

Significant Disease Investigation Workshop for Private Veterinary Practitioners: 2022 Queensland

**Central and South Queensland Private Veterinary Practitioner
Emergency Animal Diseases (EAD)/Significant Disease
Investigation (SDI) Refresher Training Workshop Report**

1 & 2 September 2022

**Health and Food Science Precinct, Coopers Plains &
University of Queensland, Gatton, Queensland**

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Summary

National Significant Disease Investigation (NSDI) program is managed by the Animal Health Australia (AHA) to facilitate investigation of significant disease events by private veterinary practitioners (PVPs). The program also includes training of PVPs in disease investigation to increase the level of knowledge, skills and confidence to investigate and report on disease events.

Under the NSDI program funding, Biosecurity Queensland has designed a training workshop for PVPs working in mixed and large animal practices to provide them with refresher training in the detection and diagnosis of animal diseases. The focus will be on the significant disease investigation (SDI) training including notifiable emergency animal diseases (EAD) such as foot and mouth disease (FMD), lumpy skin disease, (LSD), African swine fever (ASF) and African horse sickness (AHS) that are posing increasing risk to Australia. Due to several EAD training workshops have been held for PVPs in the northern Queensland under the Northern Australia Biosecurity Strategy Program since 2017 including annual NABSnet Masterclass for all Northern Australia PVPs (QLD, NT, WA), a Central and South Queensland PVP EAD/SDI Refresher Training Workshop has been organised by Biosecurity Queensland in 2022.

This workshop was held on the 1st and 2nd September 2022 at the Robertson Gardens, Coopers Plains (close to Biosecurity Science Laboratory) on day 1 and the University of Queensland, Gatton campus on day 2.

Invited speakers from industry veterinary practitioners (cattle, pig, poultry) and Biosecurity Queensland staff (including CVO, policy, field operation and laboratory veterinarians) covered various topics on first day including the role of PVPs during an EAD response, EAD/SDI animal disease diagnostic testing, exotic and endemic diseases and zoonoses.

Hands-on practical on day 2 focused on animal disease investigation, post-mortem examination of pig and sheep, sample collection/packaging/submission, infection control and the use of PPE and entry/exit procedures for significant disease investigation.

This workshop is a pilot study to gauge the suitability for Biosecurity Queensland to run similar EAD/SDI refresher workshops yearly for PVPs in QLD for the best use of the Significant Disease Investigation Program funding for QLD.

Twenty-one participants (PVPs and UQ vets) attended and completed the two-days EAD/SDI refresher training workshop and a networking dinner with speakers and BSL pathologists. Participants were given an electronic copy of all presentations given during the two-days' workshop and supplement reference materials (factsheet, Veterinary Laboratory Users Guide, flyers on EADs).

The Central & South Queensland Refresher Training Workshop was well received by all participants and formal feedback confirmed the workshop activities were highly successful. This workshop allowed all participants to learn the updated information on important EADs and zoonoses situations (globally, nationally and locally), gain hands on experience and refresh their skills in disease investigation, post-mortem and sample collection.

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Background

As an integral part of SDI and EAD early detection and surveillance activity, private veterinary practitioners (PVPs) may need to conduct disease investigation and/or provide advice on animal health conditions with significant economic, environmental, social and/or human health implications. It is therefore an important task to provide EAD/SDI training workshop for PVPs working in mixed and large animal practices to refresh their knowledge and skills in the detection and diagnosis of animal diseases. Considering the recent several EADs outbreaks in the neighbouring countries including Indonesia and Papua New Guinea, the focus included the significant notifiable EADs including Foot and Mouth Disease (FMD), lumpy skin disease, (LSD), African Swine Fever (ASF) and African horse sickness that are posing increasing risk to Australia.

Biosecurity Queensland (BQ) designed a two-day workshop to refresh and increase the knowledge in the detection and diagnosis of significant EADs/SDIs, funded under the National Significant Disease Investigation Program (administered by Animal Health Australia). The workshop brings together speakers from private veterinary practices (livestock industry) and Biosecurity Queensland.

Objectives

The primary objective for this EAD/SDI Refresher Training Workshop is to strengthen PVPs' knowledge and skills in the identification, investigation and reporting of significant disease events and potential exotic/emergency animal diseases. Further objectives of the workshops also include:

- a) Provide fit-for purpose training on EAD and SDI including disease investigation and post-mortem skill for epidemiological data gathering and better sample collection/submission to enhance general disease surveillance capability.
- b) Provide the opportunity for networking among PVPs, Biosecurity Queensland veterinarians (laboratory, field, policy) and Biosecurity Officers in Queensland.
- c) Enhance the early animal disease detection especially for priority exotic animal disease and provide surveillance data for proof of disease freedom to assist market access.
- d) Provide training on the proper use of personal protective equipment (PPE) and entry/exit procedures when dealing with suspected zoonotic and/or exotic animal diseases.
- e) Develop Biosecurity Queensland's capability for delivery of effective future exotic, emergency and emerging animal disease training for all stakeholders.

Workshop participants

Queensland Veterinary Surgeon Board was approached for the list of current registered veterinarians in Queensland. Workshop invitation emails from Queensland Chief Veterinary Officer (CVO) were sent to veterinarians registered with postcodes in Central and Southern Queensland (veterinarians work in mix or large animal sectors). More than fifteen veterinarians registered their interest to attend this workshop. There were in total 36 participants attended this workshop including fourteen private veterinary practitioners (one PVP were unable to come), one Department of Agriculture, Fisheries and Forestry (DAFF) veterinarian (On Plant Veterinarian/Northern Australia Quarantine Strategy), five veterinary pathologists from

University of Queensland (lecturers, interns), three industry veterinarians (speakers for cattle, pig, poultry), three Biosecurity Queensland Biosecurity Officers (based in the Central or Southern Queensland regions) and ten Biosecurity Queensland veterinarians (speakers, trainers). Figure 1 shows the locations of participants' veterinary clinics.

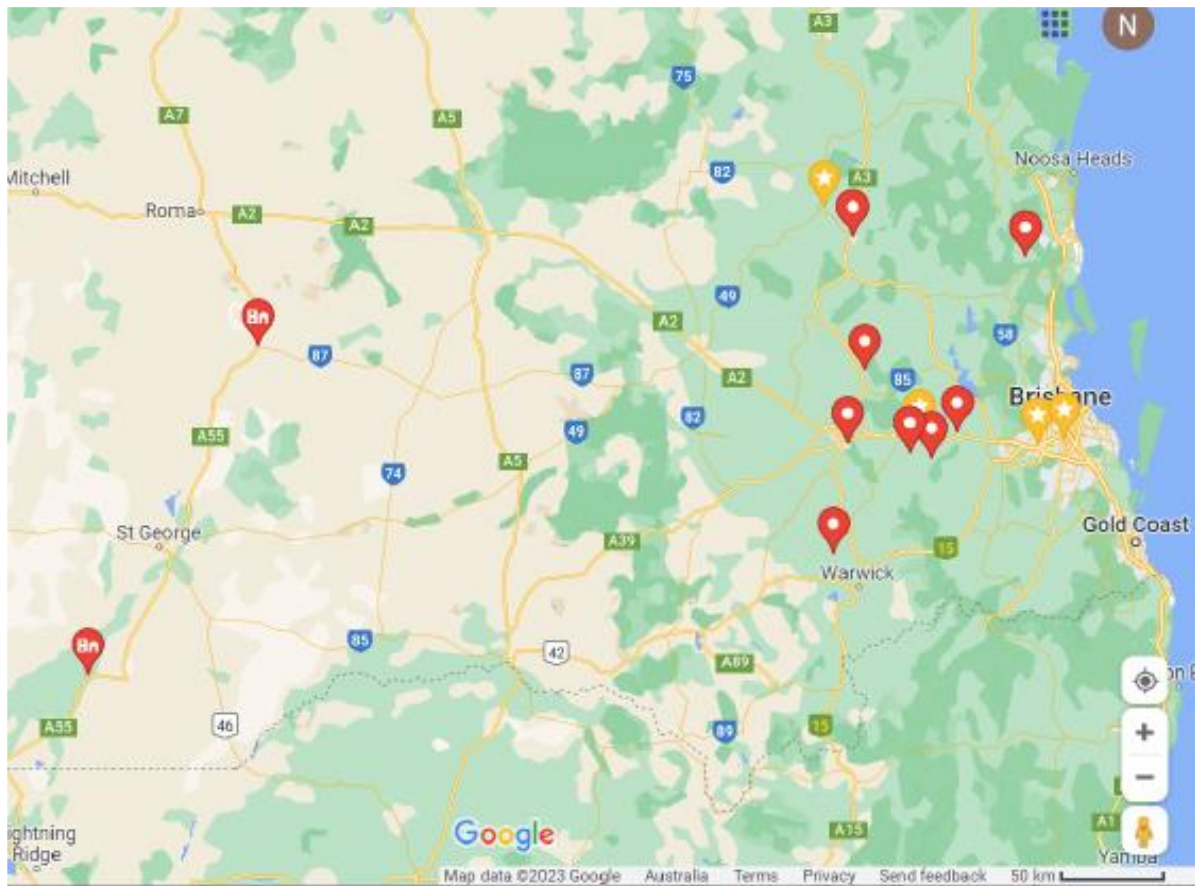


Figure 1: Map of veterinary clinic locations where the workshop participants work.

Workshop program

Workshop program (appendix 1) was designed to cover several major topics including exotic and endemic animal diseases relevant to the livestock industry in the Central and Southern Queensland, government veterinary laboratory diagnostic capability, disease investigation, post-mortem, sample collection and submission, workplace health and safety and on-farm biosecurity entry/exit procedures.

Presentation outlines

Chief Veterinary Officer Dr Allison Crook opened the workshop with a discussion on the role of private veterinary practitioners in an EAD outbreak situation. She highlighted the need for enhanced general surveillance for early detection and the importance of producer engagement and education. Dr Crook emphasised the need for private practitioners to have the appropriate knowledge and skills to perform an effective disease investigation and to maximise the chances of getting a diagnosis. Dr Crook also spoke about foot and mouth disease on her 2001 UK FMD field experience and the current risk from Indonesia.

Presentations were also given by Biosecurity Science Laboratory Veterinary Pathologist Dr Shirley Turner who provided an overview of the role of the Biosecurity Sciences Laboratory

for animal disease diagnostic testing. Dr Turner highlighted the criteria for acceptance of samples, case management and the role of the private veterinarian in conducting disease investigations and the role of the duty pathologist when managing cases.

Director of Animal Biosecurity & Welfare Dr Fiona Thompson gave talk on the Emergency Animal Disease Response Agreement (EADRA) and outlined the changes for several AUSVETPLAN manuals included the Operational, Enterprise, Management and Response Strategy Manuals which have been updated recently.

Biosecurity Queensland Veterinary Officers gave presentations on various animal diseases of interest. An overview of some exotic diseases including foot-and-mouth disease (FMD), African swine disease (ASF) and lumpy skin disease (LSD). The information on recent outbreak of Japanese encephalitis (JE) were presented. Zoonotic diseases for veterinary practitioners in Queensland including anthrax, Brucella suis, Q fever and Hendra virus have been presented in this workshop for PVP's workplace health and safety consideration when dealing with sick animals.

Industry veterinarians (cattle, pig, poultry) gave great presentations on their industry practice and clinical pictures of endemic diseases that could trigger for sample submission as differential diagnosis for EADs.

A tour of the Biosecurity Science Laboratory has given PVPs a better understanding of sample receipt/testing procedures and the importance of quality samples for optimal sample testing and diagnosis.

Participants had actively participated in the animal euthanasia, post-mortem, sample collection and packaging practical session on day 2 at the University of Queensland (UQ) Animal Science lab, Gatton campus. Day 2 was finished off by the BQ veterinary officer's demonstration on the use of personal protective equipment (PPE) and biosecurity entry/exit procedures.

Animal ethics approval

There were one domestic pig for euthanasia demonstration and post-mortem and six (6) sheep for post-mortem practicals under the DAF animal ethics approval (SA 2022/02/821).

Workshop expenditure

Activity or item	Costing (in-kind)	Costing (funding sought)	Actual cost (excl. GST)
Workshop organising (including AEC approval)	\$15,000	\$0	\$15,000 (in-kind)
Workshop venue including seminar room and UQ PM room	\$0	\$10,000	\$409.09 (day 1) \$1,000 (day 2)
Animal for post-mortem demonstration (including transportation)	\$0	\$500	\$1,080 (sheep x 6) \$350 (pig x 1)
Laboratory consumables including PPE	\$0	\$1000	Included in venue hire
Post-mortem sampling kits and Veterinary Laboratory Users Guide	\$500	\$500	\$560 (in-kind)
Workshop printed hand-out/memory sticks	\$0	\$500	\$60.84 \$131.82
Workshop catering morning/afternoon tea and lunch	\$0	\$2,000	\$40.11 \$559.09

for 20 people (participants + speakers)			
Workshop dinner for 25 people (participants + speakers + BQ field vets & BSL pathologists)	\$1500	\$1500	\$1909.09 (participants only)
Travel and accommodation cost for workshop speakers	\$0	\$6,000	Nil
	In-kind contribution: \$17,000	Funding sought: \$22,000	\$5,540.04 \$6,094.04 (incl. GST)

Workshop evaluation

An evaluation form (Appendix 2) was given to each participant after the workshop completed on day 2.

From the 23 participants who completed these two-day's workshop, 21 completed and returned the feedback forms. The feedback forms rated each section of each session on scale of 1 to 5. 1 indicating the least useful and 5 being the most useful.

Individual presentations

Session 1: Emergency animal diseases and the practitioner's role

Overall, the majority of respondents felt that this session was very useful. Some respondents wanted more time been allocated on the EADs presentations. Most of the respondents commented that they don't normally treat pigs or poultry, but the presentations gave them the insights of pig/poultry industry which was very interesting and clinical picture of pig/poultry which could be useful.

95% of the respondents felt that this was a useful to very useful session.

Session 2: Zoonotic disease

All respondents found this session useful to very useful.

Majority of the responders wanted more time for this session.

Session 3: Post-mortem examination workshop (practical)

All respondents found this practical session useful to very useful. Some respondents wanted more hand-on practice on sample collection and packaging. Several respondents' comments that they have learnt some new tips on post-mortem. One respondent commented learnt something new after 35 years practice.

Session 4: Infection control

Five respondents did not complete this session.

All other respondents found this session useful to very useful. Several respondents commented it was good to observe the proper procedure on PPE and entry/exit.

Workshop venue and catering

Most of the respondents found the food and venue to be satisfactory or very satisfactory.

Two respondents preferred the venue to be regional – Toowoomba or Roma

General comments:

Majority of the respondents regarded the length of this workshop (2 days) was just right.

General comments

Most of respondents thought the length of the course was just right. However, there were 4 respondents found the workshop was too short and one respondent found two days was too long.

Most of the respondents commented on the suitable day for this kind of workshop would be Thursday and Friday. Some respondents also indicated Saturday and Sunday as suitable days for workshop.

Majority of respondents commended that they would attend a similar course and recommend to their colleagues. Two respondents were not sure if they would attend another course similar to this.

Suggested improvement

Participants have provided written feedback on this workshop:

- Future workshop to include case study and group discussion.
- Prefer to have more detailed information on FMD, ASF, LSD.
- Need more information on JE.
- Need continuing update on cattle diseases in QLD.
- Would like more information on small poultry flock/backyard birds.
- Have open discussion about PVP's concern, interaction with BQ regarding future policy and response, direction, areas that need attention.
- Allocate enough time so the presenters don't have to rush or skip slides and presenters may need to adjust what they present on so can stick to time.
- More captive blot demonstration or practical.
- Need more practice on sample collection and packaging.
- Need a check list for PPE.
- Training workshop for BQ inspectors.
- Need a separate workshop on zoonoses.

Workshop outputs

The workshop participants agreed this workshop was a useful refresher that have helped them to refresh some knowledge and skills but also learn some new/correct skills especially from the practical sessions. Biosecurity Science Laboratory has also provided the Veterinary Laboratory User Guide to all participants.

This workshop has been beneficial to the individual participants including the PVPs, DAFF veterinarian and Biosecurity Queensland staff by achieving the objectives that were set up in the project proposal. These achievements include the strengthen of PVPs' skills and knowledge in the EAD identification, investigation and reporting, better sample collection and submission to improve animal disease diagnosis, proper use of personal protective equipment (PPE) and entry/exit procedures when dealing with suspected zoonotic and/or exotic animal diseases, and the development of Biosecurity Queensland's capability for delivery of effective future exotic, emergency and emerging animal disease training for all stakeholders. Most

important of all, the network established among workshop attendees, speakers, DAFF and BQ staff during the workshop would be invaluable asset for further collaboration and better communication on the animal disease surveillance and control front.

Acknowledgement

The author would like to thank Animal Health Australia in coordinating the provision of funding for this workshop. Special thanks to all the speakers who have kindly donated their time to give presentations in this workshop. Biosecurity Queensland staff from head office and regional offices (Veterinary Officers, Biosecurity Officers, Project officers) and Biosecurity Science Laboratory had help to organise all the training materials, venue hire and logistics. A special thanks to Ms Katrina Tannock, Technical Officer (Animal Science), School of Agriculture and Food Sciences, University of Queensland for the provision of a well-prepared and organised post-mortem facility at UQ Gatton Campus. A big thank you to all the participants who have been very enthusiastic and interactive to make this workshop successful.

Appendices

Appendix 1: Workshop program

Appendix 2: Workshop evaluation form

Appendix 3: Workshop snapshots

Appendix 1 Workshop program and registration form

Day 1 – Thursday, 1 September 2022

Musgrave Room, Comfort Inn & Suites Robertson Gardens, Coopers Plains

Time	Topic	Presenter
Session 1: Emergency animal diseases (EAD) and the practitioner's role		
08:30 – 09:00	Welcome Emergency animal diseases and the role of private practitioner	Dr Allison Crook Chief Veterinary Officer, General Manager, Animal Biosecurity & Welfare, Biosecurity Queensland
09:00 – 09:30	Exotic and emergency animal diseases diagnostic testing	Dr Shirley Turner, Biosecurity Science Laboratory (BSL), ABW, BQ
09:30 – 10:00	Emergency animal disease outbreak response – Emergency Animal Disease Response Agreement (EADRA), AUSVETPLAN	Dr Fiona Thompson, Director, ABW, BQ
10:00 – 10:15	Morning tea (provided)	
10:15 – 10:45	Exotic and emergency animal diseases – FMD, LSD, ASF	Dr Jonathan Lee, Dr Renee Thompson, Dr Rebecca Ambrose, ABW, BQ
10:45 – 11:30	Update on QLD JE outbreak response	Dr Fiona Thompson, ABW, BQ
11:30 – 12:15	Endemic pig diseases in QLD as differential diagnosis for EAD	Dr Kirsty Richards, pig veterinarian
12:15 – 12:45	Lunch (provided)	
13:00 – 13:30	Endemic cattle diseases in QLD as differential diagnosis for EAD	Dr David Thomson, cattle veterinarian
13:30 – 14:00	Poultry diseases of concern	Dr Rod Jenner, poultry veterinarian
Session 2: Zoonotic diseases		
14:00 – 14:15	Update on Hendra virus variant and recent Mackay case	Dr Nina Kung, ABW, BQ
14:15 – 15:15	Zoonotic diseases for veterinary practitioners in Queensland – anthrax, Brucella suis, Q fever...	Dr Jonathan Lee, Dr Shirley Turner, ABW, BQ
15:15 – 15:30	Afternoon tea (provided)	
15:30 – 17:00	Tour of Biosecurity Science Laboratory	BSL
Evening	Dinner (provided) – Comfort Inn & Suites Robertson Gardens	

Day 2 – Friday, 2 September 2022

Meat Lab, Animal Studies Building (8150), University of Queensland, Gatton Campus

Session 3: Post-mortem examination workshop (practical)		
08:00 – 08:30	Disease investigation, use of captive bolts for euthanasia	Dr Jonathan Lee, ABW, BQ
08:30 – 12:30	Post-mortem examination and sample collection demonstration	Dr Jonathan Lee and Dr Shirley Turner, ABW, BQ
	Post-mortem practical	
	Sample preservation, packaging and submission	
	Removal of brains for TSE sample collection	
12:30 - 13:00	Lunch (provided)	
Session 4: Infection control		
13:00 – 14:00	Infection control and the use of personal protective equipment (PPE)	Dr Jonathan Lee and Biosecurity Officers, ABW, BQ
14:00 – 16:00	Entry / exit procedures for suspect EAD investigation	
16:00 – 16:15	Afternoon tea (provided)	
16:15 – 16:30	Evaluation and workshop concluded	

Appendix 2 Workshop evaluation form

Biosecurity Queensland Central & South Queensland Emergency Animal Disease Refresher Training Workshop Evaluation Form

Brisbane & Gatton, 1 & 2 September 2022

Your feedback on this EAD workshop will help us to improve any future workshop program and provide useful information and training that relevant to you.

Workshop contents (1 is the least useful, 5 is the most useful):

Session 1: Emergency animal diseases and the practitioners' role

1. Reportable disease and the role of private practitioner during an EAD response

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

2. Exotic and emergency animal diseases diagnostic testing

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

3. Emergency animal disease outbreak response – Emergency Animal Disease Response Agreement (EADRA), AUSVETPLAN

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

4. Exotic and emergency animal diseases – FMD, LSD, ASF

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

5. Update on QLD JE outbreak response

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

6. Endemic pig diseases in QLD as differential diagnosis for EAD

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

7. Endemic cattle diseases in QLD as differential diagnosis for EAD

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

8. Poultry diseases of concern

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

Session 2: Zoonotic diseases

9. Update on Hendra virus variant and recent Mackay case

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

10. Zoonotic diseases for veterinary practitioners in Queensland – anthrax, Brucella suis, Q fever...

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

Session 3: Post-mortem examination workshop (practical)

11. Disease investigation, use of captive bolts for euthanasia

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

12. Post-mortem examination and sample collection demonstration

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

13. Post-mortem practical

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

14. Sample preservation, packaging and submission

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

15. Removal of brains for TSE sample collection

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

Session 4: Infection control

16. Infection control & the use of personal protective equipment (PPE)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

17. Entry / exit procedures for suspect EAD investigation

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

Workshop venue and catering: (1 is least satisfactory, 5 is the most satisfactory)

18. Did you find the venue (Brisbane, Gatton) suitable?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

19. How was the catering?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ N/A

Comments: _____

General comments:

20. What do you think the length of this workshop?

☐ Just right ☐ Too short ☐ Too long

Comments: _____

21. Which days of the week will be suitable for this kind of workshop?

☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday ☐ Sunday

Comments: _____

22. Will you attend similar type of workshop in the future?

☐ Yes ☐ No ☐ Not sure

Comments: _____

23. Will you recommend this kind of workshop to your colleagues?

☐ Yes ☐ No ☐ Not sure

Comments: _____

24. How can we improve this kind of workshop?

Comments: _____

Appendix 3 Workshop snapshots



Group photo



Veterinary Pathologist from Biosecurity Science Laboratory gave the talk on sample submission requirement.



Biosecurity Queensland Veterinary Officer gave demonstration of post-mortem on a domestic pig.



Private veterinary clinicians and BQ Veterinary Officers discussing the post-mortem findings



Demonstration of biosecurity entry/exit procedures by BQ Veterinary Officer.