

**PHYTOSANITARY CONTROL OF PLANT PESTS IN THE MEDITERRANEAN REGION:
HARMONIZATION, TOOLS AND TECHNIQUES
Zaragoza (Spain) 11-15 November 2024**

PROGRAMME

- 0. Opening session and programme presentation (1 hour)**
- 1. Harmonization in Phytosanitary Control in the Mediterranean Region (1 hour)**
- 2. Impact of plant pests (1 hour)**
 - 2.1. Damages and losses
 - 2.2. Economic and environmental impact of management policies
 - 2.3. Cost- effectiveness
 - 2.4. Ranking risks
- 3. Quarantine pests (2 hours)**
 - 3.1. Definition and general issues
 - 3.2. Legal and policy aspects
 - 3.3. Institutional framework
 - 3.3.1. European and Mediterranean Plant Protection Organization (EPPO) and other regional PPOs
 - 3.3.2. EUPHRESKO and other EU-funded initiatives.
- 4. Pathways for entry and establishment of plant pests (1 hour)**
 - 4.1. Epidemiological factors for fungi and nematodes transmission
 - 4.2. Epidemiological factors of plant pests transmitted by vectors
 - 4.3. Risks associated with international exchanges of material and commodities
- 5. Inspection tools and surveys (2 hours)**
 - 5.1. Organisation at national and regional scale
 - 5.2. Surveillance at the Border Control Post (BCP)
 - 5.3. Eradication vs containment. Organisation of buffer zone
 - 5.4. Visual and multispectral camera inspection
 - 5.5. Detection of symptoms and preliminar identification
- 6. Laboratory diagnosis (1 hour)**
 - 6.1. Plant health laboratories network: official, reference and European reference laboratories
 - 6.2. Standard methods and techniques
 - 6.3. Validation and verification of the diagnostic methods. Ring tests
- 7. Fungi (4 hours)**
 - 7.1. Introduction to phytopathogenic fungi
 - 7.2. Observation of symptoms. Sampling.
 - 7.3. Storage and shipping to the laboratory.
 - 7.4. Quarantine diseases: recognition and identification.
 - 7.5. Practicals (2 hours): identification of fungi. Sample processing.
- 8. Nematodes (3 hours)**
 - 8.1. Overview
 - 8.2. Extraction techniques.
 - 8.3. Assembly and preparation.
 - 8.4. Referral of samples to the laboratory.
 - 8.5. Practicals (2 hours): Identification of nematodes.
- 9. Virus (2 hours)**
 - 9.1. Overview
 - 9.2. Identification, inspection techniques and sampling for virosis in woody species.
 - 9.3. Identification of viruses, viroids that are harmful to plants (non-woody species).
- 10. Bacteria (3 hours)**
 - 10.1. Overview.

- 10.2. Symptoms on host plants of Quarantine Bacteria.
- 10.3. Detection and identification methods.
- 10.4. Sampling and shipping to lab.
- 10.5. Practicals (2 hours): Identification of bacteria
- 11. Arthropods: Overview, Identification and classification, Preparation of specimens, sampling, and shipping to the lab (8 hours)**
 - 11.1. Tephritidae/Whiteflies
 - 11.2. Coleoptera
 - 11.3. Lepidoptera
 - 11.4. Acari/Thysanoptera
 - 11.5. Hemiptera
 - 11.6. Practical work
 - 11.6.1. Identification of Tephritids
 - 11.6.2. Identification of Coleoptera/Lepidoptera
 - 11.6.3. Identification of Acari/Thysanoptera
- 12. Case studies:** Experience of participants in phytosanitary control of pests and diseases in their country of origin **(2 hours)**
- 13. Final discussion: Innovative strategies and collaborative approaches for phytosanitary control in the Mediterranean region (1 hour)**