Subcommittee on Plant Health Diagnostics

SPHD Reference Standard No. 1 (SPHD RS No. 1)

Glossary of Terms

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Contents

1.	INT	RODUCTION	3
	1.1	Scope	3
		Purpose	
		Review	
		Reference Standards	
		References	
		RONYMS AND ABBREVIATIONS	
		RMS AND DEFINITIONS	

1. INTRODUCTION

1.1 Scope

The *Glossary of Terms* (SPHD RS No.1) is a Reference Standard of the Subcommittee on Plant Health Diagnostics (SPHD), listing terms, definitions and abbreviations with specific meaning for Australian plant health systems. It has been developed to provide a harmonised, nationally agreed vocabulary associated with all aspects of the development and implementation of National Diagnostic Procedures and Protocols for Emergency Plant Pests in Australia. It also provides cross-references, where necessary, to explain the interpretation and application of certain terms.

1.2 Purpose

The purpose of this Reference Standard is to increase clarity and consistency in the use and understanding of terms and definitions for official emergency phytosanitary situations in Australia which are used by government agencies/jurisdictions and industry.

The Glossary of Terms occurs in conjunction with the International Plant Protection Convention (IPPC) terms and definitions stated in the ISPM No. 5 Glossary of Phytosanitary Terms (2024), and definitions included in the Government and Plant Industry Cost Sharing Deed in Respect of Emergency Plant Pest Responses, referred to as the EPPRD.

1.3 Review

Review and updating of the *Glossary of Terms* is to be done every five years or earlier if required, by the Diagnostic Protocol Working Group (in consultation with the SPHD) for expert input. The Glossary and changes to the *Glossary of Terms* are subject to the endorsement of SPHD members for adoption. Terms and/or definitions for review may be identified by SPHD members, working groups, NDP Coordinator or the Executive Officer.

1.4 Reference Standards

The SPHD RS No. 1 will be reviewed every five years or earlier if required. The review will be implemented by the Diagnostic Protocol Working Group (in consultation with SPHD). Changes to the Standard are subject to the endorsement of SPHD members for adoption.

All SPHD Reference Standards can be found on the NPBDN website (https://www.plantbiosecuritydiagnostics.net.au/). Click on the "Resources" tab, and then on the "National Diagnostic Protocols".

1.5 References

IPPC. 2024. ISPM No. 5 Glossary of Phytosanitary Terms. FAO, Rome.

PHA. 2022. PLANTPLAN, Australian Emergency Plant Pest Response Plan, Version 4.1 December 2022. Plant Health Australia, Canberra.

PHA 2024. EPPRD. The Government and Plant Industry Cost Sharing Deed in Respect of Emergency Plant Pest Responses, referred to as the EPPRD. Plant Health Australia, Canberra.

2. ACRONYMS AND ABBREVIATIONS

ANQAP Australian National Quality Assurance Program

CCEPP Consultative Committee on Emergency Plant Pests

CPHM Chief Plant Health Manager

DAWR Australian Government Department of Agriculture and Water Resources (2015 – 2020)

DAWE Australian Government Department of Agriculture, Water and the Environment (2020 –

2022)

DAFF Australian Government Department of Agriculture, Fisheries and Forestry (2022 -current)

DPWG Diagnostic Protocol Working Group of SPHD

EDP Emergency Diagnostic Procedure/Protocol

EPP Emergency Plant Pest

EEPL Exotic Environmental Pest List

EPPO European and Mediterranean Plant Protection Organisation

EPPRD Government and Plant Industry Cost Sharing Deed in respect of EPP Responses. Also

known as EPP Response Deed (EPPRD) or the Deed

FAO Food and Agriculture Organization

HPP High Priority Pests

IPPC International Plant Protection Convention

ISPM International Standard for Phytosanitary Measures

NATA National Association of Testing Authorities

NDP National Diagnostic Protocol

NPBDN National Plant Biosecurity Diagnostic Network

NSP National Surveillance Protocol

NMG National Management Group

NPHPTP National Plant Health Proficiency Testing Program

NPPP National Priority Plant Pests

PaDIL Pest and Disease Image Library

PBPWG Plant Biosecurity Preparedness Working Group

PHA Plant Health Australia

PHC Plant Health Committee

PLANTPLAN Australian Emergency Plant Pest Response Plan

PSNAP Plant Surveillance Network Australasia-Pacific

SME Subject matter expert

SNPHS Subcommittee on National Plant Health Surveillance

SPHD Subcommittee on Plant Health Diagnostics

TPDP Technical Panel on Diagnostic Protocols

3. TERMS AND DEFINITIONS

Accreditation Recognition by the accreditation body (NATA) of technical

> competency resulting in the approval and authority to perform specific tasks or provide specific services in full or

partial support of official obligations.

Australian National Quality Assurance

Program (ANQAP)

An international proficiency testing program for veterinary,

aquatic and plant health laboratories.

Assay Synonymous with any test or test method e.g. ELISA, PCR.

Assessment Panel A working group of plant health professionals appointed by

SPHD and responsible for the assessment of a diagnostic procedure/protocol through the approval process outlined in SPHD RS No.3. Members of the Assessment Panel may

be DPWG members or delegated SMEs.

Australian Chief Plant Protection Officer

(ACPPO)

Individual holding the position of the Australian Chief Plant

Protection Officer of the Commonwealth of Australia.

Australian Emergency Plant Pest

Response Plan (PLANTPLAN)

A document which provides a set of nationally consistent guidelines covering management and response procedures for EPP incursions affecting the Australian plant industries.

Author/Applicant

The person or organisation that has written or submitted a diagnostic procedure/protocol to SPHD for approval.

Batch

All vaccine, antigen, antisera, enzymes, kit components or other reagents derived from the same homogeneous bulk

and identified by a unique code number.

Chief Plant Health Manager (CPHM)

Individual holding the position of Chief Plant Health Manager (or equivalent role), of an Australian State or Territory. The CPHM is the primary representative of their State or Territory on all matters relating to plant health status and its supporting systems within their jurisdiction.

Also known as the Chief Plant Health Officer.

Consultative Committee on Emergency

Plant Pests (CCEPP)

The key technical body for coordinating national responses to EPP incidents in Australia. It assesses the technical feasibility of eradication of EPP incursions in Australia and

provides that advice to NMG.

Contingency Plan

A document which, under the umbrella of PLANTPLAN, recommends actions based on the known biology, behaviour and host range of an EPP and recommends the roles and responsibilities of organisations involved in biosecurity or EPP response strategies in Australia.

Department of Agriculture and Water Resources (DAWR)

The Australian Government department which during 2015 – 2020 was responsible for, amongst other things, Australian plant health.

Department of Agriculture, Water and the Environment (DAWE)

The Australian Government department responsible for Australian plant health from February 2020 to July 2022

Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) The Australian Government department responsible for Australian plant health since July 2022

Diagnostic Procedure

A technical procedure or method for diagnosis or detection of a specific plant pest or group of plant pests.

Diagnostic Protocol

Any document that contains detailed information about a specific plant pest or group of plant pests relevant to its diagnosis. A diagnostic protocol will include diagnostic procedure/s and data on the pest, its biology and taxonomy, detection, identification, acknowledgements, references, and contact information for expert/s.

Diagnostic Protocol Working Group (DPWG)

A delegated working group of SPHD responsible for facilitating the development, review, verification, and approval of National Diagnostic Procedures/Protocols for EPPs, EEPL, HPPs, and NPPPs, and provides advice/recommendations to SPHD. This group also coordinates the NPHPTP.

Emergency Diagnostic Procedure (EDP)

A technical procedure developed for the diagnosis or detection of an EPP for use in an emergency response event, where a National Diagnostic Procedure is not available or found to be not suitable. The EDP will be submitted to SPHD for endorsement.

Emergency Plant Pest (EPP)

A plant pest that is included in Schedule 13 (of the EPPRD) or which meets the EPP definition defined in the EPPRD

Emergency Plant Pest Response Deed (EPPRD)

Government and Plant Industry Cost Sharing Deed in respect of Emergency Plant Pest Responses. It is a formal, legally binding agreement between Plant Health Australia (PHA), the Australian Government, all State and Territory Governments and plant industry signatories covering the management and funding of responses to EPP Incidents. The Deed can be viewed on the PHA website:

www.planthealthaustralia.com.au/epprd

Emergency Response Event

The sequence of events put into place if an EPP is discovered in Australia.

European and Mediterranean Plant Protection Organisation (EPPO)

An intergovernmental organisation responsible for European plant health.

Government and Plant Industry Cost Sharing Deed in respect of EPP Responses, EPPRD Also referred to as the EPP Response Deed or the Deed. It is a formal, legally binding agreement between PHA, the Australian Government, all State and Territory Governments and plant industry signatories covering the management and funding of responses to EPP Incidents. The Deed can be viewed on the PHA website: www.planthealthaustralia.com.au/epprd

Independent Laboratory

A public or private laboratory whose personnel are not directly involved with developing or submitting the diagnostic procedure/protocol for assessment and do not use the same equipment (if possible) or supplies. The laboratory should be one where the type of assay in question is done on a routine basis.

Independent Expert

A specialist in diagnosing or identifying the EPP, who did not participate in the development or writing of the diagnostic protocol relating to that EPP.

International Standard for Phytosanitary Measures (ISPM)

An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC.

National Association of Testing Authorities (NATA)

The recognised national accreditation authority for analytical laboratories and testing service providers in Australia.

National Diagnostic Protocol (NDP)

A SPHD endorsed Australian document containing detailed information about a specific plant pest or group of plant pests relevant to its diagnosis. A diagnostic protocol will include diagnostic procedure/s and data on: the pest, its hosts, taxonomic and contact information; detection, identification, acknowledgements and references.

The NDP is developed for the accurate taxonomic identification of the organism.

National Management Group (NMG)

The group with the constitution and role set out in Part 1 of Schedule 8 of the EPPRD

National Plant Biosecurity Diagnostic Network (NPBDN)

The nationally integrated network for plant diagnosticians in Australia. The network was founded in 2011 to enable efficient and effective diagnosis of plant pests by Australian plant diagnosticians.

National Plant Health Proficiency Testing Program (NPHPTP) An annual national proficiency testing program, facilitated by ANQAP and the DPWG, which provides laboratories with the opportunity to demonstrate ability to competently perform tests, identifications and/or measurements.

National Priority Plant Pests (NPPPs)

A National Priority Plant Pest must:

- be injurious to plants, plant products, bees or impact social amenity
- be exotic to Australia, or have limited distribution and be under official control
- have potential to cause significant negative impact on national economies, the environment and/or community
- have potential to enter, establish and spread in Australia; and
- there must be a clear benefit from, or requirement for, nationally coordinated action or approach.

NPPP are endorsed by PHC.

National Surveillance Protocol (NSP)

A SNPHS endorsed Australian document containing detailed information about a specific plant pest or group of plant pests relevant to its surveillance. A surveillance protocol includes information on the surveillance methodology, pest biology and taxonomy, identification and sample processing.

Pest and Disease Image Library (PaDIL)

A biodiversity and biosecurity information management system with an emphasis on delivering high quality diagnostic images. PaDIL contains detailed records of invertebrates, bacteria, fungi, virus and viroids and phytoplasmas that threaten field crops, pasture, forestry, horticulture, marine, human health and animals.

Peer Review

A process by which an Independent Expert approved by DPWG, reviews the accuracy and currency of the introduction, taxonomic information (4.2 and 4.3 from SPHD RS No. 2) and any other information requested by SPHD provided in the submitted diagnostic protocol.

Performance

The efficiency with which a test or procedure reacts under certain conditions or fulfils its intended purpose.

Plant Health Australia (PHA)

A not-for-profit company with members including representatives from the Australian Government, all State and Territory Governments and Plant Industry peak bodies. PHA is the peak national coordinating body for plant health in Australia.

Plant Health Committee (PHC)

PHC is the peak government plant biosecurity policy and decision-making forum. Its role is to maintain or improve plant health in Australia in support of the economy, environment and community through strategic policy, technical and regulatory advice and national leadership on plant biosecurity matters. SPHD is a subcommittee of PHC.

Provisional NDP

A published international diagnostic protocol that is being assessed as suitable for diagnostics purpose but has not been validated in Australia.

Subject Matter Expert (SME) A plant health professional recognised by SPHD, SNPHS,

PHC, CCEPP and/or NMG who has expertise in

Specific or related pest

Diagnostics and/or diagnostic technology

Plant Pest Detection The process of finding an organism of consequence to

plant health.

Plant Pest Identification A process of ascertaining the taxonomic identity of a plant

pest.

Plant Surveillance Network Australasia-

Pacific (PSNAP)

Network enabling members to communicate about plant pest surveillance and acts as a coordination point for surveillance professionals and practitioners to strengthen surveillance capacity and capability across Australia, New Zealand and the nearby region. The PSNAP was formed in

2017 as an initiative of the SNPHS.

Reliability The specific degree of confidence of a protocol to detect an

EPP.

Reproducibility Ability of a test method to provide consistent results when

applied to the organism/sample tested under different

conditions.

Review of National Diagnostic

Procedures/Protocols

The process involved in maintaining and updating

protocols/procedures for the diagnosis of EPPs (SPHD RS

No. 3)

Sample Material submitted for testing.

Sampling Technique A systematic procedure by which a scientific task

(sampling) is accomplished.

Sensitivity Smallest detectable amount of the target (target may

include live organisms, antibodies, or nucleic acids).

Specificity Ability of a test to accurately detect true positives and true

negatives. It is measured in %. If a test is 100% specific, it implies that it does not cross react (or misidentify) any other pathogen/pests that are closely related to the target

pathogen/pest.

Specimen Material that is derived from a sample and used for testing

purposes.

SPHD Reference Standard An endorsed document produced by SPHD stipulating the

agreed principles, terms and conditions for the production of EPP related documents. Usually referred to as SPHD

RS No. X.

Subcommittee on National Plant Health

Surveillance (SNPHS)

A subcommittee of PHC. SNPHS works to maintain and improve Australia's plant health surveillance capacity and capability in support of the economy, environment and

community'.

Subcommittee on Plant Health

Diagnostics (SPHD)

A subcommittee of PHC. SPHD provides leadership in plant pest diagnostics policy, standards and coordination

for Australia to improve and enhance national plant

biosecurity diagnostics.

Validation Validation is a process to determine the fitness of a

procedure/protocol for a particular use and includes

procedure optimisation and demonstration of performance characteristics and evaluation of sensitivity and specificity.

Vector A carrier of an infectious agent.

Verification A process by which an Independent Laboratory

demonstrates that the diagnostic procedures can be followed and, if necessary, identifies critical improvements

in the methods described.