



**Australian Government**  
**Department of Agriculture,  
Water and the Environment**



# **APL Evidence of Absence Surveillance Project**

## **Final Report APL Project 2019/0013**

**July 2020**

**Animal Health Australia**  
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*Disclaimer: APL shall not be responsible in any manner whatsoever to any person who relies, in whole or in part, on the contents of this report unless authorised in writing by the Chief Executive Officer of APL.*

## 1. Agreed Commencement & Completion Dates

- This final report is for agreement period 01/07/2019-31/07/2020 (signed 8/11/2019).
- The report includes reference to work undertaken for the original agreement (period 1/02/2017 – 30/06/2018), and the variation to original agreement (period 01/02/2017 – 30/06/2019).

## 2. Work undertaken

Work undertaken is listed in Tables 1-3.

**Table 1 Work undertaken Jul 2019 – Jul 2020 (agreement commenced Nov 2019)**

<b>Work undertaken</b>
APL Evidence of Absence Surveillance Project (the project) data report for Apr-Jun 2019 provided to APL 8 <sup>th</sup> November 2019.
Government project coordinators were contacted by email 21 Nov 2019 to advise that the project is continuing and to request ongoing data collation and reporting.
Development, and user feedback by government coordinators on a mobile data entry and visualisation tool to show participating vets and APL their contribution to surveillance and in the context of the national surveillance effort (provided to APL November 2019). Tool developed in Google Data Studio and Google Apps and includes an automated mail merge feature: Data entry: <a href="https://forms.gle/FfMgAa2Mi8Q72T1Y7">https://forms.gle/FfMgAa2Mi8Q72T1Y7</a> Data visualisation: <a href="https://datastudio.google.com/reporting/c6b64817-9a55-4694-b2cb-f293196c55ee">datastudio.google.com/reporting/c6b64817-9a55-4694-b2cb-f293196c55ee</a> Screen shots of the tool are shown in Appendix B.
AHA liaison with APL on inclusion of testing for influenza in cases of respiratory disease (suggestions provided by email 29 November and discussed 17 <sup>th</sup> December 2019). An agreement was reached not to pursue testing for influenza.
AHA liaison with APL on APL plans for contacting and promoting the project to pig vets in areas where uptake has been low - corporate vets in Tasmania and New South Wales and other veterinarians in practice likely to attend peri-urban pig farms (APL has specified that all communication with pig vets to be undertaken by APL). Project update provided by email from APL to unspecified pig veterinarians 7 February. It is unclear to AHA whether this addresses engagement with corporate vets in Tasmania and New South Wales. Communications with peri-urban farm pig vets required.
Quarterly collation of investigation records from project coordinators. Invoice administration for sample transport and handling.

**Table 2 Work undertaken 2018-19 (provided in previous milestone reports)**

<b>Work undertaken</b>
Notice of project initiation provided to government coordinators, together with Guidelines for Veterinarians and project data reporting template (29-08-18).
Notice of project initiation provided to National Laboratory Task Group (of Animal Health Committee), together with Guidelines for Veterinarians and project data reporting template (07-09-18).
An additional 50 copies of the Guidelines for Veterinarians were printed and supplied during the 01 Feb to 30 May project milestone period.

**Table 3 Work undertaken 2017-18 (provided in previous milestone reports)**

<b>Work undertaken</b>
Identifying and confirming a target list of pig disease of interest.
Defining clinical syndromes of interest, building necessary relationships with key people in Australian Animal Health Laboratory (AAHL), and collating information on testing protocols, test performance and the significance test specificity (likelihood of false positive results)
Presentation on project justification, and consultation on method, with vets at the Pig Specialist Vet Forum, Bendigo 3 April.
Drafting and design of a veterinary guideline documents (Guidelines for Veterinarians) which will be used to guide participating vets on their requirements, and to communicate the project procedure with governments. Key features of the method are provision of clear, syndrome-based guidelines for cases of interest and specification of a target number of investigators per vet.
Consultation with AAHL and state/territory governments on a draft veterinary guidelines document.
Presentation and consultation on the veterinary guidelines document to Australian Pig Veterinarians chapter of the Australian Veterinary Association, Freemantle, and 11-12 September 2017.
Discussion between APL and AHA for APL to provide \$20K for sample transport and handling costs (December 2017).
Formalising the project agreement and expectations with governments and AAHL via a detailed paper prepared for Animal Health Committee (AHC) submitted on 20-03-18. Paper agreed with APL prior to submission. AHA responded to AHC feedback by negotiating to have project submissions to AAHL classified as 'category 2' (no charge to submitter) and reaching an agreement to exclude influenza from the project scope (for reassessment after 12 months). Further feedback on the Guidelines for Veterinarians was provided by AHC members and incorporated by document revision.
Printing of Guidelines for Veterinarians (70 copies supplied, 30 Jul 2018 progress report).
Consultation with state and territory government on preferred couriers for veterinary submissions, and addressing courier account requirements.
Preparation and supply to APL of letter of invitation and Guidelines for Veterinarians (supplied 30 Jul 2018 progress report).

### 3. Progress Towards Major Objectives

- a. The primary objective of this project was to derive evidence of absence of specified exotic pig disease to support the Australian Government Department of Agriculture, Water and the Environment (DAWE) substantiating Australian claims of our disease occurrence status and support trade negotiations. Australian claims of our status are substantiated by evidence of ongoing disease investigations (surveillance) which are collated quarterly in the National Animal Health Information System (NAHIS), may be reported by DAWE to the OIE, and are published by AHA in Animal Health Surveillance Quarterly and Animal Health in Australia Report. The data from this project, reported alongside NAHIS data (Appendix A, Figures 1-7), show that on average, substantially greater evidence of absence was achieved for all specified exotic pig diseases than was being generated prior to the project. The data generally show a correlation between the number of project cases and NAHIS cases suggesting that the increase of the latter could be attributed to the project with an exception that concern about the threat of African swine fever (ASF) is likely to have resulted in many more ASF and classical swine fever (CSF) exclusions (and perhaps other exclusions) undertaken independently of the project.

Data are collected from government project coordinators specifically for this project and also separately to the National Animal Health Information Program (NAHIP) database (NAHIS database). During the periods reported, all project exclusion investigations were also reported to NAHIS. Some coordinators have noted difficulty attributing exclusion investigations specifically to the project which means that some investigations attributed to the project may have otherwise occurred in the absence the project. The total number of investigations reported to NAHIS, compared with the prior three-year average, is the best indicator of change arising from the project.

At the annual meeting of the NAHIP in December 2018, the then Australian Government Department of Agriculture and Water Resources (DAWR) noted specific issues influencing Australia's animal health surveillance needs. Regarding African swine fever the DAWR noted that: *Surveillance data supporting Australia's free status will be of interest to trading partners and will be important for potential Australian pork market access.* In addition, without reference to particular conditions, the DAWR noted that:

- **General consideration:** *there is an increasing focus by trading partners on robust evidence for animal health claims. The quality of surveillance information that has sufficed in the past may no longer be considered acceptable in the future.*
- **Data to support export certification:** *the department requires sufficient confidence to issue this certification (certification for the export of animals and animal products), and without adequate data (or sharing of data), this confidence is being eroded. Further, any concerns about our system or data by trading partners could potentially affect international confidence in Australia's animal health systems and status.*
- **Data to support importation policies:** *When formulating import policies, Australia must justify its disease status to apply risk mitigating conditions to imported*

animals or animal based products. Ensuring that all relevant surveillance conducted is reflected in NAHIS is key to delivering this objective.

- **International Obligations and OIE declared diseases (e.g. CSF):** *There is a trend towards more rigour in the annual reconfirmation process (countries specified by the OIE as officially free of specific diseases), and in future, more robust data may be required for countries to maintain their free status.*
- **International Obligations and self-declaration of freedom:** *the expectation is that a country has sufficient, appropriate data which meet requirements of the OIE code. Scrutiny of this data may occur bilaterally, for example, through trade queries or market access negotiations with a trading partner. There would be significant reputational risk if the information supporting any self- declaration was found to be insufficient. Any loss of reputation would have flow-on effects to Australia's international standing, and to trade.*

- b. The secondary objective was to pilot a prospective ongoing program to meet the primary objective into the future (to derive evidence of absence of specified exotic pig disease to support DAWE substantiating Australian claims to a disease occurrence status and support trade negotiations).

Data to June 2020 generally showed a very significant increase in evidence of absence since the inception of this project, indicating a successful pilot and an opportunity to continue to meet the primary objective.

Opportunities identified by AHA to enhance the project were developed and provided for feedback, testing and implementation in November 2019. These included the development of a mobile data entry and visualisation tool to show participating vets and APL their contribution to surveillance and in the context of the national effort. The tool includes a short online data entry form for participating pig vets linked to database and an online, real-time data visualisation web page (Appendix B). AHA did not receive APL confirmation to proceed with this tool and has ceased work on it.

#### 4. Progress Against Agreed Milestones

Due date	Milestone	Progress
13 Feb 2017	Signed agreement	Completed
31 Mar 2017	Supplementary guidelines provided to APL and to pig vets for exotic disease exclusion	Completed
27 May 2017	Period 1 Project progress report	Completed
26 Sep 2017	Period 2 Project progress report	Completed
18 Dec 2017	Period 3 Project progress report	Completed

30 Jul 2018	Progress report	Completed
01 Feb 2019	<p>Progress Report outlining current project status (including the number of samples processed and disease status of samples) and an outline of a succession plan for the project for the next 12 months submitted to APL. Postage of samples to laboratories to be managed by AHA with details of associated costs to be provided to APL with actual costs only to be paid by APL.</p> <p>Payment on acceptance of Progress Report and completion of all associated Milestone Achievement Criteria and delivery of required information - milestone payment amount to be adjusted accordingly if required.</p>	Completed
30 May 2019	Draft final report	Completed
14 Jun 2019	Final report and presentation	Completed
30 Jun 2019	Final financial report	Completed
28 Feb 2020	Project progress report I (2019-20)	Completed
31 Jul 2020	Final report (2019-20)	Completed with this report

## 5. Appendices

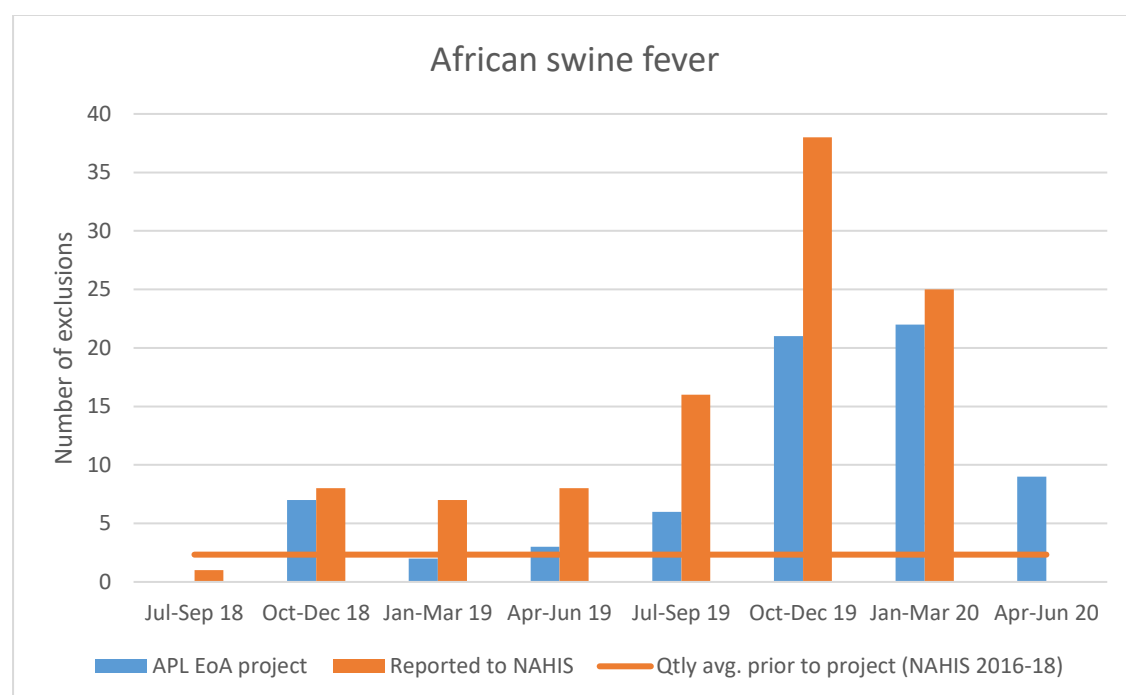
Appendix A Summary project and NAHIS data

Appendix B Online data entry and visualisation tools

## Appendix A Summary project and NAHIS data

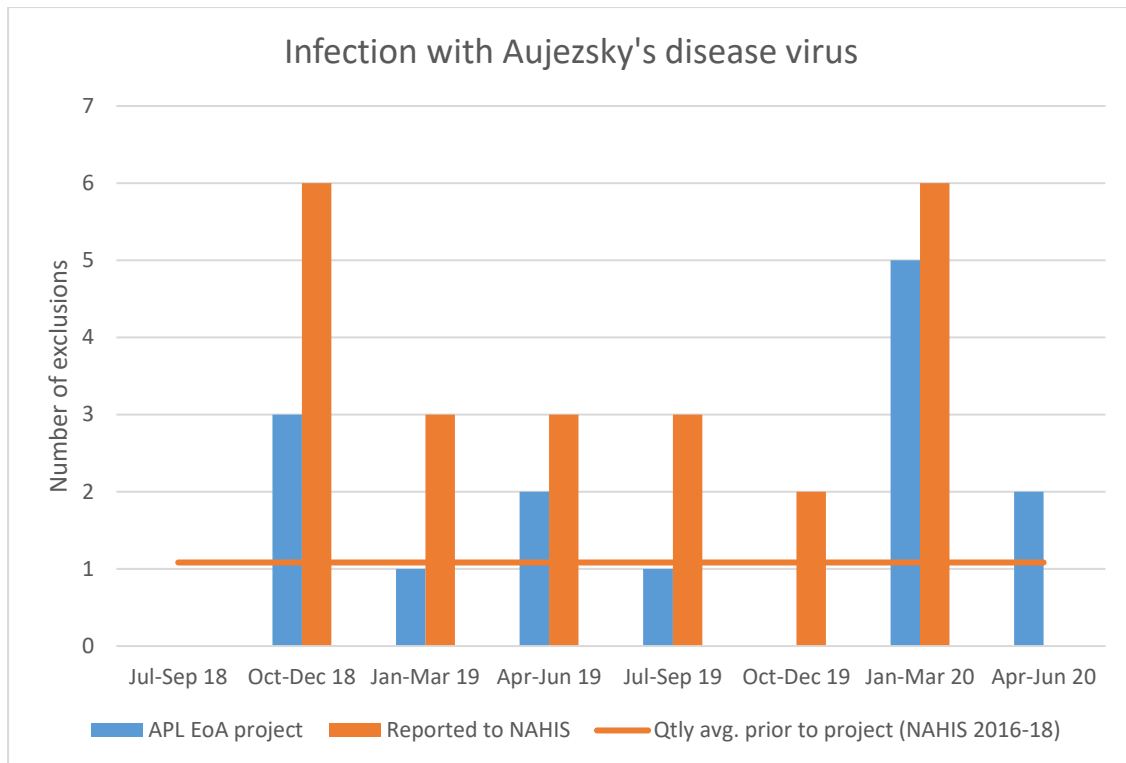
Figures 1 to 7 show the number of exclusion investigations for the APL EoA Project by disease and quarter, compared to the number of investigations reported nationally (in NAHIS<sup>1</sup>), and compared to the quarterly national average prior to the start of the project. Figure 8 and Figure 9 show the number of exclusions in the APL EoA Project by disease, state and total, and total exclusions by state reported to NAHIS, for the past two quarters. Figures 10 and 11 show the geographic distribution of exclusion investigations held by NAHIS for all of the diseases included as part of the APL EoA project for the quarter commencing in January 2020 and for the full duration of the project (since July 2018) respectively.

**Please note:** The APL EoA Project data is a subset of the national dataset compiled by the National Animal Health Information System (NAHIS database management system), i.e. investigation data reported separately to AHA for the APL EoA Project will also be reported to the NAHIS and data reported to the NAHIS may include additional investigations not arising from, nor categorised as being for the APL EoA Project. NAHIS data includes records classified as pig or *sus scrofa* investigations.

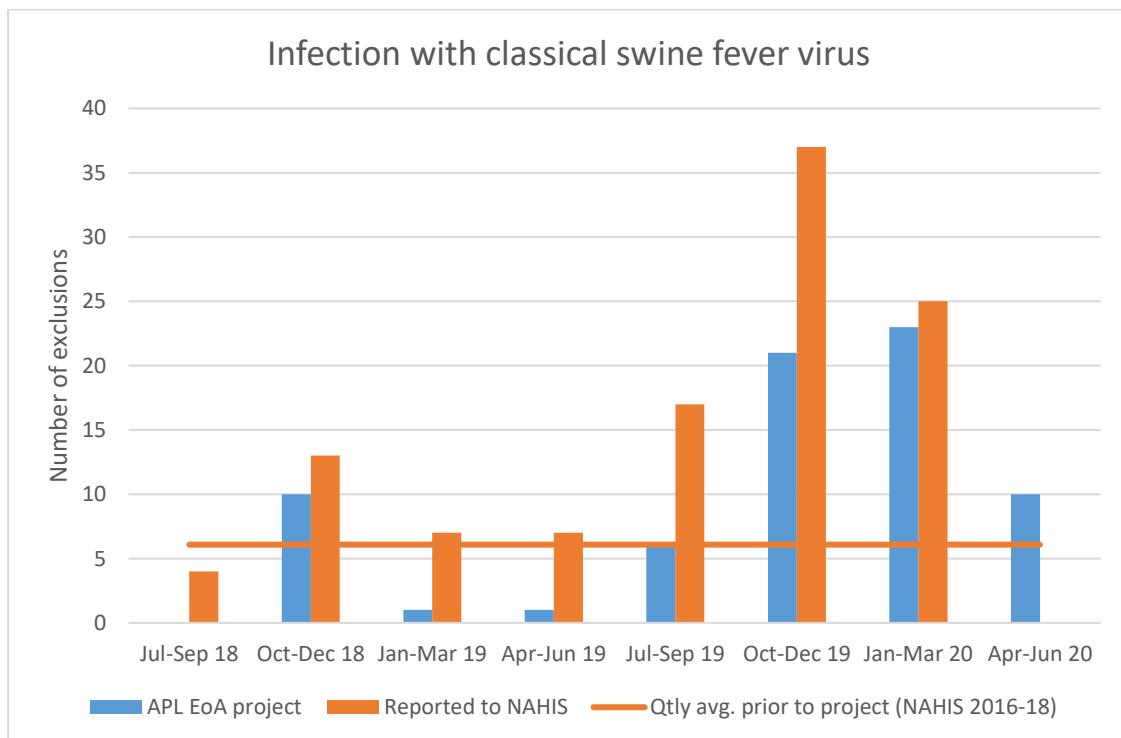


**Figure 1** Number of exclusions investigations for African swine fever reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.

<sup>1</sup> Data current at 15/07/2020 and may be subject to change with updates by data contributors.

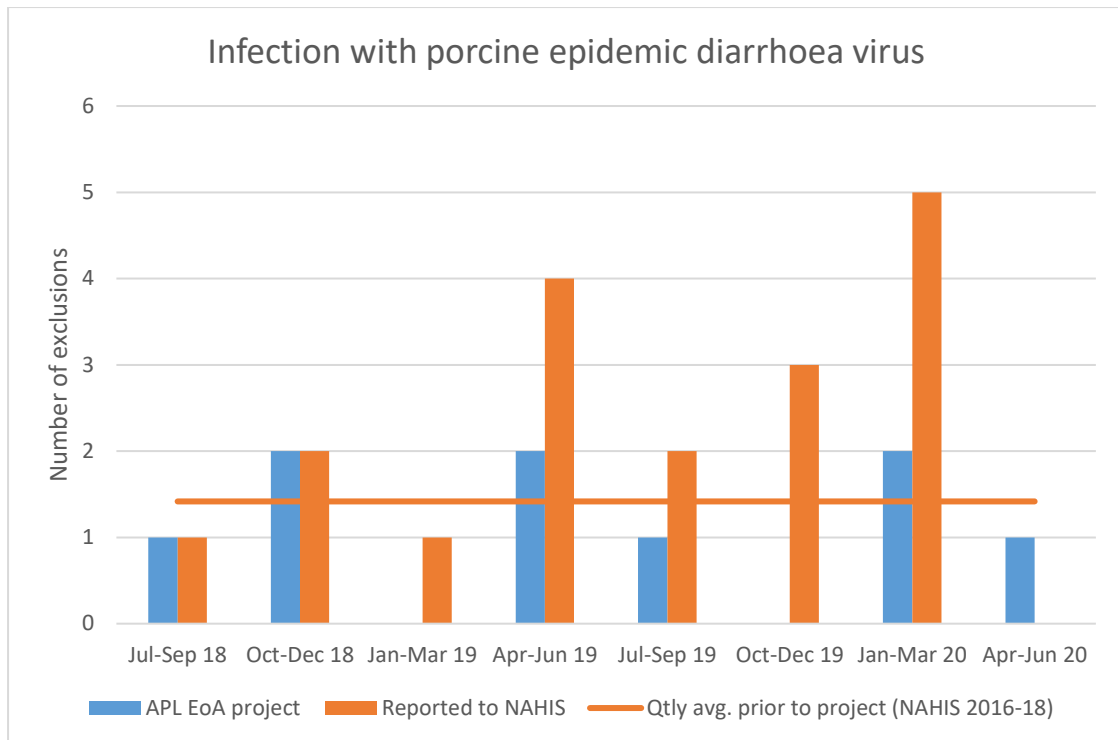


**Figure 2** Number of exclusions investigations for Infection with Aujeszky's Disease Virus reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.

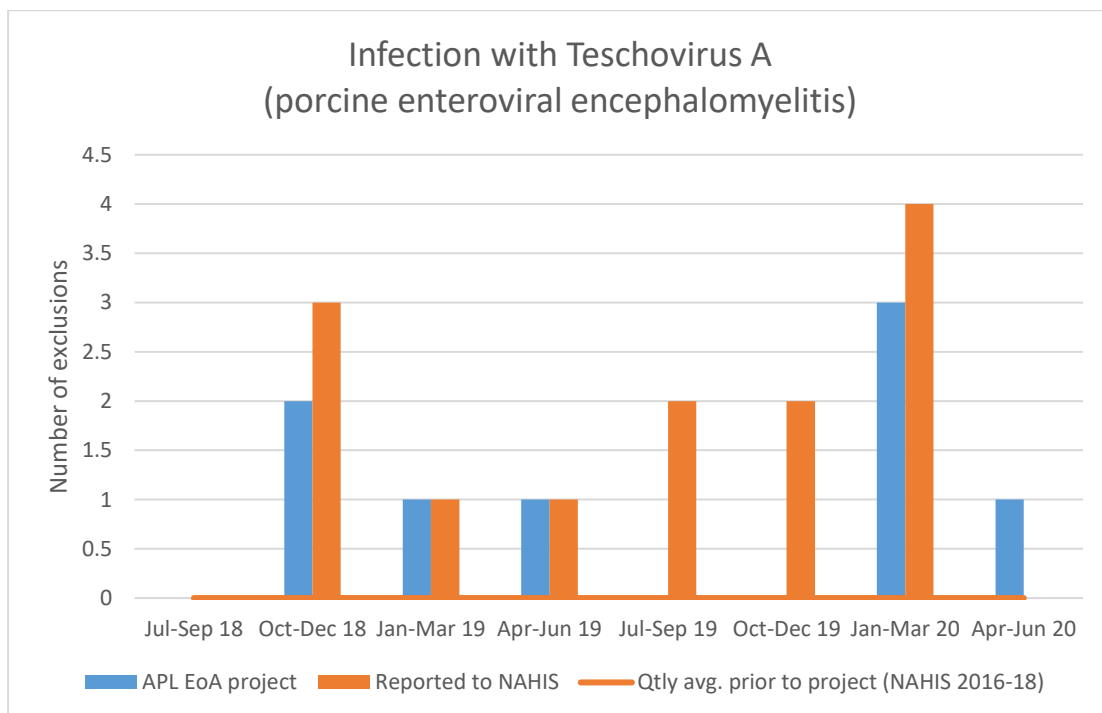


**Figure 3** Number of exclusions investigations for Infection with Classical Swine Fever Virus reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.

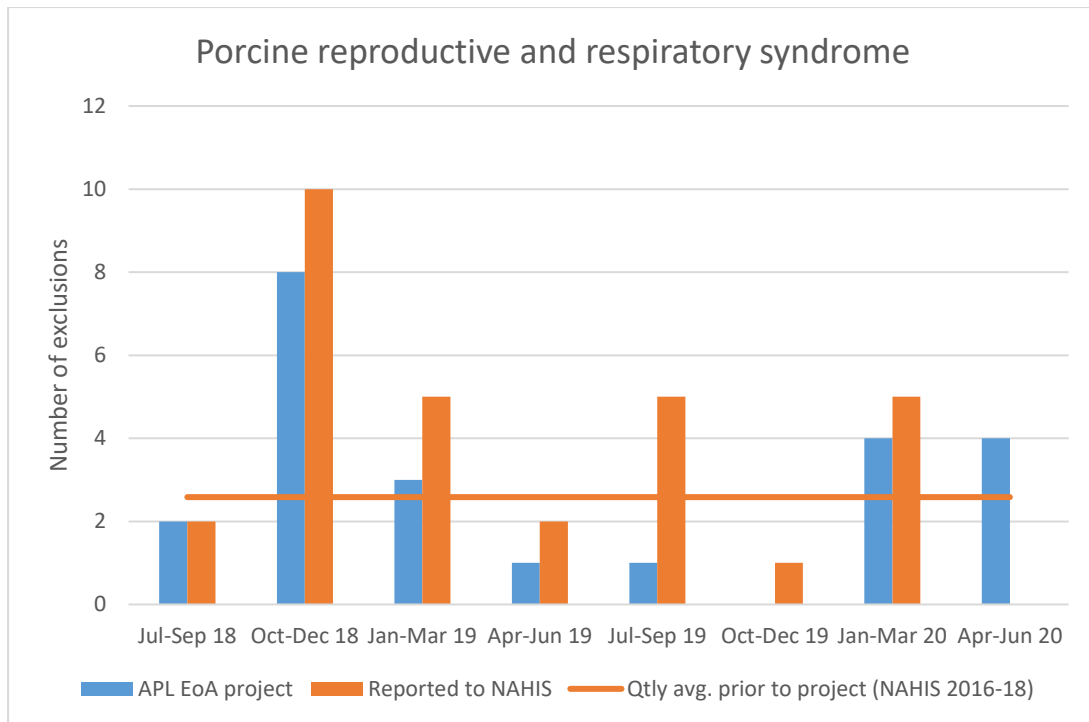




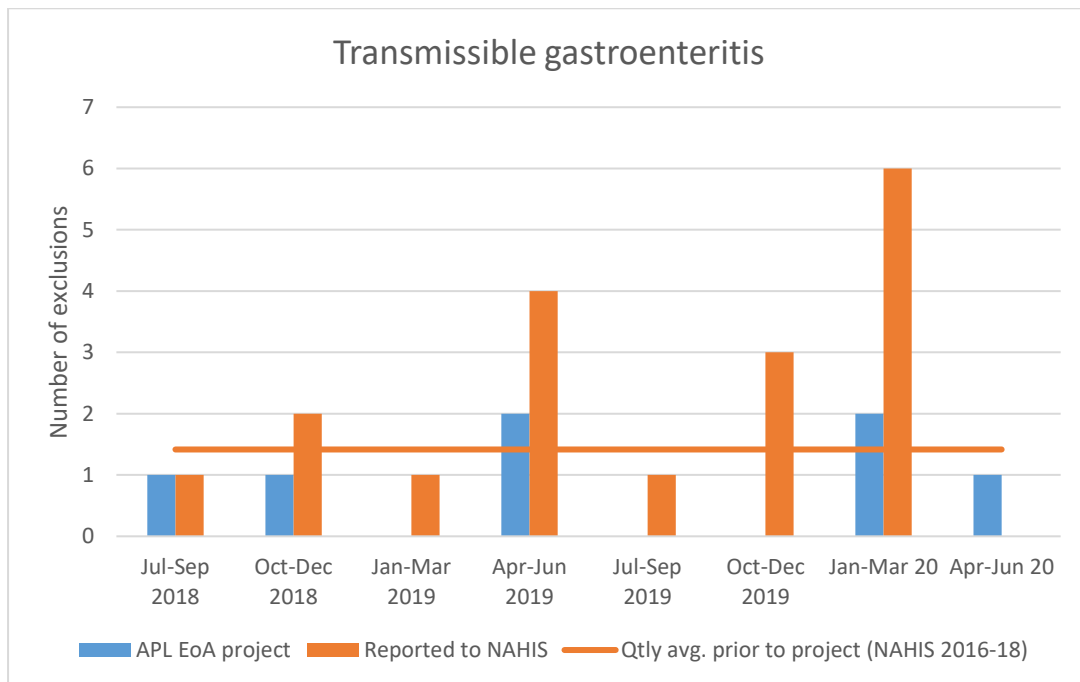
**Figure 4** Number of exclusions investigations for Infection with Porcine Epidemic Diarrhoea Virus reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.



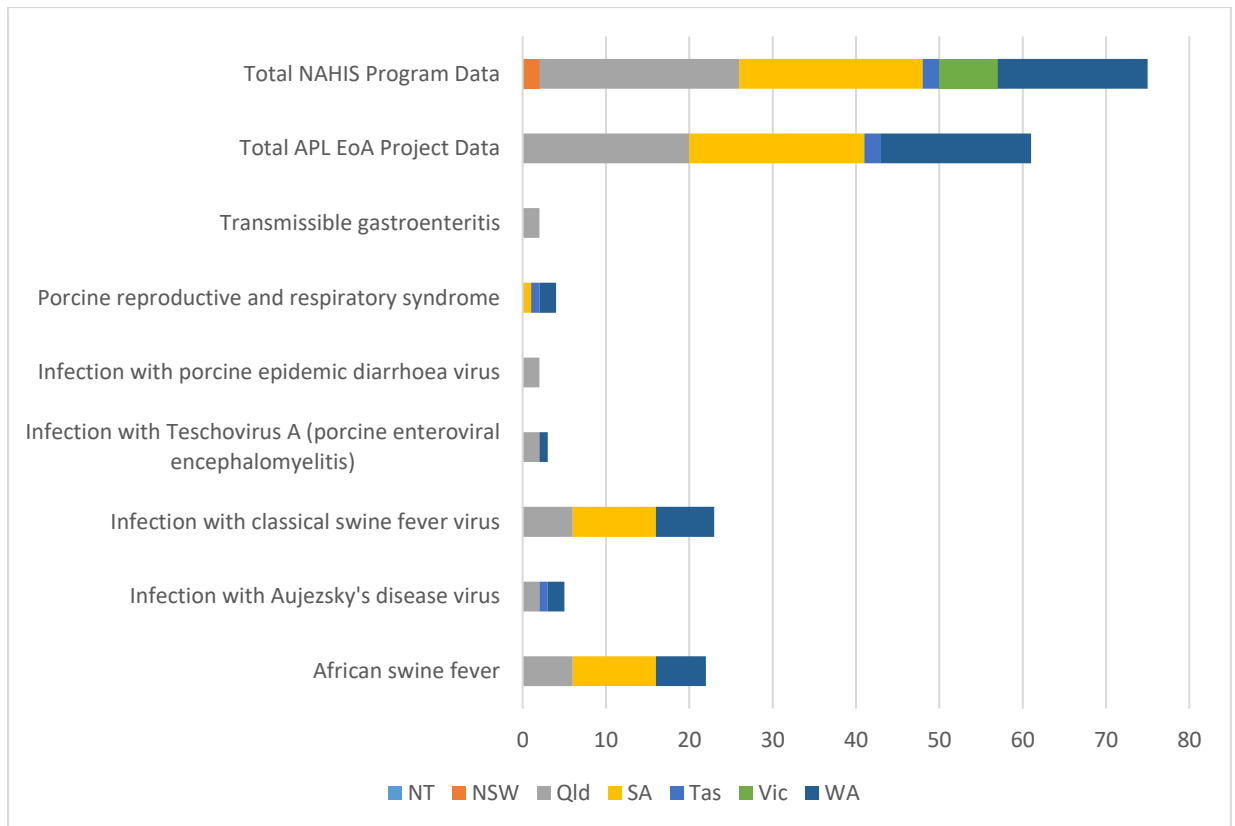
**Figure 5** Number of exclusions investigations for Infection with Teschovirus A reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.



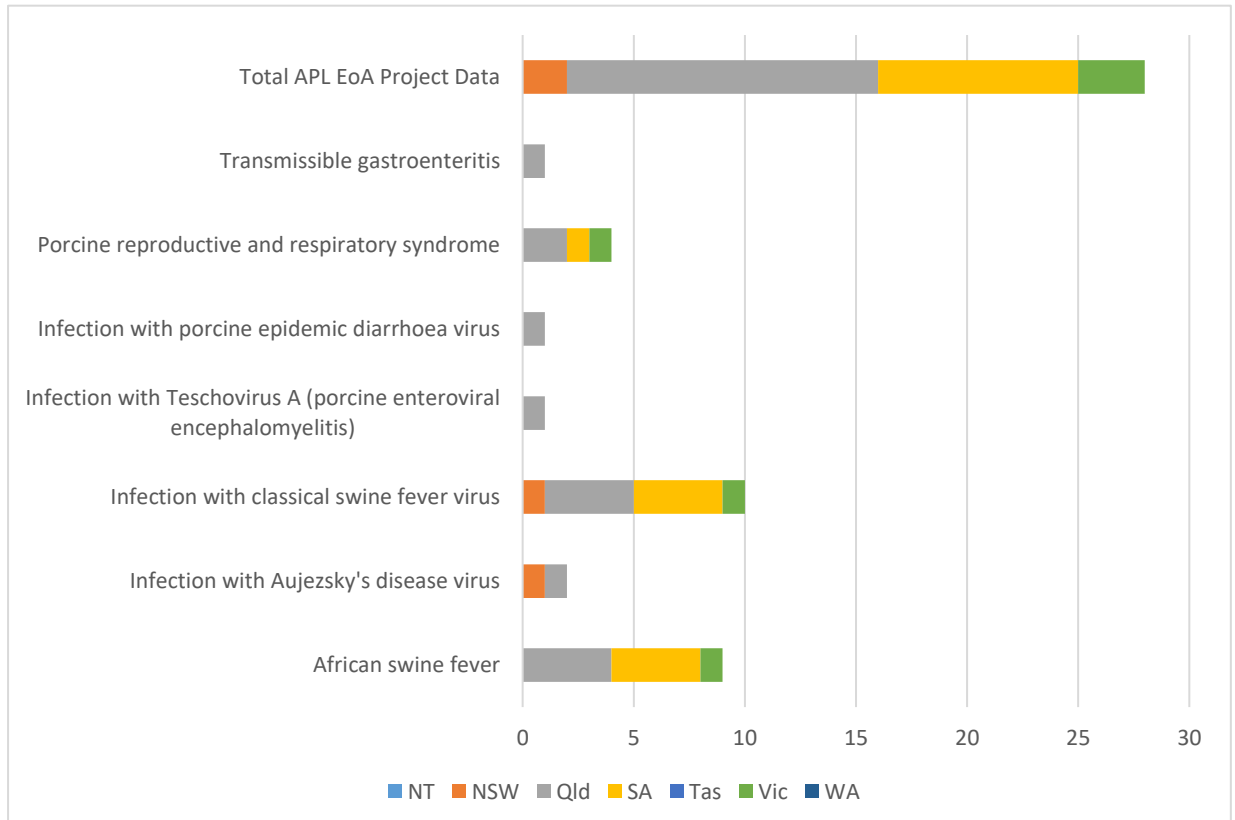
**Figure 6** Number of exclusions investigations for Porcine Reproductive and Respiratory Syndrome reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.



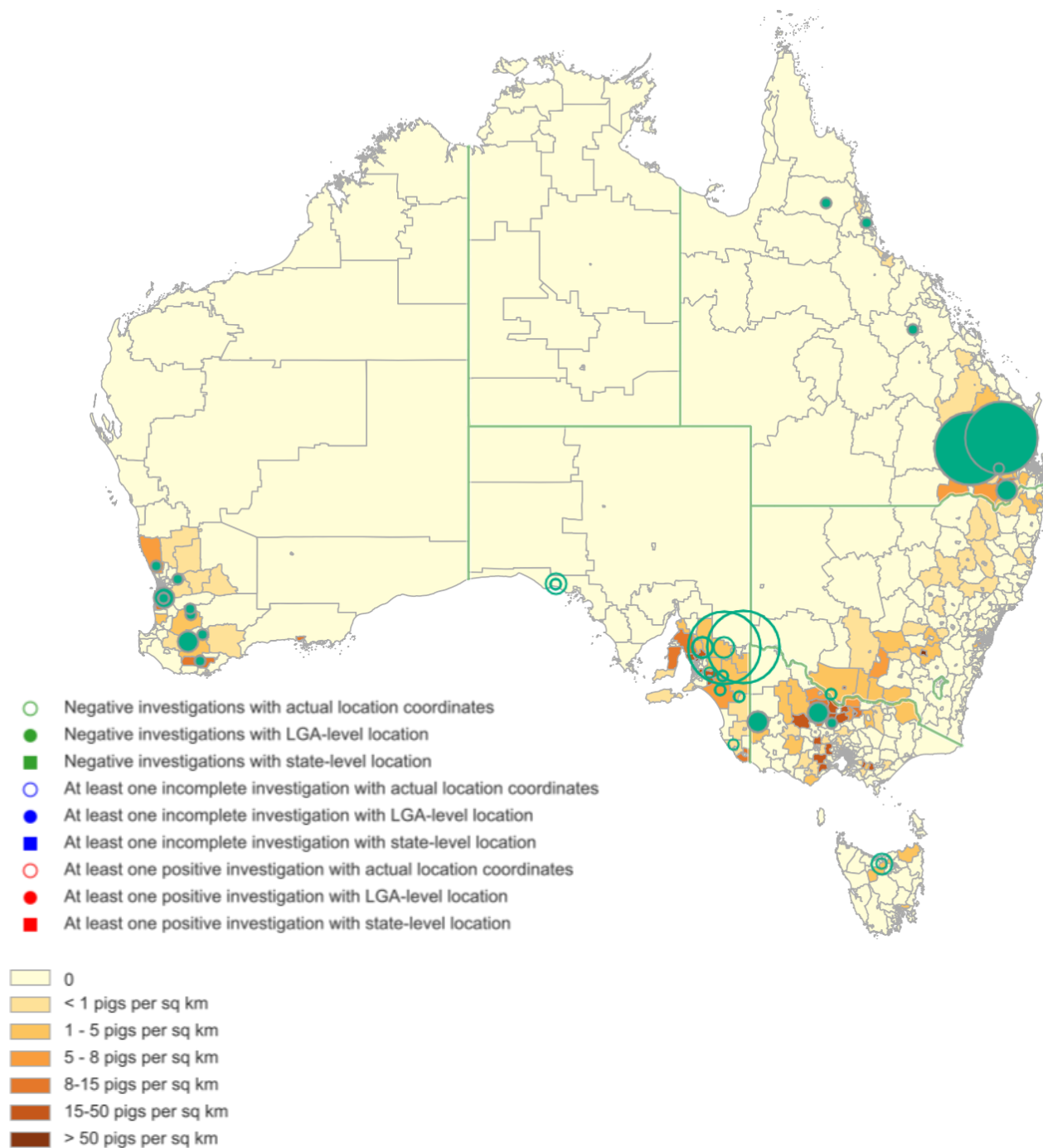
**Figure 7** Number of exclusions investigations for Transmissible Gastroenteritis reported for the APL EoA Project, compared with the number reported in NAHIS, by quarter, and compared to the quarterly average.



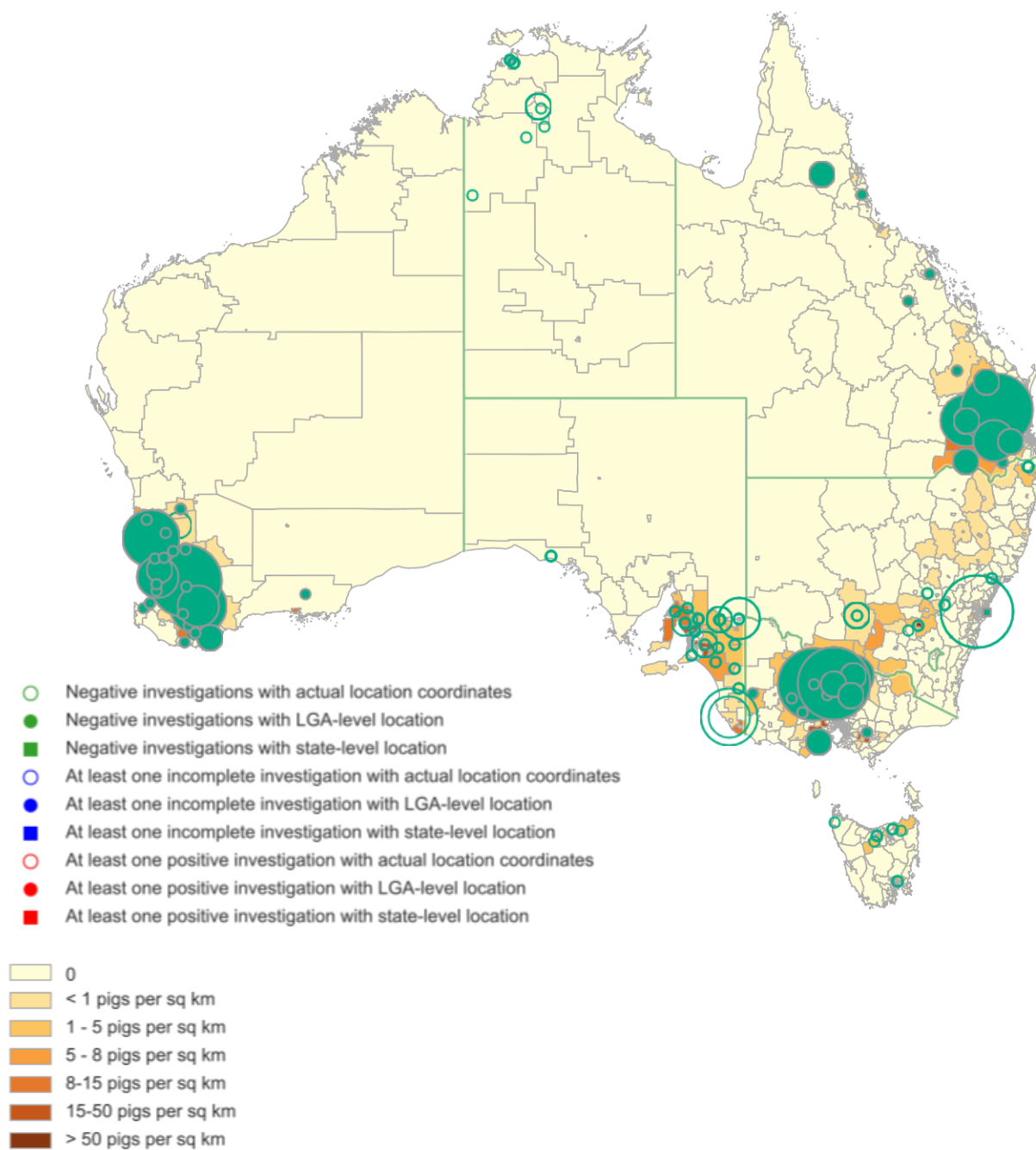
**Figure 8 Number of exclusions in the APL EoA Project by disease, state and total, Jan-Mar 2020. The figure includes the total number of exclusions for the specified diseases reported in NAHIS, by state, Jan-Mar 2020.**



**Figure 9 Number of exclusions in the APL EoA Project by disease, state and total, Apr-Jun 2020 (NAHIS data for the quarter is incomplete at the time of writing).**



**Figure 10 Geographic distribution of exclusion investigations for all diseases in the APL EoA Project, 01 Jan 2020 - 31 Apr 2020 (Source: NAHIS)**



**Figure 11 Geographic distribution of exclusion investigations for all diseases in the APL EoA Project, 01 Jul 2018 - 31 Apr 2020 (Source: NAHIS)**

## Appendix B: Data entry tool

# APL Evidence of Absence Surveillance Project

Participating vets please make a record for each laboratory submission

\* Required

1. Email address \*

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2. Contact number \*

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3. First name of submitting veterinarian \*

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4. Last name of submitting veterinarian \*

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5. Date of laboratory submission \*

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*Example: January 7, 2019*

6. Submission reference ID \*

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## 7. Clinical syndrome of interest \*

*Mark only one oval.*

- ☐ I. Sow abortion and stillbirths, sporadic or abortion storms
- ☐ II. Piglet diarrhoea, vomiting and mortality
- ☐ III. Piglet respiratory disease, high case mortality
- ☐ IV. Weaner CNS signs, fever, and anorexia
- ☐ V. Weaner CNS signs and respiratory disease
- ☐ VI. Weaner and adult diarrhoea, high morbidity
- ☐ VII. Fever in grower pigs

## 8. Pig farm location \*

*Mark only one oval.*

- ☐ Qld
- ☐ NSW
- ☐ Vic
- ☐ Tas
- ☐ SA
- ☐ WA

## 9. Receiving laboratory location (government) \*

*Mark only one oval.*

- ☐ Qld Biosecurity Sciences Laboratory
- ☐ NSW Veterinary Diagnostic Laboratory
- ☐ Vic Veterinary Diagnostic Services
- ☐ Tas Animal Health Laboratory
- ☐ SA Gribbles Veterinary Pathology
- ☐ WA Diagnostic Laboratory Services

10. Submission checklist

*Check all that apply.*

	Yes
I have labelled collection tubes and containers	<input type="checkbox"/>
I have stored collection containers chilled for transport	<input type="checkbox"/>
I have completed a specimen advice form labelled 'APL EoA Surveillance Project'	<input type="checkbox"/>
I have dispatched samples to the laboratory	<input type="checkbox"/>

11. Vet comment (will go to laboratory)

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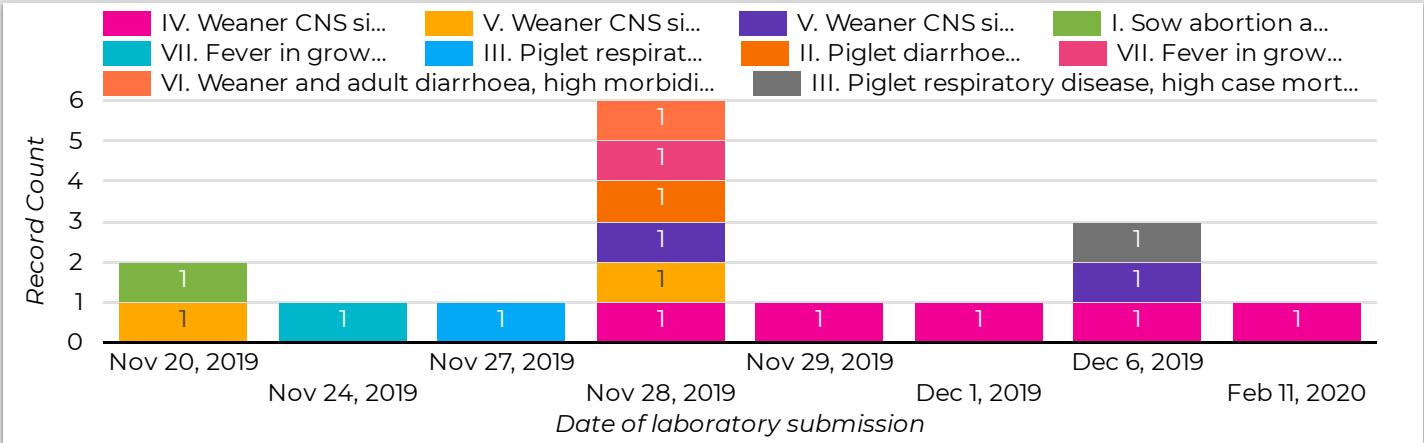


SURVEILLANCE PROJECT  
APL EVIDENCE OF ABSENCE

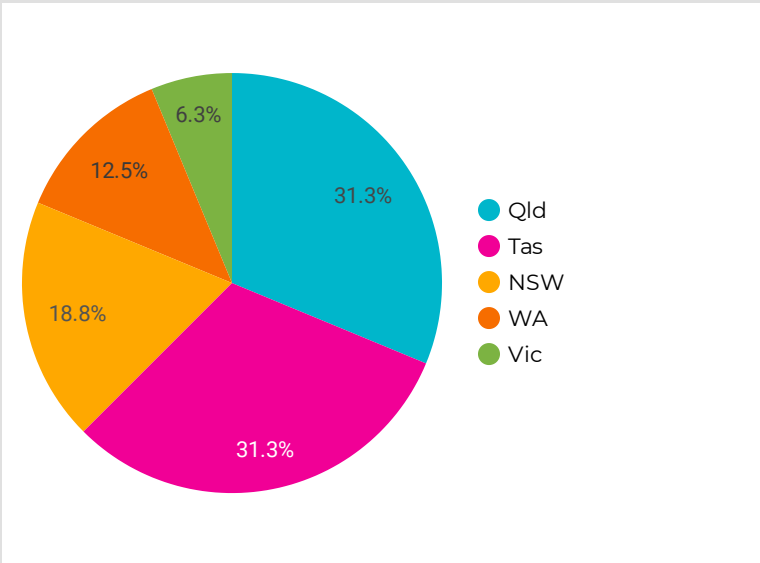


Select date range

Submissions reported by vets (commenced Dec 2019)



Farm location of submissions reported by vets (commenced Dec 2019)



Exclusions reported by laboratories

