

Third FAO-IAEA International Conference on Area-wide Management of Insect Pests:

Integrating the Sterile Insect and Related Nuclear and Other Techniques

IAEA Headquarters Vienna, Austria

22-26 May 2017

Ref. No.: IAEA-CN-248

Announcement and Call for Papers

A. Background

The successful implementation of area-wide pest management programmes integrating the use of sterile insects with other control technologies against a number of key plant, veterinary, and medical insect pests, such as various species of fruit flies, moths, screwworms, tsetse flies and, more recently, disease-transmitting mosquitoes, clearly demonstrates a peaceful application of nuclear technology. The Food and Agriculture Organization of the United Nations (FAO) and the International Atomic Energy Agency (IAEA) have over the last 50 years played, and will continue to play, a critical role in supporting their Member States in the development and application of these environmentally friendly pest management methods.

The concept of area-wide integrated pest management (AW-IPM), in which the total population of a pest in an area is targeted, is central to the effective application of the sterile insect technique (SIT) and is increasingly being considered for related genetic, biological and other pest suppression technologies. Insect movement, occurring sometimes over long distances, is generally underestimated.

As a consequence, most conventional pest management is implemented as a localized or field-by-field, uncoordinated action against segments of a pest population, resulting very often in an unsustainable spiral of insecticide application and eventual resistance of the pest against the pesticides used. On the other hand, an AW-IPM approach involves a preventive rather than a reactive strategy, whereby all individuals of the pest population are targeted in time and space, requiring in the longer term fewer inputs and resulting in more cost-effective and sustainable pest management.

In June 1998 and May 2005, FAO and the IAEA organized, respectively, the First and the Second International Conferences on Area-wide Control of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques with the participation of, in each case, around 350 participants from close to 70 Member States and 5 international organizations. Both events greatly increased awareness about area-wide approaches for managing important insect pests. Since then, many new technical innovations have emerged and are being validated, such as the development of the SIT package for mosquitoes, and a better regulatory framework is being adopted for integrating the SIT with other pre- and post-harvest pest management methods. In addition, the driving forces in this field are increasingly relevant to a majority of Member States, justifying a third conference after 12 years, and are listed below:

- Growing insect pest problems due to intensification of crop-livestock production systems
- More frequent invasions of exotic agricultural pests and disease vectors into new regions due to climate change and globalization
- Increased outbreaks of diseases (e.g. dengue, chikungunya, Zika fever) that are transmitted by mosquitoes
- Increasing public demand for more efficient, sustainable and environmentally friendly pest management methods
- Growing resistance of pest insects to insecticides
- Demands to apply ever stricter sanitary/phytosanitary trade regulations for countries to be able to access international export markets with their agricultural products
- Enhanced potential to improve biologically based pest management methods in view of recent major developments in molecular genetics and microbiology leading to new biotechnological tools and a better understanding of the role of symbionts and other microbiota associated with insects

B. Objectives

The purpose of the conference is to familiarize participants with new developments, trends and challenges related to insect pest management, both in the fields of agriculture and public health, and to foster a broad exchange of information between sanitary and phytosanitary regulatory authorities, operational AW-IPM programme managers, scientists, human, animal and plant protection specialists, pest management experts, public health practitioners, medical personnel and epidemiologists, as well as the private sector.

The conference and its deliberations and conclusions will provide useful feedback to the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture and, in particular, to its future programme to address Member States' needs in the rapidly evolving field of insect pest management, which is exposed to such drivers as those described in Section A above. It will also highlight the challenges faced by Member States, such as new emerging pest and disease problems, and the global spread and outbreaks of invasive species in new regions.

C. Format and Topics

The structure of the conference will be based on selected plenary lectures, thematic sessions with keynote addresses, contributions in the form of oral presentations and posters, as well as panel discussions. A limited amount of space will be available for commercial vendors' displays/exhibits during the conference.

A series of plenary sessions will address the topics listed below, and the conference programme will include invited keynote speakers from academia and industry, oral presentations and panel discussions. There will be ample time for viewing of posters, and for discussion and interaction among the participants. A final round table session will discuss the main conclusions drawn in the plenary sessions and will summarize recommendations for future development.

The scope of the conference is meant to cover, but is not limited to, the following topical areas:

- Operational AW-IPM programmes
- Economic impact and regulatory issues
- Mosquitoes and human health
- Animal health
- Climate change, global trade and invasive species
- Tools for integrated programmes, geographic information systems and new developments

D. Target Audience

Area-wide insect pest management programmes are logistically complex and managerially intensive, and thus require a broad coalition of committed stakeholders to ensure success. These critical, but largely non-technical issues often determine the success or failure of area-wide programmes. This third conference will therefore address not only the technical but also the managerial and socio-economic components of operational area-wide programmes. Accordingly, the target audience for this conference comprises but is not limited to:

- Area-wide insect pest management programme managers and professionals
- Stakeholders involved in applications of insect pest management
- Human, animal and plant protection specialists

- Public health practitioners, epidemiologists and medical personnel
- Entomologists, geneticists and scientists engaged in basic and applied research related to insect pest management
- Policymakers and officials from sanitary and phytosanitary regulatory authorities

E. Expected Outcomes

Enhanced awareness among senior managers in IAEA and FAO Member States of the potential of the sterile insect and related techniques to manage, in a more sustainable and environmentally friendly way, some major insect pests of plant, veterinary, and medical importance.

Information widely exchanged and networking among participants on the AW-IPM of major pest insects, as well as thorough discussion of the trends and driving forces in this field of insect pest management. This includes developments in the rapidly evolving fields of vector management, microbiology, biotechnology and molecular genetics, and in particular some controversial approaches based on genetically modified organisms, and their implications for the role of the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture in this field, in which it has been the leading player.

F. Abstracts, Presentations and Proceedings

All participants who wish to give presentations (orally or in the form of posters) at the conference must submit an abstract on one of the topics listed under Section C. The abstract should give enough information on the contents of the proposed paper to enable the Programme Committee to evaluate it. Introductory and general matters should not be included. Due to the time limitation for oral presentations, only a selected number of abstracts will be accepted for oral presentations. The accepted abstracts will be reproduced in unedited form in the electronic Compilation of Abstracts, which will be distributed to all participants at the conference.

F.1 Submission of Abstracts

Anyone wishing to present a paper at the conference must submit an abstract **in electronic format** directly to the IAEA. Instructions on how to upload the abstracts to the conference's web browser-based file submission system (IAEA-INDICO) will be available on the conference web page (see Section P) as of **April 2016**. The abstracts **must** be submitted through this system by **31 October 2016**. No other form of submission will be accepted.

The submission should indicate to which of the topics outlined in Section C above it relates and the abstract content should be sequenced accordingly:

- Background
- Methodology

- Results; and
- Conclusion.

The abstract:

- should have a maximum of 500 words (including the title);
- should not include more than one figure, graph or table;
- should not include references; and
- must be written and submitted using the abstract template available from the conference web page (see Section P).

In addition, authors must submit the following two forms to their appropriate governmental authority (see Section G) for transmission to the IAEA. These forms must be received by the IAEA no later than 31 October 2016:

- Participation Form (Form A); and
- Form for Submission of a Paper (Form B).

IMPORTANT: The electronically received abstracts will be considered by the Programme Committee only if these two forms have been received by the IAEA through the established official channels (see Section G).

Authors should state to which of the topics outlined in Section C their contribution relates.

F.2 Acceptance of Abstracts for Oral or Poster Presentation

The Secretariat reserves the right to exclude abstracts that do not comply with its technical or scientific quality standards and/or that do not apply to one of the topics in Section C above.

Authors will be informed by the end of December 2016 as to whether their abstracts have been accepted for oral or poster presentation. The abstracts, if accepted by the Programme Committee, will also be reproduced unedited in the electronic Compilation of Abstracts, which will be distributed to all participants at the beginning of the conference.

F.3 Proceedings

It is intended that some of the oral or poster presentations at the conference will form the basis of a new textbook to be published by an external publisher and that all participants will receive a free copy of this book. Participants with contributions selected for publication in the book will receive timely instructions for the preparation and submission of their papers.

G. Participation and Registration

All persons wishing to participate in the conference are requested to **register online in advance** through the conference web page (see Section P below). In addition, they are required to send a

completed Participation Form (Form A) and, if applicable, the Form for Submission of a Paper (Form B) and the Grant Application Form (Form C) to their competent national authority (e.g. Ministry of Foreign Affairs, Ministry of Agriculture, Ministry of Science and Technology, Permanent Mission to the IAEA or National Atomic Energy Authority), or to one of the organizations invited to participate, for subsequent electronic transmission to the IAEA (Official.Mail@iaea.org).

A participant will be accepted only if the Participation Form is transmitted through the competent national authority of an FAO or IAEA Member State or by an organization invited to participate.

Participants whose official designations have been received by the IAEA will receive from the IAEA further information approximately three months before the opening of the conference. This information will also be posted on the conference web page.

H. Expenditures and Grants

No registration fee will be charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the conference. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the conference.

If Governments wish to apply for a grant on behalf of one of their specialists, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are:

- 1. Submitted by **31 October 2016**;
- 2. Accompanied by a completed and signed Grant Application Form (Form C); and
- 3. Accompanied by a completed Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually **covers only part of the cost of attendance**.

I. Distribution of Documents

A preliminary programme will be posted on the IAEA conference web page (see Section P) as soon as possible. The final programme and the electronic Compilation of Abstracts will be available free of charge upon registration at the conference.

J. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the conference. Interested parties should contact the Scientific Secretariat by email at: <a href="https://doi.org/10.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.1001/nc.nd/4.10

K. Working Language

The working language of the conference will be English. All communications and papers must be sent to the IAEA in English.

L. Conference Venue and Accommodation

The conference will be held at the IAEA's Headquarters in Vienna, Austria. Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for conference participants will be listed on the conference web page (see Section P). Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying cancellation fees or for re-booking and no shows.

M. Visas

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

N. Key Deadlines

Submission of abstract (including Forms A and B)

31 October 2016

Submission of grant application (Forms A and C)

31 October 2016

Notification of acceptance of abstract

end of December 2016

O. Conference Secretariat

General contact details of the Conference Secretariat:

International Atomic Energy Agency Vienna International Centre PO Box 100 1400 VIENNA AUSTRIA

Tel.: +43 1 2600 Fax: +43 1 26007

Email: Official.Mail@iaea.org

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Mr Rui Cardoso Pereira

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Administration and organization:

Ms Martina Neuhold

Conference Services Section Division of Conference and Document Services Department of Management International Atomic Energy Agency IAEA-CN-248

Tel.: +43 1 2600 21314

Email: AWConf2017@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries of the conference and correspondence on administrative matters to the IAEA Conference Services Section.

P. Conference Web Page

Please visit the following web page regularly for new information regarding this conference: http://www-pub.iaea.org/iaeameetings/50813/Third-FAO-IAEA-International-Conference-on-Area-wide-Management-of-Insect-Pests-Integrating-the-Sterile-Insect-and-Related-Nuclear-and-Other-Techniques



Participation Form

Third FAO-IAEA International Conference on Area-wide Management of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques

IAEA Headquarters, Vienna, Austria 22–26 May 2017

To be completed by the participant and sent to the competent official authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA), Vienna International Centre, PO Box 100, 1400 Vienna, Austria, either electronically by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed).

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

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Form for Submission of a Paper

Third FAO-IAEA International Conference on Area-wide Management of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques

IAEA Headquarters, Vienna, Austria 22–26 May 2017

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Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 31 October 2016

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Grant Application Form

Third FAO-IAEA International Conference on Area-wide Management of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques

IAEA Headquarters, Vienna, Austria 22–26 May 2017

To be completed by the applicant and sent to the competent official authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA), Vienna International Centre, PO Box 100, 1400 Vienna, Austria, either electronically by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed).

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