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Regional plant production and protection activities in the Near East and North Africa region

May–December 2022

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Foreword

Documenting information and activities of the project's outputs is necessary for monitoring and evaluation, internal reporting, as well as for building a database that can be referred to at any time and sharing it on a broader level with decision-makers and stakeholders to show the volume of work accomplished by the Food and Agriculture Organization of the United Nations (FAO) Near East and North Africa (NENA) regional office.

This is the second report on the NENA region's plant production and protection activities implemented from May 2022 to December 2022. The present information categorized the achievements into six different pillars: regional projects and programmes, plant health, plant production, regional congresses, One Health activities and the Arab and Near East Plant Protection Bulletin.

In addition to the published reports, we participated in many social media, such as posting hot news of events on Twitter and interviews with newsletters and magazines.

Acknowledgements

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Abbreviations and acronyms

FAO	Food and Agriculture Organization of the United Nations
ACSAD	Arab Centre, for the Studies of Arid Zones and Drylands
AOAD	Arab Organization for agricultural Development
CIHEAM	International Centre, for Advanced Mediterranean Agronomic Studies
FAO RNE	FAO Regional Office for Near East and North Africa
FAO SNE	FAO Subregional, Office for North Africa
HHP	highly hazardous pesticide
ICBA	International Center for Biosaline Agriculture
ICARDA	International Center for agricultural Research in the Dry Areas
KFU	King Faisal University
KACST	King Abdulaziz City for Science and Technology
NEPPO	Near East Plant Protection Organization
NSP	FAO Plant Production and Protection
PRS	Phoenix Research Station
WHO	World Health Organization
FAW	fall armyworm
RPW	red palm weevil
FFS	farmer field school
LoA	letter of agreement
GA	Global Action

I. Regional projects and programmes

1. FAO regional red palm weevil (RPW) eradication programme

» Missions, workshops and meetings

The farmer field school: an approach to strengthen small-scale farmers' role in red palm weevil (RPW) control in egypt

Egypt 19-23 June 2022

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FAO Director of Plant Production and Protection (NSP), Jingyuan Xia conducted a five-day mission to Egypt to explore FAO efforts in the field of plant production and protection. The mission mainly focused on the progress of activities under the Fall armyworm (FAW) project, the FAW global action and the red palm weevil regional project. The mission included meetings with FAO Assistant Director-General and Regional Representative for the Near East and North Africa (NENA), FAO Representative in Egypt, and FAO-RNE technical officers.

Under the RPW programme, a field visit was organized to the farmer field school for date palm in Benban, Aswan, and Upper Egypt. FFS was established recently and is formed by 18 local small-scale farmers. During the visit, farmers highlighted to the delegation the main pests and diseases challenging the date palm productivity in their fields. They requested more support and efforts from FAO to reduce the spread of the pest and yield losses. During the discussion, the value of the FFS in boosting farmers' participation in the IPM programme was emphasized.

During the visit, FAO delegation carried visual inspection of some infected red palm trees. They demonstrated to the farmers how to diagnose the RPW infection and perform some good practices to stop the infestation spread.

During the same mission, the director of NSP, and the delegation members visited the dog training site. They investigated the details process of detection with the company representative in Egypt. Dog Sniffer is one of the tools for early detection of the red palm weevil (RPW); it is well tested in some countries but is still not fully accredited by any of the authorities, although the detection accuracy reaches more than 80 percent. The delegation concluded that this technique should be included within the series of tests FAO is running in cooperation with King Faisal University.

Regional workshop for FFS on the RPW management

Egypt, Aswan 20-23 November 2022

The regional workshop for farmers field schools (FFS) on the red palm weevil (RPW) management was held in Aswan, Egypt, from 20 to 23 November 2022, with the **participation of 19 representatives** and experts from six North African countries.

The workshop, in which officials from Algeria, Egypt, Libya, Mauritania, Morocco, and Tunisia participated, supported adopting the FFS approach and its role in implementing sustainable solutions for RPW eradication. The workshop programme included lectures and brainstorming sessions focused on RPW good agricultural practices (GAP), FFS principles and pillars, the FFS manual, and implementing FFS.

A field day focused on agroecosystem analysis and a presentation on training BugVape dogs for RPW detection.

In addition to reviewing the information and the plan for training facilitators, the workshop assessed the FFS implementation in the region's countries and discussed the experience of FFS for RPW management in Egypt. The regional workshop also discussed the FFS curricula for managing the RPW in North African countries and shared the FFS manual prepared by the RPW programme.

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RPW eradication project steering committee (SC) meeting

Egypt,Aswan 23-24 November 2022

RPW Project Steering Committee (SC) held a meeting on 23-24 November 2022 in Aswan, Egypt. The regional meeting was attended by members of the project SC from Oman and Saudi Arabia, leaders of Technical Working Groups (TWGs), members of the technical and advisory committees from Arab Centre, for the Studies of Arid Zones and Dry Land (ACSAD), Arab Organization for agricultural Development (AOAD), Centre, International de Hautes études agronomiques méditerranéennes (CIHEAM), International Center for Biosaline Agriculture (ICBA), International Center for agricultural Research in the Dry Areas (ICARDA), Near East Plant Protection Organization (NEPPO), Poverty Reduction Strategy (PRS), King Faisal University (KFU), King Abdulaziz City for Science and Technology (KACST) and the University of GENOA, and of the LoAs under the RPW Eradication Project. During the meeting, the SC reviewed and evaluated the progress and development achieved so far.

The members of the SC organized a field visit to a date palm field in a village in Aswan, where they observed a simulation of FFS carried out by participants of the regional FFS Training of Master Trainers workshop on RPW management.

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» Highlights of project achievements

- The RPW regional programme addresses three principal areas: research, technology transfer, and capacity building.
- FAO is leading projects in the NENA region on RPW monitoring and early detection, farmer participation, control technologies, socio-economic impact, phytosanitary systems, border protocols, and production of certified palm material.
- The RPW programme has completed drafting regional standards for phytosanitary measures and those related to the production, conservation, and use of date palm-certified propagation materials.
- Preliminary results were obtained from *in-situ* sensors to detect RPW infestation and captured high-resolution images using ultra-spectral sensors to detect RPW infestation.
- The RPW programme published the "Guidelines on Practices for the Management of red palm weevil" in English and Arabic.
- The RPW programme issued the "Farmer Field Schools Manual for RPW Management in the NENA region" and developed FFS school curricula, in addition to training FFS facilitators in the Arab Gulf countries, Iraq, Jordan, and North African countries.
- Several news bulletins were published on several sites about the activities of FAO RPW Eradication Programme.
- The programme organized two sessions at the Seventh International Date Palm Conference, Abu Dhabi, United Arab Emirates (14-16 March 2022) on the Regional Programme for the Eradication of the RPW and another session on the development of the date palm value chain and regional cooperation.
- Numerous coordination meetings were also organized with donor countries, programme committees, technical working groups, partner organizations in the programme, and national focal points.
- Reports of the meetings were issued, and the status of the RPW and RPW management capacities in the following countries were reviewed: Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Libya, Mauritania, Morocco, Oman, Palestine, Saudi Arabia, the Syrian Arab Republic, Sudan, Tunisia, United Arab Emirates, and Yemen.

Graduation ceremonies for nine FFSs in four egyptian oases

Egypt, 6-9 December 2022

In cooperation with the Ministry of Agriculture, has implemented nine FFSs in New Valley and Giza, Egypt, under the framework of FAO Regional red palm weevil (RPW) Eradication programme. The FFS is a participatory education approach where a group of small-scale farmers gathers to discuss their problems and find solutions based on sustainable agriculture practices.

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The main goal of the FFS is to strengthen the farmers' skills and sharpen their ability to for critical analysis and decision-making. One of FAO's FFS methodology basics is implementing a graduation ceremony at the end of every FFS season.

In the presence of representatives of FAO and the Ministry of Agriculture, graduation ceremonies were organized for nine FFSs on date palm farms at the cities of Dakhla, Kharga, and Baris in New Valley governorate and Bahariya Oasis in Giza governorate. A total of **204 participating farmers** graduated from the schools.

During one year of date palm plantation, an experimental field was made for each school in which all agricultural and control operations were carried out by the farmers and under the supervision of skilled FFS facilitators. The graduation ceremonies included opening speeches from representatives of FAO and the Ministry, testimonials for the farmers and facilitators, and highlights of the results of the experimental fields. The farmers witnessed the difference between the experimental fields, compared them to what they do in their farms, and noticed a significant decrease in infection.

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2. The global action for FAW control in NENA Region

» The GA for FAW control in egypt

The Global Action for the fall armyworm control in Egypt as a demonstration country

Egypt, 19 June 2022

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During the same mission of the director of Plant Production and Protection (NSP) to Egypt that took place in June 2022, a meeting was convened with H.E. the Minister of Agriculture and Land Reclamation of Egypt, El Sayed El Quseir. The minister expressed his appreciation for FAO's efforts in ensuring food security for a growing global population and mitigating the risk of transboundary plant pests such as the FAW. His Excellency praised the joint efforts between the Ministry of Agriculture and FAO, especially in implementing the IPM national plan against the FAW through the global action initiative, and FAO's efforts in many other projects in Egypt, in particular, and the region in general.

A visit to the biopesticide production unit in Egypt

Egypt, 19 June 2022

The director of NSP, NENA, and the NENA Regional Plant Protection Consultant visited the biopesticide production unit in Giza on 19 June 2022 in Cairo, Egypt.

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A visit to the biological control lab in Shandaweel-Suhag

Egypt, 20 June 2022

This lab was upgraded and enhanced with FAO support through a previous TCP/EGY/3706 project. During the visit, FAO delegation viewed the several processes of the mass natural enemies production, including some parasitoids, predators, and spiders, and the different methods for rearing the insect hosts.

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FFS implementation on FAW in Dandara

Egypt, 21 June 2022

During the same mission, the delegation followed up on the role of FFS implementation in controlling FAW in Egypt. In a side meeting and face-to-face discussions with the local maize farmers, the farmers highlighted how the FFS approach enhanced their skills for transferring knowledge and experiences, decision-making, and finding the appropriate solutions for FAW management. The farmers emphasized the necessity of adopting this experience with other pests and crops in their fields, and they explored the lessons learned from the FFS and how to adopt such initiatives for other crops

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Visit to bio-agriculture services Centre, Aswan

Egypt, 21 June 2022

The centre was established in 2004 as an initiative supported by the World Food Programme, (WFP) and the Egyptian Ministry of Agriculture to offer environmentally friendly biofertilizers and biopesticides to the new reclamation areas, particularly near Nasser Lake in South Aswan.

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FAO Signed three Letters of agreement (LoAs) with the Egyptian Ministry of Agriculture

Egypt, September 2022

For proper implementation of the GA project "Scaling-up the sustainable management of the Fall Armyworm in Africa, the Near East, and Asia" -GCP /GLO/220/EC" in Egypt, FAO signed three LoAs with three parties at the Ministry of Agriculture including the agricultural Extension Sector, the Central Administration of Pest Management and Plant Protection Research Institute.

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Training programmes for FAW monitoring

Egypt, October 2022

Within the GA project activities in Egypt, FAO, in collaboration with the Central Administration of Pest Management, organized specific training programmes on FAW monitoring for surveyors and data reviewers. Around **100 surveyors** (representing ten governorates from Upper and Lower Egypt) were trained using FAO's FAMEWS application. About **20 data reviewers** were trained to validate the data of field scouting and FAW trapping that the surveyors uploaded on the Plant Village Platform. A total of **17 females participated** in the training programme. During the maize season of 2022, about 433 data points were collected weekly by the trained surveyors using the FAMEWS application. The data points were collected from <u>796 ha representing</u> 16 Egyptian governorates. The scouted field crops included Alfalfa, Vegetables, Maize, Sugar beet, Wheat, Onion, Beans, Sorghum, and Rice. Furthermore, <u>294 pheromone traps</u> were distributed to the FAW key host fields and were examined weekly by the trained surveyors.

Regional workshop on fall armyworm management in the in Near East and North Africa region

Egypt, 3-4 October 2022

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The regional workshop on Fall Armyworm (FAW) Management in the Near East and North Africa Region was organized on 3-4 October 2022 in Egypt. The Deputy Director-General Ms. Beth Bechdol, NSP director, and the representatives from all countries in the region, research organizations, universities, and the private sector. The two-day workshop aimed at gathering representatives from across the region to scale-up sound management practices, coordinate action, and strengthen cooperation among all stakeholders to exchange information on cutting-edge solutions to lessen the effects of the fall armyworm rapid spread. Egypt was selected as a demonstration country to implement the National Integrated Pest Management Strategy for FAW control and to develop a regional pest management plan that can be applied in different countries in the NENA region. The workshop also provided regional guidance and recommendations on reducing FAW spread and control measures.

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A field Visit to The FAW Demonstration Plots and The Maize FFS

Egypt, 4 October 2022

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On the sidelines of the regional Fall Armyworm (FAW) workshop held in Cairo, FAO Deputy Director-General Beth Bechdol visited Fall Armyworm demonstration plots in Luxor, where she practised using natural enemies release in the field and assessed Egypt's innovative solutions and technologies to manage the rapid spread of Fall Armyworm. FAO delegation also visited the Dandara farmer field school of Fall Armyworm in Qena. During the visit, the local farmers of the FFS shared their experiences in controlling the fall armyworm.

Harvest days as a model for farmer's awareness of the IPM strategy to control FAW in Egypt

Egypt, 14-16 November 2022

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Three maize harvest days at Aswan, Luxor, and Suhag governorates. This was a model to demonstrate the successful experiences in implementing the IPM technologies within the Fall Armyworm (FAW) Global Action Project.

The harvest days were implemented in the demonstration plots at three agricultural Research Stations in the Upper Egypt cities of Komombo, Elmatanaa, and Shandaweel. **Ninety smallholder farmers** participated and benefited from these awareness field days. The farmers learned how to monitor the FAW and apply the principles of IPM in controlling FAW to minimize yield loss in their maize fields.

The use of <u>environmentally friendly bio-pesticides</u> as an effective alternative to chemical pesticides was recommended to the farmers. The crop yield in all the demonstration plots was estimated. The recommended IPM strategies resulting from all field assessments in the two growing seasons were explained and discussed with all attendees.

Training programmes to transfer the technology of mass rearing of the fall armyworm Natural Enemies

Egypt, 4-7 December 2022

Three training programmes to transfer the technology of mass rearing of the natural enemies of the Fall Armyworm (FAW). The training programme involved **85 trainees**, including researchers and stakeholders, who received guidance on the latest technology transfer skills to face the challenges of climate change by controlling FAW. There was an active participation of women in the training programme, with around **57 females involved**. Three governmental research stations covering the governorates of Upper, Middle, and Lower Egypt hosted these training programmes for technology transfer.

The training focused on exchanging practical knowledge between researchers and technicians specialized in pest biocontrol on the technology of mass rearing of FAW egg- parasitoids (*Telenomus remus*). Adopting the protocol in the biological control laboratories in Egypt will strengthen the national capacities for the mass rearing of the Telenomus parasitoid in all maize fields.

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» FAW regional project in mashreq countries

A training programme and exchanges of expertise in the field of the biological control of fall armyworm

Egypt, 9-12 May 2022

FAO organized an advanced training programme on producing biopesticides and the mass production of natural enemies to combat Fall Armyworm. Under the activities of the Regional FAO project a delegation of experts from the Syrian Arab

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Republic, Ministry of Agriculture was in Egypt. The training programme included a visit to the biopesticide production unit in Giza, where the unit's activities were presented, including the mass production of biopesticides and their effectiveness in mitigating the impact of Fall Armyworm. The delegation also visited the Biological Control Lab in Shandaweel - Suhag where they learned about the lab's activities, including the mass rearing of the host pests and the mass production of the FAW natural enemies, like the parasitoids, predators, and spiders. The experts from the Syrian Arab Republic actively participated in the mass release of different parasitoids, such as *Telenomus* and *Trichogramma,* in some maize fields in Suhag.

A biological control expert assessed jordan's national capacity for the mass production of faw natural enemies.

Jordan, 15-17 May 2022

Within the activities of the Regional FAO project *"Emergency preparedness and response to strengthen capacities of the NENA countries to mitigate the risk of Fall Armyworm (FAW) in the region*", Hossam El Gebaly from the Plant Protection Research Institute in Egypt to visits Jordan to assess Jordan's national capacities at the Ministry of agriculture for the mass rearing and production of FAW natural enemies. Through the TCP project, FAO will provide the necessary equipment and tools for the unit's operation. At the same time, the Ministry of Agriculture has agreed to renovate the facility and prepare the infrastructure. The assessment and recommendations and a list of materials and resources are required.

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Field backstopping to the Syrian Arab Republic for TCP/RAB/3803 (E)

26 June-1 July 2022

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The Syrian Arab Republic minister of agriculture expressed appreciation for FAO's efforts to ensure food security for the growing global population and mitigate the risk of transboundary plant pests such as the Fall armyworm (FAW), during the visit of Mr Thaer Yaseen (the regional plant protection officer). The meeting also highlighted the regional needs and the expected FAO support to control the water hyacinth weed in Iraq, Lebanon and the Syrian Arab Republic and safely eliminate obsolete pesticides.

The mission started with a visit to the biopesticide unit in Hama, west-central Syrian Arab Republic. The unit is responsible for producing different microbial pesticides such as Trichoderma sp., *Beauveria bassiana*, and *Bacillus thuringiensis*. During his visit, the regional officer assessed the national capacities for mass production of FAW natural enemies and biopesticides in the Syrian Arab Republic. Yaseen also explored the capacity of the biological control lab in Lattakia for the mass rearing of FAW natural enemies such as *Bracon* spp. and *Trichogramma principum*. On the side of his mission, Yaseen also visited the centre of the natural enemy of water hyacinth in Hama.

Training programme on faw ipm in palestine

Palestine, 20-21 December 2022

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Under the activities of the regional FAW project "TCP/RAB/3803 (E)", FAO in collaboration with the Palestinian Ministry of Agriculture, organized a training programme to strengthen the capacities of newly **25 graduated agricultural engineers** on FAW and other pests management. The two-day training programme included theoretical and practical sessions focusing on FAW monitoring and the FAW Integrated Pest Management.

» FAW regional project in maghreb countries

FAO strengthens biological control capacities against fall armyworm in the five maghreb countries

Tunisia 9-11 August 2022

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Under the regional TCP project, TCP/SNE/3901 on Fall Armyworm (FAW), FAO Subregional Office for the Near East and North Africa (FAOSNE) organized a training of trainers on August 9-11, 2022, in Tunisia**.** The training focused on biological control, rearing natural enemies, and alternative methods against the fall armyworm (FAW). This training allowed participants from the five Maghreb countries - national coordinators and consultants- to acquire knowledge on the bio-ecology of the Fall Armyworm, the control methods, and surveillance techniques to prevent its entry into the countries of the Maghreb.

» Strengthening capacities for FAW control in gulf countries

A training programme for a delegation from the Saudi Arabia on integrated pest management of fall armyworm

Egypt, 18-22 September 2022

An intensive five-day programme included theoretical and practical sessions, field visits, and knowledge exchange for **six experts** from the Ministry of Environment, Water, and Agriculture of the Saudi Arabia. The programme aimed to improve the capabilities of Saudi government officials to control the FAW and implement Integrated Pest Management strategies, including pest control, identification of FAW, its impact, biological control, and chemical control.

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3. Banana fusarium wilt foc T4

Inception workshop of the new project "strengthening capacities to contain and manage *fusarium oxysporum* f.sp. Cubense tropical race 4 on bananas in lebanon"

Lebanon, 24 May 2022

In collaboration with the Ministry of Agriculture (MOA) in Lebanon, FAO organized the inception workshop for the *TCP/LEB/3803* in Saida (Saida, Chamber of commerce) on 24 May 2021. The project aims to improve the management of Fusarium banana wilt after detecting the TR4 strain in the south of Lebanon.

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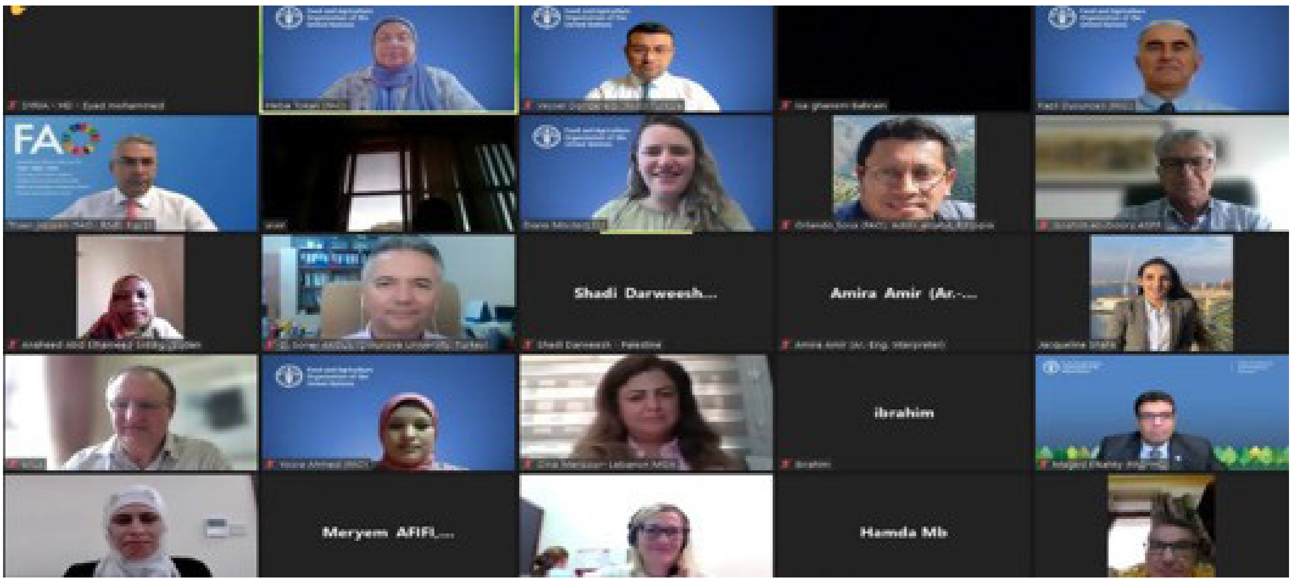
The regional virtual workshop on the "occurrence of fusarium wilt disease tr4 in north and eastern africa and the near east"

13 October 2022 -Virtual Meeting

Regional Workshop on The Occurrence of Fusarium Wilt Disease TR4 in North and Eastern Africa and The Near East with Stellenbosch University in South Africa. The workshop aimed to exchange information and discuss the Banana Fusarium wilt disease of TR4 in North and Eastern Africa and the Near East. The workshop covered the recent developments of Fusarium wilt Tr4 globally, the status of Fusarium wilt in East and North Africa and the Near East, along with country measures to prevent and manage the disease, and the development of regional and national strategies for disease prevention and management. More than 35 participants from 20 countries in East Africa (Somalia, Ethiopia, Kenya, Uganda, Rwanda, Burundi, Sudan, and South Sudan), the Near East (Egypt, Lebanon, Jordan, Palestine, the Syrian Arab Republic, Iraq, and Türkiye), and North Africa (Libya, Mauritania), Gulf Countries (Oman, Qatar, and United Arab Emirates) attended the virtual workshop.



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FAO and stellenbosch organized a regional training workshop in south africa on banana fusarium wilt foc TR4

South Africa 24-28 October 2022

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Workshop on Fusarium Foc TR4 Identification, Management Strategies, and Impact Assessment. The workshop aimed to strengthen the capacity of participants from Africa and Near East regions to prevent, containment, and manage Fusarium Foc TR4. In addition, the workshop focused on enhancing the participant's skills in the areas of disease diagnosis, surveillance, monitoring, impact assessments, and decision-making regarding appropriate management practices. The 4-day programme covered a range of topics related to the disease, including the encountered difficulties during TR4 diagnosis, the economic impact of an incursion, surveillance techniques, biosecurity measures, awareness raising and communication efforts, promising resistant/tolerant varieties, remote sensing technologies, procedures for the safe introduction of banana germplasm, and mobile applications**.** A one-day field visit was conducted to an infected banana farm in Hazyview, a sub-tropical farming town in Mpumalanga, South Africa. The field visit provided a clearer understanding of disease symptomology, field inspection, and the mitigation measures that should be in place. The workshop also focused on simulation exercises as a component of an early warning and emergency response system. These exercises are useful for evaluating decision-making processes and validating emergency preparedness and response plans. Twenty-two participants attended the workshop representing **17 countries from Southern Africa** (United Republic of Tanzania, Comoros, Malawi, Mozambique), East Africa (Ethiopia, Somalia, Burundi, Kenya), West Africa (Cameroon, Ghana), and Near East (Lebanon, Türkiye, Egypt), in addition to six trainers from Cuba, Colombia, South Africa, and FAO.

FAO supports nena countries in combating the threat of fusarium TR4 wilt disease in bananas

Lebanon 7 December 2022

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FAO has launched the technical Cooperation programme Banana Fusarium FOC TR4 TCP/LEB/3803" to support Lebanon in combating the spread of Fusarium wilt TR4 after the arrival of the TR4 strain. The project aims to improve the management of Fusarium banana wilt in the south of Lebanon. During his visit to Lebanon, Thaer Yaseen, the Regional Plant Protection Officer at FAO Regional Office for the Near East and North Africa, met with the project team and discussed the work plan and activities of the project.

He also visited the infected banana areas at Mansouri village in the Tyre District of South Lebanon. The visit aimed to evaluate the disease distribution and the damages it caused in the region.

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4. Promotion of good agricultural practices

Field visit to demonstration plots of potatoes in the beqaa (east lebanon)

Lebanon 19 May 2022

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The Regional Plant Protection Officer at FAO-RNE visited the demonstration plots for potatoes to follow up on the activities of the project "*Promotion of Good agricultural Practices*, Including IPM to reduce agrochemical pollution in upper Litani basin-UTF/LEB/028/LEB.

The project was funded by the World Bank under the "*Lake Qaraoun Pollution Prevention Project*" and was implemented by the Council for Development and Reconstruction CDR. The project aims at reducing the water pollution in Litani River and Qaraoun lake resulting from the excessive use of agrochemicals (pesticides and fertilizers) through the promotion and implementation of Good agricultural Practices among potato farmers in the Upper Litani basin in the cazas of West Bekaa and Zahle.

The closing workshop of the project UTF/LEB/028/LEB

Lebanon 6 December 2022

Launched in 2017, The project was funded by the World Bank and implemented by the Council for Development and Reconstruction CDR. The project aims at reducing the Litani River and Qaraoun lake water pollution resulting from the excessive use of agrochemicals (pesticides and fertilizers), through the promotion and implementation of Good agricultural Practices among potato farmers in the Upper Litani basin in the cazas of West Bekaa and Zahle. The project worked on mitigating the adverse effects of the excessive use of agrochemicals on human health and the environment by encouraging farmers to adopt good agricultural practices, including Integrated Pest Management.

Through the **42 demonstration plots conducted until August 2022**, farmers were able to reduce their production cost by up to **242 USD per dunum** and increase their production by up to 106 percent in specific plots. In addition, the project succeeded through the **1 890 technical** visits to 171 farmers in cultivating an area of 3 100 hectares (until August 2022) and reaching up to a **52 percent reduction in the quantities of fertilizers** used. Consequently, an average of 281 000 fewer plastic bags were used, and a **61.3 percent reduction occurred in the quantities of pesticides** used; thus, an average of 42 000 fewer pesticide containers were used. Furthermore, the project contributed to the capacity building of the technical staff at the Lebanese Ministry of Agriculture through theoretical and in-the-field practical training. The workshop took place under the patronage and in the presence of the Lebanese Minister of Agriculture, H.E. Abbas El Haj Hassan.

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5. Sound management of pesticides

A technical backstopping mission to lebanon

Lebanon, 20 May 2022

A technical backstopping mission for the Regional Plant Protection Officer at FAO Regional Office for Near East and North Africa was organized on 20 May 2022 to Lebanon concerning the project “**Urgent Safe disposal of obsolete pesticides stocks in Lebanon” TCP/LEB/3801**.

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The mission provided an opportunity to interact with the involved national counterparts and review the work's status. This meeting helped evaluate the remaining project work thoroughly and create a more detailed schedule for each component. The discussions focused mainly on the activities that would be carried out without further delays. The project was initially delayed due to the need for more containers to repack the remaining quantities of obsolete pesticides in the Kfarshima warehouse and Beirut's seaport. Following an inspection of the Kfarshima warehouse and examination of the stored materials, two containers containing additional quantities of obsolete pesticides and others having liquid mineral oil and fertilizers were found. It was agreed with the project team that only materials identified as obsolete and unused pesticides would be included in the repacking and safeguarding process outside Lebanon. Due to the late arrival of the required quantity of transportation containers, a request to extend the TCP/LEB/3801 project is needed.

The status of the highly hazardous pesticides (HHP) in the nena region

July 2022

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A recent assessment to review the registered pesticides in the region was done. Identifying highly hazardous pesticide (HHP) among the registered pesticides were categorized according to criteria 1-8, FAO/WHO Guidelines on HHP. In addition, to identify the weakness and the need of the region to reduce the risk of HHP, the report ended with recommendations for the region to improve pesticide management and registration, such as improving agricultural practices by adopting the integrated pest management IPM and including replacing HHP with ecosystem-friendly alternatives, if available. The total number of pesticides registered and used in the NENA region is **642 active ingredients (IA)**. Eighty-nine HHP are still in use in the NENA region, and 50 percent are evaluated under 1-7 criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). This evaluation shows that **50 percent of HHP** are insecticides, 22 percent fungicides, 10 percent herbicides, 8 percent nematocides, and 10 percent rodenticides. The rest of the 38 HHP are identified under criteria 8 of pesticide-active ingredients and formulations with a high incidence of severe or irreversible adverse effects on human health or the environment. This high number of HHP still in use in some NENA countries urges the need for technical assistance to reduce the use of HHP. To identify the priority of technical and legal assistance needed, country-based assessments must be carried out soon.

Regional workshop on the sound management of pesticides in jordan

Jordan 28 to 30 November 2022

©FAO/ Ibrahim Jboory

The regional workshop on the Sound Management of Pesticides in the Near East and North Africa (NENA) region was held from 28 to 30 November 2022 in Amman, Jordan. The workshop was organized in cooperation with FAO Plant Production and Protection Division (NSP) and the Ministry of Agriculture in the Hashemite Kingdom of Jordan.

The workshop introduced a set of recommendations on the Sound Management of Pesticides, calling for the adoption of the FFS, the launch of a training programme for pesticide applicators, in addition to the creation of a regional information base to assess the risks of pesticides in coordination with FAO.

During the workshop, participants from NENA received training on the guidelines for registering microbial, botanical, and semi-chemical pesticides and on how to mitigate the risks of highly hazardous pesticides (HHP).

The training also focused on the International Code of Conduct for Pesticide Management and guidelines for Pesticide Quality Control and Advertising, in addition to explaining policies on compliance and enforcement of a pesticide regulatory programme. At the end of the workshop, the recommendations also emphasized the need for the countries of the NENA region to cooperate in reducing pesticide smuggling by unifying and harmonizing legislation and adopting an electronic system to validate pesticide registration certificates.

The workshop also stressed the need to take measures at the national level to implement the Basel, Rotterdam, and Stockholm conventions to protect human health and the environment from the effects of pesticides.

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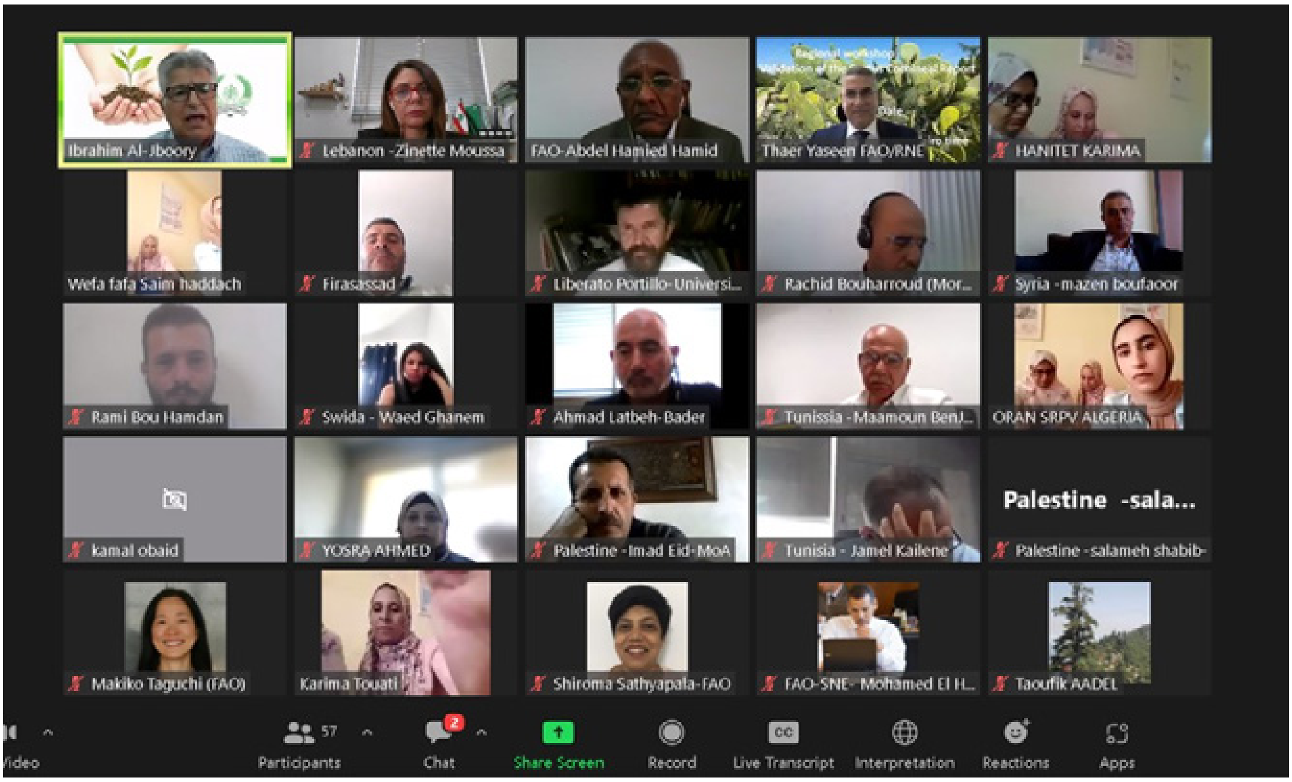
6. Regional workshop on cactus

The regional workshop on validation of the assessment report on the extent and effects of cactus cochineal in the nena region and the way forward

Egypt 4 July 2022- Virtual Meeting

Regional Workshop on Validation of the Assessment Report on the Extent and Effects of Cactus Cochineal in the NENA Region and the Way Forward. The workshop focused on the importance of the cactus pear as a valuable plant for livestock forage and the spread of the cochineal pest in the NENA countries. The workshop also aimed to validate the regional study undertaken in five pilot countries (Jordan, Lebanon, Morocco, the Syrian Arab Republic, and Tunisia). The study assessed the status of the cochineal pest insect, its effects on cactus pear, and the measures taken to control it in the NENA countries.



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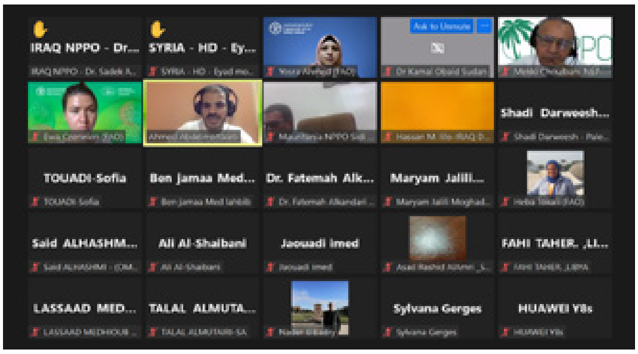
II. Plant health

Regional training on the online comment system (ocs) in nena region

Egypt, 25 July 2022 -Virtual Zoom training



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FAO organized a training on the Online Comment System (OCS). The OCS is an online tool designed to provide a simple, efficient, user-friendly online system to apply, share, publish and compile comments on documents of IPPC. This training is part of the preparations for the IPPC regional workshop for Near East and North Africa 2022 (1-4 August 2022).

The ippc regional workshop in near east and north africa countries

Tunisia, 1-4 August 2022

Under the theme “Plant health Innovation for Food Security”, the hybrid workshop, held on 1-4 August in Tunisia, served as a forum for regional plant health experts to discuss and review main phytosanitary topics. Participants reviewed the draft International Standards for Phytosanitary Measures (ISPMs) and recommendations, raised awareness of the framework of FAO and regional plant protection organizations, and moved together from ideas to action by sharing experiences and best practices. Participants held a one-day visit to different nurseries used for producing certified plant materials and the virology lab in Tunisia, a new activity in this year’s workshop. The Tunisian experience in controlling citrus black spot disease and ePhyto implementation was also explored.

In a side meeting of the IPPC regional workshop, the regional and subregional officers of the plant protection of FAORNE met with his Excellency Elyes Hamza. His Excellency praised FAO’s efforts to ensure food security and fight against the harmful consequences of pests and diseases on plants in the NENA region. During the meeting, Thaer Yaseen, Regional Plant Protection Officer at FAO-RNE, highlighted the necessity of establishing the regional Trust Fund for transboundary pests in the region and the several aspects of regional collaborations between the NENA countries.

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III. Plant production

FAO is organizing a study tour for representatives of the omani ministry of agriculture in cooperation with CIHEAM BARI

Italy, 21 December 2022

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In the framework of the "Development, Production and Multiplication of Certified Citrus Propagation Materials" project, the Food and Agriculture Organization of the United Nations (FAO) organized a study tour in Italy for two Omani staff from the Ministry of Agriculture, Fisheries and Water Resources) in collaboration with the Mediterranean Agronomic Institute of Bari (CIHEAM Bari) in order to exchange the best practices on the production and propagation of citrus plants free from diseases.
FAO and the Sultanate of Oman launched the "Development, Production and Multiplication of Certified Citrus Propagation Materials" project in 2018 to strengthen the existing facilities of the previous certification programme, and to review and assess the required updates.

IV. Regional congresses

The international conference on banana fusarium wilt disease in africa

Virtual Meeting, 30 May-1 June 2022

The virtual conference on banana Fusarium wilt in Africa was jointly organized by FAO, Stellenbosch University, and the Southern African Development Community (SADC) with financial support from the European Union. The conference intends to raise awareness about the importance of banana Fusarium wilt disease and inform participants about recent developments related to Foc TR4 internationally.

The first international conference on plant health- IPPC

UK, 21 - 23 September 2022

The International Plant Health Conference (IPHC) was co-organized by the Food and Agriculture Organization (FAO), the Secretariat of the International Plant Protection Convention (IPPC), and the Department of Environment, Food, and Rural Affairs (DEFRA) in the United Kingdom of Great Britain and Northern Ireland. Thaer Yaseen, the Regional Plant Protection Officer at FAO-RNE, participated in the conference where he discussed with different partners and stakeholders the main challenges for plant health in our region. The discussions focused on implementing the ePhyto solution and the way forward to establish the regional strategy for sustainable management of transboundary pests and diseases in the NENA region.

©FAO/ Thaer Yaseen

The 3rd world conference on the revitalization of the mediterranean diet

Italy, 28-30 September 2022

©FAO/ Thaer Yaseen

The International Center for Advanced Mediterranean Agronomic Studies (CIHEAM), the Bari Institute of CIHEAM has organized the Third World Conference on the Revitalization of the Mediterranean Diet. The conference was held on 28-30 September 2022 in Bari under the patronage of the Italian Ministry of Affairs and International Cooperation and the Italian Ministry of Agriculture, Food and Forestry, focused on the theme: "Change of Course Towards More Sustainable and Resilient Food Systems in Mediterranean Countries: The Mediterranean Diet as a Strategic Resource to Accelerate the Agenda 2030 in the Region". AbdulHakim Elwaer, Assistant Director and General (ADG) and Regional Representative for the Near East and North Africa gave an important presentation entitled *"Sustainable food systems as an effective trigger for One Health to promote resilience and sustainable growth in the Mediterranean and beyond"*. He drew attention to the importance of establishing the Food Security Observatory in the NENA region.

The 13th arab congress of plant protection

Tunisia, 16-21 October 2022

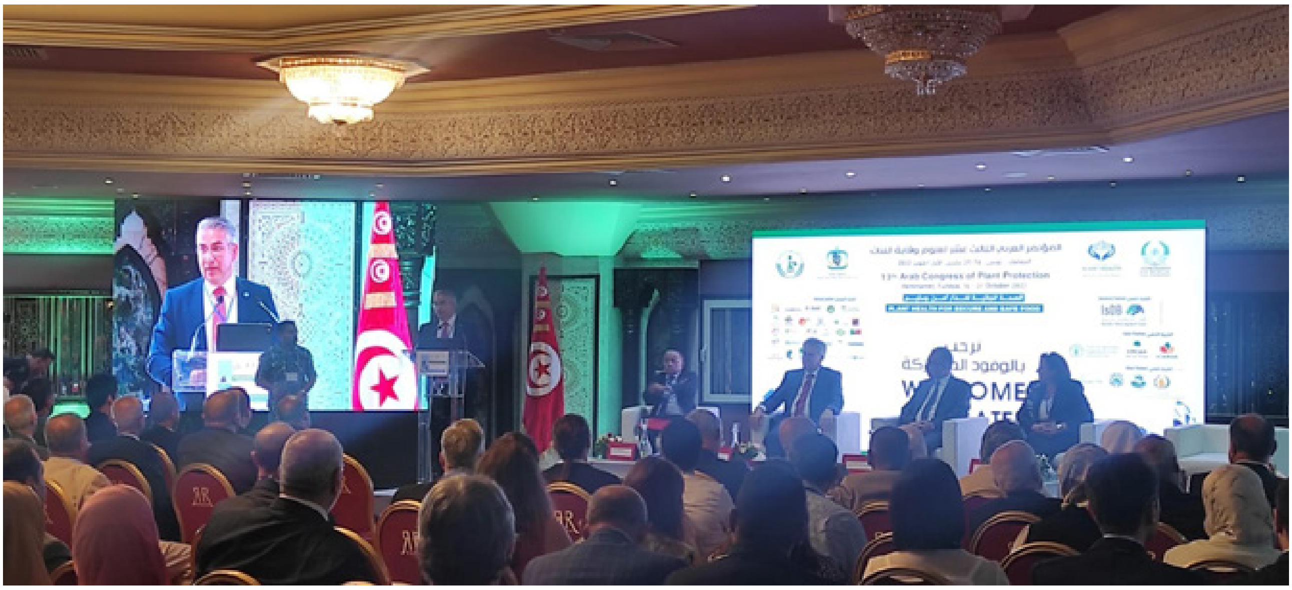
The 13th Arab Congress of Plant Protection was held in Hammamet, Tunisia, from 16-21 October 2022 and was organized by the Arab Society for Plant Protection (ASPP) and Ministry of Agriculture, Water Resources, and Fisheries of Tunisia and represented by the National Institute of Agronomic Research of Tunisia (INRAT).

More than **270 participants** from over **30 countries**, mainly from the Near East and Mediterranean regions, participated in the congress, in addition to the presence of experts and research professors from Europe, America, and Africa.

The Food and Agriculture Organization Regional Office for the Near East and North Africa (FAO-RNE) was the congress's gold sponsor, and the funds provided through a Letter of Agreement (LoA), were used to support four symposia.

These four symposia focused on distinct aspects, including plant health for food security and safety, molecular plant protection and its applications in pest management, research and innovation for sustainable crop protection, and the application of behavioral control tools as a safe and effective alternative in pest management. The five-day meeting provided an excellent opportunity for academics, regional and international organizations, research centres, policymakers, and representatives from the public and private sectors to share their common interests and priorities.

Additionally, the congress significantly contributed to FAO-RNE visibility as the role of FAO-RNE Office was presented in both the congress programme and the abstract book.



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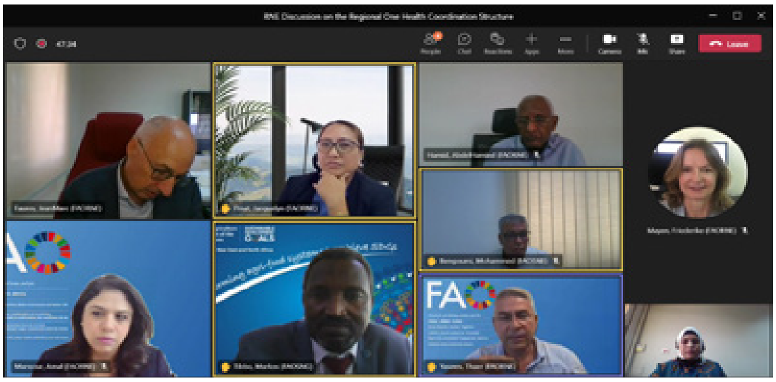
V. One Health activities

The plant protection and production sector and One Health activities in FAORNE

Egypt 6 September 2022, virtual meeting



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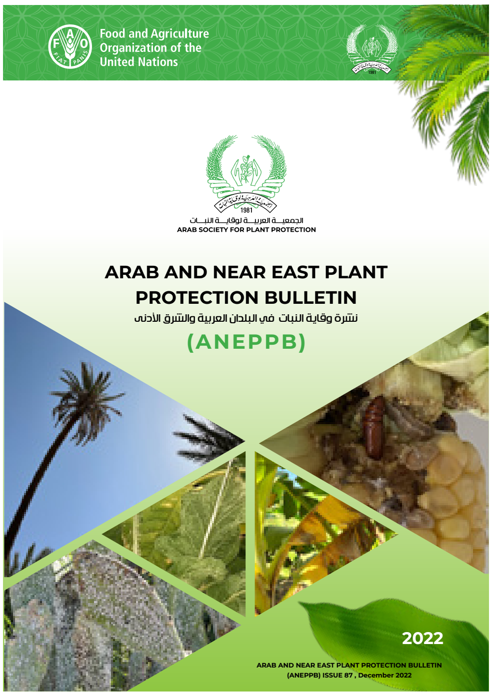
Participated in the an internal meeting that was held virtually to discuss establishing a Regional One Health platform in the NENA region. The meeting allowed for better discussion on FAO's work on the One Health (OH) approach, including the One Health Joint Plan of Action and the mechanism of establishment of a Regional One Health platform in the Near East and North Africa Region. The focal point and officers commented on the RNE concept note (CN) of OH and provided key inputs that need to be added to the CN such as the policy, funds, the organizational structure of the OH platform, and the next step to move forward. The meeting emphasized the necessity to consider all the aspects of OH, including animal, human, plant, and environmental health.

VI. Arab and Near East plant protection bulletin (ANEPPB)

The Arab and Near East Plant Protection Society (ASPP) was established in 1981 as a non-governmental organization serving the plant protection and production sectors in the NENA region and elsewhere. Since its creation, ASPP has had a distinguished relationship and positive mutual collaboration with FAO Regional Office for Near East and North Africa in Cairo, Egypt. ASPP regularly publish four numbers per year scientific journal and also publishes three issues of the ANEPPB, which is an excellent source of plant protection news dissemination. FAO RNE has supported ANEPPB partially since 1981 on LoA to cover the region's news and the locust. Both journal and Bulletin are uploaded on the society website www.asplantprotection.org and can be reached easily to browse FAO activities.



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