EPPO diagnostic activities: Serving the needs of plant pest diagnostic laboratories

What is EPPO?
The European and Mediterranean Plant Protection Organization (EPPO) was created in 1951 to prevent the introduction of dangerous pests from other parts of the world, and limit their spread within Europe if they were introduced. EPPO is one of the Regional Plant Protection Organizations recognized under the International Plant Protection Convention. Today, 51 European and Mediterranean countries (including the 28 members of the European Union) are members of the Organization. Key partners of EPPO are National Plant Protection Organizations (NPPOs), i.e. the official services which are responsible for plant protection in each country. The results of EPPO’s work are recommendations officially approved by EPPO’s Council where all countries are represented. These recommendations are internationally considered as ‘regional standards’.

Development of Diagnostic Standards
EPPO has a long standing and active program for Standard setting in several areas, including diagnostics. At the request of its members, EPPO started a program to prepare diagnostic Standards for regulated pests in 1998, in order to achieve a harmonized approach to detection and identification for regulated pests. The work is conducted by the Panel on Diagnostics and Quality Assurance in collaboration with specialized Panels (Diagnostics in Bacteriology, Entomology, Mycology, Nematology, and Virology and Phytoplasmology). Panels are composed of specialists from member countries, proposed by their respective NPPOs. As of November 2017, 131 Pest-specific diagnostic protocols and horizontal diagnostic Standards have been developed. Pest-specific protocols are written according to a “common format and content”. Horizontal Standards do not have a pre-defined format. The first drafts of Standards are prepared by an assigned expert author(s) or by a drafting team and are reviewed by the relevant Panels and the Working Party on Phytosanitary Regulations. Diagnostic Standards are approved following the regular EPPO Standards approval procedure and revisions of pest specific Diagnostic Protocols are approved following a fast track procedure. Both procedures involve a formal consultation of all EPPO Member countries.

https://gd.eppo.int/standards/PM7/

EPPO databases and information services
- EPPO database on diagnostic expertise (inventory of the diagnostic expertise available in the EPPO region & validation data for tests). http://dc.eppo.int/index.php
- EPPO Global Database (database on quarantine pests which provides data on: all the pests of the EPPO A1 and A2 lists and of EU Directive 2000/29; pests of the EPPO Alert List; plants of the EPPO List of invasive alien plants many other quarantine pests and invasive plants of interest to other regions of the world) https://gd.eppo.int/
- EPPO Alert List and Reporting Service (Information on emerging pests and on events of phytosanitary concern, including new diagnostic tools). https://www.eppo.int/QUARANTINE/Alert_List/alert_list.htm

Conferences and workshops on diagnostics
Since 1985, EPPO has organized a series of conferences and workshops on Diagnostics:
- Workshop for heads of laboratories (AT 2011, TN 2013, IT 2015)
- Workshop on Flexible scope (NL, 2017)

Number of approved standards per discipline
Bacterium – 25 standards
Fungi – 22 standards
Insects – 39 standards
Nematodes – 12 standards
Phytoplasmas – 4 standards
Viruses – 15 standards
Horizontal standards – 8 standards

EPPO programme on accreditation and quality assurance
Guidelines on quality assurance have been developed:
- PM 7/84 Basic requirements for quality management in plant pest diagnostic laboratories
- PM 7/98 Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity (revised in 2014) including specific quality management requirements for laboratories preparing for accreditation according to the ISO/ IEC Standard 17025

Other guidelines:
Guidelines for the organization of interlaboratory comparisons by plant pest diagnostic laboratories.
Guidelines on the authorization of laboratories to perform diagnostic activities for regulated pests.
Guidelines on the main tasks of Reference Laboratories for official plant pest diagnostics.