

DISPATCHES

Summary of the 3rd Workshop for Heads of Plant Pest Diagnostic Laboratories.

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In the framework of its diagnostic activities, the European and Mediterranean Plant Protection Organisation (EPPO) regularly organises conferences and workshops. Since 2013, three workshops have been organised to provide a forum for heads of laboratories to meet and exchange experiences on horizontal problems faced in their laboratories. The Third EPPO Workshop for Heads of Plant Pest Diagnostic Laboratories was organised at the Plant Pathology Research Centre, Rome (08-11 September 2015). The meeting was attended by 26 heads or deputy heads of laboratories from 19 countries. A short summary of the main topics discussed during this workshop is presented.

Accreditation with a flexible scope for plant pest diagnostic laboratories

Historically, the accreditation of laboratories has usually been based on a fixed scope which should define clearly and unambiguously the range of tests covered by the laboratory's accreditation (e.g. immunofluorescence test for the detection of *Ralstonia solanacearum* on potato tubers). However, this does not readily allow new or modified tests to be added to a laboratory's scope, even when the competence of the laboratory in performing and validating related tests has already been evaluated by an accreditation body. Although applications for an extension to scope can be made at any time, the timescales involved may actually prevent quick reactions to client's demands. Consequently, the concept of flexible scope has been developed [EPPO, 2014].

A flexible scope of accreditation allows a laboratory to undertake certain tests, and to report the results as accredited, even though these tests are not explicitly stated in the laboratory's scope (see Requirements for the Accreditation of Flexible Scopes [EA, 2008]). Examples of situations where the need for flexible scope may arise are:

- Optimisation of a given test
- Modification of an existing test to broaden its applicability (e.g. to deal with new matrices)
- Inclusion of a test equivalent to the one that is already covered by accreditation.

The concept of flexible scope encompasses a degree of flexibility which is usually agreed in consultation with the accreditation body [EPPO, 2014]. Presentations from different laboratories on their approach to flexible scope showed that, when granted, flexible scope can be established at different levels (e.g. flexible scope with a recognised method; possibility within

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the flexible scope to adopt, adapt and/or develop new tests; and flexibility on all diagnostic activities). Given this heterogeneity of approaches, the heads of laboratories considered that regional harmonisation is essential and that discussions should continue between EPPO and the European Co-operation for Accreditation (EA). It was suggested that a joint meeting with representatives of plant health laboratories and accreditation bodies would be needed to prepare a document on a joint approach.

Q-bank

Q-bank is a database on quarantine pests which originally started as the result of a Dutch project to strengthen plant health infrastructure. Discussions are in progress to consider whether this database should be hosted within EPPO in the future, and in order to facilitate these discussions, a questionnaire on its use and the needs of laboratories was sent to all laboratories involved in official diagnostics. The results of the survey were presented during the workshop.

The workshop participants agreed with the results of the survey that the focus for integration into the EPPO system should be:

- DNA sequences for blasting¹
- Protocols for barcoding, and
- Where to find biological material.

The workshop emphasised the importance of these data (and of their maintenance) as they are key to the work of laboratories, in particular reference laboratories in the EPPO region. Other types of information currently present in Q-bank, such as geographical distribution, host plants, keys, pictures etc., are readily available in EPPO datasets (e.g. the EPPO global database <https://gd.eppo.int/>, EPPO diagnostic protocols).

The workshop supported the idea that a project for integration of Q-bank data should be proposed to the EPPO Council in order to ensure long-term sustainability of access to the data.

However, it was also noted that progress on the integration would still be dependent on identifying sources of funding for the project.

A review of the outcomes of the Q-collect project on collections of biological material for plant health diagnostics

Q-collect is an EU FP7-funded project (1 October 2013-30 September 2015) with the aim of improving the status of (reference) collections important to plant health (more information on the project is available on the Q-collect website, www.q-collect.eu).

The objectives of the project were to:

- make an inventory of existing plant pest collections in the European and Mediterranean region, and of their content;
- develop guidelines for quality standards, (later to be proposed as EPPO Standards);

¹ The Basic Local Alignment Search Tool (BLAST) finds regions of local similarity between sequences. The programme compares nucleotide or protein sequences to sequence databases and calculates the statistical significance of matches.



- develop guidelines to improve the accessibility of these collections;
- design and build a network of reference collections;
- develop an info-portal on the internet to provide information on the outcomes of the project;
- disseminate results to stakeholders;
- support a network of national reference collections relevant to national and EU plant health policy;
- provide guidelines for preserving, maintaining and improving the quality and accessibility of national reference collections (specimens, tissues and DNA) and consequently ensuring harmonisation of collection maintenance across Europe.

The main findings of the Q-collect project were as follows:

- Most collections are research or working collections and only a few of them are organised to provide services to outside users;
- There is a limited amount of information on collection holdings available online;
- Many collections have no quality system in place and accreditation of collections is rare;
- Sharing of material between collections to ensure resilience is not common and can be considered as a high risk for loss of important biological material in case of incidents with buildings or equipment;
- Appropriate basic funding is not secure enough and there is a need for a common policy on collection management throughout the region.

Proposals made during the Q-collect project to improve the current situation were presented:

- Guidelines on quality assurance for reference collections: it was noted that these should be further developed in the framework of the EPPO specialised Panels on diagnostics for each group of organisms;
- Criteria for the establishment of a sustainable network: it is proposed to establish a network to bring together previously dispersed information on biological material and promote collaboration. Criteria for reference and working collections were proposed;
- Plans for an online platform to foster and facilitate networking and data sharing were presented. The objective of setting up this type of platform is to improve accessibility and visibility of biological material (and related information) available in collections.

Heads of laboratories discussed the question of sharing of material from collections. Participants with various working collections, for example from Denmark, Hungary, Latvia, Russia, and Switzerland, considered that sharing the material in their possession was important. They were also convinced that, as a first step, having the information about their collections displayed through a web-portal is essential. The workshop concluded that a pilot platform including a deposit form for biological material should be developed. The workshop also recommended that the criteria proposed for the establishment of a sustainable network should also be reviewed in the EPPO Panels on diagnostics. It was also suggested that the guidelines developed within the Q-collect project should be sent for information to the organisers of test performance studies, as these are laboratories sharing biological material from their collections in this framework. This will allow feedback to be gathered about the criteria proposed for the network.



An analysis of the impact of the 'Nagoya Protocol' for collections was presented. The workshop noted that this legislation seems to create conflict with obligations under the International Plant Protection Convention (IPPC), for example it is not clear whether specimens isolated from imported consignments can be stored and used for diagnostic and research purposes.

Finally, the heads of laboratories reviewed and endorsed a white paper summarising the outcome of project proposals and highlighting the main challenges ahead. This paper is available at: http://archives.eppo.int/MEETINGS/2015_conferences/q-collect/White_paper_on_collections_2015-10.pdf

All presentations are available on the EPPO Website: http://archives.eppo.int/MEETINGS/EPPO_workshops.htm

References

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