

IPM CRSP Trip Reports

Countries Visited: Kenya and Uganda

Dates of Travel: November 28 – December 9, 2011

Travelers Names and Affiliations: Mark Erbaugh, The Ohio State University

Purpose of Trip: To review Kenyan and Ugandan Year 3 work plan implementation with co-PIs and graduate students and review project financials.

Sites Visited: Kenya: National Agricultural Research Laboratories (NARL), KARI/Thika and Konga Tisa collaborators; Uganda: Makerere University, National Crops Resources Research Institute (NaCRRI), Namulonge.

Description of Activities/Observations:

November 28: Depart Columbus for EA

November 29: Arrive Nairobi

November 30: Waiganjo and Erbaugh met with Plant Pathologist from Montana State University, David Sands to discuss his work on using *fusarium oxisporum* to control striga.

Dr. Waiganjo and Erbaugh went to the National Agricultural Research Laboratory (NARL) to meet with Center Director, Patrick Gicheru. The focus of the discussion was moving the money on the IPDN activity that is supported by the Regional Program and the IPDN Global theme. The concern was not on the technical inputs but on the slow billing and thus use of available funds by the IPDN Global theme coordinator. Dr. Waiganjo indicated that the \$10,000/year moving from her account to the Global theme regional coordinator has proven to be awkward.

Drove to KARI/Thika and met briefly with IPM CRSP team members Juster Gitonga (social scientist) Charity Gathambiri (post harvest specialist), Simon Wepukhulu (biometrics), Jesca Mbaka (plant pathology) and Daniel Gikaara. We then traveled to meet farmers with Kongai Tisa Horticultural Farmers Association (KTHFA) (14 farmers - 8 women) out of 23 of our contact farmers and KARI extension person Charles Ndroge. The purpose of the meeting was to discuss with them our high tunnel and grafting work that had been initiated by the IPM CRSP. The farmers had used Hort. CRSP funds for the materials for the high tunnel but their own labor to construct the tunnels. The

association leadership had selected 23 farmers to participate in the effort with the strategy being that they would learn grafting and high tunnel management and then disseminate to other farmers. The farmers reported having a rather disastrous first season losing most of the crop to bacterial wilt (*Ralstonia solanacearum*) in the high tunnel. They lost most of their grafted seedlings to heat stress in the high tunnel following grafting. They said the high tunnel became too hot and stressed the seedlings. The group thought they had solarized the soil using clear plastic but according to them they had not done it long enough. Soil sterilization is important. They also suspect water used for irrigation was contaminated by wilt (I suggested that I didn't think that the water used for irrigation was contaminated but that it could be spreading the disease through splatter or the movement of the water picking up the bacteria in contaminated soil and distributing it throughout the high tunnel).

What did they learn? They learned that fungicides don't work on wilt. Soil sterilization is important. They don't know for sure but they think the wilt is spread by irrigation water, soil, or brought in by farmer on their shoes.

Benefits: According to their statements it is important to learn from their mistakes. They are still very interested in high tunnels and grafting; one of the participants is a lecturer at a local Teachers College and he has constructed a high tunnel at the school.

What will they do differently: They are going to sterilize soil better; use sodium hyperchloride to treat water and hopefully kill bacteria in water before applying; also looking to use ground water. Association members, Albert and Peter, both said that grafting and high tunnels are very important because "land is getting smaller in the area and they need to learn how to intensify production on smaller parcels of land by using high tunnels."

December 1: Meeting at KARI/Thika with Monicah Waiganjo, Juster Gitonga (social scientist) Charity Gathambiri (post harvest specialist), Simon Wepukhulu (biometrics), and Daniel Gikaara. Each made a presentation and then we went over the year 3 workplan.

Waiganjo and Erbaugh then left to meet with Ruth Amata and farmers (5 (3 females) from the Juja farmers association who are working with us on passion fruit. The farmers have cut way back on passion fruit because they have been hit by dieback a complex of *Fusarium spp.* and *Phytophthora spp.*

December 2: Meet with IPM CRSP collaborator Robert Gesimba at Egerton University and Dean, FA at Egerton, Dr. Alexander Kahi. Purpose: to try and revitalize collaborations with EGU.

December 5: Met with Dr. Kyamanywa, Principal, of the recently created College of Agriculture and Environmental Sciences and Regional Coordinator for the IPM CRSP site in East Africa, and Beatrice to discuss agenda and budgets.

December 6: Met with IPM CRSP collaborators at Makerere University to review and discuss Year 2 & 3 activities (see attached minutes of the meeting). In the afternoon met with Simon Byambagambi, Program Management Specialist, Economic Growth, USAID and Dr. Kyamanywa at Makerere University to discuss CRSP meeting as requested by the Mission Director, David Erikson.

December 7: Traveled to the National Crop Resources Research Institute (NaCRRI) at Namulonge, to meet with Dr. Godfrey Asea and two of his scientist, Julius Sserumaga and Daniel Bomet who collaborate on the Food Security project. I delivered maize breeder seed produced by Dr. Asea and Dr. Pratt on their Food Security component. We also discussed possibility of Dr. Sserumaga coming to OSU to complete some Food Security topics on rice yellow mottle virus and other topics.

December 8: Met with Beatrice to run over statements of expenditures for IPM CRSP and Food Security and to secure signature of Dr. Kyamanywa. Then met with Dr. Margaret Mangheni, Gender Global Theme coordinator and her graduate student, Robert Ochago on his thesis research. Finally met with Drs Kyamanywa and Karungi about producing posters for the 7th Annual IPM Conference.

Departed for USA in the afternoon.

Training Activities Conducted

| Program type | Date | Audience | Number of Participants | | Training Provider | Training Objective |
|-------------------------------|----------|--|------------------------|-------|----------------------|--|
| | | | Men | Women | | |
| Farmer meeting at Kongai Tisa | 11/30/11 | Farmer collaborators at Kongai Tisa Farmer Association | 6 | 6 | Waiganjo & Erbaugh | Review past growing season problems with contact farmers |
| Workshop | 12/1/11 | IPM CRSP collaborators, KARI/Thika | 1 | 4 | Waiganjo and Erbaugh | Review & discussion of year 2 activities & year 3 work plan activities |

| | | | | | | |
|--|---------|---|---|---|--------------------------------|--|
| Field Meeting | 12/1/11 | Mtg. with Juja Farmers on passion fruit | 5 | 3 | Amata, Waiganjo, Erbaugh | Discuss problems on passion fruit production & Yr. 3 trials |
| Workshop | 12/6/11 | IPM CRSP collaborators, Uganda | 8 | 7 | Kyamanywa, Karungi and Erbaugh | Review & discussion of year 2 activities & year 3 work plan activities |
| Presentation & review of Food Security activities. | 12/7/11 | Food Security Collaborators @ NACRRI | 3 | | Mark Erbaugh | Progress and discussion of activities |
| Advising Robert Ochago | 12/8/11 | MS student | 1 | | Mark Erbaugh | Survey & questionnaire design |

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

1. In discussions with Drs. Kyamanywa and Jeninah Karungi it was decided to terminate one project that was not performing (Seed Treatments with Arbuscular Micorrhizal Fungi) and to conclude several others at the end of this season.
2. Discussed with Drs. Kyamanywa and Karungi developing posters for submission to the 7th International IPM Conference to be held in Tennessee in 2012.
3. Simon Byambagambi, USAID/Kampala, reported that the Coffee Concept note that was submitted to USAID following the CRSP Council meeting was on hold pending clarification by the Uganda Coffee Commission on funding issues for COREC. They are deciding whether to make COREC an independent/private foundation like TaCCRI in Tanzania.

However, in discussions with others it was noted that the USAID LEAD project in Uganda had funded IITA to do a 1000 household survey on coffee constraints and that IITA has an entomologist, Dr. Piet van Asten, stationed in Kampala at Naguru, who is working on coffee.

4. Work on scotch bonnet hot pepper at Mubuku Irrigation Scheme was halted this past year. A mandatory six month grow-free period was invoked due to disease pressure. Dr. Tussime indicated that he asked the grower association to allow him to begin his trials again in March, 2012.

5. The USAID Mission in Uganda was surprised to learn at the CRSP council meetings in Kampala in early August about all the CRSP activities going on in Uganda, especially to learn of the long history of the IPM CRSP in Uganda. The Mission is proposing a CRSP meeting in February or April, 2012. The objective of the meeting is for USAID Uganda to learn more about CRSP activities and to orient them towards Feed the Future priorities and how much money the CRSPs are putting into Uganda.

List of Contacts Made:

| Name | Title/Organization | Contact Info (address, phone, email) |
|--|---|---|
| Dr. Monicah Waiganjo, PI | Principal Research Officer and Deputy Centre Director, KARI/Thika | monicahwaganjo@yahoo.com |
| Dr. Daniel Gikaara | Senior Research Officer, Plant Nutrition, KARI/Thika | |
| Juster Gitonga | Research Officer/ Social Scientist, KARI/Thika | |
| Charity Gathambiri, Research Officer, Post Harvest | Research Officer/Post Harvest KARI/Thika | |
| Simon Wepukhulu | Senior Research officer/ Biometrician KARI/Thika | |
| Dr. Jesca Mbaka, | Senior Research Officer/Plant Pathologist KARI/Thika | |
| Dr. Ruth Amata, co-PI | Senior Research Officer/Plant Pathologist, KARI/NARL | amata_ruth@yahoo.com |
| Dr. Charles Waturu | Centre Director, KARI/Thika | |
| Peter Gicheru | Centre Director, KARI/NARL | |
| Charles Njeru | Technician | |
| Dr. Robert Gesimba | Lecturer, Horticulture, FA/ Egerton University | |
| Dr. A. Kahi | Dean, Faculty of Agriculture, Egerton University | |
| Sylvia Kuria (grad student @ MU) | Research Officer/Plant Pathology, KARI/Thika | |
| Dr. Denis Kyeterre | Executive Director, ATF | |
| Simon Byambagambi | Program Management Specialist, Economic Growth, USAID | |
| Prof. Samuel Kyamanywa | Principal and Regional PI for IPM CRSP EA | skyamanyua@agric.mak.ac.ug |
| Prof. Jeninah Karungi | Makerere University | jkarungi@agric.mak.ac.ug |
| Dr. Jackie Bonabana | Makerere University & Impact Assess. GT Coordinator | jbonaban@vt.edu |
| David Kutunga | MS student, Makerere Univ. | |
| Charles Ssemwogere | MS student, Makerere Univ. | |

| | | |
|-----------------------|--|---------------------------|
| Dr. Margaret Mangheni | Associate Prof.,Makerere & Gender GT Coordinator | mnmangheni@agri.mak.ac.ug |
| Beatrice Nginah | Admin. Asst., IPM CRSP | beatrice@agric.mak.ac.ug |
| Dr. Peter Sseruwagi | NaCCRI | psseruwagi@yahoo.co.uk |
| Dr. Geoffrey Tusiime | | |
| Dr. Godfrey Asea | Head of Cereals Research Unit, NaCCRI | |
| Julius Sserumaga | Plant Pathologist, NaCRRI | |
| Daniel Bomet | Plant Pathologist, NaCRRI | |