

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

**Country(s) Visited:** USA

**Dates of Travel:** AUG 12, 2016

**Travelers' Names and Affiliations:** Sulav Paudel, Graduate Student, PSU

**Purpose of Trip:** To pursue PhD

**Sites Visited:** Pennsylvania State University, State College, Pennsylvania

## Description of Activities/Observations:

I arrived at Penn State University, Pennsylvania, USA on Aug 12, 2016. And I am currently in my first semester of my PhD program. I am taking classes and working on to developing a research project for my thesis. I am also a teaching assistant (TA) for an introductory entomology course for undergraduate where I have to conduct lab practical along with grading home works and exam. I am enrolled in two other courses this semester; a) Insect systematics and b) International Rural Social Change. Meanwhile, I also attended the XXV International IPM Congress of Entomology, under the theme Entomology without borders during September, 2016.

As a part of my research, I plan to understand the effects of a changing climate on the distributions of plant viruses and insect vectors, such as Tospo virus and thrips, and to develop a predictive model to project the likely impacts of climate change on biodiversity, agriculture and pest management. I am working on developing a project to model the climate change effects in plant viruses and insect vectors. The plan is to combine field data on absence/presence and abundance of the organisms of interest with climate and weather data, and powerful machine learning algorithms. The model system for my research will include the important and ubiquitous tomato crops, thirps species and the viral diseases caused by Tospoviruses. For now, I am reviewing the literature and trying to develop a proposal for the project. I am expecting my lab and field work to start from next semester (Jan, 2017)

### Training Activities Conducted:

| Program type<br>(workshop,<br>seminar, field day,<br>short course, etc.) | Date            | Audience | Number of<br>Participants |           | Training<br>Provider<br>(US<br>university,<br>host country<br>institution,<br>etc.) | Training<br>Objective   |
|--|-----------------|----------|---------------------------|-----------|---|---|
|  |                 |          | Men                       | Wom<br>en |   |   |
| Graduate Study   | 12 Sept<br>2016 | 1        | 1                         | 0         | Department of<br>Entomology,<br>Pennsylvania<br>State<br>University                 | To acquire<br>advance<br>knowledge and<br>skills on<br>entomological<br>research/ |

### List of Contacts Made:

| Name                | Title/Organization   | Contact Info<br>(address, phone, email)                  |
|---------------------|--|--|
| Melanie Gilbert     | Program Assistant<br><br>106 Ag Admin Building<br>University Park, PA 16802                                    | mds270@psu.edu   |
| Gary Felton         | Professor and Head of the<br>department, 501 Ag Sciences<br>& Industries Building<br>University Park, PA 16802 | gwf10@psu.edu  |
| Stephanie Parker    | Communication<br>Coordinator, IPM IL, VT   | sparker@vt.edu   |
| Edwin G. Rajotte    | Professor of Entomology,<br>Penn State University  | <a href="mailto:uvu@psu.edu">uvu@psu.edu</a>             |
| Naidu Rayapati      | Associate Professor,<br>Washington State<br>University   | naidu.rayapati@wsu.edu                                   |
| Dr. Gadi V.P. Reddy | Associate Professor of<br>Entomology, Montana  | <a href="mailto:reddy@montana.edu">reddy@montana.edu</a> |

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