

## **Findings and Conclusions of the Date Palm Regional Workshop on Ecosystems based IPM for Date Palm in the Gulf Countries**

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### **Abstract**

Diseases such as Bayoud and pests such as the Red Palm Weevil are threatening the existence of the date palm.

The Red Palm Weevil (RPW), *Rhynchophorus ferrugineus* Olive, is considered one of the major pests of the date palm in the Middle East where it causes severe damage. During a period of 5 years, the RPW affected trees in the UAE (as an example) jumped from 1,300 (1990) to 44,000 (1995). The rate of infested trees in this country alone in 2000 was 3.2 percent and the buried trunks were more than 12,000. This pest infestation is annually doubling with a rate of 2.02 and constitutes a threat to the date industry in the whole date growing regions.

Infestation by the RPW was first detected in UAE in 1985. The infestation must have originated from the southern part of the Arabian Peninsula where the weevil was accidentally introduced in the mid eighties from Pakistan.

A regional workshop on Date Palm Ecosystem based IPM for Date Palm in the Gulf countries was held in Al Ain during 28 – 30 March 2004, in collaboration between FAO, UNDP, UAE University and the UAE Ministry of Agriculture and Fisheries.

The present presentation will cover the aims of the workshop, main topics and subjects discussed, and final conclusion and recommendation made.

## I. Introduction

Date Production is a world agriculture industry producing about 5.4 million tons of fruit (FAO Trade Stat. 2002). The date fruit, which is produced largely in the hot arid region of South West Asia and North Africa, is marketed all over the world as a high value confectionery and fruit crop and remains an extremely important subsistence crop in most of the desert regions. A decline in productivity of the industry in the traditional growing areas over the last decade, due to political, socio-economic and technical constraints, has been observed. Losses due to disease and pests can sometimes reach 30 to 50 percent of date production. Furthermore, some diseases such as Bayoud and some pests such as the Red Palm Weevil are even threatening the existence of the date palm, if an effective control measures is not urgently adopted.

Indeed, this beloved tree is facing many serious problems related to low yields, the existence of non suitable varieties, an industrial and marketing problems and most dangerously the spread of diseases such as the Bayoud disease in North Africa and the spread of the Red Palm Weevil in the Middle East countries. Recently, a new disease called Brittle Leaf Disease is spreading in Tunisia and Algeria, causing a severe damage to the date industry in these countries.

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In light of the above-mentioned problems and obstacles FAO has been engaged from 1965 on a long-term basis to develop the date palm production, protection, propagation and marketing in many parts of the world. Many conferences and projects were implemented accordingly in order to develop this important crop through out the world.

The latest FAO expert consultation on date palm pest problems and their control was also held in Al Ain / UAE during 22 – 26 April 1995 (8 years ago). The consultation was coorganized by AGPP and RNE.

## II. Workshop Aims

Date Palm Regional Workshop on Ecosystem based IPM for Date Palm in the Gulf Countries is to provide an opportunity for updating scientific information on different aspects of date



palm protection and IPM measures. Date Palm scientists and experts from around the world will be able to exchange their know-how and experiences.

This workshop aims to conducting an assessment of prevalent pests in the Arab Gulf Cooperation countries and possibly Iraq and Yemen and IPM strategies for their management, and to develop an ecosystem based approach, suitable in the specific area to reduce the impact of such pests.

Another important aim of the workshop is to present and compare the date producing countries experiences and to foster International technical cooperation on date palm. Several senior officials, scientists and technicians from the GCC, Iraq and Yemen, will be invited to attend the workshop.

### **III. Workshop Period & Venue**

Period : Sunday (28), Monday (29) and Tuesday (30) March 2004.

Venue : Hotel Hilton, Al Ain, United Arab Emirates.

### **IV. Content**

The main topic of the Date Palm Regional Workshop on Ecosystem based IPM for Date Palm in the Gulf Countries can be summarized as follows:

1. Red Palm Weevil.
2. Letter Date Moth and Dubas bug.
3. Other pests.  
The above will be presented as Invited Papers from renowned specialists in the field.
4. Round Table Discussions on the above pests with IPM strategies and tactics to control them.
5. Country Reports on RPW, and other main pests.
6. Quarantine Measures on how to protect other countries from the RPW and other pests.
7. Examples of IPM strategies in other palm species systems.

### **VII. Venue & patronage of the Workshop**

The workshop was under the patronage of H.H. Sheikh Nahayan Mabarak Al Nahayan, Minister of Higher Education and Scientific Research, Chancellor of the UAE University.

The workshop was organized by the DPGN, DPFA, the UAE University, and the Ministry of Agriculture and Fisheries with the technical and financial support of FAO / AGPP.

### **VI. Conclusions and Recommendations**

#### **1. Conclusions**

Date palm is the most important horticultural crop, recognized for its social and economic importance in the Gulf States including the Gulf Cooperation Council (GCC) countries, Iraq and Yemen. This region is one of the best ecosystems for date palm production.

The workshop **recognized** insect pests, as a major constraint for the production of date palm in the Gulf and **concluded** the presence of two categories of insects pests associated with date palm in this ecosystem:

- **Category 1:** Introduced insects such as Red Palm Weevil (RPW) which apparently was introduced in the 1980s, in the Gulf States from Asian countries. Actually, RPW is restricted only to the G.C.C countries but it has never been reported in Iraq and Yemen. The introduction and the dissemination of this insect is due to the international trade of date palm in the region and the failure of the quarantine system.
- **Category 2:** Outbreak of indigenous pests such as Dubas bug, *Ommatissus binatatus*, recognized as a major problem in Iraq and it is becoming important in Oman and Yemen; spider mites, *Tetranychus.sp* and dust mites *Oligonychus sp.* are becoming serious palm and fruit pests in Saudi Arabia, UAE and Yemen; the inflorescence beetle, *Macrocoma. sp*; and stem borers, *Oryctes.sp* are becoming a serious pests in the Gulf States. Outbreaks of indigenous pests followed a significant changes in the ecosystem due to the misuse of pesticides: application of cocktail of pesticide on calendar basis instead of regular insect monitoring.

## 2. Recommendations

The workshop **recognized** the needs for an ecosystem based Integrated Pest Management for date palm in the Gulf States and **recommends** the following actions:

### I- Research and Development to support regional IPM for date palm.

This action is considered as a priority for an IPM strategy and requires the constitution of a regional scientific committee to:

- Develop homogenous descriptions of the symptoms and the epidemiology of date palm pests; and initiate a regional survey to determine their distribution and their economic importance;
- Develop a new biological pest control strategy in the region by developing an international center for natural enemies, expanding the existing biological pest control units by improving rearing and sterile insect techniques, exploring the possibility to introduce insect pollination of date palm and establishing the regulatory requirement for biological pest control;
- Develop cultural practices including field sanitation and promote the industry for processing date production –by-products; and
- Develop harmonized methods to introduce and to field study natural products including pheromones, repellants, Kairomones , bio-pesticides and pesticides including their technical and economic feasibility for date palm in the Gulf States;



**II- Implementing institutions of IPM for date palm activities.** This is an important IPM policy component, which requires:

- The development of quarantine systems to prevent the introduction and the dissemination of quarantine pests in the Gulf States and to establish a quarantine pest list of date palm, in the Gulf States, based on International Standards for Phytosanitary Measures;
- The establishment of national/regional committee for the management of pesticides (registration, resistance tests, rational field application and elimination of obsolete stocks) on date palm ; and
- The development of a training and awareness program for plant protection extension agents and officers, on the detection , the early diagnosis of insect pests and their control methods and Farmer Field School to ensure their application by the farmers;

**III- Global network to support IPM for date palm.**

- The international organizations should assist the Gulf States to i)  
develop a network for promoting information exchange in the area of IPM for date palm, by developing a roster of palm and date palm IPM specialists, updating international knowledge on IPM of palms and date palm, promoting regular regional meetings and field trips and ii) find the necessary funds to implement the recommendations of this workshop.