ADW 2024

The challenges of unculturables & their vectors

PROGRAM

NATIONAL PLANT
BIOSECURITY
DIAGNOSTIC NETWORK

Annual Diagnostics Workshop (ADW) 2024

PROGRAM

Note: all times are in AEST QLD time (add one hour for AEDT NSW time)

DAY ONE | Tuesday, 19 March 2024 | Bay Room

Workshops 1, 2 and 3 | 9.00am - 11.00am — Refer to back page for workshop details

Registration and morning tea | 11.00am - 11.30am

Session 1: Updates in the Network — Chair: Cathy Todd | Co-chair: Andrew Manners

TIME	PRESENTER	ORGANISATION	TOPIC
11.30am	Rachel Mann	Plant Health Australia (PHA)	Welcome and introductions
11.40am	Bianca Rodrigues Jardim	PHA	National Plant Biosecurity Diagnostic Network (NPBDN) professional development updates
11.50am	Juliane Henderson	Queensland Department of Agriculture and Fisheries (QDAF)	Subcommittee on Plant Health Diagnostics (SPHD) update
12.05pm	Anna Genge	Department of Agriculture, Fisheries and Forestry (DAFF)	DAFF update
12.20pm	**ADW 2024 group photo**		

Lunch | 12.35pm - 1.35pm

Session 2: National Diagnostic Protocols (NDPs), collections, and proficiency testing — Chair: Alison Dann | Co-chair: Toni Chapman

1.35pm	Andrew Turley	CSIRO	Invited speaker: A national approach to biological collections
2.00pm	Harsh Garg	PHA	National Diagnostic Protocol (NDP) updates
2.10pm	Melinda Moir	Department of Primary Industries and Regional Development WA (DPIRD WA)	NDP: Meadow Spittlebug (*Philaenus spumarius* L.)
2.25pm	Nga Tran	University of Queensland (UQ)	Residential report: Avocado scab and laurel wilt NDP
2.35pm	Sophia Callaghan	NSW Department of Primary Industries (NSW DPI)	Residential report: Forestry pests and *Phytophthora pluvialis* NDP
2.45pm	Conrad Trollip	NSW DPI	Residential report: AUS-NZ forestry and *Ceratocystis* NDP
2.55pm	Dominie Wright	DPIRD WA	National Plant Health Proficiency Testing Program (NPHPTP) update

Afternoon tea | 3.10pm - 3.30pm

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Session 3: Challenging to diagnose pests and pathogens			Chair: Gavin Hunter | Co-chair: Sharon Van Brunschot
TIME	**PRESENTER**	**ORGANISATION**	**TOPIC**
3.30pm	Andrew Geering	Queensland Alliance for Agriculture and Food Innovation (QAAFI), UQ	Invited speaker: A review of Begomoviruses and whiteflies in the Top 42
3.55pm	Lilia Carvalhais | Kathy Crew	UQ | QDAF	Residential report: Banana wilt associated phytoplasmas in Papua New Guinea
4.05pm	Craig Webster	DPIRD WA	Diversity of phytoplasma diseases of cultivated and wild plants in Western Australia
4.20pm	Rebecca Roach	QDAF	Residential report: Validation of Crown Gall pathogen diagnostics
4.30pm	Paul Campbell	QDAF	The great leap forward for vegetable industry biosecurity diagnostics
4.40pm	Gavin Hunter	CSIRO	Close of day one
ADW 2024 social event | Canapés served for 2 hours. Drinks available at cash bar | Milling Room | 5.00pm - 7.00pm			

DAY TWO | Wednesday, 20 March 2024 | Bay Room			
Arrival tea and coffee | 8.30am - 9.00am			
Session 4: Vectors of unculturable plant pathogens			Chair: Toni Chapman | Co-chair: Sam Cain Axelsen
9.00am	Cait Selleck	Agriculture Victoria (AgVic)	Invited speaker: The distribution of froghoppers in Australia - potential vectors of *Xylella fastidiosa*
9.20am	Flavia Bonara	QDAF	Detection of viruses in vector insects as a potential surveillance tool
9.35am	Matthew Power	DPIRD WA	Development of a species-specific qPCR assay for the detection of Polyphagous shot-hole borer, *Euwallacea fornicatus*
9.50am	Daniel Huston	CSIRO	Virus-vector nematodes: what we know, what we don't, and what we need to
10.05am	Reannon Smith	AgVic	The molecular approach to unculturables from reference collections
10.20am	Poll EV	PHA	Poll EV
Morning tea | 10.30am - 11.00am			

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Session 5: Methods for improved detection and identification			Chair: Sharon Van Brunschot | Co-chair: Alison Dann
TIME	**PRESENTER**	**ORGANISATION**	**TOPIC**
11.00am	Jane Ray	Department of Industry, Tourism and Trade, NT (DITT NT)	Resolving the identification of Australian *Ralstonia* strains using molecular techniques
11.10am	Asha Thomas	Ministry for Primary Industries (MPI), Aotearoa/New Zealand	Residential report: Diagnostics capability building from SARDI's real world surveillance and eradication programs
11.20am	Jeremy Brawner	University of Florida	Developing a universal pathogen identification tool
11.35am	Mignon de Jager	QAAFI, UQ	Evaluation of published and novel nested PCR assays for reliable detection of banana wilt associated phytoplasmas
11.50am	Merje Toome-Heller	MPI, Aotearoa/New Zealand	Improved diagnostic tool for pine gall rust detection
12.10pm	Francesco Martoni | Reannon Smith Elizabeth Fowler	AgVic | AgVic | QDAF	Panel session: Non-destructive nucleic acid extraction methods
Lunch | 1.00pm - 2.00pm			
Session 6: Innovative tools for detection and identification			Chair: Andrew Manners | Co-chair: Cathy Todd
2.00pm	Salome Wilson	Australian National University (ANU)	Advancing wheat rust fungi diagnostic power by rapid validation of a virulence genes detected by the wheat immune system
2.15pm	Thomas Farrall	University of Sunshine Coast	Development of an enrichment method for third-generation sequencing: identifying viruses *in planta*
2.30pm	Shamila Abeynayake	Plant Innovation Centre, DAFF	Small RNA-omics and rapid genome sequencing for characterisation of novel plant viruses
2.45pm	Natasha Brohier	AgVic	Targeted high throughput sequencing for detection of phytopathogenic bacteria of biosecurity significance
3.00pm	Gus McFarlane	NSW DPI	Residential report: CRISPR-based diagnostics techniques
3.15pm	Poll EV	PHA	Poll EV: ADW 2024 and NPBDN evaluation
3.30pm	Cathy Todd	SARDI	ADW 2024 closing remarks
Event concludes | 3.40pm			

WORKSHOPS

DAY ONE | Tuesday, 19 March 2024			
WORKSHOP	**TIME**	**TOPIC**	**MAX NUMBER**
Workshop 1 (Bay Room)	9.00am - 11.00am	The fundamentals of the Australian Plant Pest Database (APPD)	30 in-person
Workshop 2 (River Room)	9.00am - 11.00am	National Diagnostic Protocol (NDP) development and review	40 in-person
Workshop 3 (Horizons Room)	9.00am - 11.00am	Rapid molecular assays to detect Honeybee mites	20 in-person, hybrid

NATIONAL PLANT BIOSECURITY **DIAGNOSTIC NETWORK**

The National Plant Biosecurity Diagnostic Network (NPBDN) is the nationally integrated network for plant diagnosticians in Australia. Members of the network support their profession by helping to contribute to a constantly evolving plant diagnostic system. Their activities enable the efficient and effective diagnosis of plant pests by Australian plant diagnosticians.

The network was founded in 2011. The network was formally established by a wide range of stakeholders involved in managing Australia's plant biosecurity system. Plant diagnosticians involved with this network are located in every state and territory. Diagnostic services are provided from cities and regional centres in most of Australia's major agricultural production areas.

The National Plant Biosecurity Diagnostic Professional Development and Protocols Project is coordinated and delivered by Plant Health Australia and is funded by the Department of Agriculture, Fisheries and Forestry. The objectives of the Project are to enhance and strengthen Australia's diagnostic capacity and capability to identify priority plant pests that impact on plant industries, environment and the community.

Visit npbdn.net.au

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