

# IPM CRSP Trip Report

**Countries Visited:** Uganda and Tanzania

**Dates of Travel:** June 6 – June 17, 2011

**Travelers Names and Affiliations:** Mark Erbaugh, Sally Miller, Joseph Kovach, Ohio State University

**Purpose of Trip:** To review Ugandan collaborative projects and attend Technical Committee annual meeting in Morogoro, Tanzania

**Sites Visited:** Makerere University, Kampala, Uganda; Sokoine University of Agriculture, Morogoro, Tanzania

## Description of Activities/Observations:

**June 6:** Mark arrives Kampala late.

**June 7:** Joe arrives Kampala late. Courtesy call on the acting Principal of the recently created College of Agriculture and Environmental Sciences and Regional Coordinator for the IPM CRSP site in East Africa, Dr. Sammuel Kyamanywa. Mark met with Jackie Bonabana to discuss the Activity Reporting Form and Impact Assessment Global Themes input into the regional project. Mark met briefly with Jeninah Karungi about status of tomato paper.

**June 8:** Mark, Joe, Jackie Bonabana and Jeninah Karungi met to finalize agenda for Technical Committee meeting. Joe met with David Kutunga a MS student working on maize breeding for resistance to maize streak virus and gray leaf spot. He was working on two different lines. He has data for season 1 – Jan. – May - and will be collecting data in season 2 on F3 resistance to some of his crosses. We talked about how he should organize his Thesis and that he should include his observation on gray leaf spot into his Thesis. I suggested that he add a table on % incidence and a rating system. Finally, we talked about survival rates that I thought was low (66%) and what to do about it. We also talked about statistical analysis and type of tests to use. David is a good student and just needs a little more direction, but overall I think he has some interesting, publishable data. Mark met with Jackie and Dan Taylor to discuss integration of OSU graduate student, Rosemary Emegu, into impact assessment process. Mark also, met with the Prinicipal who requested that he makes a courtesy call on the new head of the Department of Agricultural Production, Dennis Mpairwe, which will now serve as the host department of IPM CRSP.

**June 9: Morning.** Mark departs for Tanzania. Joe meets with Charles Ssemwogere an MS student working to establish action thresholds and quantification of yield loss due to key pests of Arabica coffee. He needs to rework his data. The data that he is collecting will not answer his questions on thresholds. The data that he is collecting

from experiment one is only going to tell him which pesticide program will work. His treatments are 4 foliar sprays, furadan soil treatment, a combination of both and a control. He needs to change some of the way he is collecting the data and recording the data, mines/leaf and % infested leaves. He also needs to improve data. In order to do threshold analysis he needs to collect the pest data and yield data from the same tree. We also talked about statistics and analyzing the data using the arc sine square root transformation for percent data and to look at treatment by pest by date and generate new figures.

**Afternoon:** Met with Zachary Muwanga an MS student looking at assessing different pesticide spray regimes of *Helicoverpa armigera* and associated natural enemies on tomato. He also had a friend Frank who is interested in a horticulture project that needs an international cooperator and I told him to talk to Mark. Zachary's experiment has 4 treatments replicated 7 times. Some of his tests are on-station and some are on-farm. He claimed he lost his first year's worth of data to a computer virus and so he added a couple of treatments to make up for it this year. He may be able to recover the old data. Again, the experiment that he is conducting will not answer the yield question he is asking. If he is looking at yield than he must sample pests and yield from same plants. He seems like a student that needs a little more guidance

**June 10:** Met with Dida Asimwe, a MS student, who is working on the mechanism of resistance in MT56 to bacterial wilt in tomato. He is looking at resistance and the stability of resistance in 6 regions. He has done a lot of work and is using principal component analysis to analyze his data. The graphs are informative, but there are too many for publication. I reviewed his manuscript and his data is publishable with some more work. We talked about the publication review process, what to expect and costs of publishing a paper. He is a very good student and has outstanding scientific skills.

**June 11:** Went to a farmer's field in Namalonge and met with the leader of an 80 farmer coop. There were 14 men and 4 women in attendance. The leader uses his farm as a demonstration site. He showed us his tomato demonstration site on comparing cherry tomatoes with MT56. MT56 is looking good with staking and the cherry tomatoes are collapsing with bacterial wilt. Zachary Muwanga was there as well and he showed us where he is setting up his experiment for this season. They also showed us how they sterilize the soil for establishing seedlings in a screen house. A metal drum is lined with banana leaves and then the 2 parts soil and 1 part manure is screened and placed in the drum. The drum is heated and the soil is done (sterilized) when the sweet potato that is placed in the soil is cooked. Who need a thermometer? We also looked at his strawberry and raspberry plants which was a surprise to me. There were two strawberry varieties. One was a day neutral strawberry variety from South Africa and the second is a short day variety that flowers and fruits twice a year. The flowers that I saw were small and so were the berries. There were some misshaped berries from a plant bug. They need help in improving yield and harvesting. They asked how strawberries are picked and I told them they are immediately picked into the shipping containers. I can help them grow better berries. Heavy rains washed out the rest of the day.

## 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		
Advising David Kutunga	6/8/11	MS student	1		Joe Kovach	Thesis organization
Advising Charles Ssemwogere	6/9/11	MS Student	1		Joe Kovach	Threshold determination
Advising Zachary Muwanga	6/9/11	MS student	1		Joe Kovach	Bollworm control
Advising Dida Asimwe	6/10/11	MS student	1		Joe Kovach	MT-56 bacterial wilt resistance.
Namalonge Horticulture Farmers Group	6/11/11	Farmers	14	4	Makerere OSU and VT	Information exchange
Field Day	6/13/11	IPM CRSP attendees	13	12	SUA	Examine on-station IPM trials at SUA
Progress Reports Workshop	6/14/11	IPM CRSP East Africa Co-PIs	13	10	IPM CRSP East Africa co-PIs	Progress reports from each country and Global themes
Year 3 Work plan development	6/15/11	IPM CRSP East Africa Co-PIs	13	10	IPM CRSP East Africa co-PIs	Development and presentation of draft work plans.

## List of Contacts Made:

Name	Title/Organization	Contact Info (address, phone, email)
Prof. Jeninah Karungi	Makerere University	jkarungi@agric.mak.ac.ug
Dr. Jackie Bonabana	Makerere University	jbonaban@vt.edu
David Kutunga	MS student, Makerere Univ.	
Charles Ssemwogere	MS student, Makerere Univ.	
Zachary Muwanga	MS student, Makerere Univ.	
Dida Asimwe	MS student, Makerere Univ.	
Nayiga Sylvia	Namalonge Horticulture Farmers	naulonge_hfg@yahoo.com
Mr. Nsamba	Farmer – leader of coop.	

**June 12:** Depart from Kampala to Dar es Salaam

**June 13:** Drive from Dar es Salaam to Morogoro – visit on-station IPM trials at SUA

**June 14:** Technical Committee Meeting – Held at Morogoro Hotel - Progress Report and Global Themes

**June 15:** Technical Committee Meeting – Held at Morogoro Hotel - Year 3 Workplan development and presentation.

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