

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

**Country Visited:** Vietnam

**Dates of Travel:** June 2 - 14, 2019

**Travelers' Names and Affiliations:** Rangaswamy Muniappan, Director, IPM Innovation Lab.

**Purpose of Trip:** To attend Dragon Fruit workshop and conduct *Tuta absoluta* awareness workshop at Ho Chi Minh City; and to attend Longan, Lychee and other Sapindaceae Fruit Crops and conduct *Tuta absoluta* awareness workshop at Hanoi.

**Sites Visited:** Ho chi Minh City and Hanoi.

## Description of Activities/Observations:

**June 2, 2019:** Left Blacksburg around noon.

**June 4, 2019:** Landed in Ho Chi Minh City airport at noon and met with Mr. Loc Huynh. Reached hotel at 3.00 pm.

**June 5, 2019.** Attended Dragon Fruit Workshop organized by New Zealand Aid program that has been collaborating with SOFRI since 2013. It has been concentrating on development of high quality dragon fruit with resistance to canker disease. There were presentations on dragon fruit breeding, production and post-harvest handling; however, emphasis was given on controlled production and commercialization.

**June 6, 2019.** Participated in the *Tuta absoluta* awareness workshop at the Victory Hotel (agenda attached). I gave a presentation on origin, taxonomy, biology, ecology, spread, monitoring, and management of *Tuta absoluta*. I participated in the breakout sessions. There were 65 participants: 40 male and 25 female.

In the evening, traveled to Hanoi.

**June 7-11, 2019.** Attended the International Symposium on Lychee, Longan and other Sapindaceae Fruits organized by International Society for Horticultural Sciences. There were presentations during the first three days and field trips during the last two days. From the IPM IL project, the following oral presentations were made;

*Tran Thi My Hanh*: Study on sensitivity of longan cultivars to longan witches' broom syndrome.

*Le Xuan Vi*: IPM management for lychee in northern provinces of Vietnam.

*Nguyen Van Hoa*: Overview report of the project "strengthening production and export of Vietnamese fruit crops through innovative and market-oriented IPM".

*Huynh Thanh Loc*: Strengthening production and export of Vietnamese fruit crops through innovative and market-oriented IPM: Key achievements (Poster presentation).

**On June 10<sup>th</sup>**, we visited IPM IL Exportable Fruit Crops IPM project site at Luc Ngan district.

**June 12, 2019.** Participated in the *Tuta absoluta* awareness workshop at the Daewoo Hotel, Hanoi (agenda attached). I gave a presentation on origin, taxonomy, biology, ecology, spread, monitoring, and management of *Tuta absoluta*. In addition, I participated in the breakout sessions. There were 60 participants: 48 male and 12 female.

**June 13, 2019.** At 10.30 am, Dr. John Bowman, Dr. Devaiah Muruvanda and I met with Dr. Fred Wang, Agricultural Attaché, U.S. Embassy, Dr. Nguyen Hoang Linh, Agricultural Specialist, U.S. Embassy, and Ms. Thu M. Pham at the Embassy Annex and discussed the IPM IL Vietnam project and also issues associated with export of irradiated fruits to the United States. At 1.00 pm we met with Dr. Michael Trueblood at the USAID mission and discussed progress made in the project. Dr. Trueblood mentioned that shortly he will be leaving Vietnam for another mission assignment in Egypt. At 3.30 pm, we met with Dr. Nguyen Quy Duong, Deputy Director General, Plant Protection and Quarantine and his team. Dr. Nguyen Hoang Linh and Ms. Thu M. Pham accompanied us for this meeting. The Deputy Director General requested our assistance in monitoring *Tuta absoluta* at Vietnam borders with China, Laos and Cambodia and management of fall armyworm. In general, Plant Protection Department wanted a non-chemical insecticide and GMO approach by adopting biological and other control methods.

I left Hanoi on 13<sup>th</sup> night and reached Blacksburg on 14<sup>th</sup> evening.

### List of Contacts Made:

No	Full Name	Organization	Contact address	
			E-mail	
1.	Nguyen Quy Duong	Deputy Director General Plant Protection	<a href="mailto:Duongnq.bvtv@mard.gov.vn">Duongnq.bvtv@mard.gov.vn</a>	

		Department		
2.	Bui Xuan Phong	Head of Plant Protection Division, PPD	<a href="mailto:buixuanphong@gmail.com">buixuanphong@gmail.com</a>	
3.	Le Nhat Thanh	Director, Post Entry Plant Quarantine Center, PPD	<a href="mailto:Thanhln.bvtv@mard.gov.vn">Thanhln.bvtv@mard.gov.vn</a>	
4.	Fred Wang	Agricultural Attache, USDA U.S. Embassy, Hanoi	<a href="mailto:Fred.wang@aphis.usda.gov">Fred.wang@aphis.usda.gov</a>	
5.	Nguyen Hoang Linh	Agricultural Specialist, U.S. Embassy, Hanoi	<a href="mailto:Linh.nguyyen2@usda.gov">Linh.nguyyen2@usda.gov</a>	
6.	Nguyen Van Liem	General Director, Plant Protection Research Institute	Nguyenvanliem@yahoo.com	
7.	Devaiah Muruvanda	Senior Risk Manager-Entomology, USDA/APHIS	<a href="mailto:Devaiah.a.muruvanda@usda.gov">Devaiah.a.muruvanda@usda.gov</a>	
8.	Vasant L. Patil	Director, Science and Regulatory Affairs, Croplife	<a href="mailto:Vasant.patil@croplifeasia.org">Vasant.patil@croplifeasia.org</a>	
9.	Nguyen Hong Son	President, VAAS	<a href="mailto:Nguyenhongson1966@gmail.com">Nguyenhongson1966@gmail.com</a>	
10.	Dao The Anh	Vice President, VAAS	<a href="mailto:daotheanh@gmail.com">daotheanh@gmail.com</a>	
11.	Bob Fullerton	Plant & Food Research, New Zealand	<a href="mailto:Bob.Fullerton@plantandfood.co.nz">Bob.Fullerton@plantandfood.co.nz</a>	

**LIST OF PARTICIPANTS OF THE WORKSHOP ON THE SOUTH AMERICAN  
TOMATO LEAFMINER, *Tuta absoluta* IN VIETNAM (HO CHI MINH CITY,  
JUNE 6, 2019)**

No.	Organization	Number of delegates expected	Attended	Name	Position
<b>I</b>	<b><i>International</i></b>	<b>4</b>	<b>4</b>		
1	Dr. John Bowman, <i>Senior International Affairs Specialist, USAID Bureau for Food Security, U.S.A</i>	1	1	Dr. John Bowman	Senior Agriculture Advisor
2	Prof. Rangaswamy Muniappan, Director, IPM Innovational Lab., Virginia Tech University, U.S.A	1	1	Prof. Rangaswamy Muniappan	Director
3	Dr. Karumuru Raja MadhuraBhanu, Biological Control Research Laboratories, Bangalore, India	1	1	Dr. Karumuru Raja Madhura Bhanu	
4	Dr. Arnaud Costa, CABI, Malaysia	1	1	Dr. Arnaud Costa	Integrated Crop Management (ICM) Adviser
<b>II</b>	<b>Government office</b>	<b>26</b>	<b>24</b>		
5	Plant Protection Department	1	1	Mr. Le Van Thiet	Deputy Director
6	Crop Production Department	1	1	Mr. Le Thanh Tung	Deputy Director
7	National Agriculture Extension Center	1	1	Mr. Ngo Van Day	Head of Department in the South
8	Southern Plant Protection Center	1	1	Ms. Lam Thi My Nuong	Deputy Director

9	Ho Chi Minh City Department of Agriculture and Rural Development	2	1	Ms. Tran Thi Huong	HCMC sub PPD
10	Dong Nai Department of Agriculture and Rural Development	2	1	Mr. Tran Lam Sinh	- Director of Dong Nai sub PPD
11	Tay Ninh Department of Agriculture and Rural Development	2	3	Mr. Nguyen Van Hong  Ms. Le Thi KieuTrang  Ms. Nguyen Thi Ngoc Linh	- Director of Tay Ninh sub PPD  - Head of Plant Protection Department of Tay Ninh sub PPD  - Director of Agricultural Extension Center
12	Tien Giang Department of Agriculture and Rural Development	2	1	Mr. Nguyen Van Thanh	Head of Plant Protection Department of Tien Giang sub PPD
13	Can Tho Department of Agriculture and Rural Development	2	2	Ms. Tran Thi Bich Van  Ms. Nguyen Thi Ngoc	- Deputy Director of Can Tho sub PPD  - Can Tho sub. PPD
14	Lam Dong Department of Agriculture and Rural Development	2	2	Ms. Dao Thi Lan, her colleague	- Deputy Director of Lam Dong sub PPD
15	Long An Department of Agriculture and Rural Development	2	2	Mr. Huynh Kim Toan  Ms. Doan Phuong	- Deputy Head of Plant Protection Department of Long An sub PPD  - Head of Plant Protection Department of Long An sub PPD

				Nga	
16	An Giang Department of Agriculture and Rural Development	2	2	Mr. Nguyen Van Hong  Ms. Cu Minh Thanh Tu	- Deputy Head of Technical Department of Agricultural Extension Center  - Technical staff of Agricultural Extension Center
17	Tra Vinh Department of Agriculture and Rural Development	2	2	Ms. Tran Thi Lun and her staff	- Deputy Director of Tra Vinh sub PPD
18	Post Entry Plant Quarantine Center No.02 of Plant Protection Department	1	1	Ms. PhanThi Thu Hien	Director
19	<i>Agricultural Hi-tech Park Ho Chi Minh City</i>	1	2	Mr. Le Van Cua  Mr. Hoang Dac Hiep	Deputy Director  Technical staff
20	Southern Pesticide Verify and Testing Center of Plant Protection Department	0	1	Mr. Tran Van Loc	Deputy Director
<b>II</b>	<b>Scientists</b>	<b>14</b>	<b>18</b>		
21	<i>Southern Agricultural Research Institute</i>	3	2	Ms. Ngo Xuan Trinh  Ms. Le Thi Ngoc	- Deputy Director of Technology Transfer Center  - Vegetable Flower Department of Da Lat Potatoes Vegetables & Flowers Center
22	<i>Southern Horticultural Research Institute</i>	8	13		
23	Nong Lam University	1	1	Mr. Nguyen Tuan Dat	Entomology Department
24	Can Tho University	1	1	Assoc. Prof. Le	Head of Application and

				Van Vang	Biology Agricultural Faculty
25	Tien Giang University	1	1	Ms. Nguyen Trinh Nhat Hang	Lecturer of Agricultural Faculty
<b>IV</b>	<b>NGOs</b>	<b>2</b>	<b>1</b>		
26	Vietnam Fruit and Vegetables Association	1	1	Mr. Dang Phuc Nguyen	General Secretary
27	Vietnam Plant Protection Association	1	0		
<b>V</b>	<b>Companies</b>	<b>7</b>	<b>7</b>		
28	Syngenta Vietnam	1	1	Mr. Dinh Hong Giang	Director of Agrochemical Development Division
29	Loc Troi Group Joint Stock Company	1	1	Mr. Truong Phan Khai	
30	Southern Seed Corporation	1	1	Mr. Nguyen Van Hai	
31	BASF Vietnam Company Limited	<i>1</i>	<i>1</i>	<i>Mr. Nguyen Hoang Dung</i>	
32	Saigon Pesticide Company	<i>1</i>	<i>3</i>	Ms. Nguyen Truc Linh Mr. Huynh Kim Ngoc Mr. Nguyen Minh Tuyen	
<b>VI</b>	<b>Communications</b>	<b>12</b>	<b>10</b>		
33	Vietnam Digital Television VTC16	2	2		
34	Vinh Long Television	2	3	Kim Hong Reporter	
35	<i>Vietnam Agriculture Newspaper</i>	2	2		
36	<i>SaiGon Time Newspaper</i>	2	1	Reporter	
37	People's TV station		2		
	<b>Sum</b>	<b>65</b>	<b>64</b>		

## Workshop Agenda

Ho Chi Minh City in Vietnam, June 06<sup>th</sup>, 2019

DATE	CONTENT		
<b>June 6, 2019</b>	Title: Workshop on The South American tomato leafminer, <i>Tuta absoluta</i>		
	Venue: at Conference room of Victory Hotel, 14 Vo Van Tan street, District 3, Ho Chi Minh city		
	08:00-08:15	Registration	
	08:15-08:30	Opening Welcome remarks	Dr. Nguyen Van Hoa, Deputy Director of SOFRI
	08:30-08:45	Introduction of the workshop And welcome remarks	Dr. John Bowman, Senior Agriculture Advisor Program Area Leader: Nutritious & Safe Foods USAID Bureau for Food Security (BFS); Office of Agricultural Research & Policy (ARP)
	08:45-09:45	Origin, taxonomy, biology, distribution, host plants. Monitoring, and management of the South American tomato leafminer <i>Tuta absoluta</i>	Prof. Rangaswamy Muniappan, Director, Integrated Pest Management (IPM IL), Center for International Research, Education, and Development, Virginia Tech
	9:45-10:15	Pheromone traps	Dr. Karumuru Raja Madhura Bhanu, Biological Control Research Laboratories, Bangalore, India
	10:15-10:45	Group photos & Tea-break	
	10:45-11:00	Current status of tomato production in Vietnam	Dr. Tran Kim Cuong, Head of Vegetable Division, SOFRI
11:00-11:30	Plant quarantine and status of export-import some major fruits	MSc. Phan Thi Thu Hien, Director, Post Entry Plant Quarantine Center No.02, Plant	



		and vegetables in Viet Nam	Protection Department
11:30-11:45		Action on Invasive: A case study on <i>Tuta absoluta</i> "	Dr. Arnaud Costa, Integrated Crop Management Advisor, CABI Southeast Asia
11:45-12:30		Breakout groups formation and discussion	Prof. Rangaswamy Muniappan Dr. Nguyen Van Hoa
12:30-1:30		Lunch (in Victory Hotel)	
1:30-1:45		Breakout groups presentation	
1:45 -2:15		General discussion	
2:15-2:30		Summary	Dr. John Bowman Prof. Rangaswamy Muniappan
2:30-2:45		Concluding Remarks	Dr. Nguyen Van Hoa

## TENTATIVE PROGRAM

DATE	CONTENTS		
<i>June 12, 2019</i>		Workshop in Ha Noi Venue: at Conference room of Daewoo Hotel, 360 Kim Ma, Ngoc Khanh, Ba Dinh, Ha Noi	USAID IPM Innovation Lab  SOFRI  PPRI
	8:00-8:30	Registration	
	08:30-08:45	Opening Welcome remarks	Dr. Nguyen Van Liem, General Director of Plant Protection Research Institute (PPRI)
	08:45-09:00	Introduction the workshop and welcome remarks	Dr. John Bowman, <i>Senior International Affairs Specialist, USAID Bureau for Food Security</i>
	09:00-10:00	Origin, taxonomy, biology, distribution, host plants, monitoring and management of the South American tomato leafminer <i>Tuta absoluta</i>	Dr. Rangaswamy Muniappan, Director, Integrated Pest Management (IPM IL), Center for International Research, Education, and Development, Virginia Tech
	10:00-10:30	Group photo & Tea-break	
	10:30-11:00	<i>Tuta absoluta</i> , a regulatory view	Dr. Devaiah Muruvanda, USDA-APHIS
	11:00-11:15	Status of vegetables (especially on tomato) production in the North of Vietnam: Opportunities and challenges	PPRI
	11:15-11:30	Quarantine aspects of vegetables and trade in Vietnam	Plant Protection Department in Ha Noi
	11:30-12:30	Breakout group discussion	
	12:30-13:30	Lunch	

	13:30-14:00	Breakout group presentations	
	14:00-14:30	General discussion	Dr. John Bowman, Dr. R. Muniappan, Dr. Bhanu, Dr. Devaiah, Dr. Nguyen Van Liem
	14:30-14:45	Summary and Conclusions	J. Bowman, R. Muniappan
	14:45-15:00	Closing remarks	Dr. Nguyen Van Liem

## **LIST OF PARTICIPANTS ATTENDED WORKSHOP ON *TUTA ABSOLUTA* IN HANOI**

Date: 12 June, 2019

Place: Daewoo Hotel, 360 Kim Ma Street, Hanoi, Vietnam

<b>No</b>	<b>Participants</b>	<b>Address</b>
1	Ms Wakana Nishiyama	JICA
2	Dr. Bui Xuan Phong	PPD, Vietnam
3	Dr. Dam Ngoc Han	Sub-Department of Plant Quarantine Regional No.5
4	Mr. Nguyen Hien Son	Bac Ninh Sub-Department of Crop Production and Plant Protection
5	Ms. Nguyen Thi Ngoc Ha	Bac Ninh Sub-Department of Crop Production and Plant Protection
6	Ms. Nguyen Thi Lan	Hai Phong Sub-Department of Crop Production and Plant Protection
7	Mr. Vu Quang Huy	Hai Phong Sub-Department of Crop Production and Plant

		Protection
8	Mr. Lai Manh Tien	Thai Binh Sub-Department of Crop Production and Plant Protection
9	Ms. Dinh Thi Nu	Thai Binh Sub-Department of Crop Production and Plant Protection
10	Ms. Nguyen Thi Ngoc Ha	Nam Dinh Sub-Department of Crop Production and Plant Protection
11	Ms. Hoang Thi Ai	Lang Son Sub-Department of Crop Production and Plant Protection
12	Mr. Dang Nhat Quy	Lang Son Sub-Department of Crop Production and Plant Protection
13	Ms. Luong Thi Kiem	Hai Duong Sub-Department of Crop Production and Plant Protection
14	Mr. Tran Quang Hung	Hai Duong Sub-Department of Crop Production and Plant Protection
15	Ms. Nguyen Thi Hang	Quang Ninh Sub-Department of Crop Production and Plant Protection
16	Mr. Dao Van Ngoc	Quang Ninh Sub-Department of Crop Production and Plant Protection
17	Mr. Bach Van Huy	Ha Nam Sub-Department of Crop Production and Plant Protection
18	Mr. Do Quoc Chinh	Ha Nam Sub-Department of Crop Production and Plant Protection

19	Mr. Phan Van Dao	Phu Tho Sub-Department of Crop Production and Plant Protection
20	Mr. Le Hong Thiet	Phu Tho Sub-Department of Crop Production and Plant Protection
21	Dr. Nguyen Hong Yen	Hoa Binh Sub-Department of Crop Production and Plant Protection
22	Ms. Vu Thi Anh Dao	Hoa Binh Sub-Department of Crop Production and Plant Protection
23	Mr. Phan Van Truc	Vinh Phuc Sub-Department of Crop Production and Plant Protection
24	Ms. Nguyen Thi Chu Ha	Vinh Phuc Sub-Department of Crop Production and Plant Protection
25	Mr. Bui Tien Dung	Hung Yen Sub-Department of Crop Production and Plant Protection
26	Mr. Hoang Dinh Hung	Hung Yen Sub-Department of Crop Production and Plant Protection
27	Mr. Truong Thi Thu Hien	Ha Noi Sub-Department of Crop Production and Plant Protection
28	Prof. Pham Van Lam	Vietnam National Entomology society
29	Dr. Nguyen Van Van	Vietnam National Plant Protection society
30	Dr. Nguyen Van Liem	Director, Plant Protection Research Institute (PPRI)
31	Dr. Le Mai Nhat	Plant Protection Research Institute (PPRI)

32	Dr. Nguyen Thi Thuy	Plant Protection Research Institute (PPRI)
33	Dr. Lai Tien Dzung	Plant Protection Research Institute (PPRI)
34	Dr. Dao Bach Khoa	Plant Protection Research Institute (PPRI)
35	Dr. Nguyen Huy Chung	Plant Protection Research Institute (PPRI)
36	Dr. Dao Thi Hang	Plant Protection Research Institute (PPRI)
37	Ms. Quyen Ngoc Dung	Plant Protection Research Institute (PPRI)
38	Mr. Nguyen Tien Hung	Plant Protection Research Institute (PPRI)
39	Dr. Le Xuan Vi	Plant Protection Research Institute (PPRI)
40	Dr. Bui Van Dung	Plant Protection Research Institute (PPRI)
41	Mr. Le Quang Man	Plant Protection Research Institute (PPRI)
42	Mr. The Thanh Nam	Plant Protection Research Institute (PPRI)
43	Dr. Le Thi Tuyet Nhung	Plant Protection Research Institute (PPRI)
44	Ms. Bui Thi Hai Yen	Plant Protection Research

		Institute (PPRI)
45	Ms. Kim Thi Hien	Plant Protection Research Institute (PPRI)
46	Ms. Le Thi Thu Huong	Plant Protection Research Institute (PPRI)
47	Dr. Tran Thi My Hanh	Southern Horticultural Research Institute (SOFRI)
48	Dr. Nguyen Thi Kim Thoa	Southern Horticultural Research Institute (SOFRI)
49	Dr. Duong Kim Thoa	Fruit and Vegetable Research Institute (FAVRI)
50	Mr. Nguyen The Nghiep	Syngenta Vietnam
51	Ms. Nguyen Thi Kim Anh	National Centre for Extension
52	Prof. Muniappant	Virginia Tech
53	Dr. Devaiah Murunanda	USDA-APHIS
54	Dr. John Bowman	USAID
55	Nguyen Hoang Linh	USDA
56	Vasant L.Patil	Crop life, Singapore, Asia
57	Nguyen Thi Huong	USDA
58	Dr. Kirs	Asian Entomologist
59	Ms. Duong Thi Nga	Northern Centre for Plant Protection
60	Dr. Le Nhat Thanh	Centre for Post Entry Quarantine No 1.

**Note.** Beside, about 10 participants had been attended who have not sign in our list.