

FOR INFORMATION and DISCUSSION

NAHIP Advisory Committee Annual Meeting 2021

Agenda Item 3.1

Last updated: **23 November 2021**Prepared by **Janine BARRETT (Biosecurity Queensland)**

COORDINATOR REPORT - QUEENSLAND 2020-21

RECOMMENDATION

That the NAHIP Advisory Committee

1. NOTE Queensland's contributions towards the NAHIP and NAHIS during 2020-21
2. DISCUSS the testing and reporting of surveillance data wrt exotic nationally notifiable disease (NND) BVD-Type 2.
3. DISCUSS the burden of reporting national data via so varied a combination of disease-specific worksheets, rather than a single set of nationally standard data fields for all diseases.

BACKGROUND

1. This report describes Biosecurity Queensland's contributions during the financial year 2020-21 against Biosecurity Queensland's national commitments to the NAHIP.
2. This report also raises issues for discussion and agreement in relation to NAHIS reporting.

DISCUSSION*Queensland's contribution to NAHIS activities in 2020-21*

3. Queensland contributed Queensland report summaries and positive/negative data (NAHIS, NTSESP, SWFSPP, NAMP) for inclusion in the four editions of Animal Health Surveillance Quarterly (AHSQ) published for 2020-21, being Issues 3 and 4 of Volume 25 (2020) and Issues 1 and 2 of Volume 26 (2021).
4. The surveillance projects in Queensland that generated data submitted to NAHIS are:
 - a. Queensland's Passive (animal disease) Surveillance Program – including disease investigations supported (part funded) by the NSDIP and TSEFAP-NTSESP programs.
 - b. Adult fly trapping near the Port of Townsville supported the SWFSPP.
 - c. NAMP.
5. In 2020-21 Queensland contributed **3 published feature stories** for AHSQ
 - a. [Atypical scrapie cases in Queensland](#) Barrett J, Burton D, McNamara A and Williams D.
Volume 25, Issue 4, pp 4-6, Dec 2020
Included two supporting clinical videos.
 - b. [Clinical progression of Australian bat lyssavirus captured by video](#) Barrett J and Koller R
Volume 25, Issue 4, pp 7-8, Dec 2020
Includes supporting compilation of videos showing clinical progression over time.
 - c. [Atypical cluster of lyssavirus \(ABLV\) infections in little red flying foxes in South East Queensland](#) Barrett J.
Volume 26, Issue 1, pp 7-8, Mar 2021

6. In 2020-21 Queensland submitted **1 case story for the State and Territory Report** within AHSQ.
 - a. *Euthanasia of 'Lady Robin' brings Imported Animal Quarantine Surveillance Scheme to a close in Queensland*, Barrett J and Frazer P
Volume 25, Issue 4, pp 22, Sept 2020.
7. Queensland provides subsidies for laboratory investigations for approximately 2,000-2,500 private veterinary practitioners (PVPs) and approximately 300 government officer submissions to the Biosecurity Science Laboratory. The majority (>60%) are cattle, consistent with the significance of the cattle industry to the Queensland economy.
8. The laboratory component of Queensland's passive surveillance budget is ~\$4 to 5 million, of which the NSDIP contributed \$40K (<1 %) and the NTSESP contributed up to \$200K (4 %).
9. Industry funds are not available for surveillance programs specific to Queensland.
10. Queensland has implementing a program to enhance passive (animal diseases) surveillance (the EPS), in particular to get more 'public value' by conducting objective laboratory NND-specific testing of '*clinically consistent*' cases/incidents where an NND is '*plausible but unlikely*'.
11. The EPS has substantially increased:
 - a. The number and proportion of BSL submissions from which national notifiable disease (NND) detection or exclusion data is determined by laboratory testing and reported to NAHIS
 - b. The range of NNDs for which detection or exclusion data is reported – in particular the range and number of high impact exotic NNDs including African/Classical swine fever (ASF/CSF), FMD/VSV, lumpy skin disease and Rift valley fever . This has included reporting exclusion data for diseases for which Queensland/Australia claims freedom without previously providing supporting laboratory evidence of absence.

Testing/reporting of surveillance data wrt exotic nationally notifiable disease (NND) BVD Type 2

12. BVD-Type 1 is endemic in Australia.
13. BVD-Type 2 is an exotic NND.
14. BVD types 1 and 2 are clinically and histologically indistinguishable. Only laboratory tests explicitly specific for each type of BVD can determine that BVD disease in Australia is due to endemic Type 1 and not due to an incursion of exotic NND Type 2 or another BVD type..
15. Tests specific to exotic NND BVD-Type 2 have been available at AAHL
16. The ACVO, Mark Schipp, identified in an email to the Qld CVO on Wed 8/04/2020 that exotic NND BVD-Type 2 is one of his Top 10 priority NNDs of ruminants.
17. Development of the EPS in Queensland led to recognition that:
 - a. BSL was testing animals clinically consistent with BVD with a *pan*-real-time PCR BVD test that detects multiple BVD types - including endemic type 1 and exotic types 2 and 3.
 - b. As a negative pan-BVD PCR result is evidence that all types of BVD, including exotic NND BVD-Type 2, were not present – negative pan results were (correctly) being reported as exclusions of NND BVD-Type 2.
 - c. However, BSL pathologists have assumed positive pan-BVD PCR results were due to BVD-Type 1 and no further testing was being done to identify which BVD type was present.
 - d. Queensland NAHIP coordinators recognised that, given a positive pan-BVD PCR result, in the absence of a negative BVD-Type 2 laboratory test BVD-Type 2 had not been excluded and (correctly) no report relating to detection or exclusion of NND BVD-Type 2 was made to NAHIS.

- e. However, to report negative pan-BVD PCR result as evidence of exotic NND BVD-Type 2 while neither reporting positive results as possible detections of exotic NND BVD-Type 2, nor excluding to possibility of exotic NND BVD-Type 2 via type-specific testing lacks scientific/epidemiological integrity.
- f. BSL has recently acquired a multiplex real-time PCR that detects/excludes each of BVD-Type 2 and Type 3.
- g. As of mid-November 2021, all positive detections at BSL of BVD in the *pan*-PCR test are being further characterised using the type-specific multiplex real-time PCR.
- h. Tests done on all animals tested for BVD now generate data specific to the absence (negative Pan-PCR or positive pan-PCR + negative multiplex for Type 2) or presence of exotic NND BVD-Type 2 (positive pan-PCR + positive multiplex for Type 2 + referral for confirmation at AAHL).
- i. Animals that are positive pan-PCR + negative in the multiplex for Types 2 and 3 are more justifiably assumed to be infected with endemic BVD-Type 1.

The burden of national reporting of NND data

- 18. The unique combinations of data required for disease/animal specific worksheet include fields for data that are not part of the nationally agreed minimum surveillance data set and which are not necessarily recorded in fields in jurisdictional data bases. Provision of so many 'bespoke' data sets is tedious and time consuming and Queensland believes the burden of providing this data is far in excess of the extent of use/public value generated from it once submitted.
- 19. Repeated requests via NAHIP for the Commonwealth to justify the complexity of data requested and to demonstrate that such complex data has ever been used to support market access remain unanswered.
- 20. While the AusPestCheck process proves opportunity to revise the reporting template/requirements so that reporting from jurisdictional databases can be fully automated from the jurisdictional data base – progress appears to be slow.
- 21. Queensland's ASF Preparedness and Prevention Project has a small amount of funding (\$20K) to enhance our IT systems and improve NND reporting, however this small amount of funding will only be able to address 5 national diseases (ASF, LSD, FMD, AHS and Rabies). While this will be welcome – improvements to the reporting of so few diseases will not reduce the extremely cumbersome process of effectively having to open and 'manually' read each of ~3,000 laboratory reports in order to fulfil our reporting requirements for the almost 100 NNDs.
- 22. Queensland notes that there is project underway via AHC to review the list of NNDs, with potential for the number of NNDs to be dramatically reduced. By redefining what is an NND -the outcome of this review has significant implications of NAHIP, NAHIS and the AusPestCheck project.

FINANCIAL IMPLICATIONS

- 23. National surveillance programs contribute an insignificant proportion (<5%) of the actual cost of animal disease surveillance in Queensland.

CONSULTATION/COMMUNICATION

- 24. Not applicable.

NEXT STEPS/ACTIONS

- 25. Discuss a nationally consistent approach to detection/exclusion of exotic NND BVD-Type 2 and the data reporting integrity that supports Australia's claims of freedom from exotic NND BVD-Type 2.
- 26. Await outcome of review of NND list as precursor to reviewing NAHIP reporting commitments.

FEEDBACK

27. Queensland provides the following responses re the performance of the NAHIP over the 2020-21 year and to offer feedback and suggested changes for continual improvement

Q1 My organisation's needs and expectations of the NAHIP are being met.				
Strongly agree	Agree	Undecided	Disagree	Strongly disagree
More information and analysis could be provided about what NNDs detections/exclusions are being reported, in what numbers, by each jurisdiction and relative to each jurisdictions trade animal population, – with assessment of how well or not the data sets meet national needs and what gaps are evident. Such information would allow the NAHIP committee, CVOs, and AHC to critically assess the adequacy and efficiency of surveillance efforts, to consider how gaps and risks might be addressed, what additional data should be prioritised, and how.				

Q2 My organisation is satisfied that the outputs of NAHIP, such as the Animal Health in Australia report are Animal Health Surveillance Quarterly, are credible and robust.				
Strongly agree	Agree	Undecided	Disagree	Strongly disagree
AHiA is the publication primarily used by the DoAWE to maintain/expand/regain market access. Queensland is satisfied that AHiA is credible and robust <i>to the extent that</i> DoAWE considers it fit for purpose. Animal Health Surveillance Quarterly – if the DoAWE is not also using AHSQ to maintain/expand/regain market access, Queensland is unsure why we bother? During 2021, Queensland came under pressure to change a reported positive detection of <i>E. canis</i> in a dog to negative in the absence of objective scientific evidence that excluded that infection had been acquired in Queensland. Had this request been successful, such a change would have undermined the credibility and robustness of the NAHIS data and resulting publications. Reporting data to NAHIS and publication in AHiA and AHSQ, must be based on objective scientific (preferably NATA accredited) laboratory results and conservative epidemiological interpretations and must not be biased by <i>assumptions</i> of freedom/low likelihood or political or trade implications. Where uncertainty exists – this should be addressed via comments, explanatory notes or articles, not by changing the data. Queensland notes that both publications are intended to <i>support</i> market confidence. While they contain accurate and correct data/information that is credible and robust – what is published is not intended to provide assessable critical appreciation of the of the <i>limitations and potential for improvement</i> of Australia's surveillance system. As per Q1 - more critical analysis for 'internal eyes only' (e.g. tables of numbers NNDs reported per jurisdiction, per jurisdiction per head of trade population, including those NNDs for which no data has been submitted) and assessment of the extent to which this provides reasonable or epidemiologically sound support for confidence in our status as either free (exotic NNDs) or effectively managing trade sensitive animal health (endemic NNDs) is needed if we are to have a more critical and informed insight into our surveillance system and how to future proof it.				

Q3 The format and protocols in place for uploading and transferring national surveillance data are fit for purpose.				
Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Queensland continues to support NAHIS and the excel upload process – but no longer considers the complex and bespoke reporting field requirements per disease and host to be feasible or sustainable. Much of what is reported for some disease (e.g AI, ND) was determined more than a decade ago and requires urgent review to verify its relevance and suitability to meet ‘actual needs’ rather <i>than accepted without critically thought ‘wants’</i> .				

Q4 NAHIP satisfies the surveillance data and reporting needs of my organisation (e.g. contributes to and/or supports policy development, decision-making and trade).				
Strongly agree	Agree	Undecided	Disagree	Strongly disagree
NAHIS data is primarily used by the DoAWE to maintain/expand/regain market access. Queensland is satisfied with NAHIS <i>to the extent that</i> DoAWE considers it fit for purpose. Collating and reporting Queensland data for NAHIS has informed policy development and decision-making. More support from AHA would help in having a shared appreciation of how the separate datasets combine as an Australian dataset for the full list of NNDS and provide for more constructive discussions of what is working, what gaps should be addressed, and how the national system might support benchmarking and improving performance (ref Q1 and Q3).				