



EVIDENCE OF ABSENCE SURVEILLANCE PROJECT

GUIDELINES FOR PARTICIPATING PIG VETERINARIANS

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This project is an initiative of Australian Pork Limited (APL) and is delivered under agreement by Animal Health Australia (AHA). For general enquiries please contact Lechelle van Breda, Manager Production Stewardship APL, by phone on (02) 6270 8816, mobile 0447 099 397 or email at lechelle.vanbreda@australianpork.com.au.

Why this is important for our pig industry

Australia's pork trading partners regularly enquire on the status of disease in the Australian pig herd.

We have an established reputation of freedom from important pig diseases but ongoing surveillance of the national pig herd is required to substantiate our declaration that the status of these diseases has not changed.

Effective surveillance evidence ensures that unnecessary import conditions are not applied to Australian pork exports and that Australian import policy (conditions applied to imported products) is science based.

Participating Veterinarians

APL seeks to increase the evidence of absence of important exotic pig diseases by increasing the number of exclusion tests undertaken for clinically relevant pig morbidity and mortality cases.

These guidelines describe the clinical syndromes associated with the high priority exotic pig diseases for Australia, excluding vesicular diseases.*

Participating veterinarians who identify any of these clinical syndromes are asked to submit samples from cases for laboratory testing. Please note that this project is an addition to your normal diagnostic process.

Summary records of investigations (de-identified) will be collated in Australia's National Animal Health Information System (NAHIS), managed by AHA, and published by state in the *Animal Health Surveillance Quarterly* report.

* Observing a vesicular disease syndrome is an immediate, genuine suspicion of swine vesicular disease, vesicular stomatitis, and foot and mouth disease. See inset text above.

State and territory legislation requires that genuine suspicion of occurrence of the diseases referred to in this document must be reported to the government department of agriculture. If you suspect one of these diseases, contact your nearest government field veterinary officer or contact the Emergency Animal Disease Watch Hotline on 1800 675 888.

Please advise producers about the purpose of this project and that samples collected would be sent to the relevant state government laboratory for exotic disease exclusion testing as part of the APL Evidence of Absence Surveillance Project.

STATE GOVERNMENT PROJECT CONTACTS

States	Government Contact	Phone Number
Queensland	Dr Sandy Adsett Veterinary Office	M: 0409 757 418 P: 07 4529 4113
New South Wales	Dr Amanda Black Senior Veterinary Officer	M: 0417 316 918 P: 02 4640 6308
Victoria	Karen Moore Senior Surveillance Officer	M: 0419 721 098 P: 03 5430 4525
Tasmania	Dr Mary Lou Conway Deputy Chief Veterinary Officer	M: 0408 356 407 P: 03 6165 3258
South Australia	Dr Jeremy Rogers Senior Veterinary Officer	M: 0427 608 133 P: 08 8539 2110
Western Australia	Dr Sue Skirrow Senior Veterinary Officer	M: 0459 024 899 P: 08 9892 8490

STEP
1

IDENTIFY SYNDROMES OF INTEREST AND COLLECT SAMPLES

I. Sow abortion and stillbirths, sporadic or abortion storms

Surveillance for:

- porcine reproductive and respiratory syndrome (PRRS).

The two syndromes for PRRS are late-term reproductive failure in sows and respiratory disease in young pigs. Gross lesions are typically absent or non-specific in aborted fetuses.

Requests for testing from each pig veterinarian

1-2
cases per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five at-risk sows in the herd (sows with recent abortion or still births and sows exposed to them). Collect two tubes of blood (7 mL) per sample: one red top (clot activator) tube and one EDTA tube.
AND/OR		
Necropsy	Fresh tissue	Collect tissue samples from at least five aborted or stillborn fetuses: tonsils, lung, thymus, bronchial lymph nodes, heart, kidney and spleen. Each tissue sample should be 1 to 2 cm ² . Place all tissue samples from one animal into a separate specimen container (yellow top).

II. Piglet diarrhoea, vomiting and mortality

Surveillance for:

- swine coronaviruses (transmissible gastroenteritis, TGE).
- swine coronaviruses (porcine epidemic diarrhoea, PED). PED is clinically similar to TGE in piglets.

TGE is a highly contagious disease of pigs characterised by watery yellow diarrhoea and transient vomiting, with associated high mortality in piglets under five weeks of age.

Requests for testing from each pig veterinarian

1-2
cases per year

Opportunity	Sample required	Sample collection
Live animals	Rectal swab	Collect rectal swabs from at least five affected piglets. Place swabs into tubes with viral transport media (ideally), phosphate buffered saline (PBS) or crude saline.
AND/OR		
Live animals	Blood	Collect blood samples from at least five affected piglets. Collect one tubes of blood (5 mL) per sample: one red top (clot activator) tube.
AND/OR		
Necropsy	Fresh tissue	Collect loops of affected ileum from at least five affected piglets that have died within 24 hours or been euthanased while acutely ill. Cut one loop of affected small intestine (ileum) from each piglet and place into a single specimen container (yellow top).

III. Piglet respiratory disease, high case mortality

Surveillance for:

- porcine reproductive and respiratory syndrome (PRRS)
- Aujeszky's disease.

The two syndromes for PRRS are late-term reproductive failure in sows and respiratory disease in young pigs. Acute infection may result in a high rate of pre-weaning mortality in piglets, which are listless, weak and dyspnoeic.

Clinical signs of Aujeszky's disease in piglets include central nervous system (CNS) and respiratory disease, with variable morbidity but a high case mortality rate.

Requests for testing from each pig veterinarian

2-4
cases per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five sows with moderate to high pre-weaning piglet mortality. Collect two tubes of blood (7 mL) per sample: one red top (clot activator) tube and one EDTA tube.
AND/OR		
Necropsy	Fresh tissue	Collect tissue samples from at least five piglets: spleen, tonsils, gastro-hepatic lymph node, mesenteric lymph node, lung, kidney, liver, ileum and brain. Each tissue sample should be 1 to 2 cm ² . Place all samples from one animal into a separate specimen container (yellow top).

IV. Weaner CNS signs (seizure, ataxia, nystagmus, gait, convulsions), fever and anorexia

Surveillance for:

- porcine teschovirus encephalomyelitis (formerly porcine enterovirus encephalomyelitis)
- Aujeszky's disease.

Clinical signs of teschovirus encephalomyelitis include ataxia, followed by fever, anorexia, seizures and paralysis. The disease is highly contagious and causes high morbidity and mortality.

Requests for testing from each pig veterinarian

1-2
cases per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five affected weaners. Collect two tubes of blood (5 mL) per sample: one red top (clot activator) tube and one EDTA tube.
AND/OR		
Necropsy	Fresh tissue	Collect tissue samples from at least five affected weaners: spleen, tonsils, gastro-hepatic lymph node, mesenteric lymph node, lung, kidney, liver, ileum and brain. Each tissue sample should be 1 to 2 cm ² . Place all samples from one animal into a separate specimen container (yellow top).

V. Weaner CNS signs and respiratory disease (coughing, sneezing)

Surveillance for:

- Aujeszky's disease.

Clinical signs of Aujeszky's disease in weaners include CNS and respiratory disease, with a low case mortality rate.

Requests for testing from each pig veterinarian

1-2
cases
per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five affected weaners. Collect two tubes of blood (5 mL) per sample: one red top (clot activator) tube and one EDTA tube.
AND/OR		
Necropsy	Fresh tissue	Collect tissue samples from at least five affected weaners: spleen, tonsils, gastrohepatic lymph node, mesenteric lymph node, lung, kidney, liver, ileum and brain. Each tissue sample should be 1 to 2 cm ² . Place all samples from one animal into a separate specimen container (yellow top).

VI. Weaner and adult diarrhoea, high morbidity

Surveillance for:

- swine coronaviruses (porcine epidemic diarrhoea, PED).
- swine coronaviruses (transmissible gastroenteritis, TGE). TGE can be clinically similar to PED in weaners/adults.

PED is a highly contagious disease with infection in weaners and adults characterised by watery diarrhoea, depression and anorexia. Most infected weaners and adults recover.

Requests for testing from each pig veterinarian

1-2
cases
per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five affected weaners/adults. Collect one tubes of blood (5 mL) per sample: one red top (clot activator) tube.
AND		
Live animals	Rectal swab	Collect rectal swabs from at least five affected weaners/adults. Place swabs into tubes with viral transport media (ideally), phosphate buffered saline (PBS) or crude saline.
AND/OR		
Necropsy	Fresh tissue	Collect loops of affected ileum from at least five weaners/adults that have died within 24 hours or been euthanased while acutely ill. Cut one loop of affected small intestine (ileum) from each weaner/adult and place into a single specimen container (yellow top).

VII. Fever in grower pigs

Surveillance for:

- classical swine fever (CSF)
- African swine fever (ASF).

CSF and ASF are highly contagious viral diseases characterised by high fever, anorexia, depression and high mortality.

Requests for testing from each pig veterinarian

2-4
cases
per year

Opportunity	Sample required	Sample collection
Live animals	Blood	Collect blood samples from at least five affected pigs. Collect two tubes of blood (7 mL) per sample: one red top (clot activator) tube and one EDTA tube.
AND/OR		
Necropsy	Fresh tissue	Collect tissue samples from at least five affected pigs: spleen, tonsils, gastrohepatic lymph node, mesenteric lymph node, lung, kidney, liver and ileum. Each tissue sample should be 1 to 2 cm ² . Place all samples from one animal into a separate specimen container (yellow top).

STEP

2

LABEL SAMPLES

Samples require no preparation. Label the collection tubes and containers with the date, property name, veterinarian submitter name and types of tissue enclosed.

STEP

3

STORE, PACKAGE AND TRANSPORT SAMPLES

1. All samples (serum and tissue) need to be stored in their collection containers inside an insulated box on frozen gel packs, or in a refrigerator (at 4°C), until transport to the laboratory. Do not freeze samples.
2. All samples must be packed in an insulated box on frozen gel packs (not water ice) to remain cold for the duration of transport to your state government animal health laboratory.

STEP
4

COMPLETE DOCUMENTATION AND COMMUNICATION

1. Complete a veterinary specimen advice form or laboratory sample submission form (available from your state agriculture department's website) and clearly label it with '**APL Evidence of Absence Surveillance Project**'.
2. Please phone the state government project contact and inform them that 'samples are being dispatched to the laboratory for the '**APL Evidence of Absence Surveillance Project**'.

STEP
5

DISPATCH SAMPLES TO THE LABORATORY

Send packaged samples with a completed specimen or sample form to your state government animal health laboratory.

Reminder: Assuming Australia remains free of these exotic diseases, testing in this project is not going to give a diagnosis and your normal diagnostic process should also apply. Your government veterinary laboratory may be able to assist you to reach a diagnosis if requested.

For project assistance please contact the surveillance coordinator at Animal Health Australia on (02) 6203 3906.



EMERGENCY ANIMAL
DISEASE WATCH HOTLINE

1800 675 888