



2nd Australian Biosecurity Symposium

A decade of biosecurity: turning a moment into a movement



Program

3–5 May 2022 • Gold Coast, Queensland

#BioSym2022



THE COMPLEXITY, INTENSITY AND FREQUENCY OF BIOSECURITY EMERGENCIES ARE INCREASING.



1 TEAM



70 MEMBERS



5 SECTORS



9 JURISDICTIONS



6 FUNCTIONS

MORE THAN JUST A TEAM.

IT'S A REMINDER. IT'S A CONVERSATION-STARTER. IT'S A PRIORITY.

NATIONAL
BIOSECURITY
RESPONSE TEAM 

COVID-19 requirements and safety measures

All Symposium attendees (delegates, sponsors, exhibitors, staff) are required to follow Queensland Government COVID restrictions. Please familiarise yourself with current requirements at www.qld.gov.au.

Royal Pines Resort have enhanced their already high health and hygiene standards and will be adhering to all Government COVID directions.

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For enquiries:

E: symposium@animalhealthaustralia.com.au

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T: (02) 6232 5522

#BioSym2022

Hosted by



Animal Health Australia is a not-for-profit public company that facilitates innovative partnerships between governments, major livestock industries and other stakeholders to protect animal health and the sustainability of Australia's livestock industry.



Invasive Species Council is an independent organisation formed in 2002 to keep the Australian environment safe from invasive plants, animals and diseases. It seeks to do this by catalysing strong, collaborative biosecurity.



Centre for Invasive Species Solutions is a national collaborative research, development and extension organisation, formed to tackle the ongoing threat from invasive species.



Plant Health Australia is the national coordinator of the government-industry partnership for plant biosecurity in Australia. PHA works to minimise pest impacts on Australia, enhance market access and contribute to industry and community sustainability.

Welcome

Animal Health Australia (AHA), Invasive Species Council (ISC), the Centre for Invasive Species Solutions (CISS) and Plant Health Australia (PHA) are proud to welcome you to the 2nd Australian Biosecurity Symposium.

The Symposium will once again focus on preventative biosecurity practices and provide the opportunity to share research and innovation, explore outside-of-the-box thinking and exchange knowledge and ideas across the biosecurity collective – agriculture (animals and plants), pest animals, weeds, wildlife, aquatics, humans and the environment.

This year's theme is 'a decade of biosecurity: turning a moment into a movement.' Australia's biosecurity system faces unprecedented pressure. To address this pressure, strong leadership and innovation are essential. Our Symposium provides the ideal platform to explore how to transform Australia's biosecurity systems to better protect our economy, environment and way of life.

The Symposium will offer the opportunity to influence the direction of Australia's future biosecurity system, network, develop new concepts, share and test ideas, build new partnerships and engage in challenging discussions that stimulate debate and energy. Don't miss out on the opportunity to engage with key decision makers, innovators, influencers and researchers in the Australian biosecurity sphere.

On behalf of AHA, ISC, CISS and PHA we thank you for your participation at the Australian Biosecurity Symposium.



Kathleen Plowman
CEO, AHA



Andrew Cox
CEO, ISC



Andreas Glanznig
CEO, CISS



Sarah Corcoran
CEO, PHA



Information

Event Support

For assistance during the Symposium please visit the Registration Desk at the Royal Benowa Foyer or seek out one of the friendly Event Support staff (they will be wearing a red polo with 'Event Support' on the back).

Alternatively, contact:

- Jackie Poyser, Event Manager: 0410 994 410
- Danika Barnard, Event Support: 0447 007 806
- Email: symposium@animalhealthaustralia.com.au

Venue

RACV Royal Pines Resort
Ross Street, Benowa, Queensland

P: (07) 5597 8700

E: royalpines@resorts.racv.com.au

W: [RACV Royal Pines | RACV](#)

Registration

Please visit the Registration Desk in the **Royal Benowa Foyer** to collect your registration pass during the following times:

- Tuesday 3 May: 4pm–8pm
- Wednesday 4 May: From 7am
- Thursday 5 May: From 8am

Lanyard

Please wear your lanyard at all times to ensure your access to sessions and admittance to the Symposium dinner (if purchased).

Wi-Fi

All conference delegates can access free casual internet at a speed of 10mbps upload and download. This wi-fi service is not intended for large data. Speed will vary based on the number of users and configurations.

Full program

The abstracts for each presentation are available online at www.biosym.com.au/program

Themes

The presentations and posters align with four themes. Please refer to the key below to see which theme each presentation aligns to:

-  **Connecting the dots:** enhancing the system and its resilience
-  **Empowering action:** working together for transformational change
-  **Future-focused:** how science and tech are paving the way forward
-  **Mainstreaming biosecurity:** turning buzzwords into a way of life

Presentation types

Oral (20): Presenters will have 20 minutes (including questions) to discuss aims and conclusions of their work.

Speed (10): A unique format with presenters discussing their work in 10 minutes (including questions).

Panel: A diverse panel of presenters debating an issue related to the Symposium theme for 40 minutes (including questions).

Social events

Tues 3 May

Welcome reception
6:00–8:00pm

Podium lawns

Proudly sponsored by



Wed 4 May

Symposium dinner
6:30–10:00pm

Royal Benowa Ballroom

Proudly sponsored by



Australian Government
Department of Agriculture,
Water and the Environment

Wed 4 May and Thur 5 May

Morning activity
7:00am

Meet at the RACV reception desk



Exhibitors

A range of exhibitors (full list on page 34) will be set up in the trade area (Royal Benowa Foyer) for the duration of the event.

Posters

Posters will be available to view in the trade area (Royal Benowa Foyer). Posters will be eligible to win the 'People's Choice' award. Vote for your favourite poster by using the voting card in your satchel and placing it in the box at the Symposium registration desk. The winner will be announced in the Symposium summary.

Follow the action

Join the conversation during the Symposium by using #BioSym2022 across all social media.

Catering breaks

All breaks will be held in the trade and exhibition area in the Royal Benowa Foyer.

Session seating

Please ensure you are seated five minutes before the allocated start time for each session.

Transport

Taxis can be booked at RACV's reception. Uber options are also available.

Photography

By registering, participants acknowledge and consent that during their attendance at the Symposium their image or voice may be recorded via video, photograph or by any other means, which may be distributed or published at the discretion of the organisers of the Australian Biosecurity Symposium. If you do not wish to be recorded, you are required to formally advise the organisers in advance by contacting symposium@animalhealthaustralia.com.au.

Feedback

We'd love to hear what you thought about the Symposium! At the conclusion of the event, a survey will be shared with attendees to help us make the event even bigger and better when we return.

ThermoFisher
SCIENTIFIC



Animal health solutions 2022

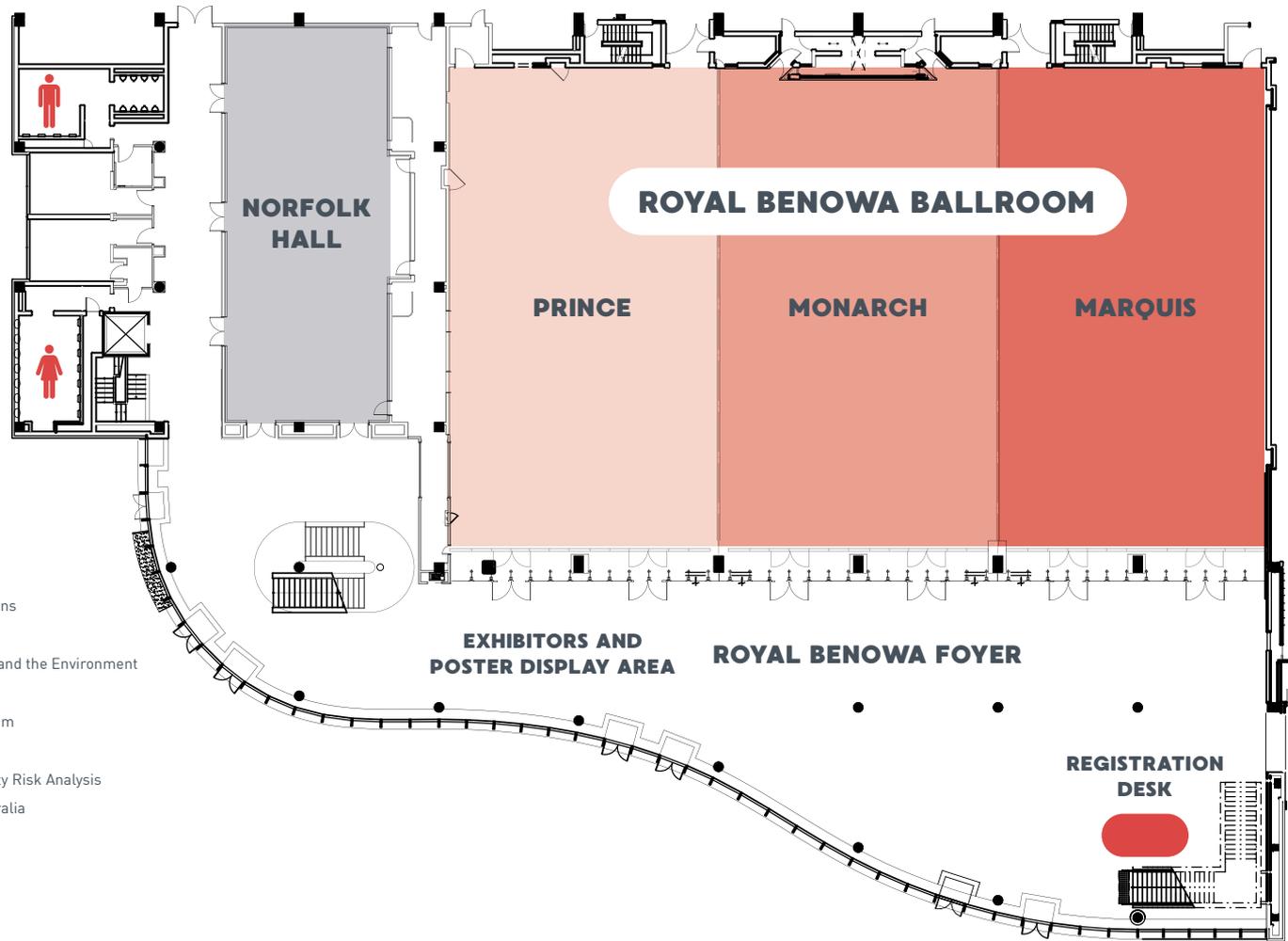
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applied biosystems

Floorplan



Exhibitors

1	Animal Health Australia
2	Plant Health Australia
3	Invasive Species Council
4	Centre for Invasive Species Solutions
5	Wildlife Health Australia
6	Department of Agriculture, Water and the Environment
7	Biosecurity Queensland
8	National Biosecurity Response Team
9	James Cook University
10	Centre of Excellence for Biosecurity Risk Analysis
11	Animal Control Technologies Australia
12	CSIRO
13	Atlas of Living Australia
14	ExoFlare
15	Got a Bug (Pigbaita)
16	Media

Add your Voice

Wildlife Health Australia is the peak coordinating body for wildlife health in Australia, and we'd love you to **join us**.

Our members include veterinarians, wildlife carers, policy makers and researchers. Our strong 'One Health' focus and network of partners respond to the fundamental link between environmental health, animal and public health, biodiversity and trade.

We coordinate disease surveillance, expertise and resources and share key information and insights across our network.

Membership is free, and you'll receive the 'Digest', a regular email packed with news, journal articles, disease incident notifications, events and job opportunities.

You'll also be joining an expert network committed to Australia's wildlife health.



Find out more at
www.wildlifehealthaustralia.com.au



Environmental Biosecurity @ JCU

James Cook University is a world class, research-intensive institution with a strategic intent focused on discoveries and graduates that make a difference in the tropics worldwide. With Tropical North Queensland defined as a biosecurity hotspot, JCU strives to meet the present and future Environmental Biosecurity challenges for this region. JCU provides expertise and capacity in prevention and monitoring of biosecurity threats and responding to outbreaks and incursions.

Email: jcuconnect@jcu.edu.au
Phone: 07 4781 5011

jcu.edu.au



Cairns
Singapore
Townsville

A special thanks to the following committees for making this Symposium possible.

Acknowledgements

Management Committee



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(Chair)

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Three60 Consulting



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Meet our keynotes



Costa Georgiadis, MC

Eco-visionary, landscape architect and environmental educator

As co-creator and host of *Costa's Garden Odyssey* for SBS, Costa caught the attention of a nation. Since 2013, Costa has continued his journey as the much-loved host of one of the ABC's most iconic and Logie award-winning programs, *Gardening Australia*. Costa is an engaging and energetic presenter who has an all-consuming passion for plants and people. He is also deeply involved with the importance of biodiversity and habitat, regenerative agriculture, permaculture and holistic land practices evidenced in his book *Costa's World: Gardening for the Soil, the Soul and the Suburbs*.



Dr Anika Molesworth

Farming thought-leader, researcher and future shaper

Anika has made her mark as a young, female farmer tackling the world's biggest challenges. Anika is smashing the status-quo and inspiring thousands through engaging and empowering conversations and actions. Anika will draw on her experiences in 'empowering action' in the farming sector in relation to the impact of climate change on our farms, highlighting some wins and challenges she's faced in bringing about change.



Dr Norman Swan

Health journalist and host of RN's Health Report and Coronacast

Norman is a well-respected Australian health journalist, with an international career spanning more than three decades. A past Gold Walkley winner, Norman has shone a spotlight on public health issues across shows such as RN's *Health Report*, ABC's *7.30 Report*, *Four Corners* and *Coronacast* – a daily podcast on the coronavirus. Norman will share his experiences and knowledge in 'mainstreaming' important messages to a broad audience – bridging the gap from awareness to practice change. His address will provide delegates with key takeaways on how we can mainstream the importance of biosecurity practices, bringing about positive and sustained engagement from the broader population.



Dr Debbie Eagles

Deputy Director, Australian Centre for Disease Preparedness, CSIRO

Debbie is an epidemiologist with a background in vector-borne diseases and has extensive experience in animal health and biosecurity preparedness and response in Australia and the Asia Pacific region. Debbie will be highlighting how research and innovation are fundamental in transforming the national biosecurity system, and how a transformed national biosecurity system needs to be underpinned by digital and genetic surveillance systems supported by citizen science, big data analytics, and fully integrated pre-border and post-border systems.



Symposium dinner entertainment

Josh Norbido

Illusionist and magician

Home-grown Australian Illusionist Joshua Norbido has been capturing the minds of audiences with his intriguing performances projected through the art of magic. As you will come to realise, Josh not only possesses the ability to entertain, he seizes guests' desire to learn and captures, quite simply, human curiosity; leading him to local and international recognition.



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Subscribe for news on the latest initiatives and innovations

Connect with us at the Symposium—visit us at our trade display to hear more about the new **Farm Check-In** app.

 **biosecurity.qld.gov.au**  **13 25 23**



Pre-event

Tuesday 3 May

Registration opens

4:00pm

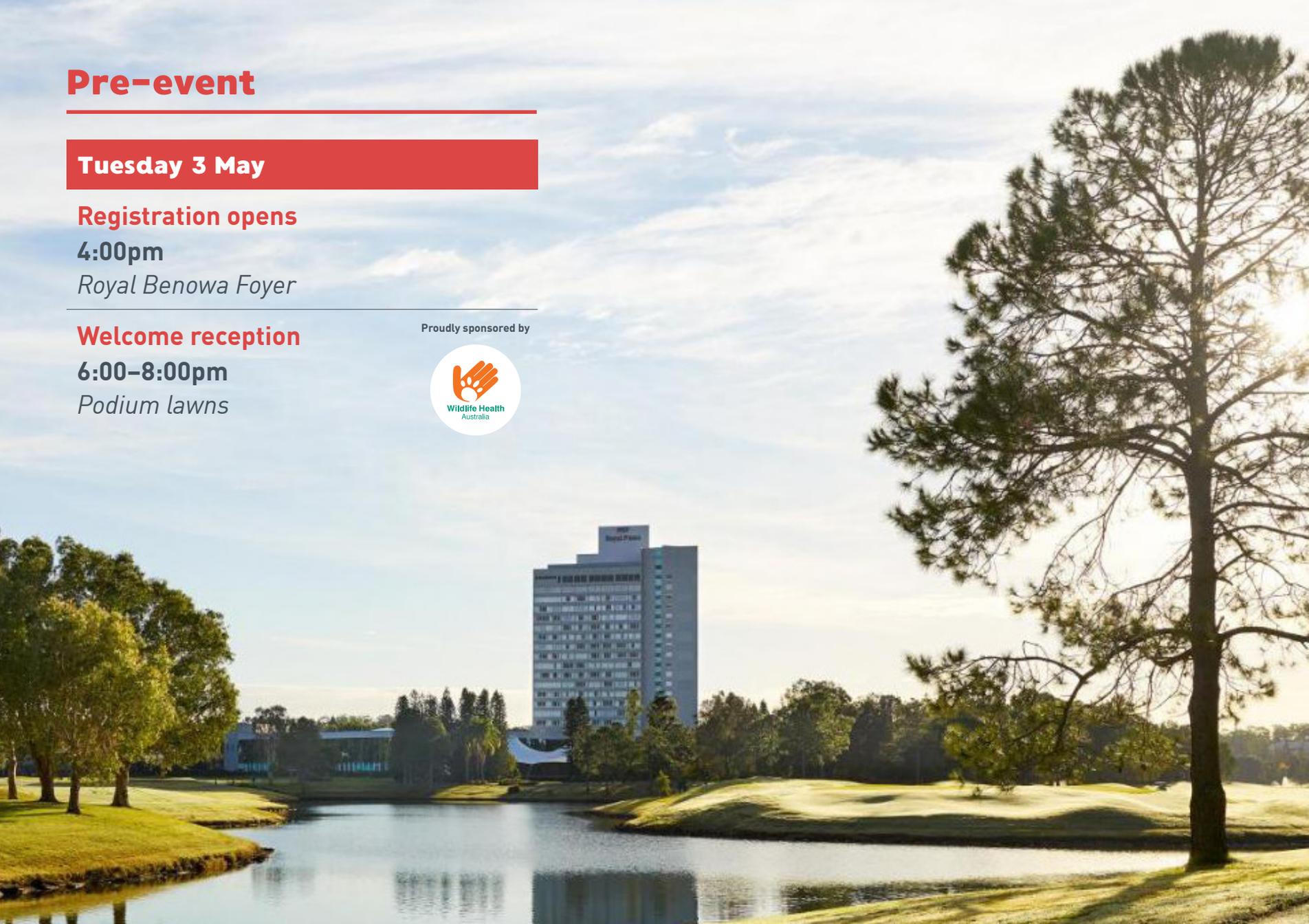
Royal Benowa Foyer

Welcome reception

6:00–8:00pm

Podium lawns

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Podium lawns

7:00–8:00am **Morning activity**

Royal Benowa Foyer

7:00am **Registration opens**

PLENARY SESSION ONE – Proudly supported by the Commonwealth Department of Agriculture, Water and the Environment

Royal Benowa Ballroom

9:00–10:45am **Introduction and Welcome to Country**

- **Introduction:** Costa Georgiadis, MC, Eco-visionary and landscape architect
- **Welcome to Country:** Luther Cora
- **Symposium launch:** Malcolm Letts, Chief Biosecurity Officer, Biosecurity Queensland
- **Setting the scene:** Kathleen Plowman, CEO, Animal Health Australia

9:45–10:45am **Empowering action: working together for transformational change**

Keynote: Dr Anika Molesworth, Farming thought-leader, researcher and future shaper

10:45–11:25am **Morning tea** (Poster viewing, exhibition open)

CONCURRENT SESSION ONE - Proudly supported by James Cook University

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
11:25am-12:45pm	<p>Advances in e-DNA surveillance Chair: Geoff Grossell</p> <p>Detection of exotic Khapra beetle environmental DNA using portable technologies in Australian biosecurity Alejandro Trujillo-Gonzalez</p> <p>▶▶●</p> <hr/> <p>Best practice guidelines for Australian/New Zealand eDNA biomonitoring programs Alejandro Trujillo-Gonzalez</p> <p>▶▶●</p> <hr/> <p>Simplifying environmental DNA field protocols for non-specialist use Damien Burrows</p> <p>▶▶●</p> <hr/> <p>Investigating environmental DNA methods for the surveillance of introduced pest bees and Varroa mites Cecilia Villacorta-Rath</p> <p>▶▶●</p>	<p>Surveillance: new thinking Chair: Len Stephens</p> <p>The need for a national integrated approach to wildlife trade surveillance and regulation Adam Toomes</p> <p>●▶</p>	<p>Hot topics Chair: Andrew Robinson</p> <p>Japanese encephalitis virus: the latest research, threat posed and emergency response to date David Williams</p> <p>●▶</p>	<p>Behaviour change Chair: Lucy Tran-Nguyen</p> <p>Defining behaviour change priorities for biosecurity Kirsten Phillips</p> <p>●▶</p>
	<p>Holding back the tide: science-based tools for biosecurity risk management and incursion response Jane Muller</p> <p>●▶</p>	<p>Lumpy skin at the border: are we making the right moves to prevent an outbreak within the cattle sector? Samantha Allan</p> <p>▶▶●</p>	<p>Australia's biosecurity outlook: a plant health perspective Gabrielle Vivian-Smith</p> <p>▶▶●</p>	<p>Behavioural drivers and barriers to responsible keeping and disposal of ornamental fish Gayle Garbutt</p> <p>●▶</p>

Cont'd

11:25am-12:45pm
Cont'd

Marquis Room

eDNA meets remote sensing: novel approaches for weed surveillance

Francisco Encinas-Viso



An implementation plan for the application of High Throughput Sequencing (HTS) as a biosecurity tool

Brendan Rodoni



Developing a proof of concept using Cas12a and LAMP for in-field detection of Xylella fastidiosa

Thomas Farrall



A simple and rapid detection of pests and pathogens at the borders using MinION sequencing

Shamila Weerakoon Abeynayake



Monarch Room

A network for the surveillance of land mammals: integrating pest species as sentinels for coxiellosis

Anne-Lise Chaber

Honey bee surveillance as a tool for integrated biosecurity

John Roberts

Boosting surveillance and diagnostic capacity for Australian plant production industries

Shakira Johnson

Prince Room

AnimalPLAN: Australia's National Plan for Terrestrial Agricultural Animal Health

Kylie Hewson



Exotic Environmental Pests: addressing persistent risk

Andrew Pearce



Biosecurity is valuable; right?

Aaron Dodd



Estimating spillover risk through consideration of transmission processes

Maryam Golchin



Norfolk Hall

Making it easy to 'Garden Responsibly': an innovative, industry-led approach to a wicked biosecurity problem

Aimee Freimanis



The Victorian Rabbit Action Network: our approach to barriers and incentives

Heidi Kleinert



Royal Benowa Foyer

12:45-1:45pm

Lunch (Poster viewing, exhibition open)

PLENARY SESSION TWO

Royal Benowa Ballroom

1:45-2:25pm

Future-focused: how science and technology are paving the way forward

Keynote: Dr Debbie Eagles, Deputy Director, CSIRO Australian Centre for Disease Preparedness

CONCURRENT SESSION TWO

2:30–3:30pm

Marquis Room

Modelling risk for resilient biosecurity systems

Chair: Bruce Christie

Optimal surveillance against bio-invasions: the sample average approximation method applied to an agent based spread model

Tom Kompas



Monarch Room

Shared responsibility

Chair: Rob Barwell

Shared responsibility for biosecurity: beyond educational and compliance-based approaches

Vaughan Higgins



Prince Room

Advances in e-commerce surveillance

Chair: David Gale

Weed wide web: surveillance of online trade in declared plants

Jacob Maher



Norfolk Hall

New connections

Chair: Fiona Sutton

Raiders of the Lost Arts: research archaeology for biosecurity risk

Les Kneebone



Shortcomings in companion animal biosecurity and disease surveillance

Sandra Steele



Robust cost-effective portfolio allocation of managing an invasive species: an application of info-gap theory

Yang Liu



Towards a more accountable biosecurity system

Rob Delane



Online compliance and engagement strategy tackles prickly situation

Duncan Swan and Chris Hollingdrake



The invasive keyhole wasps: an aviation hazard

Phillip Shaw



Fishing the deep web: illegal trade in an unregulated industry

Mariah Millington



Using honey bees and genomics to monitor vegetation changes and detect multiple target species

Liz Milla



Linked vulnerability-resilience assessment for transforming and building resilient biosecurity systems in Australia

Yiheyis Maru



Improving the resilience of the biosecurity system: why should we care?

Edith Arndt



Friendly fire: the pet trade of native species outside of their natural distributions in Australia

Oliver Stringham



Agvet chemical regulation in emergencies: APVMA's role in biosecurity responses

Emi Schutz



Cont'd

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
2:30–3:30pm Cont'd	<p>A high-level approach to assessing pests and pathways <i>Andrew Robinson</i></p> <p>▶▶ ●</p>	<p>Strategies upon strategies: bringing biosecurity RD&E together <i>Matt Sheehan</i></p> <p>▶▶ ●</p>	<p>Predicting desirability of alien pet birds based on species traits, attractiveness, and availability <i>Katherine Hill</i></p> <p>▶▶ ●</p>	<p>Collaborations between the Bovine Tuberculosis Eradication Campaign and the Biosecurity Authority in Fiji from 2015 to 2020 <i>Anabel Garcia</i></p> <p>▶▶ ●</p>

Royal Benowa Foyer
3:30–4:00pm **Afternoon tea** (Poster viewing, exhibition open)

CONCURRENT SESSION THREE

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
4:00–5:00pm	<p>Connecting the dots <i>Chair: James Trezise</i></p> <p>Ensuring Tasmania’s biosecurity future: 15 years of the Tasmanian Biosecurity Strategy <i>Andrew Bishop</i></p> <p>▶▶ ●</p>	<p>Building resilience <i>Chair: Adam Pate</i></p> <p>Centring social processes and outcomes in invasive species management <i>Sonia Graham</i></p> <p>▶▶ ●</p>	<p>Future-focused <i>Chair: David Palmer</i></p> <p>Technological advances in biosecurity monitoring <i>Barbara Marks</i></p> <p>▶▶ ●</p>	<p>Advances in pig biosecurity <i>Chair: Sharon Starick</i></p> <p>Biosecurity and African Swine Fever preparedness in the pig industry in NSW: using human-centred design to influence biosecurity planning adoption <i>Marta Hernandez-Jover and Nicole Schembri</i></p> <p>▶▶ ●</p>
	<p>International trade of seed: science informing risk <i>Fiona Constable</i></p> <p>▶▶ ●</p>	<p>Building resilience in NSW aquaculture industries <i>Debra Doolan</i></p> <p>▶▶ ●</p>	<p>Enabling institutional and relational design principles inform shared responsibility to transform biosecurity in Australia <i>Yiheyis Maru</i></p> <p>▶▶ ●</p>	<p>Supply chain operational preparedness: abattoir biosecurity controls <i>Kirsty Richards</i></p> <p>▶▶ ●</p>

Cont'd

4:00–5:00pm
Cont'd

Marquis Room

Biosecurity is a risky business
Warren Schofield



Monarch Room

East and West: working together to disentangle Fall Army Worm global introduction pathways
Wee Tek Tay



Prince Room

Biosecurity Mission
Andy Sheppard



Norfolk Hall

Understanding virus survival to accurately model local farm-to-farm spread of emergency animal diseases
Nagendrakumar Singanallur
Balasubramanian



Perspectives of Victoria's biosecurity system: industry, community and government
Shayne Annett



Grower managed plant protection and biosecurity systems
John McDonald



Supporting biosecurity in the sheep and goat industries in NSW: understanding barriers to implementing electronic identification
Marta Hernandez-Jover and
Trudy Marriott



A landscape genetics approach to Australian feral pig management: what we know before we begin
Jennifer Manyweathers



Plant health in One Health – critical for safeguarding life
Lois Ransom



Citrus Watch: launch of a multi-pronged, multi-stakeholder approach to commodity protection
Nathan Hancock



The impacts of invasive species on Indigenous Peoples' culture and lifestyles and possible ways of addressing it
Chrissy Grant



Modelling the spread of African Swine Fever in Queensland domestic and feral pig populations
Richard Bradhurst



PLENARY SESSION THREE

Royal Benowa Ballroom

5:00–5:30pm

Decade of Biosecurity launch

This session will officially launch the 2020s as the Decade of Biosecurity, a collaborative initiative seeking to engage all Australians in a stronger biosecurity system.

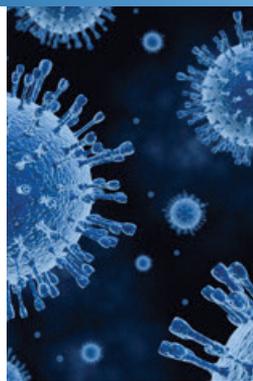
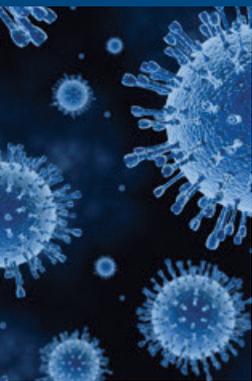
6:30–10:00pm

SYMPOSIUM DINNER – Proudly supported by the Commonwealth Department of Agriculture, Water and the Environment

MC: Andreas Glanznig, CEO CISS

Speaker: Dr Robyn Cleland, Chief Environmental Biosecurity Officer

Entertainment: Josh Norbido (Magician)



cebra

Centre of Excellence for
Biosecurity Risk Analysis

The Centre of Excellence for Biosecurity Risk Analysis (CEBRA), an initiative of the Australian Government, is supported by the Department of Agriculture, Water and the Environment, New Zealand's Ministry for Primary Industries and the University of Melbourne.

Our results-oriented research plays a vital role in ensuring that Australia and New Zealand remain at the forefront of biosecurity risk management.



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Australian Government

Department of Agriculture, Water and the Environment



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Ministry for Primary Industries
Manatū Ahu Matua



Podium lawns

7:00–8:00am

Morning activity

Royal Benowa Foyer

8:00am

Registration opens



PLENARY SESSION FOUR – This session is proudly sponsored by Thermo Fisher Scientific

Royal Benowa Ballroom

8:30–8:50am

Welcome

Introduction: Costa Georgiadis, MC, Eco-visionary and landscape architect

Day one summary: Sarah Corcoran, CEO PHA

8:50–9:40am

Connecting the dots – enhancing the system and its resilience

Panel discussion: *The panel will focus on key activities, such as the national biosecurity strategy, and how they can be effectively integrated to ensure the ongoing enhancement and resilience of the Australian biosecurity system.*

Facilitator: Costa Georgiadis

Panelists:

- Bruce Christie: Chair, Centre for Invasive Species Solutions
- Nathan Hancock: CEO, Citrus Australia and Chair, Plant Industries Forum Committee
- Sal Milici: Head of Border & Biosecurity, Freight & Trade Alliance
- Christine Milne AO: Ambassador, Invasive Species Council
- Georgie Somerset: President, Agforce

Cont'd

CONCURRENT SESSION FOUR

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
9:45–10:25am	<p>Genetic technology 2030 <i>Chair: Robyn Cleland</i></p>	<p>Social attitudes to mainstream biosecurity <i>Chair: Robbie Davis</i></p>	<p>Advances in science and engagement for invasive ant management <i>Chair: Ian Thompson</i></p>	<p>One Health <i>Chair: Justin Bellanger</i></p>
	<p>Infectious disease high-throughput sequencing, setting us up for 2030 <i>Stacey Lynch</i></p> <p>▶▶●</p>	<p>Mainstreaming biosecurity. How will we get there? <i>Facilitator: Andrew Cox, CEO ISC</i></p> <p>Panelists:</p> <ul style="list-style-type: none"> • <i>Sonia Graham, Senior Research Associate, University of Wollongong</i> • <i>Richard Swain, Wiradjuri man, River guide and Indigenous ambassador, ISC</i> • <i>Tanya Howard, Adjunct Associate Professor, University of New England</i> • <i>Amy Freimanis, Ecohort</i> <p>▶▶●</p>	<p>The scientific effort underpinning current efforts to eradicate Red Imported Fire Ant from Australia <i>Austin McLennan</i></p> <p>▶▶●</p>	<p>What can biosecurity learn from COVID? <i>Christopher Baker</i></p> <p>▶▶●</p>
	<p>Gene technologies as biocontrol tools for innovative and sustainable biosecurity interventions <i>Kumaran Nagalingam</i></p> <p>▶▶●</p>	<p>▶▶●</p>	<p>Terrestrial invertebrate detection in water and soil using a targeted eDNA approach <i>Lori Lach</i></p> <p>▶▶●</p>	
	<p>Gene drives for vertebrate pest control: spatial modelling of eradication probabilities and time-to-eradication for invasive alien mammals in Australia <i>Aysegul Birand</i></p> <p>▶▶●</p>	<p>▶▶●</p>	<p>Inspiring action: mobilising industries and communities to take up fire ant treatment <i>Chris Hollingdrake</i></p> <p>▶▶●</p>	<p>One Biosecurity: a unified approach to integrate risks to human, animal, plant, and environmental health <i>Philip Eric Hulme</i></p> <p>▶▶●</p>
	<p>Stepwise approach to genetic biocontrol of pest impacts: the case of the cane toad <i>Mark Tizard</i></p> <p>▶▶●</p>	<p>▶▶●</p>	<p>Engagement is not enough: to fully engage with stakeholders, integration is key <i>Gareth Humphreys</i></p> <p>▶▶●</p>	

Cont'd

Royal Benowa Foyer

10:25–10:50am **Morning tea** (Poster viewing, exhibition open)

CONCURRENT SESSION FIVE

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
10:50am–12:30pm	<p>Turning data into intelligence and information Chair: Samantha Allan</p> <p>Turning data into biosecurity intelligence: advancing solutions for data sharing, analytics and privacy protection Facilitator: Rieks van Klinken, Research Scientist, CSIRO Health and Biosecurity</p> <p>Panelists:</p> <ul style="list-style-type: none"> Cathryn Geiger, Chief Data and Analytics Officer, DAWE Antony Allen, CEO, The Avolution Adrian Turner, CEO, Exoflare Nick van Beest, Senior Research Scientist, Team Leader – Trustworthy processes, CSIRO D61 	<p>Northern Australia/ Indigenous Chair: Sarah Corcoran</p> <p>Northern Australia Biosecurity Surveillance Network (NABSnet) Facilitator: Skye Fruean, Northern Australia Quarantine Strategy, DAWE</p> <p>Panelists:</p> <ul style="list-style-type: none"> Sue Fitzpatrick, Chief Veterinary Officer, NT Department of Primary Industry, Tourism and Trade Nina Kung, Senior Principal Veterinarian, Queensland Department of Agriculture and Fisheries Pauline Brightling, Principal, Harris Park Group Bill Tranter, Tableland Veterinary Service 	<p>Digital surveillance innovation Chair: Kathleen Plowman</p> <p>Machine learning and biosecurity: a pathway to making interventions scalable Nathaniel Bloomfield</p> <hr/> <p>Farm location image processing: using deep learning to differentiate livestock farms from aerial imagery Caitlin Pfeiffer</p>	<p>Citizen science/general surveillance reporting Chair: Andreas Glanznig</p> <p>Citizen science, a powerful ally for biosecurity Facilitator: Hillary Cherry, Senior Weeds Officer, National Parks and Wildlife Service</p> <p>Panelists:</p> <ul style="list-style-type: none"> Anne Lane, President, Australian Citizen Science Association James Trezise, Conservation Director, ISC Heleen Kruger, Social Scientist, ABARES Robyn Cleland, Chief Environmental Biosecurity Officer, DAWE

Cont'd

10:50–12:30pm
Cont'd

Marquis Room

Connecting the dots using AUSPestCheck™

David Gale



Literally connecting dots: a collaborative approach to invasive species data integration and modelling for national benefit

Katherina Ng and Jens Froese



Taking a transdisciplinary approach to research for mitigating invasive alien species impacts in Western Australia

Bruce Webber



Monarch Room

An integrated approach to biosecurity: a shared vision for North Australia

Facilitator:

Claire Morton, Principal Plant Biosecurity Officer, NT Department of Industry, Tourism and Trade

Panelists:

- Greg Owens, Industry Development Manager, NT Farmers Association
- Darren Peck, Director NAQS Plant/Animal Surveillance, DAWE
- Aaron Anau, Community Engagement Officer NAQS, DAWE
- Mike Ashton, Chief Plant Health Manager, QLD Department of Agriculture and Fisheries
- Bluey Stoldt, Organic Ag



Lessons learnt from the Ehrlichia canis outbreak in remote Australian Aboriginal communities

Bonny Cumming



Prince Room

Mobile identification of biosecurity threats using image recognition

Alexander Schmidt-Lebuhn



Development of an automated spore trap and analysis platform: opportunities for biosecurity surveillance

Lewis Collins



Reducing the spread of pests and plant pathogens via smartphone-enabled quarantine tags

Dan Willey



The evolution of technologies in plant pest diagnostics – where we are now? What is on the horizon?

Lucy Tran-Nguyen



Norfolk Hall

Delivering a win-win: incentivising accurate and timely general surveillance reporting

Heleen Kruger



Polyphagous Shot-Hole Borer in WA: a new and emerging threat at the urban forest-residential interface

Kylie Ireland



A model for grass-roots biosecurity collaboration in the Derwent Catchment, Tasmania

Magali Wright



Royal Benowa Foyer

12:30–1:25pm

Lunch (Poster viewing, exhibition open)

CONCURRENT SESSION SIX – Proudly supported by the Queensland Department of Agriculture and Fisheries

	Marquis Room	Monarch Room	Prince Room	Norfolk Hall
1:25–2:25pm	<p>Empowering action <i>Chair: Amber Sprunt</i></p> <hr/> <p>Future proofing aquatic biosecurity: consistency is urgently needed for Australia's ALOP for prawns <i>Ben Diggles</i></p> <hr/> <p>Developing the National Established Weed Priorities framework <i>John Virtue</i></p> <hr/> <p>Empowering industry to manage panama TR4 <i>Donna Campagnolo and Jim Pekin</i></p> <hr/> <p>Giving animal pests and diseases the chop: implementing biosecurity planning into NSW abattoirs and knackeries <i>Fiona McDonagh</i></p>	<p>Connecting the dots <i>Chair: Malcolm Letts</i></p> <hr/> <p> Biosecurity Commons Workshop: an innovative cloud-based modelling and analytics platform <i>Facilitator: Paul Tudman, Project Manager, Biosecurity Commons</i></p> <p>Presenters:</p> <ul style="list-style-type: none"> Saras Windecker, Research Fellow in Ecological Modelling, The University of Melbourne Aaron Dodd, Research Fellow, CEBRA <p>A demonstration of the platform's functionality, including species distribution and dispersal modelling.</p> <p>Following will be a workshop to explore the growing challenge of resource allocation within the biosecurity sector, and to help identify future platform requirements.</p>	<p>Myrtle rust advances <i>Chair: Mila Bristow</i></p> <hr/> <p>Making a difference to myrtle rust in Australia: highlighting the Plant Biosecurity Science Foundation's co-investments <i>Michael Robinson</i></p> <hr/> <p>Development of molecular fingerprinting for early detection of myrtle rust disease and resistant germplasm <i>Donovin William Coles</i></p> <hr/> <p>Myrtle rust eDNA for early detection in Western Australia <i>Mariana Campos</i></p> <hr/> <p>Identification of biomarkers of myrtle rust infection and resistant germplasm using metabolomics methodology <i>Michelle Clair Moffitt</i></p> <hr/> <p>Myrtle rust and cultural values on K'gari <i>Geoff Pegg and Matilda Davis</i></p>	<p>Opportunities to mainstream biosecurity <i>Chair: Ian Thompson</i></p> <hr/> <p>Solving the collaboration conundrum: a meaningful approach to improving industry and government collaboration in biosecurity <i>Callum Fletcher</i></p> <hr/> <p>Mission: biosecurity be a part of it <i>Fahri Fahri</i></p> <hr/> <p>Small-holder, big biosecurity opportunity <i>Marta Hernandez-Jover</i></p> <hr/> <p>'Shut the gate' on hitchhiking pests: building local council capacity to protect our natural environments <i>Kelly Collins</i></p> <hr/> <p>Engaging the next generation of biosecurity warriors <i>Jordan Bailey</i></p>

Cont'd

Royal Benowa Ballroom

PLENARY SESSION FIVE – Proudly supported by the National Biosecurity Response Team

2.30–3:30pm

Mainstreaming biosecurity: turning buzzwords into a way of life

Keynote: Dr Norman Swan, Health journalist and host of RN's *Health Report* and *Coronacast*

3:30–4:00pm

Closing statements

- Kathleen Plowman, AHA CEO
- Andrew Cox, ISC CEO
- Andreas Glanznig, CISS CEO
- Sarah Corcoran, PHA CEO

4:00pm

Symposium ends and afternoon tea

Posters

Posters will be available for viewing during break times in the trade area. Vote for your favourite poster by using the voting card in your satchel and placing it in the box in the poster display area.

1	What's a specimen worth? Jordan Bailey	●
2	Increasing pathogen detection sensitivity and accuracy through hybridization capture and high throughput sequencing Natasha Brochier	●
3	Engaging educational resources designed for remote Indigenous community audiences to raise awareness of ehrlichiosis Bonny Cumming	●
4	Chemical connections: the links between herbicide application and pasture management for rangeland resilience Belinda Cuthill	●
5	Developing DNA-based presumptive testing for detecting key new incursion reptiles in the illegal pet trade Nathan Deliveyne	●
6	Simulating the economic and non-economic impact of on-farm biosecurity for BVDV in Australian beef production Jake Fountain	●
7	Doing our bit: safe provision of food and other humanitarian aid to prevent the introduction of plant pests Emily Lamberton	●
8	Influencing international sanitary and phytosanitary measures to benefit industry and Australian biosecurity Thomas Langfield	●
9	Untangling the web: dynamics of the online invertebrate trade Charlotte Lassaline	●
10	National Priority Plant Pests Ian McWhirter	●
11	Providing access to agvet chemicals in response to fall armyworm incursions: the Australian regulatory experience Ellis Moore	●

● Connecting the dots ● Empowering action ● Future-focused ● Mainstreaming biosecurity

12	Mainstreaming innovative and cost effective ‘Community Cat Programs’ to reduce biosecurity risks	●
	Jacquie Rand	
13	Co-investing in environmental plant biosecurity – highlighting the value of the Foundation’s small and targeted investments	●
	Michael Robinson	
14	Horses as sentinels for emerging infectious diseases: improving biosecurity through the detection of new pathogens	●
	Ina Smith	
15	Endemic fungal pathogens as biocontrol agents of weedy Sporobolus grasses in Australia	●
	Tracey Steinrucken	
16	Join the movement to learn, network and collaborate on general surveillance	●
	The General Surveillance Community of Practice	
17	Feral cat eradication on large islands: estimating surveillance effort required to detect migrant individuals	●
	Meryl Theng	
18	Mitigating biosecurity threats related to submission of high-risk field samples to laboratories	●
	Petrus Jansen van Vuren	
19	Application of a novel diagnostic platform to serologically detect numerous viral infections using bulk samples	●
	Wilna Vosloo	
20	Reducing the spread of pests and plant pathogens via YouTube videos	●
	Dan Willey	
21	Preventing the spread of disease by introducing new fruit varieties	●
	Dan Willey	
22	Weeding it out: the Australian online trade of invasive aquatic plants	●
	Lisa Wood	

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The National Biosecurity Response Team (NBRT) is a group of trained and experienced personnel that may be deployed to assist a jurisdiction in the response to biosecurity incidents. NBRT members are personnel from government agencies with knowledge, experience and training in emergency management, incident management or more specifically, responding to biosecurity incidents.

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