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منظمة  
الغذية والزراعة  
للأمم المتحدة

# COMMISSION ON PHYTOSANITARY MEASURES

**Twelfth Session**

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**Written reports from relevant international organizations - Report from  
the Joint Food and Agriculture Organization / International Atomic Energy  
Agency Division of Nuclear Techniques in Food and Agriculture**

**Agenda item 14.2**

**Prepared by the joint FAO/IAEA Division**

***English only*<sup>1</sup>**

<sup>1</sup> Revision processed 2017-04-02

**Report from the Joint Food and Agriculture Organization / International Atomic Energy Agency Division of Nuclear Techniques in Food and Agriculture to CPM-12 (2017)**

1. The International Atomic Energy Agency (IAEA), through its Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, has been actively supporting the Secretariat of the International Plant Protection Convention (IPPC) for the last twelve years to develop and review International Standards for Phytosanitary Measures (ISPMs) and to improve phytosanitary capacity of IPPC Contracting Parties.
2. The Joint FAO/IAEA Division continues to support the *Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies* (TPFF) and the *Technical Panel on Phytosanitary Treatments* (TPPT).
3. The Joint FAO/IAEA Division supported the *Reorganization and harmonization of fruit fly standards*, presented to the Standards Committee (SC) in May 2016.
4. In 2016 it also participated in the development and has been assisting with the stewardship of the adopted ISPM 37 (at CPM 11, 2016) on *Determination of host status of fruit to fruit flies (Tephritidae)*.
5. In support of the TPPT, the Joint FAO/IAEA Division has provided expertise and helped review supporting data to facilitate the successful adoption in 2016 of two Annexes of ISPM 28 on “Vapour heat treatment for *Bactrocera melanotus* and *B. xanthodes* on *Carica papaya*” and on “Irradiation treatment for *Ostrinia nubilalis*”. Also a Diagnostic Protocol on the “Genus *Anastrepha* Schiner” was adopted as DP 09 as part of ISPM 27.
6. In addition the Joint FAO/IAEA Division has offered to host and sponsor the TPPT meeting in Vienna in July 2017.
7. In terms of development of technical materials to support the implementation of the ISPMs, upon the request of FAO and IAEA Member States the following materials were produced in 2016:
  - a. *FAO/IAEA Guideline for packing, shipping, holding and release of sterile flies in area-wide fruit fly control programmes*<sup>1</sup>.
  - b. *FAO/IAEA Guidelines for the use of mathematics in operational area-wide integrated pest management programmes using the sterile insect technique with a special focus on Tephritid fruit flies*<sup>2</sup>
  - c. *“FAO/IAEA Manual to Differentiate Wild Mediterranean Fruit Flies *Ceratitidis capitata* Wied.) from Non-irradiated (Fertile) and Irradiated (Sterile) VIENNA Temperature Sensitive Lethal Strain Flies*”<sup>3</sup>
8. Publication of a Special Issue of the peer reviewed journal, Florida Entomologist, (<http://journals.fcla.edu/flaent/issue/view/4278>) with 36 scientific papers presents the accomplishments of the 5 year Coordinated Research Project. The special issue publication; “Development of Generic Phytosanitary Irradiation Doses for Arthropod Pests”, provides new data on 34 species in 10 families of insects, 3 families of mites and 1 family of snails. Results of several large-scale confirmatory tests also support

<sup>1</sup> FAO/IAEA Guidelines: <http://www-naweb.iaea.org/nafa/ipc/public/Guideline-for-Packing.pdf>

<sup>2</sup> FAO/IAEA Guidelines: <http://www-naweb.iaea.org/nafa/ipc/public/tephritid-fruit-flies-manual.pdf>

<sup>3</sup> FAO/IAEA Guidelines: <http://www-naweb.iaea.org/nafa/ipc/public/Cc-Differentiation.pdf>

Phytosanitary Irradiation (PI) doses with the high degree of confidence necessary to gain regulatory approval. New PI treatments against specific pests are reported and generic dose treatments are proposed for moths, butterflies, mealybugs and weevils.

9. In terms of capacity building, the Joint FAO/IAEA Division has devoted part of its technical assistance delivery to regulatory aspects and facilitating the implementation of the ISPMs in developing countries through regional workshops and technical meetings:
  - a) In 2016, five FAO/IAEA regional training courses and workshops were conducted on “*Taxonomy and Identification of Fruit Fly Pest Species for Southeast Asia*”, “*Fruit Fly Detection, Surveillance and Area-Wide Integrated Pest Management for Balkans and Eastern Mediterranean*”, “*Strengthening Fruit Fly Surveillance and Control Measures Using the Sterile Insect Technique in an Area-Wide and Integrated Pest Management Approach for the Protection and Expansion of Horticultural Production in Latin America*”, “*Advancing the Cryptic Species Resolution for South American Fruit Fly in Latin America*” and “*Geographical Information Systems (GIS) and Databases for Mediterranean Fruit Fly in the Middle East*”.
  - b) For 2017, an FAO/IAEA interregional course on “*Area-wide Integrated Pest Management of Native and Exotic Insect Pests*”, and six FAO/IAEA regional courses are planned on “*Free Open Source Software for Geographic Information System (GIS)*”, “*Data Management Applied to Fruit Flies in Southeast Asia*” “*Geographical Information Systems (GIS), Databases and Information Analysis in Latin America*” and “*Non-native Fruit Flies of Quarantine Significance*”, “*Establishment and Harmonization of Fruit Fly Trapping Surveillance Networks and Quality Control in Latin America*”, “*Fruit Fly Detection, Surveillance, and Databases and Data Analysis in Africa*” and “*Non-native Fruit Flies of Quarantine Significance*” and *Quarantine and International Standards for Phytosanitary Measures for Fruit Flies in Southeast Asia*”.
10. Participation by presenting “*Stop those fruit flies: Bactrocera dorsalis, Bactrocera zonata and Ceratitis capitata*” at the side event “*Stop those pests! Plant health’s essential role in eradicating hunger and eliminating poverty*” that took place during the Forty-third Session of the Committee on World Food Security (CFS), organized by the International Plant Protection Convention (IPPC) Secretariat and the Australian Department of Agriculture and Water Resources
11. Together with staff from the Standard-setting Unit of the IPPC Secretariat, the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture received an award for exceptional teamwork for the cross-UN agency team and on “*Joint Work on Fruit Fly Standards*”. The award recognizes the exceptional teamwork that has had a major impact on meeting the UN Sustainable Development Goals and the FAO strategic objectives.