

IPM IL Trip Report

Country Visited: Ethiopia

Dates of Travel: August 27, 2015 to September 5, 2015

Travelers Name and Affiliation: Wondi Mersie, *Parthenium* Project Director

Purpose of Trip: To implement the *Parthenium* Project in Ethiopia

Sites Visited: Addis Ababa, Ambo, Wollenchiti, Ethiopia

Description of Activities/Observations:

Saturday, August 29, 2015

Dr. Wondi Mersie met Mr. Million Abebe, VSU's *Parthenium* Project Coordinator in Ethiopia. The two discussed the current state of the project, current implementation issues and actions that need to be taken in the short and long-term period.

Sunday, August 30, 2015

Dr. Mersie and Mr. Million Abebe travelled from Addis Ababa to Wollenchiti to visit the bioagent rearing site. Dr. Mersie saw the ongoing rearing of *Zygogramma* in cages and the plan to increase the population on the compound of the facility. Adults are being transferred to new *Parthenium* plants, and the cages are being prepared for *Parthenium* planting. Presently, there is one technical assistant and a temporary employee working at the site. It was agreed upon that at least two additional workers will be hired in the next two weeks to grow additional *Parthenium* plants for *Zygogramma*.

This season, Wollenchiti didn't get rain until the first week of August. This has delayed the emergence of *Parthenium*, and consequently it was not possible to release additional *Zygogramma* adults into farmers' fields so far. But other area farms were visited in order to assess their suitability to increase the *Zygogramma* population in the future. A plan is in place to intensify the rearing of *Zygogramma* and *Listronotus* at Wollenchiti.

Monday, August 31, 2015

Dr. Wondi Mersie along with Dr. Kassahun Zewdie and Mr. Million Abebe, traveled to Ambo to see the ongoing bioagent rearing in the quarantine facility. First, they met the Center Director, Mr. Tariku Hunduma and discussed issues related to staffing and improvement of the facility to receive new bioagents. The Center Director agreed to use project funds to hire new workers to accelerate the pace of the work. He has already assigned an entomologist, Mr. Teshale Dinka to work on the *Parthenium* Project. However, there is a need to hire two new technical assistants. One will manage the bioagents on a daily basis, while the other ensures that a steady supply *Parthenium* is available for the insects.

Cultures of *Zygogramma* and *Listronotus* are being reared in greenhouses at the Ambo Research Center. Both cultures are doing well, and the number of bioagents is increasing. In the coming weeks, the two cultures will be housed in separate sections of the same greenhouse facility.

The section previously occupied by *Listronotus* will be cleaned, sealed and modified as recommended by Ms. Lorraine Strathie. This section will house new agents (first *Smicronyx lutulentus* and later *Caramenta ithacae*). Host-range evaluation will be conducted in this modified section after permit to import the agents is received from the Ethiopian Government and USAID. All cages will be sealed and modified to accommodate *Smicronyx*. Lighting in the greenhouse will also be improved to make the inside environment suitable for this bioagent. The nursery where *Parthenium* grows will also be improved to increase the availability of the weed to bioagents under quarantine. Two technical assistants will be hired by the project to meet the demand for additional labor that is needed for the expanded work.

Dr. Mersie met Dr. Mulugeta Negari from Ambo University in the afternoon. They discussed the process of recruiting graduate students who will be conducting their theses research on *Parthenium*. The students will be supported by the project and will work at the quarantine facility.

Tuesday, September 1, 2015

Dr. Wondi Mersie and Mr. Million Abebe spent the morning visiting hardware stores in Addis Ababa looking for materials that will be needed to upgrade the Ambo Quarantine Facility for the new agents. The necessary materials have been identified and will be purchased soon.

Dr. Mersie met Dr. Lisanework Nigatu from Haramaya University (HU) who happened to be in Addis Ababa for other business. The two discussed the implementation of the project at HU and the December 2015 partners meeting in Dire Dawa, Ethiopia. They also discussed the process of recruiting graduate students whose theses research will be on *Parthenium*. Dr. Lisanework indicated that rearing of *Zygogramma* at HU is going well, and he expressed his desire to receive *Listronotus*. Dr. Mersie handed Dr. Lisanework laboratory supplies that he brought from the U.S.

Wednesday, September 2, 2015

Dr. Wondi Mersie and Mr. Million Abebe travelled to Bishofitu (east of Addis Ababa) to explore the possibility of establishing a bioagent rearing facility at the Ethiopian Institute of Agricultural Research's Center. A meeting was held with the Center Director, Dr. Solomon and two entomologists, Dr. Tebikew and Dr. Mekasha. The *Parthenium* project needs a rearing site around Bishofitu to serve as a bioagent source for Central Ethiopia. It was agreed upon to explore the issue further in the coming months as the current rainy season is nearly over.

Thursday, September 3, 2015

Dr. Wondi Mersie, Dr. Kassahun Zewdie and Mr. Million Abebe returned back to Ambo Research Center to finalize the various tasks that need to be undertaken in the coming months. Plans to repair cages and the quarantine facility were finalized and a time table was developed. This was discussed with Ambo staff in detail. Materials from the U.S. and items bought in Addis Ababa were delivered to the staff.

Friday, September 4, 2013

Dr. Mersie met with Dr. Samuel Assefa, formerly at Oromiya Agriculture Bureau, about identifying areas to establish rearing sites in Central Ethiopia. Dr. Samuel agreed to help in securing locations that will serve as rearing sites for *Zygogramma* and *Listronotus*. He further agreed to participate in the December *Parthenium* workshop.

On Friday afternoon, Dr. Mersie held a final discussion with Mr. Million Abebe about the implementation of the project. Tasks that need to be undertaken in the short and long-term were discussed. Both agreed that the pace of objective implementation must increase.

Dr. Mersie returned to the U.S. in the evening.