IPM CRSP Trip Reports

Country Visited: India

Dates of Travel: 15-24 July 2011

Travelers Names and Affiliations: Amer Fayad (IPM CRSP ME) and Doug Pfeiffer (VT Department of Entomology)

Purpose of Trip: Participate in IPM CRSP sponsored International Workshop on 'Production of biocontrol agents' (Trichoderma & Pseudomonas), meet with USAID India Mission personnel at TNAU, and visit Bio-Control Research Laboratory (BCRL) in Bangalore.

Sites Visited: Tamil Nadu: Tamil Nadu Agricultural University (TNAU), Coimbatore, one IPM CRSP farm research site, and T. Stanes and Company Limited, Coimbatore; Karnataka: Bio-Control Research Laboratory at Bangalore.

Description of Activities/Observations:

TNAU: Participated in IPM-CRSP sponsored International Workshop on 'Production of biocontrol agents' (Trichoderma & Pseudomonas). Participants included research scientists representing several of the IPM CRSP regional projects (South Asia: India, Bangladesh), Central Asia: Kyrgyzstan and Uzbekistan), South Asia (Indonesia) and Latin America/Caribbean (Honduras).

The workshop included lectures followed by hands on laboratory activities. Topics covered the isolation, selection, culture, mass production, and quality control of biocontrol agents (Trichoderma & Pseudomonas). Other lectures covered formulations and delivery system of biocontrol agents, In vitro screening of biocontrol agents, bioefficacy of biocontrol agents, Induced Systemic Resistance (ISR) and Systemic Acquired Resistance (SAR), andto storage and shelf life of biocontrol agents.

We met with USAID India Mission staff for one afternoon at TNAU; we briefed them on benefits of the IPM CRSP project, and explained our research on site. We also visited with the USAID mission personnel the T. Stanes and Company Limited in Coimbatore where we learned about the commercial production of biocontrol agents. We had a courtesy meeting with the vice chancellor of TNAU (with the USAID representatives).

We visited with the dean of undergraduate studies and the dean of graduate studies, discussed with them the prospects for collaborative educational programs and Dr Pfeifer met a potential doctoral student for a graduate student position in the VT Department of Entomology (that student is a current faculty member at TNAU). BCRL, Bangalore: we toured the BCRL campus, and learned about the diverse activities research scientists at BCRL are doing: mass production of Trichoderma, Pseudomonas, NPV, pheromones and other biocontrol agents. We discussed the potential for more formalized collaboration with IPM CRSP projects in the future.

Program type (workshop,	Date	Audience	Number of Participants		Training Provider (US	
seminar, field day, short course, etc.)			Men	Women	university, host country institution, etc.)	Training Objective
IPM CRSP International Workshop on Production of Biocontrol Agents	18-22 July 2011	Plant protection specialists involved in regional projects of IPM CRSP	6	5	Tamil Nadu Agricultural University (TNAU), Bio- Control Research Laboratory (BCRL)	To inform participants on biology of biocontrol agents (specifically Trichoderma spp. and Pseudomonas spp.), the ability to isolate local strains from soil, and production and formulation of commercial products.

Training Activities Conducted:

Suggestions, Recommendations, and/or Follow-up Items:

This workshop serves as an excellent model for sharing experiences among regional projects. Participants were eager to use some of the technologies they learned at TNAU in their own research projects and respective countries. The potential for using Trichoderma & Pseudomonas as biocontrol agents is promising. Similar regional and international activities among the IPM CRSP regional projects should be encouraged. There were no representatives from both the East Africa and the West Africa regional projects. Both projects could have benefited from the IPM technologies shared at the workshop.

Formal inclusion of Bio-Control Research Laboratory in the IPM CRSP South Asia regional project should be pursued.

Name	Title/Organization	Contact Info (address, phone, email)
Gary Robbins	USAID-India	American Embassy
	Economic Growth Officer	Shantipath, Chanakyapuri
		New Delhi 110021
		Office: 91-11-2419-8748
		grobbins@usaid.gov
A. S. Dasgupta	USAID-India	American Embassy
	Program Mgr., Gen.	Shantipath, Chanakyapuri
	Development Office	New Delhi 110021
	_	Office: 91-11-2419-8446
		adasgupta@usaid.gov

List of Contacts Made:

Srivalli Krishnan	USAID-India	American Embassy
	Project Mgmt. Specialist (Climate Adaptation)	Shantipath, Chanakyapuri New Delhi 110021 Office: 91-11-2419-8031 srkrishnan@usaid.gov
Dr. P. Murugesa Boopathi	Vice Chancelor, TNAU Coimbatore	Tel. +91 422 2431788 Fax +91 422 2431672 Email <u>vc@tnau.ac.in</u>
Raja Rajan	Tamil Nadu Agric. Univ. Dean, Undergraduate Studies	Agric. College & Res. Institute Coimbatore, Tamil Nadu 641-003 0422-6611210 <u>deanagri@tnau.ac.in</u> <u>arrajan@tnau.ac.in</u>
C. Udayasoorian	Tamil Nadu Agric. Univ. Dean, Post Graduate Studies	School of Post Graduate Studies Coimbatore, Tamil Nadu 641-003 Office: 91-422-6611261 <u>deanspgs@tnau.ac.in</u> cusoorian@yahoo.com
S. Vellaikumar	Tamil Nadu Agric. Univ. Asst. Professor	Centre for Plant Molecular Biology Dept. of Plant Molecular Biology & Bio Coimbatore, Tamil Nadu 641-003 Office: 0422-6611355 yellai1973@yahoo.co.in
Dr. E. Jonathan	Centre for Plant Protection Studies	P-13(Old) TNAU Staff Quarters Tel.: E-mail. <u>directorcpps@tna.ac.in</u>
Dr G Karthikeyan	Associate professor- Centre for Plant Protection Studies	Tel: 914226611226 Fax: 914226611 agrikarthi2003@yahoo.com
Dr. S. Mohankumar	Dept. of Plant Mol. Biology &Biotechnology	TNAU, Coimbatore-641003 India Tel: 0914226611237 smktnau@gmail.com
Dr. S. Marimuthu	Chief Entomologist- T.Stanes and Company	8/23-24, Race Course Road Post Box No.3709, Coimbatore- 641018,India Tel.: 914222221514 Mobile; (+91)9894045528 Email: drsm@t-stanes.com
Mafruha Afroz	Scientific officer (Plant Pathology), Horticulture Research Centre, BARI	BARI, Joydebpur, Gazipur-1701, Bangladesh Tel:02-9252529 Mobile:01716-011482 Email: <u>mafruha_afroz@yahoo.com</u>
Dr Tashpulatova Barno	Research Fellow, Regional Program for Central Asia and the Caucasus. Tashkent, Uzbekistan	Tel. +998 71 2372130/69/04 Fax 998 71 120 7125 Email. <u>B.tashpulatova@cgiar.org</u>
K. P. Jayanth	Bio-Control Research Laboratories (BCRL) Vice President	36/2, Sriramanahalli, Nr. Rajankunte Dodballapur Rd. Arakere Post Bangalore, Karnataka 561-203 Mobile: 91-(0)-93412 82114 jayanth.kp@pcil.in

Malailae Chaudhean	Die Control Desearch	2C/2 Contract on the 11:
Malvika Chaudhary	Bio-Control Research	36/2, Sriramanahalli
	Laboratories (BCRL)	Nr. Rajankunte
	Sr. Mgr., Research; Head, Qlty.	Dodballapur Rd., Arakere Post
	Control.	Bangalore, Karnataka 561-203
		Mobile: 91-0-9343942214
		malvika.chaudhary@pcil.in
K. R.M. Bhanu	Bio-Control Research	36/2, Sriramanahalli
	Laboratories (BCRL)	Nr. Rajankunte
	Assist. Gen. Mgr Research	Dodballapur Rd., Arakere Post
	(Pheromones)	Bangalore, Karnataka 561-203
		Mobile: 91-0-9342128114
		<u>bhanu.krm@pcil.in</u>
Swapan Kumar Ghosh	Bio-Control Research	36/2, Sriramanahalli
	Laboratories (BCRL)	Nr. Rajankunte
	Assist. Gen. Mgr. (Biopesticides)	Dodballapur Rd., Arakere Post
		Bangalore, Karnataka 561-203
		Mobile: 91-0-9343125781
		ghosh.sk@pcil.in
Raman Murthy	Bio-Control Research	36/2, Sriramanahalli
-	Laboratories (BCRL)	Nr. Rajankunte
	Marketing & Commercial Mgr.	Dodballapur Rd., Arakere Post
		Bangalore, Karnataka 561-203
		Mobile: 91-0-9342111456
		raman.knv@pcil.in
M. S. Prabhakara	Bio-Control Research	36/2, Sriramanahalli
	Laboratories (BCRL)	Nr. Rajankunte
	Sr. Mgr Extension (Field Ext.	Dodballapur Rd., Arakere Post
	& Educ. Unit)	Bangalore, Karnataka 561-203
	ŕ	Mobile: 91-0-9341282117
		prabhakara.ms@pcil.in
Jagadeesh Sunkad	Bio-Control Research	36/2, Sriramanahalli
~	Laboratories (BCRL)	Nr. Rajankunte
	Sr. MgrTechnology	Dodballapur Rd., Arakere Post
	Commercialization	Bangalore, Karnataka 561-203
		Mobile: 91-9449081339
		jagadeesh.sunkad@pcil.in