

IPM CRSP



Update



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VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

IPM COMMUNICATIONS WORKSHOP HELD IN NAIROBI

Brhane Gebrekidan, IPM CRSP Program Director, and Jean-Pierre Amirault, Assistant Coordinator, Africa IPM Link, just returned from Nairobi, Kenya where they attended the IPM Communications Workshop for Eastern and Southern Africa (ICWESA). The workshop took place March 1-6 1998 at the International Centre of Insect Physiology and Ecology (ICIPE). The purpose of the workshop was to explore ways electronic communication can be integrated into existing patterns of IPM communication within Africa and to take advantage of the new opportunities afforded by advances in communications technology. The ultimate aim is to facilitate delivery of IPM information in order to improve development and implementation of IPM by farmers in collaboration with research and extension intermediaries. The IPM CRSP's Africa IPM Link initiative, in partnership with other IPM stakeholders in Europe, the U.S.A., the International Centers, FAO, and USAID, joined forces in organizing the workshop.

This pilot workshop was the first step in a secondary phase towards making information about electronic communication available to prospective end users. It was the culmination of 18 months of planning carried out principally through e-mail. Possibilities are being investigated for replicating the workshop in other regions, with West Africa as the likely next target. Funds for the project came primarily from USAID and Technical Centre for Agriculture and Rural Cooperation, The Netherlands (CTA).

More than 80 participants attended the

workshop, including about 40 from sub-Saharan African countries, about 20 from international and development cooperation institutions and about 20 from the organizing committee and other resource persons. Key players in African IPM research, extension, and implementation were represented. These included national and international programs, NGOs, farmers and their representatives, the commercial private sector, and information and telematics (electronic information) specialists.

The workshop program consisted of a series of keynote presentations on telematics, existing global electronic IPM information resources and networks, studies by IPM practitioners on information needs by country representatives from different parts of the continent, and existing and emerging African networks addressing the information needs of IPM practitioners. Some of the existing networks within Africa were presented during the workshop. A new Internet Research Laboratory, financed by USAID-Africa Bureau, consisting of six computer workstations and an Internet server was set up in time for the beginning of the workshop. This allowed for 'live' web site demonstrations as well as for hands-on sessions to introduce participants to the possibilities offered

by the Internet and e-mail for disseminating IPM information. As a result of these live web site demonstrations, the Africa IPM Link web site* was identified as one of the best gateways for IPM information in Africa. Jean-Pierre Amirault took the lead role for coordinating evening hands-on sessions.

The principal outputs of the workshop were participatory learning experiences and a wider appreciation of the possibilities amongst those not familiar with the Internet; jointly conceived, locally, nationally and regionally relevant strategies; follow-up mechanisms for IPM information sharing and dissemination in sub-Saharan Africa with eastern, southern and western sub-regional nodes. The workshop also improved links between the key players and existing IPM-relevant networking initiatives within the region.

More information, including outputs, can be found on the workshop website—<http://ipm-www.ento.vt.edu:8000/ail/ipmcw/intro.html>. It is currently being maintained by J. P. Amirault and Ron Stinner (NSF Center for IPM). Both the Africa IPM Link and the ICWESA Web sites are mirrored in on ICIPE's server to provide faster access from Africa.

*<http://ipm-www.ento.vt.edu:8000/ail/index.html>

FROM THE PROGRAM DIRECTOR

The IPM CRSP is in the middle of its final year of the first five year phase of its operation. Last month, the CRSP submitted its Renewal Proposal for the next five years to USAID. The Renewal Proposal presents a well thought out, comprehensive plan which builds on the lessons learned and the significant achievements accomplished during Phase I of the CRSP. The proposal describes novel approaches and strategies to further globalize participatory and collaborative IPM research. New countries as well as new US institutions are included in the expanded new plan.

USAID appointed a special External Review Panel of eight members to evaluate the Renewal Proposal and make its recommendation to the Agency. The panel has reviewed the renewal document and received a presentation

on the proposal by the Management Entity (ME) and the Technical Committee Chair (TCC) of the CRSP. After an extensive discussion session with the ME and the TCC the panel made constructive suggestions for the improvement of the overall plan for Phase II. The panel has forwarded a recommendation to USAID stating that the Renewal Proposal be accepted by the Agency and funded at the highest level requested if the recommended changes and suggestions are addressed by the CRSP. The CRSP will certainly respond appropriately to the recommendations made by the Review Panel.

We trust USAID will fully support our proposal and are looking forward to the initiation and aggressive implementation of Phase II of this CRSP.

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S.K. De Datta, IPM CRSP Principal Investigator, Travels to Bangladesh

From February 2-5, 1998, S.K. De Datta, Director of the Office of International Research and Development and Associate Dean, College of Agriculture and Life Sciences, was in Bangladesh for the IPM CRSP. The main purpose of the visit to Bangladesh was to establish direct contacts with IIRI - Bangladesh, the Ministry of Agriculture, the USAID Mission, and two major research institutes—Bangladesh Agricultural Research Institute (BARI) and Bangladesh Agricultural Research Council (BARC). It was a successful visit as De Datta was able to touch base with all parties concerned. There was considerable interest and enthusiasm to invite IPM CRSP to Bangladesh both on the part of concerned national agencies and the USAID Mission.

De Datta was briefed on several other IPM projects that are on board in Bangladesh, most of which are on extension and training. These are funded by FAO-UNDP, DANIDA (Danish equivalent of USAID), and JICA. There is also a completed project which AVRDC has implemented with USAID funding. De Datta was escorted by Sadiqul I. Bhuiyan who took him to

BARI. BARI is the largest national research institute with a mandate to conduct research on all crops except rice, jute, livestock, and fisheries. BARI has 13 divisions—besides headquarters at Joydebpur, there are 6 Central Research Centers which deal with commodity research. The most relevant research center to the IPM CRSP is the Horticultural Research Center (for fruits and vegetables) which is located in Joydebpur. BARI scientists work closely with the Bangladesh Agricultural University in Mymensingh and Institute for Post Graduate Studies. IPM CRSP can use the Institute for graduate training programs. Zahirul Karim, Executive Chair, BARC, suggested that IPM CRSP should have a MOU with BARC and Bangladesh Rice Research Institute (BRRI), and that the BARI Director General could also be a signatory. Considerable discussion was centered around Bangladeshi regulations on fund transfers in donor-funded projects. We have some basic understanding of how that will work with the least amount of government interference.

USAID was fully supportive of IPM CRSP involvement in Bangladesh. The USAID Mission (John Swanson and Richard Rousseau) is fully committed to IPM in vegetable crops in rice-based systems. Discussions followed on the brain drain problem in Bangladesh. De Datta made it very clear that no salary topping is possible. BARI can hire or assign a full time IPM CRSP site coordinator who should be an active scientist with considerable energy and training to fully coordinate IPM CRSP field research.

De Datta also visited the Minister of Agriculture at her official residence. Minister Begum Matia Chowdhury has the reputation of being one of the most dedicated ministers of the current government. The Minister reiterated the government's commitment to IPM issues, and stressed that issues in vegetable IPM are very important to Bangladesh. She also warned that technologies should be developed which are relevant to Bangladeshi farmers.

IPM CRSP activities should be very relevant in Bangladesh as pesticide use is high on many vegetable crops; for example, eggplants may receive up to 70 sprays per season.



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IPM CRSP Submits Proposal to USAID Mission in Albania

Following a September 1996 visit by a team which was comprised of S.K. De Datta, Charlie Pitts and Robert C. Hedlund, a second team went to Albania at the request of the USAID mission. Greg Luther and Charlie Pitts visited Albania in February of this year to re-establish relationships with Albanian institutions and stakeholders. This step of re-establishing relationships needed to be carried out because of the massive disruption of all Albanian institutions that was caused by the riots in early 1997. Plans for a collaborative IPM project were on track after the September 1996 visit, but this recent visit was needed so that the IPM CRSP could move forward again.

During this visit, Luther and Pitts consulted with key people in USAID about project plans and met with a variety of Albanian stakeholders, including officials from several branches of the Ministry of Agriculture, faculty and administration from the Agricultural University of Tirana, and representatives of the Albanian Fertilizer and Ag-Input Dealers Association

(AFADA), the Albanian Edible Oil Association, and the Albanian Association of Horticulture Businessmen (HABA), among others. They also enlisted the assistance of Volunteers in Overseas Cooperative Assistance (VOCA) to ensure that the project will have good contact with farmers and farmer groups. The proposed project would last three years and would focus on olives. One major focus of the project may be to improve marketing strategies and linkages for Albanian products. Furthermore, although pesticide use has recently dropped due to the weak economic position of farmers, it will likely rise again after these farmers are more able to purchase inputs. This is a strategic time to replace the pesticide-minded orientation of farmers with an IPM approach that will optimize crop production while minimizing damage to human health and the environment.

An initial participatory appraisal, along with a baseline on-farm survey, is tentatively scheduled for June 1998. Results from the PA will then be used to develop a workplan.

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NEWS from the IPM CRSP SITES

LATIN AMERICA

Latin America Site Chair Glenn Sullivan (Purdue) and collaborating scientist Steve Weller (Purdue) visited Guatemala from September 9 through 14 1997 for the purpose of conferring with researchers and other representatives from collaborating institutions. Discussions focused primarily on reviewing Year 4 research results and facilitating the successful implementation of the Year 5 Workplan. Sullivan and Weller held extensive discussions with Guillermo Sánchez (Universidad del Valle), who assumed the role of Host Country Site Coordinator in October. Sánchez possesses demonstrated research and leadership skills, and the IPM CRSP anticipates that his term as Site Coordinator will favorably impact the program. Sánchez will collaborate closely with Luis Calderon, who heads the Non-Traditional Agricultural Exports (NTAE) research group of the recently reorganized Instituto de Ciencia y Tecnología Agrícolas (ICTA). All IPM CRSP funding for ICTA will be directed to the NTAE division, and most ICTA researchers working with the IPM CRSP will be housed in this division. In addition, Sánchez will supervise the on-site research of Philip Lamport, a Guatemalan graduate student who is completing an M.S. at Purdue. Sullivan and Weller have designed one experiment in Lamport's research program. This experiment will assess the impact of leafminers and other pests on commercial snow pea cultivars in Guatemala.

CARIBBEAN

D. Michael Jackson, a research entomologist from USDA-ARS, U.S. Vegetable Laboratory, traveled to Jamaica in February to visit the IPM CRSP sites there. Jackson visited the insect IPM sweetpotato fields in the Ebony Park area of Clarendon Parish. The sweetpotato IPM program in Clarendon Parish has been quite successful in reducing the impact of the sweetpotato weevil. However, especially in the IPM fields, a new pest problem of small white grubs has emerged. These larvae are quite destructive to sweetpotato roots and render them unfit for export. One potential method for evaluating sweetpotato entries for insect damage is the use of a no-choice experiment under row covers after the introduction of a known number of pest insects. A row-cover experiment has been set up at the CARDI field station on the UWI Mona Campus. Jackson visited this site and discussed ways of introducing insects under the row covers. These plots are not scheduled to be harvested until April and will be evaluated by Bohac, of USDA, and Janet Lawrence, who are the other two principal investigators for this project.

In St. Kitts, three USDA scientists (R. L. Fery, J. R. Bohac, and J. A. Thies) are collaborating with Sherman Weekes, Caribbean Agricultural Research and Development Institute (CARDI), St. Kitts, and Janet Lawrence, CARDI, Jamaica, to evaluate hot pepper and sweetpotato germplasm for resistance to root-knot nematodes and/or insect pests in St. Kitts. J. A. Thies traveled to St. Kitts specifically to cooperate with Weekes in the evaluation of a replicated hot pepper field test for resistance to root-knot nematodes and to observe and plan procedures to evaluate a replicated sweetpotato field test designed to evaluate USDA advanced lines and local cultivars for resistance to root-knot nematodes.

AFRICA

From February 16 to 28, 1998, U.S.-based Mali site team member John Caldwell (Virginia Tech, horticulture / farming systems / crop management) collaborated with IER team members to analyze results of on-farm IPM field trials and farmer evaluations in the 1997 season (project year 4) and plan a survey of horticultural pest problems (project year 5). The group analyzed data and prepared graphs on results of blister beetle, mildew, and *Striga* management techniques; analyzed data and prepared graphs on soils, crop rotations, incidence of insects, diseases, and animal damage, and crop calendars for all trials; and carried out content analysis of farmer comprehension of the trials and adoption and tendency to adopt IPM technologies.

The use of locally-prepared neem oil in Ultra Low Volume (ULV) application and *Bacillus thuringiensis* (formulation 'M Trak') reduced insect pressure and increased millet yield. Use of two local materials reduced mildew on millet compared to the control, nearly equivalent to fungicide under moderate disease pressure. Improved intercropping with *Striga* resistant cowpea had variable results, reducing *Striga* infestation in two of four villages. The integration of disciplines evidenced this year showed that long-term investment in institution building can build sustained research capacity that produces improved agricultural technologies for farmers. Green beans and hibiscus were identified as priority horticultural crops, priority pests on these crops were identified, and four villages were proposed for the horticultural survey.

ASIA

Asia site research activities continue to be focused in four program areas: (1) Farmer-based field experiments on management of insect and nematode pests, diseases, weeds and natural enemies in rice-vegetable systems in San Jose and Bongabon, Nueva Ecija; (2) Screening, mass-rearing, testing and trap cropping; (3) Socioeconomic analysis and policy dialogue; (4) Developing linkages and regionalization.

In the Philippines, each of the seven major on-farm field experiments in San Jose and Bongabon were in place as planned. In year 6, the weed experiments led by Aurora Baltazar will add the stale seedbed technique against *Cyperus*, additional experiments to investigate weed management activities in rice as they affect subsequent vegetable crop weed management, and experiments to test interactions of weed combinations. The weed ecology special project led by Martin Mortimer of IRRI will be integrated into the core weed research activities. With the gender analysis, a new survey focused on beliefs and decision making by both genders will be undertaken next year in conjunction with the follow-up baseline survey to ensure that both male and female decision makers are identified and surveyed with respect to factors that impinge on pest management. S. Francisco has budgeted out the various IPM practices developed on the project and the next step is to calculate or project aggregate level benefits and costs.

There have been several recent research accomplishments at the Asia site in the Philippines. For example, rice hull burning was shown to effectively kill nematodes up to a soil depth of 6 inches. Under field conditions, burning effectively reduced nematode root galls and densities in roots and soil. Likewise, weed emergence in unburned fields was greater by 74%, but extremely slow in burned fields, indicating that burning effectively destroyed weed seeds and propagules. Also, onion yields were almost 3 times higher in burned fields. A partial budget analysis showed that rice hull burning gave an added gross benefit of P152,743 per hectare, with an additional net benefit of P142,256 per hectare, due to the yield enhancing effect of the practice.

Also, a preliminary survey on gender differences, which covered 31 farm households including 45 male and 32 female members, showed a division of labor between male and female household members in on- and off-farm activities. Power intensive operations were handled by males and control intensive ones by females. The generally chemical-based pest management practices were conducted by males. Although the women did not physically participate in pest management operations, they took an active role in decision-making and control of household finances, which included the farm budget.

Finally, population densities of nymphs and adults of the eggplant leafhopper, *Amrasca biguttula*, did not differ significantly whether the insecticide Brodan was sprayed twice a week, weekly, biweekly, or triweekly both in farmers' fields and experimental fields.

In addition, two papers have been published from the Asia site, and four working papers have been prepared for future publication in refereed journals.

Second Meeting of the Caribbean Regional IPM Network Held in Kingston, Jamaica

IPM CRSP Program Director, Brhane Gebrekidan, traveled to Kingston, Jamaica to participate in the second regional meeting of the IPM Network for the Caribbean which took place February 3-8, 1998. The workshop was organized by the Caribbean Agricultural Research and Development Institute (CARDI) and the Technical Centre for Agricultural and Rural Cooperation (CTA). Forty-five participants representing IPM practitioners and crop protection officials from 20 Caribbean countries, as well as representatives from the IPM CRSP, USDA, FAO, ISNAR, CARICOM, CIMMYT, and CABI attended the meeting. The IPM CRSP was represented by Gebrekidan, two Co-PIs from two U.S. institutions and most of the Jamaica based host country collaborators of the CRSP. Representatives reported on the status of their key pests and the IPM efforts underway in their countries. IPM CRSP/CARDI Jamaica reported on the collaborative IPM research underway and the progress made on the management of the major pests of callaloo, sweet potato, and pepper. The *Callaloo Pest Identification Guidebook* and the *Sweet Potato Weevil IPM Guide*, both developed under the IPM CRSP supported activities were presented at the workshop by the IPM CRSP Jamaica Site Coordinator, Janet Lawrence. Several of the participants expressed interest to collaborate with the IPM CRSP, particularly in information exchange and training.

At the end of the workshop, the participants reached a consensus on a list of IPM related regional constraints. Among the major ones were IPM information and education systems, whiteflies/virus diseases and mites on vegetables, nematodes on several crops, black and yellow sigatoka of banana, sweet potato weevil, diamondback moth on crucifers, and the Hibiscus pink mealybug (*Maconellicoccus*

hirsutus) on a wide range of crops. Since mealy bugs were introduced into the Caribbean as recently as the mid-1990's, it was emphasized that it is still a spreading and threatening pest. A major and effective regional biological control program is underway to control this pest and arrest its movement into other countries of the Caribbean region.

The workshop also decided to establish a Technical Advisory Committee (TAC) under the

emerging PROCICARIBE umbrella. The participants agreed that the TAC will be made up of representatives from IPM CRSP, CG System, IPM Forum, IPM Global Facility, CABI, UWI, Cuba and the Caribbean Regional IPM Coordinator. It was agreed that the IPM CRSP will be represented by the IPM CRSP Caribbean Site Chair, Bill Ravlin. The main function of the TAC will be to advise and give guidance to PROCICARIBE in its regional IPM workplan and its implementation.

New Assistant Program Director Appointed

Gregory Luther has been appointed as the IPM CRSP Assistant Program Director. He assumed the position effective October 1st 1997. Dr. Luther most recently served as an IPM consultant in Indonesia and has experience developing and facilitating IPM farmer field schools. His doctoral research at the University of California at Berkeley focused on developing an IPM system for soybean agroecosystems in Java, Indonesia. Dr. Luther has also served as a consultant on IPM and agroecology issues in Laos.

As IPM CRSP Assistant Program Director,

Luther will assist Program Director Brhane Gebrekidan and Principal Investigator S.K. De Datta in overseeing the IPM CRSP's research, training, and outreach programs. His duties will include proposal writing, production and dissemination of IPM information, and on-site review of project activities in host countries.

He also serves on a part time basis as Assistant Coordinator with the USAID funded Pest and Pesticide Management Project (PPMP) in Ukraine.

Albania Trip continued from page 2

Expected outputs and accomplishments of the project include increased yields and decreased pest damage of olives, reduced or minimized pesticide use and residues on olive products; increased marketing linkages, both domestically and internationally; training of Albanian scientists and farmers; socio-economic analysis with

resulting recommendations for policy; and improvement of environmental conditions in Albania. In February, the IPM CRSP Management Entity submitted a pre-proposal to the USAID mission in Albania. On April 1, 1998, the full proposal was submitted.



WE WOULD LIKE TO HEAR FROM YOU-

If you have comments, suggestions, or news contributions, please forward them to the IPM CRSP office.

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