

Subcommittee on Plant Health Diagnostics – Meeting 22

Communiqué

The Subcommittee on Plant Health Diagnostics (SPHD) reports to Plant Health Committee (PHC) and provides national leadership in plant health diagnostics to sustain and improve biosecurity. SPHD delivers on the [National Plant Biosecurity Diagnostic Strategy \(NPBDS\)](#), which aligns with Schedule 4 of the [Intergovernmental Agreement on Biosecurity \(IGAB\)](#).

The Queensland Department of Agriculture and Fisheries hosted SPHD members, observers and advisers at the Ecosciences Precinct, Brisbane, 3-4 May 2016. Activities and outcomes since the previous meeting in October 2016 are described below against the key themes of the NPBDS.

Developing and maintaining capability to identify High Priority Pests

Protocol development

The scope of NDPs has been broadened to enable the development of protocols that provide definitive taxonomic identification to a group of related pests within a taxa, such as several species within a genus. To support this, Reference Standards 2 (Development of National Diagnostic Protocols – procedures for authors) and 3 (Guidelines for the Development and Approval Processes for National Diagnostic Protocols) were updated and finalised. A draft National Diagnostic Protocol (NDP) for Summer fruit tortrix (*Adoxophyes orana*) was approved by the assessment panel and will be presented to SPHD members for endorsement in June 2016.

Fruit fly diagnostics

SPHD noted the publication of Version 2 of the *Australian Handbook for the Identification of Fruit Fly*, recommending this as a compilation of the best practice for fruit fly diagnostics.

Surveillance Diagnostics

SPHD continues its review into diagnostic capability that supports surveillance activities. The review examines existing standards, protocols, technologies and professional development with the aim of identifying diagnostic capability that would optimise the efficiency of in-field diagnostics and laboratory testing to support surveillance. SPHD has developed criteria that assesses NDPs on their applicability to support surveillance activities, and will develop Reference Standards to provide a framework for including verified surveillance diagnostic procedures as appendices of the NDPs. SPHD will prioritise the updating of NDPs with surveillance diagnostic information based on identified gaps against the national priority pest list.

Enhancing the National Plant Biosecurity Diagnostic Network (NPBDN)

Professional development

SPHD facilitated the delivery of the fifth Annual Diagnosticians' Workshop (ADW) in February 2016, which was hosted by CSIRO in Canberra. The theme of the ADW in 2016 was supporting reference collections, and included the delivery of two professional development workshops on *Basic and Practical Aspects of Specimen Curation* and *New Development and Advanced Techniques in Collection Management*. The ADW 2016 report is available on the NPBDN website.

To support the *Modern Diagnostics* initiative under the *Northern Australia White Paper*, SPHD is investigating delivering a tropical diagnostic themed ADW 2017. This would remain open to all NPBDN members, with the recognition that diagnostics located across the country support the delivery of diagnostics in the north.

Upcoming professional development opportunities facilitated by SPHD will include a new round of Laboratory Residentials, a molecular diagnostics of honey bee pest workshop and advanced diagnostics of longhorn beetles. Opportunities to participate in these activities will be advertised on the NPBDN website shortly.

The professional development activities facilitated by SPHD have been possible through a grant from the Department of Agriculture and Water Resources to Plant Health Australia under the *Plant Biosecurity and Response Reform* programme

Network enhancement

In further support of the *Modern Diagnostics* initiative, SPHD will promote a *Tropical node of the NPBDN* to enhance the networking of diagnosticians in tropical regions and enhance capability and capacity for identification of tropical pests. The development of nodes within the NPBDN will allow members to focus on specific issues and outcomes, while enabling the support of the NPBDN resources.

Promotion of the NPBDN internationally occurred through the presentation of the keynote talk at the United States of America *National Plant Biosecurity Network conference* in Washington DC. Network Implementation Working Group Coordinator, Dr Stephen Dibley, presented on the history and current activities of the NPBDN, identifying the commonalities between the two countries networks, and with the intention of building improved linkages between the diagnostic networks in the future.

Capability and capacity audit

SPHD will seek funding in 2016 to deliver a targeted analysis on plant biosecurity diagnostics to identify critical gaps in diagnostic capability through the assessment of protocols, people and collections. The audit will inform future SPHD activities and strengthen the NPBDN, and also inform the *National Plant Biosecurity Research, Development and Extension Strategy Implementation Committee* on research needs for diagnostics.

SPHD continues to investigate issues around the management of diagnostic surge, particularly under emergency response scenarios, where the number of samples generated from delimiting surveillance activities could overwhelm individual laboratories. The review will focus on current national surge capacity to meet demands for selected priority pests and test methods. It will also include an examination of existing arrangements for the movement of samples, a stocktake of relevant laboratories, and simulation activities to identify potential bottlenecks in workflow.

Implementing quality management systems

Proficiency testing

Participating laboratories completed round four of the national proficiency testing program coordinated by SPHD through the *Australian National Quality Assurance Program*. High levels of diagnostic performance were achieved across participating laboratories, continuing the positive results gained from the previous rounds of the program.

Facilitating the development of relevant national information systems supporting diagnostics

National Plant Pest Reference Collection Framework

SPHD endorsed a *National Plant Pest Reference Collection Framework* (the Framework). The Framework will enable the development of a *National Plant Pest Reference Collections Strategy* ensuring that nationally significant Reference Collections in Australia meet the needs of trade, biosecurity and science by being current, relevant, sustainable, connected and accessible.

Next meeting and further information

The next scheduled face-to-face meeting of SPHD is in October 2016 and will be hosted by the Plant Biosecurity CRC, Canberra. This meeting will coincide with a meeting of the Subcommittee on Plant Health Surveillance (SNPHS) in order to promote cooperation and linkages between diagnostics and surveillance. Further information about SPHD and its activities can be found at the [NPBDN website](#), provided by the [local SPHD representative](#) or the SPHD secretariat at sphd@agriculture.gov.au.

