

IPM CRSP Trip Report
Ruth Amata

Country Visited: Tanzania/Arusha

Dates of Travel: July 19-24, 2015

Travelers Names and Affiliations: Ruth Amata; Kenya Agricultural and Livestock Research Organization; Kenya

Purpose of Trip: To attend a training on production of *Trichoderma* spp., *Bacillus* spp. and *Pseudomonas fluorescens* and their uses in agriculture

Sites Visited: Arusha AVRDC; Tanzania

Description of Activities/Observations:

1. Introduction to biological control agents (*Trichoderma* spp. *Bacillus* spp. and *Pseudomonas fluorescens*)
2. Media preparation, isolation and screening for efficacy of the biological agents
3. Mode of action of the biocontrol agents
4. Biocontrol potential of *Trichoderma* spp., *Bacillus* spp. and *Pseudomonas fluorescens*
5. Mode of action of *Trichoderma* spp., *Bacillus* spp. and *Pseudomonas fluorescens*
6. Mass production of *Trichoderma* spp., *Bacillus* spp. and *Pseudomonas fluorescens*
7. Formulations and delivery systems for the biocontrol agents
8. Enumeration of biocontrol agents
9. Status of the use of biocontrol agents and their registration in Kenya, Ethiopia and Tanzania
10. Quality control; shelf life and low cost technologies of mass production of biocontrol agents

Training Activities Conducted

Program type (workshop, seminar, field day, short course, etc.)	Date	Audience	Number of Participants		Training Provider (US university, host country institution, etc.)	Training Objective
			Men	Women		
Short course	July 19- 24, 2015	23 Participants from research institutions and universities in Kenya, Tanzania, Ethiopia	12	11	Tamil Nadu University; Sevugapperumal Nakkeeran and Karthikeyan Gandhi University/IPM IL Rangaswamy Muniappan; Zara Shortt; Brhane Gebrekidan	To gain an understanding on the production & use of biocontrol agents

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

1. The information will be used in establishing cottage industries on the production of *Trichoderma* spp., *Bacillus* and *Pseudomonas fluorescens* for use as biological control agents.
2. I will train colleges/universities on biocontrol agents and their importance.
3. The training was extremely useful and timely. I/we in Kenya needed to have the capacity to work on biocontrol agents, as we are expected to conduct efficacy trials and recommend the same; yet we have limited capacity in Kenya. I personally gained a lot in this area and can now train others with confidence.

List of Contacts Made:

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