

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

Country(s) Visited: Kenya- Nakuru and Kericho Counties.

Dates of Travel: Nov 4-9, 2018

Travelers' Names and Affiliations: Tadele Tefera, icipe

Peter Malusi-icipe

Patrick Kigo –Icipe

Purpose of Trip:

- **To standardize Trichogramma and Telenomus rearing**
- **To collect FAW eggs, data collection from push-pull demo plots.**
- **Meeting with farmers**

Sites Visited:

Mwea- FAW Egg collection

Nakuru- Taboga village.

Kericho- Chebewor, Ndarugu and Kimasian villages.

Description of Activities/Observations:

To standardize Trichogramma and Telenomus rearing

Ephestia sp was collected from Busia county grain storage, male and female moths were kept in a cage for mating, eggs were collected, eggs were exposed to Trichogramma adults to test for acceptability as a host. Four to six days after exposure the eggs turned black showing acceptability of Ephestia eggs by Trichogramma and Telenomus, and this will be used for boosting their colonies for mass production and the planned augmentative release.

To collect FAW eggs, data collection from push-pull demo plots

FAW eggs were collected from irrigated maize farms from Mwea areas to infuse with FAW laboratory population to avoid inbreeding deterioration through successive generation. Several egg masses were collected, kept separately to separate those parasitized from those free of parasites. Parasite free eggs will be allowed to be hatched and will be mixed with the lab population to enhance level of heterogeneity in the population. Genetic infusion of FAW wild population with the lab population at regular interval, every 3-4 generation, is not an option, it is a must to do activity to avoid inbreeding challenges in the lab population. Continuous inbreeding of lab population will lead to weak population, less fertility and high mortality.

The data collection activity from push pull demos involved the following activities. Measuring the plant height, counting number of exit holes, tunnel length and weighing the yield in 10m X 10m plot, both in control and push pull plots. These activities were conducted in 18 selected plots.

Farmers planning meeting

This activity took place in Nakuru, the meeting was attended by 235 farmers 150 women and 85 men. The conclusion made during the meeting was that farmers are much more willing to practice push pull technology with driving force of fall army worm; of 250 farmers to be involved in Nakuru next year; this number will be distributed in three wards in Nakuru North County. In Kericho County- Kipkelion East, the planning meeting was attended with 143 farmers. 104 women and 39 men. The conclusive observation made was that much more farmers are willing to practice push pull technology next year.



Kericho Meeting



Nakuru Meeting

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

To follow up on the following items:

- Preparation for the upcoming FAW biocontrol training
- Collection of more *Ephestia* from Busia
- Hiring of a lab assistant for Malusi to take care of the insects in diet preparation, eggs collection and taking insectary data.