

## Subcommittee on Plant Health Diagnostics – Meeting 21

### 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 Department of Agriculture and Food Western Australia hosted SPHD members, observers and advisers in Perth, 17-18 September 2015. Activities and outcomes since the previous meeting in May 2015 are described below against the key themes of the NPBDS.

#### Key outcomes

##### 1. Developing and maintaining capability to identify High Priority Pests

- SPHD endorsed five National Diagnostic Protocols (Table 1). This brings the total number of endorsed [National Diagnostic Protocols \(NDPs\)](#) to 34 (as of September 2015).

Table 1 - endorsed NDPs

NDP No.	Scientific name of pest	Common name of pest
30	<i>Uromyces viciae-fabae</i>	Lentil rust
31	<i>Endocronartium harknessii</i>	Pine gall rust
32	<i>Protopulvinaria pyriformis</i> (Cockerell)	Pyriform scale
33	<i>Pulvinaria iceryi</i> (Signoret)	Pulvinaria scale
34	<i>Roesleria subterranea</i>	Grape root rot

- SPHD developed an eight point scoring system (ranging from an unpublished protocol through to a protocol endorsed by the International Plant Protection Convention) for describing the stages of diagnostic protocol development. The purpose of this approach is to better describe diagnostic preparedness and inform prioritisation of future protocol development. SPHD will work with Plant Health Australia to implement this diagnostic protocol scoring system on High Priority Pests in Industry Biosecurity Plans.
- SPHD commenced a review into diagnostic capability that supports targeted surveillance activities. The review will examine 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 targeted surveillance.
- SPHD noted the preparations for an audit of the National Plant Biosecurity Diagnostic Network (NPBDN), as a next step in network development to inform future activities. This audit is to be taxonomically based, so that it can be directly compared with organisms identified as priorities.
- SPHD commenced a review into how issues around diagnostic surge capacity can be managed, as during certain emergency response scenarios, the numbers of samples generated from delimiting surveillance activities could overwhelm individual laboratories. The review will include identifying the need for high-throughput tests for a small number of high priority pests, an examination of existing arrangements for the movement of samples, a stock-take of relevant laboratories, and simulation activities to identify potential bottlenecks in workflow. The review will include case studies, one of which will be Karnal bunt.

## 2. Enhancing the National Plant Biosecurity Diagnostic Network (NPBDN)

- SPHD updated its [professional development plan](#) to include a two-day training workshop on the morphological and molecular identification of bee pests and vectors. Further details will be announced via the NPBDN website and NPBDN email distribution.
- The Department of Primary Industries and Fisheries and the Biosciences Research Division, Department of Economic Development, Jobs, Transport and Resources will collaborate through a Laboratory Residential on the molecular analysis of Cucumber Green Mottled Mosaic Virus (CGMMV). Outputs of this collaboration will include a draft NDP for the definitive identification of CGMMV and a draft manuscript paper on the CGMMV whole genome sequence found in the Northern Territory and Queensland.
- A proposal for the theme of the Annual Diagnosticians' Workshop (ADW) 2016 was developed, taking into account feedback from NPBDN members – *Supporting plant health diagnostics through curation, storage and retrieval of real and digitized specimens, images and data*. In alignment with recent years, the ADW will be associated with two professional development workshops targeting accession of material (curation, digital records, automated labelling and data capture, linking different material) and retrieval of information (nomenclature and names of groups in different taxa, database availability, searching and capabilities). Further details will be announced via the NPBDN website and NPBDN email distribution.
- Since May 2015, SPHD has continued to facilitate activities under its professional development plan for members of the NPBDN. Activities have included Laboratory Residentials and a two-part workshop focusing on morphological and molecular approaches to species identification in *Colletotrichum*. Further information regarding these and other professional development activities is available at the [professional development page](#) of the NPBDN website or through the SPHD secretariat at [sphds@agriculture.gov.au](mailto:sphds@agriculture.gov.au). Professional development activities facilitated by SPHD are possible through a grant from the Department of Agriculture to Plant Health Australia under the Plant Biosecurity and Response Reform program.

## 3. Implementing quality management systems

- Round four of the national proficiency testing program coordinated by SPHD through the Australian National Quality Assurance Program has commenced. Results will be available to participating laboratories following completion.

## 4. Facilitating the development of relevant national information systems supporting diagnostics

- SPHD continues to develop a strategic approach to the use of reference collections in support of plant biosecurity and trade, with their integration into the NPBDN. Issues identified so far include long-term maintenance, human resources, national connections and delivery, quality assurance, delivery standards and access to collections. SPHD will present a strategic approach to PHC in June 2016.

## Next meeting

- The next scheduled face-to-face meeting of SPHD is in May 2016 and will be hosted by the Department of Agriculture and Fisheries, Queensland.

## Further information

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 [sphds@agriculture.gov.au](mailto:sphds@agriculture.gov.au).

