

Feed the Future: Innovation Lab for Integrated Pest Management Trip Report

Country(s) Visited: Tanzania, Morogoro

Dates of Travel: 24-27 March 2018

Travelers' Names and Affiliations: Tadele Tefera

Purpose of Trip: Supervising student works and monitoring of project activities.

Sites Visited: Bungoma, Kibugu

Description of Activities/Observations:

Meeting with project students:

1. **Bonaventure January, PhD title: Management of rice stem borers in Irrigated low land rice ecosystem in Tanzania**

Specific objectives

- a. Farmers' perceptions of rice production constraints and stem borers management practices in irrigated low land rice ecosystem in Kilombero valley, Morogoro, Tanzania

Progress

- A paper has been prepared and submitted to *Journal of Agriculture*
- **Status of submitted paper:** Accepted for publication

- b. Species abundance and damages associated with *Lepidopteran* stem borer in irrigated low land rice ecosystem in Tanzania

Progress

- A paper has been prepared and submitted to *Journal of Entomology*
- **Status of submitted paper:** Accepted for publication

- c. Distribution of rice stem borers and their parasitoid in irrigated low land rice ecosystem in Kilombero valley, Morogoro, Tanzania

- A paper has been prepared and submitted to *Journal of Entomology and Zoology Studies*
 - **Status of submitted paper:** Already published
- d. Efficacy of selected mycoinsecticides and botanical extracts in managing rice stem borer, *Chilo partellus* (Swinhoe) (Lepidoptera: Crambidae) in Tanzania
- Draft paper has been prepared
 - **Status of the drafted paper:** Has been sent to supervisors for editing and improvement for sending to *Crop Protection* special issue
- e. To determine the effects of spacing and nitrogen fertilizer on incidences of rice stem borers in irrigated rice ecosystem
- Status of this objective: Season 1 trials have been completed and data entry is currently ongoing.
 - Season 2 trials have been set and it is still on going at Kilombero.

Planning for 2018

- To start preparing presentations for all achievements for project annual meeting which will be held in Tanzania by June 2018
 - To assemble all research achievements/results in form of tables, figures and photos to be incorporated in the project reports
 - To start drafting a paper for the fifth objective
 - To prepare for 3 seminar presentations at the university and thesis writing
2. **Ibrahim Hashim, PhD title: Rice blast disease (*Pyricularia oryzae* Cav.): incidence, severity, genotype reaction and management in upland rice in Tanzania**

Specific objectives:

- a. Smallholder farmers' knowledge, perception and management of rice blast disease in upland rice production system in Tanzania

Progress

- A paper has been prepared and submitted to *Journal of Agriculture*
- **Status of the paper:** Accepted for publication

b. Reduction of rice blast disease initial inocula on rice seeds by microbial and hot water seed treatments

Progress

- A paper has been prepared and submitted to *Australian Journal of Crop Science*
- **Status of the paper :** Under Review

c. *In vitro* and *in vivo* evaluation of microbial agents for management of rice blast disease in Tanzania

Progress

- Draft paper has been prepared and proposed to be submitted to *Crop Protection* (Special issue)
 - **Status:** Under editing and improvement by supervisors
- d. Effect of weather parameters on occurrence of rice blast disease and yield loss on selected upland rice genotypes grown in Tanzania
- **Status:** Season 1 trial is in the field and data collection is ongoing
- e. Evaluation of microbial agents (*Trichoderma asperellum* and *Bacillus subtilis*) for management of rice blast disease under field conditions
- **Status:** Season 1 trial is in the field and data collection is ongoing
- f. Field survey to establish the incidence and severity of rice blast disease in upland rice ecosystem in Tanzania

Status: To be conducted at the end of May – mid June 2018

Planning for 2018

- To prepare for presentations for project annual meeting which will be held in Tanzania by June 2018

- To compile results of all accomplished works in form of tables, figures and photos; to start drafting paper for the fourth & fifth objectives
- To prepare for 3 seminar presentations at the university

Visiting Rice IDM demos

Bungoma site: Member 25 farmers, planted 62 days ago; diseases tolerant varieties included, Komboka, SARO 5 and local

Kibugo site: 31 farmers group, Komboka, SARO 5 and local, planted 30 days ago

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

- Training farmers and extension agents on rice IPM
- Training extension agents on fall armyworm management

