984) formula and table below:

Adverse effect on non target organism= A
• Fish=F
• Natural enemies=NE
• Bee=B
• \( (F+NE+B)/3 = A \)

Total Risk
• Adverse effect on mammals= C
• Adverse effect on environment=D
• Total Risk= A+C+D

The economic threshold is considered for insecticide application and natural enemy populations are taken into consideration when applying chemical controls. For this reason, the side effect on the major natural enemies of each insect is determined.

Achievements of IPM

• IPM growers learned the alternative control methods and applied them by themselves.
• IPM growers applied chemical control deliberately and consciously.
• Growers are aware of IPM and the Matthews (1984) formula.
• The number of the pesticide treatments has been reduced.
• The number of beneficial species and their population densities have been increased.
• Sound links have been established between the researchers, extension technicians and the growers.
• The extension technicians have developed an adequate knowledge of the principles of pest management.
• IPM infrastructure has been formed physically and mentally at the Ministry of Agriculture and Rural Affairs during the first phase of IPM project development.
• IPM awareness has been created among the growers, cooperatives and NGOs during the first phase of the IPM projects.
• The pesticide retailers now try to register pesticides compatible with IPM.
• The results of research have been put into practice easily and rapidly.
• Multi-disciplinary activities have been coordinated and handled, and funded by the NGOs, cooperatives and private sector.
• The quality of the products has been increased.
• The pests and diseases and their natural enemies are now determined in each IPM implementied crop.
• The pesticides are classified according to their risk.
• Some alternative control methods have been put into practice and studies are being conducted to identify additional methods.

Problems of IPM

• No incentives to growers to implement IPM or sanctions for incorrect applications that cause environmental pollution and no subsidies for materials used in alternative control methods.
• Insufficient investment on IPM.
• Lack of commercially available alternative control materials.
• Lack of cooperation among the governmental, private bodies and NGOs for supporting the IPM projects.
• Lack of environmentally friendly registered pesticides against the key pests on the major crops.
• Lack of the practical inspection methods being applied by the growers,
• Unavailable rapid residue analysis.
• The low level of grower education.
• Conservative attitude.

Prospects

Studies have been initiated by the Ministry on:
• Labeling (Certification) IPM products,
• Regulation for incentive alternative control methods,
• Regulation for sanctions for incorrect applications and environmental pollution,
• Subsidies for the alternative control materials and alternative production systems,
• Some other regulations considering the environment and human health since 2006,
• The prescription for pesticide usage put into implementation in 2009,
• The consultant regulations and certification have been applied since 2008,
• The credit is available with discount interest on environmental friendly production since 2005.
In addition to these studies, farmer administrators and staff of agricultural organizations, agents, private sector, NGOs and consumers should be informed and trained on IPM. The participatory approaches should be used in extension activities.

The integrated projects should be performed from production to marketing and related bodies should be involved at each step of a project.
Aflatoxins are toxic and highly carcinogenic secondary metabolites produced by fungi, Aspergillus flavus and A. parasiticus. They pose serious health hazards to humans and domestic animals because of their frequent contamination of agricultural commodities, such as cottonseed, peanuts, tree nuts and, of course, maize. Due to these potential hazards, aflatoxin levels in food and feed are regulated by a large number of nations worldwide; in the U.S., aflatoxin levels are regulated by the FDA. Towards controlling this problem, six maize inbred lines bred and selected for resistance to aflatoxin contamination, have been released to the public (Journal of Plant Registrations 2:246-250, 2008) and will be available for testing in the U.S. by late 2009. They are already being used as parents to accelerate breeding efforts aimed at minimizing contamination in West and Central African national programs.

These maize lines are the product of a research collaboration between the Southern Regional Research Center (SRRC) of the Agricultural Research Service - USDA in New Orleans and the International Institute of Tropical Agriculture (IITA), a CGIAR institute, in Ibadan, Nigeria. Principal investigators on the project are Dr. Abebe Menkir, a maize geneticist with IITA and Dr. Robert L. Brown, a plant pathologist with ARS. The U.S. - Africa project is an attempt to use an international collaboration to attack a worldwide problem.

The collaboration began in 1998 when Dr. Menkir sent a number of maize lines to SRRC which had been selected in West and Central Africa for moderate to high resistance to maize ear rot under conditions of severe natural infection. At SRRC, several of these lines were determined to be potentially resistant by the laboratory-based kernel screening assay (KSA). A formal collaboration was then established with the objectives of: 1) breeding aflatoxin-resistant inbreds in commercially useful agronomic backgrounds from crosses between U.S. resistant and African resistant maize lines (heretofore U.S. lines were in poor agronomic backgrounds and displaying less resistance than desired); and 2) developing markers that will assist breeders in transferring this resistance to desirable backgrounds using marker-assisted breeding strategies.

The project was originally funded by competitive grants from the USDA-Foreign Agricultural Service, and later by an ARS-USAID collaborative grant and a USAID linkage grant. In Nigeria, initial crosses were made which generated two populations: one with a 50% tropical background and the second with a 75% temperate background. Materials were then selfed and selected based on resistance to various foliar diseases and ear rots and on agronomic traits. Starting at the S4 generation, seed were sent to SRRC for KSA determination of aflatoxin levels. KSA
results along with field results in Nigeria determined which breeding materials would be selfed and carried forth to the next generation.

Aside from resistance to aflatoxin accumulation, the six new lines can be useful to breeders in that they have acceptable yield potential, good husk cover, desirable plant and ear aspect scores, and good levels of resistance to ear rot, southern corn leaf blight, and southern corn rust. These lines involve parents of both tropical and temperate origin and are likely to contain new combinations of complimentary alleles imparting resistance to aflatoxin contamination. More lines are being generated through this project with expected releases over the next few years. Also, genetic traits in these lines are being investigated as to their potential as breeding markers through the use of comparative proteomics and microarray analysis of near-isogenic lines generated through the project. It is hoped that this U.S. - Africa collaboration will exert a profound and positive impact on a serious global problem.

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NEW PROJECT ON IPM FOR CASHEW IN AFRICA
Sponsored by the German Federal Ministry for Economic Cooperation and Development (BMZ), a new project to develop and implement IPM technologies in Benin and Tanzania was officially launched at the International Center for Insect Physiology and Ecology ICIPE at Nairobi, Kenya, on April 15, 2009.

In the opening speech, Dr. Finan (representing the DG of ICIPE Prof. Borgemeister) noted that cashew is one of the most important export commodities in Africa, supporting the livelihoods of more than 5 million households and worth over US$400 million annually. The share of cashew production from Africa crashed from 70% in 1970 to
17% in 1990 due to a combination of biological, agronomic and socio-economic factors. Initiatives by several governmental and non-governmental agencies to improved crop management, processing and marketing efforts and other favorable policies has partly revived this crop in Africa, but is still far behind its global competitors.

Among the biological constraints, damage by mirid bugs (Helopeltis schoutedeni and H. anachardii), coconut bug (Pseudotheraptus wayi) and powdery mildew (PMD) (Oidium anacardii) can lead to 70-100% yield losses depending on the variety, location and season. In Benin, in addition to the mirid pests, a complex of stem borers also severely hampers production and greatly reduces the income of smallholder farmers. The most frequently used control options by the growers are large-scale application of chemical pesticides often at doses beyond the recommended rate with obvious ecological consequences. Hence there is an urgent need to develop ecologically sustainable and economically viable integrated pest management (IPM) for these key pests and diseases on cashew to increase production for income generation and improvement of livelihood. Policy constraints also impede cashew production and marketing in Africa and are crucial for successful trading.

ICIPE in close collaboration with IITA, Georg-August-University of Göttingen, and NARS in Tanzania and Benin (see below picture of workshop participants) therefore propose to develop, validate and implement sustainable cashew IPM technologies that minimizes the use of hazardous pesticides and enhances productivity and quality of cashew apple and nuts. Strategic research will focus on understanding the bio-ecology of the key insect pest complex and their natural enemies in diverse habitats and landscapes. Potential natural biological control agents will be identified and methods for conservation and augmentation of such natural enemies will be developed. Strategies that minimize or eliminate negative use of excessive sulphur dust for disease management based on eco-friendly alternatives will be pursued and the effects of such alternatives on the beneficial insects like pollinators, natural enemies and productivity of the crop will be developed and evaluated. This is the first project specifically dealing with pest and diseases of cashew ever developed for Africa. During the three-day inaugural workshop, participants from the different institutions presented an update on the phyotsanitary situation of cashew, and went on discussing details of workplans and budget.

On behalf of the whole team, ICIPE as the project coordinator would like to express its profound gratitude to BMZ for supporting this project.

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PESTICIDES IN IPM

Views on pesticide use in agriculture are often polarised - between those who think ‘crops are drenched with poison’ to those who over-promote pesticide use, particularly in developing countries. Similar views exist for alternative ‘silver bullets’ such as GM crops and bio-pesticides, but these can likewise be called into question. Nor is organic farming the answer if sufficient food is to be produced for an increasing world population. In reality, pesticides often provide a valuable tool in integrated pest management (IPM). Their use is restricted to the dose legally recommended, and by the economic costs and benefits of pesticide use. Overuse can lead to pesticide residue in the crop which can restrict its sale, to human and environmental exposure and to the development of pesticide resistance.

Therefore, like learning to drive a potentially dangerous vehicle like a car, good pesticide application practice requires effective training and clear information on the appropriate equipment and dosage required. Unfortunately in many countries trainers and farmers have not received adequate practical training and gaining information that is needed is not easy: information on a product label is only part of what farmers need. However for those with internet access, there are now web pages which do give some help. Environmental management of pesticides and other agricultural information is available on the EMA web page [http://www.adlnbib.ac.uk/ema/info.asp](http://www.adlnbib.ac.uk/ema/info.asp) developed at the University of Hertfordshire UK and on pesticide application at [http://www.dropdata.org](http://www.dropdata.org) - that links with the International Pesticide Application Research Consortium. Other useful international sites are the US EPA site - [http://www.epa.gov/pesticides/](http://www.epa.gov/pesticides/), and the Pesticide Management web page at FAO with additional useful links to different topics related to safe and effective use of agricultural pesticides [http://www.fao.org/agriculture/crops/core-themes/theme/pests/pm/en/](http://www.fao.org/agriculture/crops/core-themes/theme/pests/pm/en/).

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The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in Crop Protection to members and other subscribers. Crop Protection, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to a the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described here.

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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“Short” Notes from the IAPPS Secretary General

The Chair of the 2011 IAPPS/IPPC Program Committee, Bill Tweedy has selected subcommittee chairs for five program areas: (1) Multidisciplinary, (2) Entomology, (3) Industry/Genetic Engineering, (4) Plant Pathology and (5) Weed Science. Each subcommittee will develop several symposia and in January 2010 about 12 symposia will be selected by a joint committee of IAPPS and the APS Special Programs Board (SPB). The APS SPB will develop additional symposia with a phytopathology emphasis. Email addresses of the five subcommittee chairs and Bill Tweedy are listed on p. 3-5. If you have a suggestion for a symposium of your particular interest please inform one of the subcommittee chairs or Bill before December 2009 end. If you are interested in receiving announcements of the 2011 APS/IPPC to be held in Honolulu please note the URL for the website: <http://www.apsnet.org/meetings/APS-IAPPS> and complete the form (see announcement p. 2).

ENDURE, the European Network for the Durable Exploitation of Crop Protection Strategies, has an attractive website and produces an informative Newsletter “ENDURE News” (p.7). I recommend that you go to the ENDURE website <http://www.endure-network.eu/> and complete the subscription form (no cost) to receive the Newsletter by email (see p. 9).

One of the goals of my Fulbright Fellowship in Rio Grande do Sul, Brazil this year was to shoot photos of rice insects and their natural enemies with the objective of developing an illustrated field guide to assist farmers and field scouts in identification. The damselfly in the photo is one of the many photos taken during a study to determine the effect of insecticides on the abundance of rice insects and their natural enemies. The study was used as a thesis for an MSc student, Leila Fritz at UNISINOS, Sao Leopoldo, RS. I was pleased to receive word that she recently defended her thesis and received high marks in her defense.

Best wishes,

Short

eheinric@vt.edu

Blue damselfly on rice leaf, Camaqua, Rio Grande do Sul, Brazil, 19 February 2009. Damselflies are abundant predators in irrigated rice fields in southern Brazil.
The 2011 APS /IAPPS Joint Meeting (XVII IPPC)

http://www.apsnet.org/meetings/APS-IAPPS/

Save the Date!

August 6 – 10, 2011
Honolulu, Hawaii

The American Phytopathological Society will join the International Association for the Plant Protection Sciences for the 2011 APS/IAPPS Annual Meeting in Honolulu, Hawaii. Hawaii’s central location in the Pacific Rim will attract attendees and speakers from around the world, making this a truly unique experience for plant pathologists and plant health scientists.

The Call for Papers will be open February 1 – March 15, 2011

The American Phytopathological Society (APS)

The International Association for the Plant Protection Sciences (IAPPS)
**IAPPS 2011 IPPC Program Organizing Committee**

**Chair**

**Bill Tweedy**

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**Symposia** - We plan to have 12 to 15 symposia. The symposia will be developed as follows: Our organizing committee will be divided into four subcommittees. These subcommittees are (1) Multidisciplinary, (2) Entomology, (3) Industry/Genetic Engineering, (4) Plant Pathology and (5) Weed Science. Each subcommittee will have a leader. The leaders and members for the respective subcommittees are:

**Multidisciplinary** - (IPM, ICM, Biocontrol, Education, Technology Transfer, Training, Modern Communication Technologies, Climate Change, Biodiversity, Quarantine, Invasive Species)- Ron Stinner (Muni Muniappan, Geoff Norton, Short Heinrichs, Ray Martyn, Baruch Rubin, Irmgard Hoeschle-Zeledon, Falko Feldman)

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Entomology- E. A. “Short” Heinrichs (Geoff Norton, Ron Stinner, John Burd)

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**Plant Pathology**- Ray Martyn (Jenifer McBeath, Kelly Chamberlin)

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**Weed Science**- Baruch Rubin (Dale Shaner, Jim Bone, Muni Muniappan)

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I encourage IAPPS members to discuss potential symposia ideas with your colleagues and get their input and suggestions. The send an email to the appropriate leader above with your suggestions for symposia subjects. The more ideas we have, the better the program.
ENDURE, the European Network for the Durable Exploitation of Crop Protection Strategies, is a Network of Excellence (NoE) funded by the European Commission under the Sixth Framework programme.

ENDURE brings together more than 300 researchers in the fields of agronomy, biology, ecology, economics and the social sciences from 18 organizations in 10 European countries. They are committed to the ENDURE NoE (Network of Excellence) for four years (2007-2010), with the financial support of the European Commission’s Sixth Framework Programme, priority 5: ‘Food Quality and Security’.

The ENDURE network's objectives are to:

- Build a lasting crop protection community of research.
- Provide end-users with a broader range of short-term solutions to specific problems.
- Develop a holistic approach to sustainable pest management.
- Take stock of and inform plant protection policy changes.

ENDURE NoE for four years (2007-2010).

Four themes cutting across all the various ENDURE projects have been identified and provide a coherent approach to achieving its objectives

- Identifying short-term solutions
- Introducing innovative strategies and reducing cropping system reliance on pesticides
- Assembling a permanent research community
• Informing policy makers

Network coordinator: Pierre Ricci
Assistant coordinator: Marco Barzman
INRA, Sophia-Antipolis, France

Four Integrating Themes
Scientific contact by country
ENDURE contacts for policy makers
ENDURE training contacts
ENDURE Network of Advisers
ENDURE contacts for partners outside Europe

ENDURE News, Issue 6, November 2009

Welcome to the sixth edition of ENDURE News, the electronic newsletter from the ENDURE Network of Excellence. Please feel free to share this newsletter with colleagues and encourage them to subscribe for the next edition, which will be published in January 2010.

• BREAKING NEWS: ENDURE to be a perennial structure after 2010
At a meeting in Paris on November 26, ENDURE's Governing Council (which brings together senior representatives of its 18 institutional members) unanimously decided to create a European Research Group (ERG) that will prolong the Network of Excellence after its European Commission (EC) funding ceases at the end of 2010.

• LEAD STORY: EC publishes new pesticides legislation
The European Commission officially adopted and published two key pieces of legislation that form part of the ‘pesticides package’ at the end of November, setting in motion major changes in how plant protection products are placed on the market and how they are used in practice.

• PEST FOCUS: Non-chemical solutions to beat corn borers
Wasps are unlikely to win many popularity contests and genetic engineering has plenty of detractors too, but both offer very efficient ways of controlling a major pest affecting maize crops in Europe.
• **STAKEHOLDERS’ CONFERENCE: Italy tackles its first NAP**
The challenge Member States face in implementing the European Union's new Framework Directive on the sustainable use of pesticides was put under the spotlight at an Italian stakeholders' conference jointly organised by ENDURE this month.

• **CROP FOCUS: Online analysis of late blight DSS**
Late blight is the most serious disease to affect potatoes, and costs the farming industry worldwide a staggering €4 billion per year in crop losses and treatments. However, protecting potatoes is becoming more efficient and sophisticated thanks to the use of Decision Support Systems (DSS).

• **ENDURE Network of Advisers seeks recruits**
ENDURE is stepping up its recruitment efforts for the ENDURE Network of Advisers (ENA), membership of which is open to any European advisers (state, private and company) who are directly involved in advising farmers on a daily basis.

• **ENDURE Annual Meeting: Creating lasting achievements**
ENDURE members face the challenge of translating 'very significant advances' into 'visible and lasting achievements' over the coming months, coordinator Pierre Ricci told delegates at the Network of Excellence's Annual Meeting held recently in the Netherlands.

• **ENDURE provides wheat focus at BCPC Congress**
Wheat production was under the spotlight at the British Crop Production Council's 2009 Congress, held in the Scottish city of Glasgow, thanks to presentations from ENDURE's Lise Nistrup Jørgensen and Neal Evans.

• **Germany sets out future for PPPs**
Germany's Federal Ministry of Food, Agriculture and Consumer Protection has - after consultation with other ministries - identified a range of measures it will need to take in order to successfully implement the European Union's Framework Directive on the sustainable use of pesticides.

• **French report on landscape ecology**
France's Club Adalia, which brings together a wide range of professionals in the agricultural and food sectors, reported recently on the work of ENDURE's team dedicated to landscape ecology and its participation at this year's European International Association of Landscape Ecology Conference.

• **Biocontrols in the spotlight**
More than 350 delegates representing more than 200 companies and organisations from all over the world attended the Annual Biocontrol Industry Meeting (ABIM), which was held over two days in Lucerne, Switzerland, in October.

• **Aarhus University seeks 10 PhD students**
Aarhus University, one of ENDURE's two Danish partners, is seeking 'bright and enthusiastic' people with excellent MSc degrees in the natural science, agricultural or engineering disciplines to fill 10 PhD positions.

**RECENTLY ADDED CROP PROTECTION EVENTS**

• **Premier Colloque IBMA sur la Protection Intégrée**
17 December 2009: Paris, France. ENDURE partner the International Biocontrol
Manufacturers Association (IBMA) is staging its first conference on integrated protection for French speakers in Paris in December.

- **EuroBlight Workshop**
  03-06 May 2010: Arras, France. EuroBlight, the European potato late blight network, will stage a workshop in the French city of Arras in May 2010, with the objective of presenting and discussing recent results on integrated control for both late and early blight.

- **The Dundee Conference**
  23-24 February 2010: Dundee, Scotland. Organised by the Association for Crop Protection in Northern Britain, The Dundee Conference will bring together farmers, advisers, the agro-chemical industry and all those concerned with advances in chemical and non-chemical crop protection, including advisory, research and government organisations.

- **AGRO 2010**
  29 August-03 September 2010: Montpellier, France. AGRO 2010, which incorporates the XIth European Society of Agronomy Congress, is the Scientific International Week around Agronomy, which will offer a range of symposiums addressing agronomic research and its contribution to sustainable development.

- **Climate Change: Implications for Plant Protection**
  25-27 May 2010: Guelph, Ontario, Canada. Ontario’s University of Guelph is staging a three-day symposium focusing on Climate Change and the Implications for Plant Protection which will explore the science, the impacts and the options regarding global climate change.

- **LandMod 2010**
  03-05 February: Montpellier, France. LandMod 2010, the 2010 Conference on Integrative Landscape Modelling, will bring together scientists working in the main disciplines dealing with ecosystems and landscapes simulation and management, complex dynamic modelling and the assessment of vulnerability, resilience and adaptation of agro and ecosystems under human influence.

- **ICPPB 2010**
  7-11 June 2010: Saint Denis, Ile de la Réunion. The French Indian Ocean island of Réunion hosts the 12th International Conference on Plant Pathogenic Bacteria in 2010, where the emphasis will be placed on emerging diseases.

- To find out more about ENDURE, visit the website: [www.endure-network.eu](http://www.endure-network.eu)

- To subscribe to the ENDURE Newsletter get in touch with ENDURE by using the contact form at:
  
AGRA Launches Policy Initiative to Empower Africa To Shape Home-grown Agricultural Policies

New Initiative Announced for World Food Day Recognizes Policy’s Pivotal Role in Attaining African Food Security

DES MOINES, IOWA, and NAIROBI, KENYA (15 October 2009) – The Alliance for a Green Revolution in Africa (AGRA) today launched an initiative to empower African governments to shape home-grown agricultural policies that provide comprehensive support to smallholder farmers. The initiative is supported by a US$15 million grant from the Bill & Melinda Gates Foundation.

With an initial focus on five countries (Ethiopia, Ghana, Mali, Mozambique and Tanzania), the initiative will strengthen African agricultural policy-making capacity through training agricultural policy analysts; bolstering policy think tanks; establishing data banks to support evidence-based policy development; and coordinating national policy hubs. It will focus on policies that support farmers in the areas of seeds; soil health; markets and trade; land rights; women’s rights; equity; environmental sustainability; and climate change.

"Unlike farmers everywhere else in the world, African farmers, most of whom are women, receive little or no support from their governments," said Mr. Kofi A. Annan, Chairman of the AGRA Board and former Secretary-General of the United Nations. "We must change this. The new support to AGRA from the Bill & Melinda Gates Foundation is coming at the right time for Africa, where strong national policy action is essential to end poverty and attain African food security."

The Bill & Melinda Gates Foundation announced this grant at the World Food Prize Symposium in Des Moines, Iowa, along with a package of nine agricultural development projects totaling $120 million to address long-term food security.

"Melinda and I believe that helping the poorest smallholder farmers grow more and get it to market is the world’s single most powerful lever for reducing hunger and poverty," Gates said.

For this to happen, African farmers need enabling agricultural policies. But Africa’s agricultural policy system is in shambles, following decades of externally-driven policies which gutted public support for agriculture and created a vacuum in Africa’s agricultural policy capacity. External policies imposed through "structural adjustment" programs left tens of millions of farmers locked in poverty, unable to invest in their farms or to access markets.

"We cannot abandon our farmers and be surprised that Africa is in a food crisis," said Dr. Akin Adesina, AGRA’s Vice President of Policy and Partnerships. "We must replace ‘policies of abandonment’ with policies of comprehensive support for smallholders. African institutions must
lead by developing evidence-based and locally relevant policies to transform African agriculture into a sustainable, competitive and highly productive system.”

“Our goal is not to set policy for African countries, but to empower countries, and move beyond policy analyses into policy action,” said Dr. Namanga Ngongi, President of AGRA. “We will give voice to African farmers.”

To ensure that new policies benefit smallholders, the program will strengthen farmers’ policy advocacy platforms, with a special focus on women farmers, to help them gain full and equal access to land security, farm technologies, markets, finance, and extension services.

“AGRA is helping to give African farmers and policy-makers a voice they have lacked for decades,” said Stephen Wazira, Minister of Agriculture of Tanzania. “We need policies that unlock the potential of agriculture, feed our people and support economic development. This initiative will further empower our government to put policy to work for smallholder farmers.”

**Policy Impacts**

According to Adesina, the tide is turning in favor of African farmers, as nations such as Malawi, Tanzania, Kenya, Rwanda, Mali, Ethiopia, Mozambique, Ghana and Nigeria are taking new bold steps to revitalize agriculture.

Many more countries are signing up to the Comprehensive African Agricultural Development Program (CAADP) to provide at least ten percent of their budget in support of agriculture. As these funds become available, effective, locally-determined policies to guide investments will be even more critical. “AGRA will further bolster CAADP efforts at national and regional levels. Success of the green revolution at country levels across Africa is critical for countries to achieve the 6% agricultural growth target that African Presidents agreed to under CAADP” said Adesina.

Policy impact can already be seen in countries like Malawi and Rwanda which are providing comprehensive support to their farmers. Government policies, including seed and fertilizer vouchers for poor farmers, have helped transform Malawi from a net importer to a net exporter of maize for four years running, and fueled a national economic growth rate of seven percent. In Rwanda, policies which increased farmers’ access to quality seed and fertilizers have boosted food production for two straight years. Food production grew by 15% in 2007 and 16% in 2008, as the country embarked on a green revolution program. This has improved national food security, even as 20 million people in neighboring countries must depend on food aid for survival.

AGRA stresses that across African nations, there is no single policy solution for promoting smallholder agriculture. While farmers need direct support, equally important are accelerated investments in public goods such as agricultural research, extension, small-scale irrigation and roads.

“In the long-term, the ability of Africa’s smallholder farmers to adequately feed the continent depends on a policy environment that improves access to agricultural technologies, assures market access, stabilize food prices for the poor, protects the environment and helps farmers adapt to climate change,” said Annan. “That is why this AGRA policy initiative is so important.”

Organizations such as the Economic Commission for Africa, African Development Bank, Africa Union-NEPAD, Regional Economic Communities, the African Economic Research Consortium and the International Food Policy Research Institute will be key partners in the policy initiative.

“We will coordinate with these and other organizations to accelerate comprehensive policies and investments for rapid agricultural growth. Millions of African farmers can no longer wait,” Ngongi said.
About the Alliance for a Green Revolution in Africa (AGRA)
AGRA is a dynamic partnership working across the African continent to help millions of small-scale farmers and their families lift themselves out of poverty and hunger. AGRA programs develop practical solutions to significantly boost farm productivity and incomes for the poor while safeguarding the environment. AGRA advocates for policies that support its work across all key aspects of the African agricultural value chain from seeds, soil health and water to markets and agricultural education.

AGRA's Board of Directors is chaired by Kofi A Annan, former Secretary-General of the United Nations. Dr Namanga Ngongi, former Deputy Executive Director of the World Food Programme, is AGRA's president. With support from The Rockefeller Foundation, the Bill & Melinda Gates Foundation, the UK's Department for International Development and other donors, AGRA works across sub-Saharan Africa and maintains offices in Nairobi, Kenya, and Accra, Ghana. For more information see: www.agra-alliance.org

Cassava Virus Dealt a Blow in Southern Africa
Source:SciDev.Net
Author:Carol Campbell

Researchers in South Africa have developed genetically modified (GM) plants with resistance to the South African cassava mosaic virus, this article reports. Sarah Taylor, a researcher in the cassava biotechnology program at the University of the Witwatersrand's School of Molecular and Cell Biology in Johannesburg, South Africa, presented her research at the Bio2Biz conference in Durban, South Africa last month (September 21-23). So far, Taylor has experimented with tobacco, which grows well in the laboratory. GM tobacco plants infected with the virus continued to grow normally, and Taylor and her colleagues now hope to replicate these results using cassava plants, before moving on to field studies. Taylor says the new technology could be applied across the southern African region, as the same local virus infects crops in Madagascar, Mozambique, the north eastern provinces of South Africa, Swaziland, and Zimbabwe. The article notes that resistance to a different strain of the virus, the African cassava mosaic virus, has already been achieved. Cassava is one of Africa's principal foodstuffs. The UN Food and Agriculture Organization (FAO) estimates that on average, Africans eat 80 kilograms of cassava per capita each year. The article can be viewed online at the link below.

Providing sufficient, affordable and safe food for the increasing world population is one of the biggest challenges the international agricultural community is facing over the next decades. The first and most logical step towards this aim is the reduction of the current yield losses caused by pests, diseases, and weeds in the field and during storage. Without any pest control, crop losses would be considerably higher than they are today. However, anticipated future attempts to intensify agricultural production, coupled with climate changes are likely to exacerbate pest-related problems.

Activities on integrated pest management (IPM) have been going on for many years in most CGIAR Centers. IPM researchers studied pests of their mandate crops and developed effective pest control technologies and packages. In 1996, the Systemwide Program on Integrated Pest Management (SP-IPM) was launched to increase the efficiency of the Centers’ research, by focusing on particular research themes and problems common to several Centers, and linking pockets of disciplinary expertise available across the Centers. In 2008, SP-IPM underwent major changes and adopted a new programmatic strategy which focuses on three research areas (AIM):

- Adapting IPM to climate variability and change
- Improving agro-ecosystem resilience for soil, root and plant health
- Managing contaminants in food, feed and the environment.

These three research areas are further strengthened by a fourth thrust (Training) on expanding knowledge on IPM technologies through capacity building at the NARS’ and policy makers’ level in cooperating countries.

**Adapting IPM to climate variability and change**

The Problem: The multiple impacts of climate change could significantly reduce the effectiveness of current IPM strategies, leading to higher crop losses. Better knowledge and understanding of pest behavior under different projected scenarios are required to adopt and develop new IPM technologies to respond to threats resulting from climate change.

The Solution: SP-IPM will respond to these threats by carrying out collaborative research and surveillance to evaluate the changes in cropping systems and production practices affected by climate change, and to find out which cropping systems are the most vulnerable to increased biotic stress. This will include the establishment of a biodiversity monitoring system to detect and
analyze climate change effects on above- and belowground biodiversity, and plant and soil health.

**Improving agro-ecosystem resilience**

**The Problem:** Plant health is intimately linked to the health of the agroecosystem in which the plant flourishes. Inappropriate agricultural practices, such as intensive monoculture, extensive mechanical tilling and over-reliance on agro-chemicals, change the biological, physical and chemical nature of the soil and hence alter the sound ecological balance of different soil organisms, affecting long-term agricultural productivity and sustainability. Improved resilience together with increased deployment of biodiversity is necessary to achieve the goals of sustainability and productivity.

**The Solution:** Agroecosystems have to be managed in ways that conserve and enhance functional agro-biodiversity, including soil biota abundance and diversity, even with further intensification of agricultural production. SP-IPM focuses on broadening the understanding of the ecological relationships in agricultural production systems to improve soil, root and plant health in key cropping systems. By doing so, eco-disturbances due to the expected agricultural intensification in the future will be prevented. Emphasis is placed on the following areas:

- development and promotion of crop production practices that retain and stimulate the biological diversity needed to mitigate damage to soil and plant health
- development of strategies for adapting host-plant resistance to pests under different agroecological conditions

**Managing contaminants in food, feed and the environment**

**The Problem:** Pesticide residues, heavy metals, microbes, and toxins produced by fungi, such as aflatoxins and fumonisin, in food and animal feed cause serious health risks. Climate change is expected to aggravate the mycotoxin problems with higher insect damage in dry areas facilitation contamination with toxin-producing fungi. Excessive applications of pesticides and the increasing use of generic products of doubtful quality are a hallmark in fruit and vegetable production. Residues related to improper use of pesticides and stringent quality standards for food deprive farmers and exporting countries of vital income.

**The Solution:** SP-IPM addresses trade losses and the threat to human, animal, and environmental health by:

- developing tools to identify and develop germplasm of crops with resistance to insect damage and subsequent fungal colonization, reduced toxin production, and swifter toxin degradation;
- providing cost-effective mycotoxin detection tools to exporters and food monitoring agencies to increase the market opportunities for agricultural produce and allow for the reduction of health risks from local food supplies;
- developing aflatoxin biocontrol methods;
- developing and adapting storage technologies for agricultural produce at risk of insect and mycotoxin infestation;
- improving IPM systems to take advantage of biological control and other non-pesticide alternatives that supplement low to moderate levels of plant resistance;
- supporting the rational use of modern pesticides to replace overuse of highly toxic outmoded chemicals;
• influencing policy makers to adopt national food safety enhancing policies.

Training and capacity building to increase national research and innovation capacity
Increasing food production in a relatively short time to keep pace with growing demand requires invigorated national capacities for research and innovation. SP-IPM has a vital role to play in supporting NARS to upgrade their research capacities by

• the implementation of a Rotational Advanced Training and Knowledge Exchange Program for key national scientists, research managers, CGIAR staff, and political decision makers to expose them to the latest technologies available to enhance plant health while reducing negative impacts on human and environmental health;
• tailor-made training of national researchers and practitioners in (a) the development of IPM practices, in particular production systems such as peri-urban horticulture, and small-scale cropping systems in the humid tropics, drylands, and temperate highlands; (b) specific topics relevant across cropping and ecosystems such as harnessing functional biodiversity to increase ecosystem resilience, assessment of the vulnerability of production systems to pests induced by climate change.

Plant Health Management in the new CGIAR
The concept of Mega Programs proposed as the key delivery mechanism for the outputs and outcomes of the Strategy and Results Framework at the medium- and long-term time horizons, leaves the future destiny of Systemwide and Ecoregional Programs (SWEPS) uncertain. However, the SP-IPM team is confident that plant health management and crop protection will feature high on the future CGIAR agenda as pests, diseases and weeds destroying substantial parts of farmers' harvests are major limiting factors to sustainable increased food security and safety.
When reflecting on the role IPM has to play in a reformed CGIAR System, further important aspects should be taken into account.
In addition to its primary role of reducing crop losses to biotic stresses, IPM is increasingly associated with other benefits such as ecosystem services. Healthy, biodiversity rich environments, culturally diverse landscapes, clean water ways, and watershed protection are services and public goods that IPM is providing. IPM also makes safer food available for people to lead a healthy and productive life, less burdened with diseases. By tackling sanitary and phytosanitary issues, IPM facilitates agricultural trade worldwide. Allowing farmers from developing countries to participate in international markets is recognized as an effective avenue out of poverty.

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TERMITE MANAGEMENT FOR NERICA RICE IN WEST AFRICA

Termites constitute a major biotic constraint to rice production in West Africa. Yield losses of 50 to 100% have been attributed to termites in farmers’ fields. Smallholder farmers have over the years depended on their indigenous knowledge for the control of termites. With the increasing problem of termites in upland rice due to uneven distribution of rains and the recent ban on the use of persistent pesticides, there is a paradigm shift towards incorporating farmers’ indigenous knowledge with appropriate environmentally-friendly technology for better management of the pest.

Studies were conducted at Ikenne, southwest Nigeria and Niaouli, Benin Republic to assess the effectiveness of the following treatments against termites:

- Biological control: chopped ripe and unripe pawpaw mixed with red palm oil (attracts ants that attack termites), and entomopathogenic fungus *Metarrhizium anisopliae* (2 g of *M. anisopliae* mixed with 60cc of wood powder applied at a depth of 3 cm around the rice plots at a distance of 40 cm between holes and 10 cm from the rice stands).
- Natural pesticides: neem seed oil and neem seed powder (2 litres of neem seed oil concentrate in 20 liters of water per 90 m² and 800 kg/ha, respectively), powdered tobacco (200 g of powdered tobacco was mixed with 15 liters of water and sprayed on the plots).
- Cultural practices: bamboo (500 cm long bamboo stems were buried about 250cm deep into the soil), pigeon pea (sown in two rows around the rice plots at the rate of 4 to 5 seeds and at a distance of 40 cm between stands), sawdust (sprinkled on the plots), and a control against termite attacks on 15 rice varieties: NERICA 1 - 10, LAC 23, OS 6, WAB 56-104, CG 14 and a local farmer rice variety.

The results showed that *M. anisopliae* and neem seed oil gave the best protection against termite attack across locations. Amongst the rice varieties, termite attack was significantly lower on NERICA 1, NERICA 5, NERICA 7, CG 14, LAC 23 than on the other rice varieties. These findings indicate that biological control using pathogens such as *M. anisopliae* and botanicals such as neem seed oil can provide effective control against termites on rice fields and can also be used as alternatives to persistent chemical pesticides.

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IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to a the world’s crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described [here](#).

The IAPPS Newsletter welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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