

IPM CRSP Trip Reports

Country(s) Visited: India

Dates of Travel: 19-June to 21-July-2011

Travelers Names and Affiliations: Sudarsana Poojari – Graduate student, Department of Plant Pathology, Washington State University. Prosser, WA 99350

Purpose of Trip: To monitor IPM-CRSP trials conducted by The Energy and Resource Institute (TERI) and adjoining farmers' fields for virus diseases in specific locations in Southern and Northern India.

Sites Visited:

Yaluvahalli, Kolar, Karnataka, India

Karamangala, Kolar, Karnataka, India

Rogerhalli, Kolar, Karnataka, India

Gudipalli, Palamner, Andrapradesh, India

Bhoorgadi, Meerut, Uttarpradesh, India

Upeda, Meerut, Uttarpradesh, India

Description of Activities/Observations:

June 19-20: Traveled from Prosser to New Delhi

June 21-22: Visited US Mission and completed paper work for J1 visa

June 23-24: Traveled to Bangalore and Madanapalli.

June 25-26: Saturday and Sunday

June 27-30: Leave

July 1-2: Hired a car and travelled from Madanapalli to Yaluvahalli, Karamangala and Gudipalli villages with Mr. Manjunathaiah, TERI staff member to monitor IPM trials for virus diseases. We visited tomato and okra fields. Two tomato hybrids (Tomato-1196 from US Agri and 501 from Namdhari) are used in IPM trials. In these trials, some tomato plants were showing a range of necrosis symptoms and some were showing leaf curl symptoms. In okra

(hybrid variety 10 from Mahyco), yellow vein banding symptoms were observed. These symptoms were more prevalent in a local variety than in the hybrid variety. I explained about viruses and showed these symptoms to Mr. Manjunathaih. During field visits, I also showed virus disease symptoms to farmers who are conducting these trials with TERI. Representative samples were processed and imprinted on FTA cards for virus testing and identification by molecular analysis.

July 3: Sunday

July 4: Traveled to Bangalore and New Delhi and visited IPM field trails conducted by TERI at Bhoorgadi and Upeda villages near Meerut. Mr. Vivek Sharma, staff member of TERI, accompanied me to these trials. In okra (hybrid variety Arka Anamika), we have not seen typical symptoms of yellow vein banding or any other symptoms indicative of virus diseases. Afterwards, we visited farmers' fields growing okra, pepper, pumpkin, zucchini, radish, and eggplant. A range of leaf curl, mosaic and mottling symptoms were observed in these fields. I showed these different symptoms to Mr. Vivek Sharma and to farmers, and explained how to identify viral diseases and distinguish viral infections from bacterial and fungal infections. I collected representative plant samples.

July 5: I processed samples and imprinted on FTA cards for further molecular diagnosis and identification by cloning and sequencing.

July 6– 8: Leave

July 9-10: Saturday and Sunday

July 11-15: Leave

July 16: Travel to Bangalore and Madanapalli.

July 17: I visited Rogerhalli in Kolar, Karnataka to meet with Dr. Gururaj Sunkad, Senior Scientist (Pathology), University of Agricultural Sciences, Raichur and visited with him some tomato fields. Dr. Sunkad is planning to visit Dr. Rayapati's lab at Washington State University for short-term training between February – August 2012. This short-term training will be funded by his university for "international training in novel/cutting-edge technologies." Dr. Rayapati advised me to show virus disease symptoms in tomato, collection of samples and imprinting onto FTA cards. I also gave FTA cards to Dr. Sunkad for imprinting vegetable samples in Raichur area for virus diagnosis during his training in Dr. Rayapati's lab.

July 18: Travel from Madanapalli to collect visa documents at Tirupati.

July 19-20: Travel from Madanapalli to the US.

Training Activities Conducted: None

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

The FTA cards will be processed for virus diagnosis and identification by cloning and sequencing at Washington State University. The information will be shared with collaborators in India (TERI and Tamil Nadu Agricultural University). This information should be incorporated in evaluating IPM trials for virus diseases in tomato and okra. Information on identification of viruses in other vegetables should be included in building IPM CRSP data base on viruses for the benefit of collaborators in other developing countries. It would be beneficial if TERI, as a deemed university, can actively involve graduate students in IPM CRSP projects as part of training the next generation of Indian scientists. Several agencies in Government of India (like CSIR, DBT and UGC) provide fellowships for PhD and TERI should exploit these opportunities for involving students in IPM CRSP projects for maximizing resources and achieving greater impacts.

List of Contacts Made:

Name	Title/Organization	Contact Info (address, phone, email)
Manjunathaiah	TERI Field Assistant	manjunathaiahtm@yahoo.co.in
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