Third FAO/IAEA International Conference on

Area-Wide Management of Insect Pests:

Integrating the Sterile Insect and Related Nuclear and Other Techniques



Organized by the



22-26 May 2017 Vienna, Austria

Organized by the





Joint FAO/IAEA Programme
Nuclear Techniques in Food and Agriculture

FAO/IAEA Programme Committee:

A. Abdalla R. Argilés

K. BourtzisJ. Bouyer

C. Cáceres R. Cardoso Pereira

W. Enkerlin

J. Gilles

G. Hallman I. Haq

J. Hendrichs S. Leak

A. Parker M. Vreysen H. Yamada

Secretariat:

Scientific Secretaries: R. Cardoso Pereira

M. Vreysen

Conference Organizer: M. Neuhold

M. Khaelss

Conference Support: N. Ghazarian

N. Mashayekhi-Tabrizi

E. Zdravevska

Location of the Conference:

International Atomic Energy Agency Vienna International Centre (VIC) C Building, Board Room C, 4th floor

Wagramer Strasse 5 1400 Vienna, Austria Tel.: (+43) 1 2600 0

E-mail: official.mail@iaea.org

Working Language: English

Resolutions: No resolutions may be submitted for

consideration on any subject; no votes

will be taken.

TIMETABLE

16:00-19:00	Registration	Gate 1
17:00–19:00	Welcome Reception C Building–4 th floor	I

Monday, 22 May 2017

08:00 09:00–09:30	Registration Opening Session	Gate 1
09:30–10:15	Session 1	Operational Area-wide Programmes
10:15–10:45	Poster Viewing &	Coffee/Tea Break
10:45–13:00	Session 1 (cont'd)	Operational Area-wide Programmes
13:00–14:00	Lunch Break	
14:00–15:30	Session 1 (cont'd)	Operational Area-wide Programmes
15:30–16:00	Poster Viewing &	Coffee/Tea Break
16:00–18:00	Session 1 (cont'd)	Operational Area-wide Programmes
18:00-18:30	Group Photo	
Tuesday, 23 M	May 2017	
08:45-10:30	Session 2	Mosquitoes & Human Health

00.45-10.50	06331011 Z	Mosquitoes & Human Health
10:30-11:00	Poster Viewing &	Coffee/Tea Break
11:00–13:00	Session 2 (cont'd)	Mosquitoes & Human Health
13:00–14:15	Lunch Break	
14:15–15:45	Session 2 (cont'd)	Mosquitoes & Human Health
15:45–16:15	Poster Viewing &	Coffee/Tea Break
16:15–18:30	Session 2 (cont'd)	Mosquitoes & Human Health

Wednesday, 24 May 2017

08:45-10:30	Session 3	Animal Health
10:30-11:00	Poster Viewing &	Coffee/Tea Break
11:00–13:00	Session 3 (cont'd)	Animal Health
13:00–14:15	Lunch Break	
14:15–16:00	Session 4	Regulatory Issues and Socio- Economic Impact
16:00–16:30	Poster Viewing &	Coffee/Tea Break
16:30–18:30	Session 4 (cont'd)	Regulatory Issues and Socio- Economic Impact

Thursday, 25 May 2017

08:45–10:30	Session 5	Climate Change, Global Trade and Invasive Species
10:30-11:00	Poster Viewing &	Coffee/Tea Break
11:00–13:00	Session 5 (cont'd)	Climate Change, Global Trade and Invasive Species
13:00–14:15	Lunch Break	
14:15–16:00	Session 6	New Developments and Tools for Area-wide
		Integrated Pest Management
16:00–16:30	Poster Viewing &	10010 101 / 1100 11100

Friday, 26 May 2017

08:45–10:30	Session 7	Keynote Presentation and Discussion Panel
10:30-11:00	Poster Viewing &	Coffee/Tea Break
11:00–13:00	Session 7 (cont'd)	Discussion Panels
13:00–13:15	Conference Closing	

Posters will be presented in the common area on the 4th floor of the C Building:

Posters for Sessions 1 and 2 will be presented from Sunday afternoon to Tuesday evening.

Posters for Sessions 3-6 will be presented from Tuesday evening to Friday noon.

Commercial exhibits will be displayed in the common area on the 4th floor of the C Building from Monday to Friday, 22-26 May 2017.

SUNDAY, 21 MAY 2017

16:00–19:00 Registration and Distribution

of Conference Materials

17:00–19:00 Welcome Reception

C Building-4th floor

MONDAY, 22 MAY 2017

08:00 Registration and Distribution

of Conference Materials

09:00-09:30 OPENING SESSION

Moderator: Aldo Malavasi

Deputy Director General, IAEA

Yukiya Amano

Director General, IAEA

Ren Wang

Assistant Director General

Agriculture and Consumer Protection

Department, FAO

SESSION 1:

Operational Area-wide Programmes

Chair: Gregory Simmons,

United States of America

Co-Chair: Rui Cardoso Pereira, FAO/IAEA

	Name	Designating Member State/Organization
09:30–10:15	Kenneth Bloem Keynote Speaker	United States of America
10:15–10:45	Poster Viewing & Coffee/Tea Break	(sponsored)
10:45–11:15	Keith Cressman	FAO
11:15–11:45	Kong Luen Heong	China
11:45–12:15	Eoin Davis	United States of America
12:15–13:00	Ring Cardé	United States of America
12:45–14:00	Lunch Break	

Placement of Posters Sessions 1 & 2
Welcome address and opening remarks
Welcome address and opening remarks
Title of Paper
Past, Present and Future: A Road Map to Integrated Areawide Systems and Enterprise Risk Management Approaches to Pest Control
Technological Innovations in Global Desert Locust Early Warning
Area Wide Management of Rice Pests in Asia through Integrating Ecological Engineering Techniques
Exclusion, Suppression, and Eradication of Pink Bollworm (Pectinophora gossypiella (Saunders)) from the Southwestern USA and Northern Mexico
Use of Pheromones to Disrupt Mating of Moth Pests in Areawide Management Programmes

MONDAY, 22 MAY 2017

SESSION 1 (cont'd):

Operational Area-wide Programmes

Chair: Zeng-rong Zhu, China Co-Chair: Marc Vreysen, FAO/IAEA

	Name	Designating Member State/Organization
14:00–14:30	Clemente de Jesús García Avila	Mexico
14:30–15:00	Hailin Yang	China
15:00–15:30	Cara Nelson	Canada
15:30–16:00	Poster Viewing & Coffee/Tea Break	(sponsored)
	SESSION 1 (cont'd): Operational Area-wide Programmes	
	-	
Chair: Co-Chair:	Preeaduth Sooka Jorge Hendrichs,	r, Mauritius
	Preeaduth Sooka	r, Mauritius
Co-Chair:	Preeaduth Sooka Jorge Hendrichs,	r, Mauritius FAO/IAEA
Co-Chair:	Preeaduth Sooka Jorge Hendrichs,	r, Mauritius FAO/IAEA South Africa
Co-Chair: 16:00–16:30	Preeaduth Sooka Jorge Hendrichs, Nevill Boersma	r, Mauritius FAO/IAEA South Africa United States of
Co-Chair: 16:00–16:30 16:30–17:00	Preeaduth Sooka Jorge Hendrichs, Nevill Boersma Adalberto Pérez de León	r, Mauritius FAO/IAEA South Africa United States of America

Title of Paper

Holistic Area-wide Approach for Successfully Managing Citrus Greening (Huanglongbing) in Mexico

Area-wide Biological Control Using the Parasitic Natural Enemy *Aphidius gifuensis* (Hymenoptera: Braconidae) to Control *Myzus persicae* (Homoptera: Aphididae) in China

Putting Sterile Insect Technique into the Modern IPM Toolbox: Over 20 Years of Successful Area-wide Integrated Pest Management in Canadian Pome Fruit

The Suppression of the False Codling Moth, *Thaumatotibia leucotreta*, in South Africa using an AW-IPM approach with a SIT component

Advances in Integrated Tick Management for Area-wide Mitigation of Tick-borne Disease Burden

Area-wide Fruit Fly Programmes in Latin America

Area-wide Management of Fruit Flies in a Tropical Mango Growing Area Using the Sterile Insect Technique: From a Research Project to an Operational Programme

TUESDAY, 23 MAY 2017

SESSION 2:

Mosquitoes and Human Health

Chair: Romeo Bellini, Italy

Co-Chair: Kostas Bourtzis, FAO/IAEA

	Name	Designating Member State/Organization
08:45-09:30	Raman Velayudhan	WHO
	Keynote Speaker	
09:30–10:00	Graham White	United States of America
10:00–10:30	Rajitha Wickremasinghe	Sri Lanka
10:30–11:00	Poster Viewing & Coffee/Tea Break	(sponsored)
	SESSION 2 (cont'	d):
	Mosquitoes and H	luman Health
Chair:	Ildefonso Fernández-Salas, Mexico Jeremy Bouyer, FAO/IAEA	
Co-Chair	Jeremy Bouyer, F	FAO/IAEA
11:00–11:30	Roberto Barrera	
11:00–11:30	Roberto Barrera	Puerto Rico
11:00–11:30 11:30–12:00	Roberto Barrera Zhiyong Xi Pattamaporn	Puerto Rico China

Title of Paper WHO Vector Control Advisory Group Activities and WHO Vector Control Global Response 2017-2030 Area-Wide Mosquito Management in the Americas Malaria Flimination in Sri Lanka City-wide Control of Aedes aegypti and Zika Virus Using Mass-trapping in Puerto Rico Developing the Combined IIT/SIT Approach to Control the Primary Dengue Vector Aedes albopictus in China Area-wide Management of Aedes aegypti Mosquito Vector: The First Pilot Suppression Trial in Thailand Integrating the Sterile Insect Technique with Wolbachia-induced Incompatibility Approach Wolbachia-Aedes - An Additional Tool to Control Aedes aegypti in Singapore

TUESDAY, 23 MAY 2017

SESSION 2 (cont'd):

Mosquitoes and Human Health

Chair: Co-Chair: Ignacio Pla-Mora, Spain Hanano Yamada, FAO/IAEA

	Tanano Tanada, FAONALA		
	Name	Designating Member State/Organization	
14:15–14:45	Jan Lundström	Sweden	
14:45–15:15	Margareth Capurre	o Brazil	
15:15–15:45	Nikolai Windbichler	United Kingdom	
15:45–16:15	Poster Viewing & Coffee/Tea Break	(sponsored)	
	SESSION 2 (cont'o	•	
	Mosquitoes and H	luman Health	
Chair: Co-Chair:		Rene Gato-Armas, Cuba Danilo Carvalho, FAO/IAEA	
16:15–16:45	Peter Ryan	Australia	
16:45–17:15	Marcelo Jacobs- Lorena	United States of America	
17:15–17:45	Steve Whyard	Canada	
17:45–18:15	Carlos Tur	Spain	
Dame aval of Doot	ora Canaiana 1 º 2		

Removal of Posters Sessions 1 & 2 Placement of Posters Sessions 3 – 6

Title of Paper

Developing AW-SIT as Part of an Integrated Control Strategy against *Aedes sticticus* in the River Dalälven Floodplains, Central Sweden

Aedes aegypti control programmes in Brazil

Novel Genetic Methods for the Area-wide Control of Insects: Gene Drive and Sex Ratio Distortion

The Eliminate Dengue Program - Use of Wolbachia to Control the Transmission of Aedes aegypti Associated Viruses

Fighting Malaria with Engineered Symbiotic Bacteria from Vector Mosquitoes

RNAi Strategies in Support of Mosquito SIT Applications

Efficient Sex Separation in *Aedes* Mosquitoes Using Image Analysis and elimination of females by Laser Beams

WEDNESDAY, 24 MAY 2017

SESSION 3: Animal Health

Chair: Giuliano Cecchi, FAO
Co-Chair: Andrew Parker, FAO/IAEA

	Name	Designating Member State/Organization	
08:45-09:30	Baba Sall Keynote Speaker	Senegal	
09:30–10:00	Zerihun Woldesenbet Geleta	Ethiopia	
10:00-10:30	Ahmadou Dicko	Mali	
10:30–11:00	Poster Viewing & Coffee/Tea Break	(sponsored)	
	SESSION 3 (Cont Animal Health	'd):	
Chair: Co-Chair:		Peter James, Australia Rafael Argilés, FAO/IAEA	
11:00–11:30	Wolfgang Miller	Austria	
11:30–12:00	Jan van den Abbeele	Belgium	
12:00-12:30	Ana Maria	Brazil	
	Azeredo-Espin		
12:30–13:00	Azeredo-Espin David Taylor	United States of America	

Title of Paper

The Eradication of the Tsetse Fly Glossina palpalis gambiensis from the Niayes of Senegal Using an Area-wide Integrated Pest Management Approach that Includes the Release of Sterile Males

Achievements and Challenges of Tsetse and Trypanosomosis Control Operations in the Southern Rift Valley of Ethiopia

Mapping Landscape Friction to Locate Isolated Tsetse Populations that are Candidates for Elimination

Titre and Tissue Dynamics of Tsetse Symbionts in *Glossina* Interspecies Hybrids: Biological and Applied Aspects

Paratransgenesis as a Tool to Block Trypanosome Transmission by Tsetse

Genetic Structure, Demographic and Phylogeographic History of the New World Screwworm Fly in South America and Caribbean regions

Area-wide Management of Stable Flies

WEDNESDAY, 24 MAY 2017

SESSION 4:

Regulatory Issues and Socio-

Economic Impact

Chair: Sylvia Bluemel, Austria Co-Chair: Guy Hallman, FAO/IAEA

	Name	Designating Member State/Organization
14:15–15:00	Joop Van Lenteren	The Netherlands
	Keynote Speaker	
15:00–15:30	Stephanie Bloem	United States of America
15:30–16:00	Kaare Magne Nielsen	Norway
16:00–16:30	Poster Viewing & Coffee/Tea Break	(sponsored)
Chair: Co-Chair:	SESSION 4 (cont'd): Regulatory Issues and Socio- Economic Impact Olivia Reynolds, Australia Walther Enkerlin, FAO/IAEA	
16:30–17:00	Guy Hallman	FAO/IAEA
		FAU/IAEA
17:00–17:30	Trang Vo	United States of America

Nancy

Schellhorn

Australia

18:00-18:30

Title of Paper

Will the "Nagoya Protocol on Access and Benefit Sharing" Put an End to Biological Control?

The Relationship between the Phytosanitary Regulatory Framework and International Trade – Case Studies Regulatory and Societal Considerations of New Genetic Techniques

Avoiding Trade Restrictions due to Questionable Assertions about Taxonomy, Hosts, and Geographic Distribution of Regulated Pests

Methods to Quantify Invasive Pest Risk and Socioeconomic Impact to Promote Objective Regulatory Decision-making: Case Studies on Sterile Insect Techniques (SIT) Related Programmes

Public-private Partnerships: How Much Should Producers Pay and How Much Should Governments Subsidize Areawide Programmes?

Costs and Benefits of Queensland Fruit Fly Area-wide Management with Linked Spatial Population Simulations

THURSDAY, 25 MAY 2017

SESSION 5:

Climate Change, Global Trade and Invasive Species

Chair: Kris Wyckhuys, CIAT

Co-Chair: Rui Cardoso Pereira, FAO/IAEA

	Name	Designating Member State/Organization
08:45-09:30	Max Suckling Keynote Speaker	New Zealand
09:30–10:00	Andy Liebhold	United States of America
10:00-10:30	Gregory Marte	Dominican Republic
10:30–11:00	Poster Viewing & Coffee/Tea Break	(sponsored)

SESSION 5 (cont'd):

Climate Change, Global Trade and

Invasive Species

Chair: Co-Chair:	Changying Niu, China Ihsan Haq, FAO/IAEA	
11:00–11:30	Hannah Burrack	United States of America
11:30–12:00	Eva Veronesi	Switzerland
12:00–12:30	Nicholas Manoukis	United States of America
12:30–13:00	Estuardo Lira	Guatemala
13:00–14:15	Lunch Break	

Title of Paper
Global Trends in Arthropod Eradication Programmes
Area-wide Management of Invading Gypsy Moth (<i>Lymantria dispar</i>) Populations in the USA
Mediterranean Fruit Fly Eradication Programme in the Dominican Republic
Drosophila suzukii Invasions and Options for its Management
Invasion of Europe with Vector-borne Disease Pathogen Transmitting Mosquitoes
Climate and Mediterranean Fruit Fly Invasion Persistence: Insights from Agent-Based Simulations
GIS-based Modelling to Predict the Impact of Climate Change on Medfly Populations in Central America and Decision Making Support for Pest Management

THURSDAY, 25 MAY 2017

SESSION 6

New Developments and Tools for

Area-wide Integrated Pest

Management

Chair: Co-Chair: Marc de Meyer, Belgium Carlos Cáceres, FAO/IAEA

	Name	Designating Member State/Organization	
14:15–15:00	Marc Schetelig	Germany	
	Keynote Speaker		
15:00–15:30	Desmond Conlong	South Africa	
15:30–16:00	Phillip W. Taylor	Australia	
16:00–16:30	Poster Viewing &		
	Coffee/Tea Break	(sponsored)	
Chair: Co-Chair:	SESSION 6 (cont'd): New Developments and Tools for Area-wide Integrated Pest Management Rakesh Kumar Seth, India Adly Abdalla, FAO/IAEA		
16:30–17:00	Daniel Hahn	United States of America	
17:00–17:30	George Tsiamis	Greece	
17:30–18:00	Jérémy Bouyer	FAO/IAEA	

Title of Paper

Genome Editing and its Possible Applications: Curse or Blessing?

The Potential Addition of SIR and Bt-sugarcane to the Toolbox of an AW-IPM Programme against *Eldana* saccharina in South African Sugarcane

Integration of Male Annihilation Technique and Sterile Insect Technique

The Importance of Dormancy and Dormancy Management for Biological Control

Characterization of Gut Microflora of Insects of Economic Importance – Practical Application

"Boosted SIT": Auto-dissemination as an Additional Tool in AW-IPM Programmes

The Role of Drones in AW-IPM Programmes: a Drone for Sterile Tsetse Releases in Ethiopia

FRIDAY, 26 MAY 2017

SESSION 7:

Discussion Panels

Aristidis Economopoulos, Greece Marc Vreysen, FAO/IAEA Chair:

Co-Chair:

	Name	Designating Member State/Organization
08:45-09:30	Pamela Pennington Keynote Speaker	Guatemala
09:30-10:30	Cara Nelson (Panel Chair)	Canada
	Nevill Boersma	South Africa
	Heleen Kruger	Australia
	Aditi Mankad	Australia
	John Mumford	United Kingdom
	Pamela Pennington	=
10:30–11:00	Poster Viewing &	
	Coffee/Tea Break	(sponsored)
11:00-12:00	Graham White	United States of
	(Panel Chair)	America
	Jesús González- Roldán	Mexico
	Lizette Koekemoer	South Africa
	Peter Ryan	Australia
	Marc Schetelig	Germany
	Rajitha	Sri Lanka
	Wickremasinghe	
12:00–13:00	Pablo Liedo (Panel Chair)	Mexico
	Roberto Angulo	Mexico
	Pedro Rendón	Guatemala
	Olivia Reynolds	Australia
	Matej Štefančič	Slovenia
	Roger Vargas	United States of
		America

	Title of Paper
	Engagement of the Public in Support of Area-wide Integrated Pest Management
	Discussion Panel 1: Short Term Political Will / Vision and Stakeholder Support versus Long Term Sustainability of AW Programmes
I	Discussion Panel 2: Opportunities and Risks for AW Control of Mosquito-borne Diseases
1	Discussion Panel 3: How Will New Developments, Products and Technologies Affect the Way We Control Insect Pests

13:00-13:15 Conference Closing

Dazhu Yang DDG,Department of Technical Cooperation, IAEA Aldo Malavasi DDG, Department of Nuclear Sciences and Applications, IAEA Closing Remarks

Closing Remarks

POSTERS RELATED TO SESSIONS:

- (1) Operational Area-wide Programmes
- (2) Mosquitoes & Human Health
- (3) Animal Health
- (4) Regulatory Issues and Socio-Economic Impact
- (5) Climate Change, Global Trade and Invasive Species
- (6) New Developments and Tools for Area-wide Integrated Pest Management

POSTERS RELATED TO SESSION 1 OPERATIONAL AREA-WIDE PROGRAMMES

No. of Poster IAEA-CN-248	Name	Designating Member State/Organization
2	A. Kovaleski T. Mastrangelo	Brazil
12	C. Nankinga A. Mayamba F. Nampeera W. Waswa V. Lubega A. Kiggundu W. Tushemereirwe	Uganda
24	I. Plá-Mora C. Tur-Lahiguera	Spain
29	M. Khalaf H. Alrubeai	Iraq
32	M. Ahmadi B. Salehi M. Babaie	Iran
41	A. Economopoulos P. Rempoulakis	Greece
44	B. Woods R. Fogliani	Australia
45	D. Cugala A. Majacunene	Mozambique
46	D. Marri M. Osae	Ghana

MOSCASUL Programme in Brazil: First Steps and Current Situation

Performance of Mango Fruit Fly Area-Wide Management in Central Uganda

SIT Application in Spain: AW-IPM Programme against Mediterranean Fruit Fly and Ongoing Activities for Future Implementation of SIT over Mosquitoes

Population Density and Distribution of Mediterranean fruit fly, Ceratitis capitata in Orchards of the Middle Region of Iraq

Towards the Control of *Bactrocera oleae* Gmelin (Diptera: Tephritidae) Using Sterile Insect Technique in Iran

Backyard Mediterranean Fruit Fly is a Key Factor in Area-Wide Management in Southern Europe. Data from Attiki Greece, 38 North Latitude

Eradicating Mediterranean Fruit Fly from Carnarvon, Western Australia Using Area-wide Management, Community Engagement and Sterile Male Release

Assessing the Efficacy of Integrated Pest Management Strategies for Suppressing *Bactrocera dorsalis* in Selected Orchards in Manica Province, Mozambique

Evaluation of the Efficacy of a Commercial Formulation of Beauveria bassiana for the Control of the Invasive Fruit Fly Bactrocera dorsalis (Diptera: Tephritidae)

No. of Poster IAEA-CN-248	Name	Designating Member State/Organization
		10105
49	S. Ekesi S. Mohamed	ICIPE
	M. De Meyer	
50	P. Addison D. Cugala	South Africa
	J-H. Daneel	
	H. Delatte	
	M. De Meyer	
	P-F. Duyck N. Hala	
	M. Karsten	
	C. Knox	
	A. Manrakhan	
	M. Mwatawala M. Virgilio	
	C. Weldon	
51	T. S. Syamsudin	Indonesia
•	R. Kirana	
	A. Aos R. Alfianny	
56	M. Kasina	Kenya
50	J. Mulwa	. , .
	P. Maingi	
	T. Karanja G. Kyallo	
	G. Momanyi	
	M. Nyamai	
77	Z. Abdullah	Tanzania
	T. Ali	
	M. Benelli	Australia
83	U. Lallu	Australia
	K. Mitchell	
	F. Ponton	
86	P. W. Taylor	United States of
00	R. Vargas S. Souder	United States of America
	R. Mau	7 41101100
89	F. Bekker	South Africa
	M. Addison	
	A. Van Niekerk P. Addison	
	F. AUUISUII	

Fruit Fly Research and Development in Africa - Towards a Sustainable Management Strategy to Improve Horticulture

Strengthening Fruit Fly Research between Europe and Africa through Networking

Development and Implementation of Area-wide Fruit Fly Control in Chili Crops in West Java – Indonesia

Establishing an Area of Low *Bactrocera (invadens) dorsalis* Prevalence in Kenya

Suppression of Invasive *Bactrocera dorsalis* (Diptera: Tephritidae) by Using Integrated Pest Management Approach in Zanzibar

Cold Storage of Queensland Fruit Fly Pupae for Mass-rearing Programmes

Field Evaluation of Novel Male Lure "Attract and Kill" Stations for Area-Wide Suppression of Fruit Flies (Diptera: Tephritidae) in Hawaii

The Area-wide Spatio-temporal Distribution of *Ceratitis* capitata (Wiedemann) Populations in the Western Cape, South Africa

No. of Poster AEA–CN–248	Name	Designating Member State/Organization
97	A. Manrakhan J-H. Daneel M. De Meyer M. Virgilio P-F. Duyck H. Delatte F. N. Hala	South Africa
105	K. Mahat P. Loday L. Dorji L. Lakey G. Sanderson	Bhutan
116	R. Rutherford D. Conlong	South Africa
118	M. Saleh G. Hegazy	Egypt
126	M. N. Daamen F. A. De Souza E. A. Dos Santos J. L. Dos Santos J. F. Virginio	Brazil
129	N. Kouloussis	Greece
130	G. Simmons M. Daugherty L. Varela	United States of America
134	P. Sookar M. Alleck I. Buldawoo S. Ramjee N. Allymamod F. Khayrattee N. Patel R. Bhoyroo	Mauritius
140	J. H. Venter C. Baard	South Africa
151	A. Gezhilli E. Dikolli P. Kadriaj V. Jani E. Zaimaj S. Bino N. Haka-Duraj	Albania

Developing Effective Detection Tools for Afrotropical Fruit Fly Pests - The ERAfrica 'FRUIT FLY' Project

Area-Wide Management of Chinese Citrus Fruit Fly in Tsirang, Bhutan Using Protein Bait Sprays and Orchard Hygiene

 F_1 : Fast-Tracking *Eldana saccharina* Moths for Sterile Insect Release

Field Application of Biocontrol Agents for Controlling the Red Palm Weevil

Insights after Nine Years of Fruit Fly Monitoring in the San Francisco Valley, Brazil

An Environmentally-friendly New Attractant (BIODELEAR) for the Mass-trapping of *Ceratitis capitata*

Area-Wide Programme to Eradicate the European Grapevine Moth, *Lobesia botrana* in California, USA

Attempt to Re-eradicate *Bactrocera dorsalis* (Hendel) from Mauritius

Area-wide Management with SIT of Mediterranean Fruit Fly in South Africa: New Management Techniques Showing Dividends

Preliminary Data on Distribution of Mediterranean Fruit Fly Ceratitis capitata (Wiedemann) in Albania

No. of Poster IAEA-CN-248	Name	Designating Member State/Organization
156	H. Nguyen Thi Thanh T. Vu Van T. Vu Thi Thuy	Viet Nam
158	L. Ha Thi Kim K. Le Duc K. Wyckhuys	CIAT
165	S. Al-Khatri	Oman
167	Y. Bayram T. Asikoglu M. Sahin	Turkey
178	Z. Chen P. Li P. Yang Y. Dong C. Niu	China
185	T. Brevault T. Baldet J. Bouyer H. Delatte	France
189	K. Ntlogelang P. Mawere	Botswana
196	D. Quiroga W. Ramirez C. Ruiz	Argentina
197	F. J. Trujillo-Arriaga F. Ramirez-Y- Ramirez G. Santiago-Martinez R. A. Hernandez- Livera A. Bello-Rivera F. Sanchez Galicia	

Integrated Management of *Bactrocera* Fruit Flies in Dragon Fruit Production in Viet Nam

Maximizing the Contribution of Biological Control to Areawide Pest Management: Opportunities for Targeted Use of Nuclear Techniques

Area-wide Management of Red Palm Weevil in Oman Insect Management in Wide Areas of Turkey

The Monitoring and Management of the Chinese Citrus Fly, Bactrocera minax Based on Behavioural Research

Scaling-up Biocontrol Using Sterile Insects as Phoretic Agents

Relative Abundance of Fruit Fly Species in One Agroecological Zone on Marula (*Sclerocarya birrea*) Trees in Botswana

National Fruit Fly Control and Eradication Programme in the Argentinean Northeast — PROCEM NEA

Mexican Plant Health, the Key to the World Fruit Market: Fruit Flies Case

No. of Poster IAEA-CN-248	Name	Designating Member State/Organization
202	H. Akter P. Rempoulakis P. W. Taylor	Australia
210	U. Davaasambuu S. Tsegmed	Mongolia
213	Z. Zhu P. Qian H. Li	China
228	W. Orankanok A. Upanisakorn K. Wyckhuys	Thailand
229	V. Umeh D. Onukwu M. Olaniyi	Nigeria
233	J. Masoka L. D. M. Makumbe	Zimbabwe
234	A. Egartner C. Lethmayer R. Gottsberger S. Bluemel	Austria
243	A. Molero M. Vanin	Argentina
256	J. A. Manrique Linares C. Rivera-Tejada	Peru
259	P. Rodriguez	Panama
260	R. Rodríguez C. Lobos R. Castro J. Yevenes A. Barra P. Jara	Chile
262	E. Arévalo Á. Castro B. Vargas M. Hurtado P. Rodríguez Z. Florez M. Gordillo	Colombia
265	W. Wakil	Pakistan

Effect of Pre-release Raspberry Ketone Supplements on Ability of Queensland Fruit Fly to Tolerate Desiccation and Nutritional Deprivation

The Occurrence of Fruit Flies (*Rhagoletis batava*) and Damage Caused by them on Sea Buckthorn Production of Mongolia

Area-wide Ecological Engineering for Rice Pest Management in China

Lessons Learned from AW-IPM Control of Fruit Flies to Combat Cassava Pink Mealybug in Thailand

Comparative Efficacy of Integrated Pest Management Methods for the Suppression of *Bactrocera dorsalis* (Diptera: Tephritidae) on Citrus

Towards the Creation of a Pest Free Area for Fruit Flies (Diptera: Tephritidae) in the Mashonaland Central Province of Zimbabwe

Monitoring Activities on Invasive Fruit Flies of Economic Importance in Austria

Application of Geographic Information Systems in the Pest Management in Wide Areas

Control of Fruit Flies in Peru

Utilization of Fevillea cordifolia as Trap Plant to Control Anastrepha grandis ((Macquart, 1846) in Panama

National Fruit Flies Detection System (NFFDS) in Chile: 50 Years of One Successful Plan

National Fruit Flies Plan in Colombia

Sterile Insect Technique against Pink Bollworm in Pakistan

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288	S. Brutus B. Petrousse D. Lesperance L. Cadeau M. Nicolas M. Nourice R. Gouvindin E.S.C. Smith P. Sookar R. Pereira R. Stravens	Seychelles
292	I.A. Ince Ö.F. Tastan	Turkey

The Cactus Moth (*Cactoblastis cactorum*) Eradication Programme in México

Expanding Area-wide Mediterranean Fruit Fly Management in Morocco through the Implementation of a Mass-rearing Facility

Area-wide Integrated Control of Fruit Flies in Thailand

Pilot Study on Suppression of Melon Fly, Zeugodacus cucurbitae, in Seychelles

Exploring the Biocontrol Agents for Ricania Simulans (Walker, 1851) and its Microbiota

POSTERS RELATED TO SESSION 2 MOSQUITOES AND HUMAN HEALTH

No. of Poster IAEA-CN-248	Name	Designating Member State/Organization
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18	F. Zelaya I. Khan J. Ahmad G. Z. Khan A. Alamzeb	Pakistan
28	S. Soulaphy	Laos
43	G. Z. Khan I. Khan A. Zeb T. Badshah	Pakistan
59	L. Koekemoer G. Munhenga O. Wood L. Lobb L. Dandalo B. Brooke	South Africa
63	M. Kaiser M. A. Rodriguez- Perez A. J. Garza- Hernandez F. Reyes- Villanueva	Mexico
70	G. Munhenga L. Koekemoer B. Brooke	South Africa
73	T. Mashatola P. Liedo- Fernandez G. Bond C. Marina- Fernandez A. Dor	Mexico

Role of Silver Nanoparticles in Mosquitoes Control

Mosquito Surveillance and Control: Challenges, Management and Opportunities in Sovereign Base Areas (SBA) in Cyprus and Overseas Territories

Towards the Implementation of the SIT in Argentina in Integrated Pest Management to Control *Aedes Aegypti*, Vector Mosquito of Dengue, Zika and Chikungunya

Assessment on Radiation-induced Sterility and Longevity of Aedes aegypti (Diptera: Culicidae) Strain of Swat, Pakistan

An Eco-Bio-Social Approach to Apply to Control Dengue in Vang Vieng District, Vientiane Province, Lao PDR, a Southeast Asian Global Outreach Tourist Hotspot (2012-2014)

Integration of Conventional Vector Control with Sterile Insect Technique against the Dengue Vectors *Aedes aegypti* and *Aedes albopictus* in Pakistan

Ups and Downs during the Development of a Malaria SIT Programme for South Africa

Releases of Fungus Exposed *Aedes aegypti* Males Integrated with Sterile Insect Technique for an Area-wide Vector Management Programme

Development of Sex Separation Tools to Eliminate Female Anopheles arabiensis during Mass-production

Pilot Test to Assess the Effectiveness of SIT + IIT to Suppress *Aedes aegypti* Populations in Chiapas, Mexico

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C. H. Yin Zar E. N. Chaw T. Aye N. A. Tin K. L. Ko T. Y. Win A. K. Aye H. Yamada C. S. Mya Nilar	Myanmar
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	A. Bheecarry D. Iyaloo K. B. Elahee G. Willat S. Acuña L. Garziera M. Pedrosa F. Souza M. Capurro J. Virgínio R. Bellini A. Puggioli M. Carrieri J. F. González-Roldán F. Correa-Morales G. Sanchez-Tejeda M. Osae E. Baafi C. H. Yin Zar E. N. Chaw T. Aye N. A. Tin K. L. Ko T. Y. Win A. K. Aye H. Yamada C. S. Mya Nilar J. F. González-Roldán F. Correa-Morales G. Sanchez-Tejeda A. Nahallage-Dona Y. I. N. S. Gunawardene T. G. A. N. Chandrasena R. S. Dassanayake P. A. D. H. N. Gunathilaka Z., Xi K. Bourtzis W. Abeyewickreme

SIT Project in Mauritius: Achievements, Lessons Learnt and the Way Forward

Solidary Nets that Prevent the Entry of Mosquitoes into the Houses

Implementation of a Surveillance Model for *Aedes aegypti* as a Support for Genetic Control Programmes

Recent Achievements in the Application of SIT Methods for the Suppression of *Aedes albopictus*

Insecticide Resistance in *Aedes aegypti* Populations in Mexico

Effects of Prolonged Colonization on the Biology of Anopheles gambiae

Preliminary Survey of Mosquito Species for Evidence of Local Feasibility of Sterile Insect Technique against Dengue Vectors in Kyaukse, Myanmar

Entomo-virological Surveillance of Aedes aegypti in Mexico

Screening for Wolbachia Infection in Mosquito and other Insect Populations in Ragama, Sri Lanka

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181	M. N. Hapugoda N. V. Chandrasekeran W. Abeyewickreme T. Ranathunga P. A. D. H. N. Gunathilaka N. W. B. A. L Udayanga	Sri Lanka
182	A. Nahallage-Dona B. Ernawan U. S. F. Tambunan D. Tetriana H. I. Sasmita I. Sugoro	Indonesia
188	A. Michaelakis N. Papadopoulos D. Papachristos P. Milonas R. Bellini C. Ioannou	Greece
195	O. Mikov I. Katerinova T. Agushev	Bulgaria
199	J. H. Rammanda Devayalage W. Abeywickrama J. Gilles R. Premarathne M. N. Hapugoda	Sri Lanka

Large Indoor Cage Study of the Suppression of Stable Aedes aegypti Populations by the Release of Thiotepasterilized Males

CRISPER Cas9-mediated Targeting of Dengue Viral RNA to Block Transmission in *Aedes aegypti* Mosquitoes - In-silico Approach

A Combination of Mechanical and Behavioural Methods for Sex Separation of *Aedes* Mosquitoes for Sterile Insect Technique (SIT) and Incompatible Insect Techniques (IIT)

The Dose-rate Effects of Gamma Irradiation on Longevity, Sterility, Mating Competitiveness and Nix Gene of *Aedes aegypti*

Aedes albopictus in Greece: Current State and Future Challenges

Establisment of the Asian tiger mosquito *Aedes albopictus* in Bulgaria: A New Challenge for the Mosquito Control Campaigns

Mating Competitiveness of Aedes albopictus (Skuse) Males Exposed to Gamma-rays in Laboratory Cages; Towards Integrated Control through the Sterile Insect Technique (SIT)

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211	K. R. Dabiré S. P. Sawadogo B. S. Poda D. D. Soma N. S. Somda H. Maiga A. Diabaté G. Gibson	Burkina Faso
227	J. Gilles G. Obra S. Resilva A. M. Javier A. Dimaano	Philippines
237	F. Habbel J. Mumford M. Quinlan A. Leach	United Kingdom
239	M. Quinlan	United Kingdom
240	P. Epopa A. Millogo M. C. Collins A. North S. O'Loughlin M. Q. Benedict A. Diabaté R. K. Dabiré P. Epopa A. Millogo	Burkina Faso Burkina Faso
	M. C. Collins A. North F. Tripet M. Q. Benedict A. Diabaté R. K. Dabiré	

Surveillance of *Anopheles arabiensis* Males Populations Based on Swarms Monitoring and Clay Pots Trapping Systems

Development of the SIT for *Aedes aegypti* in the Philippines: Colony Establishment, Larval Diet Evaluation and Population Monitoring

Delivering Change: Potential Release Patterns and Distribution Systems for the Release of Transgenic Mosquitoes in Burkina Faso

Product or Service? Some of the Distinctions Arising from New Production Development in Mosquito Control

Assessment of Mosquito Presence and Density between Two Villages in Burkina Faso

The Use of Sequential Mark-Release-Recapture Experiments to Estimate Population Size, Survival and Dispersal of Male *Anopheles gambiae s.l.* Mosquitoes

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264	M. Manni C. R. Guglielmino F. Scolari A. Vega-Rúa A-B. Failloux G. Savini M. Bonizzoni M. Gomulski A. R. Malacrida G. Gasperi	Italy
284	V. Petrella L. Iesu G. Saccone G. Langella B. Caputo A. Della Torre	Italy

M. Salvemini

Genetic Evidence for a World-wide Chaotic Dispersion Pattern of the Arbovirus Vector, *Aedes albopictus*

Procida Island (Italy, Campania Region): an Optimal Site for the Field Testing of Mosquito IPM Control Methods

POSTERS RELATED TO SESSION 3 ANIMAL HEALTH

No. of Poster IAEA-CN-248-	Name	Designating Member State/Organization
7	M. Yasmin A. S. M. Saifullah A. T. M. F. Islam	Bangladesh
25	A. Djiteye B. Diarra I. Sidibe	Mali
68	A. Kato L. Okedi C. Masembe S. Aksoy G. C. Adalgisa F. Scolari A. Malacrida	Uganda
95	J. A. Solorzano Arroyo H. Mena R. Romero J. Treviño J. Gilles C. Geden D. Taylor H. Skovgaard	Costa Rica
103	I. Sidibe I. Tamboura M. Ouedraogo Z. Koudougou L. Percoma A. Sow H. Pooda S. Pagabeleguem O. Serdebeogo	Burkina Faso
114	A. T. Barros E. Ravaglia W. Aquino	Brazil
117	H. Cecilia A. H. Dicko S. Arnoux S. Picault J. Bouyer P. Ezanno	France

Development and Application of Sterile Insect Technique (SIT) to Control/Suppress Blow Fly, *Lucilia cuprina* (Diptera: Calliphoridae) from Coastal Area of Bangladesh

Integrated Control of *Glossina palpalis gambiensis* in the Framework of its Eradication in the Northern Basin of Niger River in Mali

High Level of Multiple Paternities in Wild Glossina fuscipes fuscipes Females in Buvuma Islands, Uganda

Biological Control of Livestock Pest Biting Fly Stomoxys calcitrans at Agriculture Pineapple Residues Using the Parasitoid Spalangia endius Reared on Irradiated Mediterranean Fruit Fly: Assessment of Parasitism in Field and Laboratory in Costa Rica

2006-2016: 10 years of Tsetse and Trypanosomosis Control in Burkina Faso: What Achievements, Impacts and Perspectives in Terms of AW-IPM and SIT Application

Prevalence of Screwworm Myiasis due to *Cochliomyia hominivorax* in Newborn Calves in the Pantanal, Brazil

Controlling the Spatio-temporal Dynamics of Tsetse Flies: Insights from a Mechanistic Model

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127	S. Pagabeleguem S. Ravel A. H. Dicko M. Vreysen A. Parker P. Takac K. Huber I. Sidibé G. Gimonneau	Burkina Faso
131	J. Bouyer F. L. Leka	Ethiopia
101		
164	S. Diallo M. T. Seck	CIRDES
183	J-B. Rayaisse A. G. Fall M. Bassene B. Sall M. Vreysen P. Takac A. Parker J. Bouyer G. Gimmoneau G. Cecchi O. Diall G. Wanda R. Argilés-Herrero M. Vreysen G. Cattoli G. Viljoen R. Mattioli J. Bouyer	FAO
207	W. Shereni N. E. Anderson L. Nyakupinda G. Cecchi	Zimbabwe
208	P. James M. Madhav G. Brown	Australia
214	I. Malele E. Lyaruu A. Geiger H. Nyingilili	Tanzania
217	L. Bergamo P. Fresia R. Madueño A. M. Azeredo- Espin	Brazil

Selection of the Best *Glossina* Strain Suited to Local Environmental Conditions of the Target Eradication Area

The Effect of Insecticide Impregnated Livestock Protective Fence of Selected Farmers in Three Kebeles of Arba Minch, Zuria and West Abaya District, Gammo Goffa, SNNPRS, Ethiopia

Quality Control of Sterile Males Provided in the Form of Irradiated Pupae to the Regional Projects of the Tsetse Eradication

A Staged, Progressive Pathway for the Control and Elimination of Tsetse-transmitted African Animal Trypanosomosis

Spatial Distribution and Trypanosome Infection of Tsetse Flies in the Sleeping Sickness Focus of Zimbabwe in the Hurungwe District

Buffalo Flies (*Haematobia irritans exigua*) Expanding their Range in Australia: The Opportunity for Area-wide Controls

Microbiota Diversity in *G. pallidipes* from Three Locations in Tanzania as Revealed by High Throughput Sequencing and their Implication for Tsetse Refractoriness

Populational Study of the New World Screwworm Fly in Peru, Cochliomyia hominivorax (Diptera: Calliphoridae)

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251	Y. Sanogo G. Demirbas-Uzel A. Parker M. Vreysen	Austria
253	R. L. Mach K. Bourtzis A. Abd-Alla H. Kariithi I. Meki M. Vreysen A. Parker	Austria
261	K. Bourtzis A. Abdalla M. Altuna M. V. Iriarte L. Marques	Uruguay
274	K. L. Dera	Ethiopia
275	A. A. Augustinos I. Meki A. Saridaki G. Demirbas G. Tsiamis M. M. van Oers M. Vreysen A. Parker A. Abd-Alla K. Bourtzis	Greece

African Animal Trypanosomosis (AAT) in the Kadiolo Circle: Entomological and Parasitological Survey Results

Analysis the Impact of Irradiation Treatment on the Establishment of Sodalis in Glossina morsistans morsitans Species

Identification of Cultivable Tsetse Gut Microbiota and Assessment of Their Probiotic Potential to Improve Fly Quality and Performance for the SIT

Studies of the Impact of Myiasis in Uruguay: Survey of Occurrence in the Department of Artigas during the Winter 2015

Mass-Rearing of *Glossina fuscipes fuscipes* in the Kality Insectary, Addis Ababa, Ethiopia

Contributing to the Resolution of Taxonomic Puzzles: Multiple Molecular Tools and Development of Protocols for the Accurate Identification of Tsetse Species

POSTERS RELATED TO SESSION 4 REGULATORY ISSUES AND SOCIO-ECONOMIC IMPACT

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27	Z. T. Ratovonomen- janahary O. Andriamampia- nina V. Rakotomanana	Madagascar
40	A. Raoelijaona I. N. Rakotomalala Andrianavalona	Madagascar
71	A. Mankad B. Loechel P. Measham	Australia
72	H. Kruger	Australia
74	A. Mankad B. Loechel	Australia
123	T. Capon J. Connor J. Kandulu P. Measham H. Parry F. Schwarzmueller M. Tam S. Whitten N. Schellhorn	Australia
168	Y. Bayram D. Dervişoğlu İçel	Turkey
282	D. Cugala S. Ekesi	Mozambique
291	D. Horta-Lopes A. Aguiar A. Dias M. Bettencourt R. Dutra R. Pimentel	ICIPE Portugal

Bactrocera dorsalis (Diptera, Tephritidae) Status in Litchis Orchard in the Eastern Part of Madagascar

Bactrocera dorsalis Survey on Mango Orchards in Western Madagascar

Social Factors Influencing the Area-wide Management of Fruit Fly and the Use of Sterile Insect Technology

Industry-driven Area-wide Management of Commercial Pests: Can it Work?

A Predictive Psychosocial Model of Acceptance for the Areawide Management of Fruit Fly and the Use of Sterile Insect Technology

Evaluating Costs and Benefits of Queensland Fruit Fly Areawide Management with Linked Spatial Population Simulations and Economic Cost-Effectiveness Models

Pesticide Management in Turkey

Non-host Status as a Component of Area-wide Pest Management for Banana and Papaya to Prevent *Bactrocera dorsalis* Infestation and Facilitate Market Access

The Importance of the Pervermac II Project in the Sustainable Use of Pesticides and its Impact on Human Health in the Macaronesian Area: The Azores Case

POSTERS RELATED TO SESSION 5 CLIMATE CHANGE, GLOBAL TRADE AND INVASIVE SPECIES

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78	C. Nyamukondiwa R. Motswagole	Botswana
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87	C. Chireceanu A. Teodoru A. Chiriloaie C. Teodorescu	Romania
93	M. Virgilio F. Theeten S. Du B. Hardy A. De Mûelenaere M. De Meyer	Belgium
96	H. Qin G. Yang C. Li	China
98	A. Botta C. Marín N. Sierras R. Cowles	Spain
100	A. Teodoru C. Chireceanu A. Chiriloaie	Romania
102	R. Seth R. K. Seth B. Patil R. Haveri S.Hanchinal Z. Mahtab Z. Khan	India
111	N. Loy N. Sanzharova	Russia

Use of Radiation in Phytosanitary Treatment and Control of Quarantine Pests

The Establishment of *Bactrocera dorsalis* Hendel (Diptera: Tephritidae) in Botswana

Development of the Sterile Insect Technique to Manage Confined Populations of *Drosophila suzukii* Survey on Exotic Fruit Fly Species in Romania

An Updated Multi-entry Identification Key to African Fruit Infesting Dacines (Diptera, Tephritidae: Dacini)

Large Phytosanitary Irradiation (PI) Dedicated E-beam Facility Set Up at Ports

Dealing with Spotted Wing Drosophila: New Insights on Suzukii Trap® Bait Performance World-wide

Monitoring of the Spotted-Wing Drosophila (Drosophila suzukii Matsumura) in Romania

Establishing a Generic Radiation Dose as Post-harvest Phytosanitary Treatment against Bruchid Species (Coleoptera: Chrysomelidae) Infesting Legumes

Application of Ionizing Radiation for Abatement with Insect Pests of Grain and Grain Products during Storage

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150	K. Nikolouli F. Sassú T. Enriquez P. Gibert F. Vavre L. Mouton D. Renault C. Stauffer C. Caceres K. Bourtzis R. Pereira	Austria
155	H. Colinet Z. Zhao	China
172	A. Firlej G. Lanouette M. Vreysen C. Caceres-Barrios F. Fournier V. Martel J. Brodeur	Canada
192	Z. Li F. Jiang Y. Zhang	China
204	M. Siddiqui	Australia
216	D. Horta-Lopes R. Pimentel R. Cabrera Pérez A. Baldé	Portugal
230	N. N. Yin	Myanmar

Managing Cold Tolerance and Quality of Mass-produced *Drosophila suzukii* Flies to Facilitate the Application of Biocontrol through Sterile and Incompatible Insect Techniques

Using Hydrogen Stable Isotope for Tracing of *Bactrocera dorsalis* Hendel (Diptera: Tephritidae) in China

Radiation Dose Responses of *Drosophila suzukii* (Matsumura) for Use in the Sterile Insect Technique (SIT)

Continuing Practices: the Researches and Applications of Molecular Identification on Economically Important Fruit Flies in China

Exposure of Insect Cells to Ionizing Radiation *In Vivo* Induces Persistent Phosphorylation of a H2AX Homolog (H2avB)

The presence of *Bactrocera dorsalis* Hendel (Diptera: Tephritidae) in the Cape Verde Archipelago

Relationship between Population Fluctuation of Oriental Fruit Fly *Bactrocera dorsalis* Hendel and Abiotic Factors in Yezin, Myanmar

POSTERS RELATED TO SESSION 6 NEW DEVELOPMENTS AND TOOLS FOR AREA-WIDE INTEGRATED PEST MANAGEMENT

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13	S. L. Wee S. Chinvinijkul K. H. Tan N. Ritsuo	Malaysia
17	S. Sim S. Geib	United States of America
19	E. S. K. Ofori S. A. Bawa M. Billah	Ghana
20	S. Geib S. Sim	United States of America
21	G. Sivakumar	India
22	M. Mansour	Syria

Effect of Some Volatile Oils and/or Gamma Irradiation on the Reproduction of the Greater Wax Moth, *Galleria mellonella* by Using Contact Method

Gamma Radiation Dose to Generate Inherited Sterility in Tomato Leaf Miner *Tuta absoluta* (Meyrick, 1917) (Lepidoptera: Gelechiidae)

A New and Very Potent Male Attractant for the Guava Fruit Fly, *Bactrocera correcta* (Diptera: Tephritidae)

Utilizing Loci Linked to Genetic Sexing Traits to Develop a Robust Diagnostic Assay for Discriminating Genetic Sexing Strain *Bactrocera cucurbitae* from Wild Individuals

Evaluation of Two Trap Types on the Capture of Fruit Flies (Diptera: Tephritidae) in the Assin North Municipality, Ghana

Characterization of Genetic Sexing Traits in Established Mass-rearing Lines for Transfer to Economically Important Tephritid Fruit Fly Species

Characterization of Bacterial Endosymbionts Associated with Leafhopper *Amrasca biguttula biguttula* and Their Role in Imparting Insecticide Resistance

Development and Reproduction of *Trichogramma cacoeciae* on *Ephestia kuehniella* Eggs: Important Factors to Consider

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31	M. De Cock M. Virgilio A. Willems P. Vandamme A. Augustinos A. De Sciscio L. Bota K. Bourtzis D. Cugala H. Delatte A. Manrakhan N. Papadopoulos C. Weldon	Belgium
33	M. De Meyer N. P. B. Kasturi Arachchilage S. K. Liyanagedari S. P. Aluthge N. E. M.	Sri Lanka a
35	Mahagollage A. Shoman M. El-Sheikh S. Elngar S. Ibrahim	Egypt
37	W. Sayed Z. Cai Y. Zhichao H. Wang Y. Li	China
38	H. Zhang Z. Yao A. Wang Y. Li Z. Cai B. Lemaitre	China
52	H. Zhang L. Zeller P. Kamel B. Woods E. Steiner D. Mcinnis B. Renton P. Crisp	Australia
57	G. Saour	Syria

Symbiont Diversity and Feeding Strategies in Insect Agricultural Pests

Efficient, User and Environment-Friendly Protein Bait Trap to Replace Spot Application in Area-Wide Management of Fruit Flies

Studying Stability and Mating Competitiveness of the Genetic Sexing Strain of Mediterranean Fruit Fly, *Ceratitis capitata* (Wied.)

Molecular Diversity, Function of Gut Bacteria on Improving Ecological Fitness of Sterile Male in *Bactrocera dorsalis* Adult Flies

The Gut Bacterial Community Homeostasis Regulation of Oriental Fruit Fly (*Bactrocera dorsalis*)

Development and Evaluation of an Automated Sterile Fruit Fly Dispersal System

Vegetable Oil Supplements to Improve the Basic Larval Artificial Diet for the Mass-rearing of the European Grapevine Moth (Lepidoptera: Tortricidae)

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58	R. K. Seth Z. Khan D. K. Rao M. Zarin R. Seth	India
69	B. Patil S. Hanchinal Z. Khan M. Zarin R. Haveri C. Malur S. Yelshetty R. K. Seth	India
79	B. Paranhos	Brazil
81	L. Shuttleworth O. Reynolds	Australia
84	T. Moadeli B. Mainali F. Ponton P. W. Taylor	Australia
88	R. Haveri S. Hanchinal C. Malur S. Surpur Z. Khan Z. Mahtab B. Patil S. Yeshetty R. Seth	India
99	A. Botta C. Marín N. Sierras	Spain
101	R. Cowles P. Rempoulakis P. W. Taylor B. Mainali	Australia
107	A. Andrew H. Hamden M. M'saad F. Dhaouadi A. Cherif	Tunisia

Sperm Behaviour as a Key Tool Ensuring Operative Efficiency of Radio-genetic 'F1 Sterility Technique' for Population Suppression of an Economically Serious Indian Pest, *Spodoptera litura* (Fabr.) (Lepidoptera: Noctuidae) in Laboratory and Field Simulated Cages

Ascertaining the Efficacy of Gamma Radiation on the Flower Webber, *Maruca vitrata* (Fabr.) (Lepidoptera: Crambidae) to establish Inherited Sterility Technique for the Management of this Pigeonpea Pest in India

Rearing *Fopius arisanus* (Hymenoptera: Braconidae) on Irradiated Eggs of *Ceratitis capitata*

The Effects of Bacterial Probiotics Fed to Larvae of Queensland Fruit Fly (*Bactrocera tryoni*): Do They Improve Fitness and Performance Under the Sterile Insect Technique?

Optimising Composition of High Performance Gel-based Larval Diet for Queensland Fruit Fly (*Bactrocera tryoni*) (Diptera: Tephritidae)

Optimization of Semi-synthetic Diet for Quality Mass-rearing of the Legume Pod Borer, *Maruca vitrata* (Fabr.) (Lepidoptera: Crambidae) Towards Employment of 'Inherited Sterility' Technique for Pest Suppression

Ceratitis capitata Control on Table Grapes in Spain by the Mass-trapping System Cera Trap®

Intrinsic and Synthetic Stable Isotopes for Reliable Identification of Wild and Mass-reared Queensland Fruit Flies in SIT Programmes

Effects of Gamma Irradiation on the Digestive Enzymatic Activities of Mediterranean Fruit Fly *Ceratitis capitata* (Diptera: Tephritidae)

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Probiotic Potential of *Ceratitis capitata* Gut Microbiota for the Enhancement of Sterile Insect Technique

Diversity of the Bacterial Community of the Reproductive System of the Mediterranean Fruit Fly, *Ceratitis capitata* (Diptera: Tephritidae) and the Trapping Activity of Metabolites from the Cultivable Species

Genomic Engineering of Fruit Fly Pest Species to Improve their Control by Biologically-based Methods

Pilot Studies on the Optimization of the SIT through Gamma Radiation for the Oriental Fruit Fly, *Bactrocera dorsalis* (Hendel) (Diptera: Tephritidae)

Distribution and Molecular Characterization of Endosymbiotic *Wolbachia* Bacteria Associated with Different Indian *Bactrocera* Fruit Fly Species

From BioLure to Magnet MED: Over 20 years of Suterra's Commitment to the Sustainable Control of the Mediterranean Fruit Fly

Expression Pattern of the Mediterranean Fruit Fly-specific Odorant-binding-protein CcapOBP83a-2 in Response to Gamma-irradiation

Effects of Gamma Radiation on the Sperm Viability of Mediterranean fruit Fly *Ceratitis capitata* (Diptera: Tephritidae)

Isolation and Characterization of Some *Bacillus thuringiensis* Strains from Tunisian Soil with Insecticidal Activity against Mediterranean Fruit Fly: *Ceratitis capitata*

Influence of Adult Diet in the Mating Performance and Longevity of *Bactrocera correcta* in Viet Nam

Determination of *Ceratitis capitata* (Mediterranean Fruit Fly) Feed Sources by Microbial Community Analysis

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Efficiency Enhancement of Sterile Insect Technique by Vectoring Entomopathogenic Fungi

New Molecular Tool for Improving SIT in *Ceratitis capitata*: Evaluation of Sperm Transfer During Mating by Absolute Quantification RT-PCR

Influence of Mating Status on the Pathogenicity of Providencia rettgeri against a Mass-reared Strain of the Mediterranean Fruit Fly *Ceratitis capitata* (Diptera: Tephritidae)

Probiotic Enrichment and Consequences on Hsp 70 and Cecropin Expression of Mass-reared Strain of *Ceratitis capitata* (Diptera: Tephritidae)

Molecular Regulation of Pupal Diapause Development and Termination in Chinese Citrus Fly *Bactrocera minax*

Identification and Manipulation of Symbiotic Bacteria
Associated with Bactrocera dorsalis and Bactrocera minax

Evaluation and Transfer of Quality Control Procedures from the Laboratory to Industrial Scales for the *Bactrocera* dorsalis Salaya1 Genetic Sexing Strain

The Complete Mitochondrial Genome of *Bactrocera tsuneonis* (Diptera: Tephritidae) by Next-generation Sequencing

Comparison of Bacterial Communities Associated with Bactrocera correcta (Diptera: Tephritidae) from Four Geographical Populations

The Sterile Insect Technique (SIT) as a Novel Approach to Study Polydnaviruses of Parasitic Wasps in their Hosts

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Advanced Integrated Pest Management - Chemical Control Via Microencapsulation

Optimization and Use of CRISPR/Cas9 to Engineer Spermmarked Strains of the Invasive Fruit Pest *Drosophila suzukii* Can Transgenic Flies Overexpressing Antioxidant Enzymes Blunt Radiation-induced Oxidative Stress, Improve Mating Success, and Inhibit Remating?

RapidAIM: Real-time Alerts of the Presences and Location of Fruit Fly

Raspberry Ketone Increases Survival and Reduces Sterile Male *Bactrocera tryoni* Froggatt Response to Cue-lure: Implications for Sterile Insect Technique Programmes

Impact of Isolated Fungi *Purpureocillium lilacinum* on the Digestive Enzymes of *Ceratitis capitata* Wiedemann (Diptera: Tephritidae)

Development of a Biotechnologically Enhanced Sterile Insect Technique to Fight Coleopteran Insect Pests

Distribution of Viruses Infecting Yams in Ghana and Nigeria

Effect of Gamma Radiation on Electrophoretic Total Protein Patterns of Peach Fruit Fly, *Bactrocera zonata*

Novel Approaches to Control Invasive Red Palm Weevil, Rhynchophorus ferrugineus (Olivier) Chemoreception as an Adaptive Trait in the Highly Invasive Fruit Fly Ceratitis capitata (Diptera, Tephritidae)

Identification and Manipulation of Symbiotic Bacteria
Associated with *Bactrocera dorsalis* and *Bactrocera minax*

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International Conference on Advances in Radiation Oncology (ICARO2), 20-23 June 2017, Vienna, Austria

International Conference on Fast Reactors and Related Fuel Cycles (FR17), Yekaterinburg, Russian Federation, 26-29 June 2017

Scientific Forum: Nuclear Technology for Human Health: Prevention, Diagnosis and Treatment, 19-20 September 2017, Vienna, Austria

Fourth International Conference on Nuclear Power Plant Life Management (PLiM), 23-27 October 2017, Lyon, France

International Ministerial Conference on Nuclear Power in the 21st Century, 30 Oct.- 1 Nov 2017., Abu Dhabi, UAE

International Conference on Physical Protection of Nuclear Material and Nuclear Facilities, 13-17 November 2017, Vienna. Austria

International Conference on Radiation Protection in Medicine: Achieving Change in Practice, 11-15 December 2017, Vienna, Austria

2018

Third International Conference on Human Resource Development for Nuclear Power Programmes: Meeting Challenges to Ensure the Future Nuclear Workforce Capability, 28-31 May 2018, Gyeongju, Republic of Korea

International Symposium on Uranium Raw Material for Nuclear Fuel Cycle: Exploration, Mining, Production, Supply and Demand, Economics and Environmental Issues (URAM-2018), 25-29 June 2018, Vienna, Austria

International Symposium on Plant Mutation Breeding and Biotechnology, 6-10 August 2018, Vienna, Austria

International Symposium on Communicating Nuclear and Radiological Emergencies to the Public, 1-5 October 2018 Vienna, Austria

International Conference on Challenges Faced by Technical and Scientific Support Organizations (TSOs) in Enhancing Nuclear Safety and Security, 15-19 October 2018, Brussels, Belgium

27th IAEA Fusion Energy Conference (FEC-2018), 22-27 October2018, Ahmedabad, India

Symposium on International Safeguards, 5-9 November 2018, Vienna, Austria

Ministerial Conference on Nuclear Science, Technology and Applications for Peaceful Uses, November 2018, Vienna, Austria

International Conference on Global Radioactive Material Security Governance, 3-7 December 2018, Vienna, Austria

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