Regional Symposium

on the Management of Fruit Flies in Near East Countries

Hammamet, Tunisia, 6-8 November 2012

Background

Globally, fruit flies (Diptera, Tephritidae) are one of the most agriculturally important families of insects. About 70 species of fruit flies are considered important agricultural pests, causing very high losses every year. Fruit flies attack fruits of many important crops, including for example citrus, mango, apples, peaches, apricots as well as some vegetables (especially Cucurbitaceae), seed crops and also many wild plants. The major fruit fly genera present in Near East countries are Ceratitis, Bactrocera, Dacus and Rhagoletis.

The economic effects of fruit flies include not only the direct loss of yield and increased control costs, but also the loss of export markets and/or the cost of establishing and maintaining phytosanitary measures, such as Fruit Fly Free Areas, areas of low pest prevalence, treatment facilities and supersession/eradication programmes. In many countries, the exportation of most commercial fruits is severely restricted by stringent phytosanitary measures aimed at preventing the introduction and spread of fruit fly species.

Several species of Tephritidae have been spread by man either intentionally or accidentally beyond their natural habitat. Mediterranean countries, including Near East countries, have also become highly vulnerable to the introduction of invasive alien fruit fly species with the intensification of the international fruit trade. So far, the invasive fruit flies in the Near East are members of the genus Bactrocera: Bactrocera zonata and B. cucurbitae. The precise date of their accidental introduction/invasion into the region is unknown, but they are of

Asian origin. The pest is currently widespread across many countries in the region, causing huge losses to various commercial crops and restricting access to markets.

However, the Near East, including North Africa (except Sudan), is still free from the invasion of, for example, Ceratitis cosyra, Bactrocera latifrons and the most devastating pest, B. invadens, which is very widespread in Africa. But, with the globalization of trade, the increase of human movement carrying infested fruits, poor or absent surveillance systems, insufficient staff capacity in identification, resources and the limited infrastructure of the quarantine facilities in many countries, especially in the African continent, the threat of trans-regional invasion across Africa is becoming more imminent. A joint effort within and between the different regions of Africa, the Near East and South Europe is becoming increasingly crucial if the war against fruit flies is to be won.

The aim of this Symposium was to provide a common forum for researchers, phytosanitary regulatory and technical authorities, experts from extension services or advisory bodies, and the fruit and crop protection industry, to share their knowledge on fruit fly biology, phytosanitary and management measures in order to identify gaps in knowledge, research needs and actions to take in case of new introduction in the Near East region (including North Africa), in close collaboration with farmers.

Symposium activities

The Regional Symposium on the Management of Fruit Flies in Near East Countries, Hammamet, Tunisia, 6-8 November 2012, was organized jointly by FAO, FAO-IAEA, AAEA, NEPPO, IOBC North Africa Commission, DG Plant Protection in Tunisia and the Tunisian Association of Plant Protection (ATPP).

The symposium included several key speakers, oral presentations, posters, a round table and a field trip, and dealt mainly with the following issues:

- brief background, history and geographical distribution of fruit flies;
- biology, ecology, life cycle, host preferences and nature of damage of fruit flies;
- detection and phytosanitary measures (pathways);
- management strategies:
  - surveillance;
  - semiochemicals (mass trapping, bait stations);
  - sanitation (good agricultural practices);

  - Sterile Insect Technique (SIT);
  - Male Annihilation Technique (MAT);
  - chemical control (present status of available active substances);
- contingency measures to respond to outbreaks;
- problems outside the Near East region, especially in Africa, Asia and South Europe;
- round table: conclusions, recommended IPM-fruit flies strategies;
- technical and tourist trip to Cap bon (Centre Technique des Agrumes – CTA), Tunisia.

The symposium provided a common forum for researchers, regulatory authorities, experts from extension services or advisory bodies, and the crop protection industry, NGOs, and many private sector and regional organizations, etc. It was a good occasion to share knowledge on fruit fly biology, phytosanitary and control measures, particularly surveillance/ monitoring, gaps and IPM strategy. Therefore, the available information related to the integrated management (IPM) of fruit flies was collected from different parts of the globe but especially from the Mediterranean region.

More than 100 participants took part in the symposium, coming from 23 countries in the Middle East, North Africa, Europe, Africa and Asia.

The activities of the symposium were developed according to the attached agenda (Annex I). The symposium took place under the patronage of HE Minister of Agriculture in Tunisia who opened the symposium in the presence of a representative of the FAO Sub-regional Office for North Africa in Tunisia (SNE), the DG of Plant Protection in Tunisia as well as the representatives of different regional organizations participating in the symposium.

A summary on the different sessions is attached in Annex II and abstracts as well as presentations in the Annex III.

All the information related the Symposium, including the agenda and list of participants, are uploaded on the website of FAO-AGP, RNE, FAO-IAEA, AAEA, NEPPO, IOBC and other organizers

Conclusions and recommendations

During a round table session, the conclusions and recommendations of a similar symposium on the management of fruit flies, held in Chania, Greece in July 2012, were presented and briefly discussed. However, based on numerous observations, discussions and lessons learnt during the present Symposium, several points were concluded and recommended. They are focused on the necessity to enhance the research and application of GAPs, pheromone traps,

mass trapping, MAT and attract and kill approach as part of the IPM/IPPM system, as well as to enhance the collaboration with other national, regional and international societies, institutions and organizations. FAO was invited to assist the above-mentioned activities and to facilitate, in particular, the regional and international collaboration as part of its SCPI strategy. The RO proposed the outline of a possible regional project on the management of fruit flies in the Near East region.

At the end of the symposium:

- An open meeting took place to discuss the activities and the future programme of IOBC North Africa Commission and the possibility to cover Middle East countries;
- Closing session: presided by the DG/Plant Protection-Tunisia, Professor Bouzid Nasraoui with the presence of DG/AEAA, the Regional Director of Agriculture and participants. Agreement was reached about the full success of the symposium (quality and number of participant, presentations, discussion and organization). Thanks were addressed to the Tunisian authorities, participants and organizers. The attestation of participation, together with a CD containing symposium data, was distributed to participants in a very happy atmosphere.

For more of information

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