

PED Contingency Plan

Contingency Plan for a Suspected or Confirmed Case of PED in England

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Department
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Animal &
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1. Introduction

1. The GB pig herd is considered free of virulent strains of Porcine Epidemic Diarrhoea virus (PEDv). Porcine epidemic diarrhoea (PED) has not been diagnosed in GB since 2002. Evidence from enhanced surveillance for PEDv involving diagnostic testing of diarrhoeic pigs at APHA carried out since June 2013 has not detected PEDv. A serological survey in 2013 indicated that the national pig herd is likely to be largely naïve to PEDv. In addition, suspected PED cases to date have tested negative for the virus.

2. The objective of the Pig Health and Welfare Council Contingency Plan for the Control and Elimination of Porcine Epidemic Diarrhoea virus is to identify, trace, contain and eliminate PEDv as quickly as possible.

3. Whilst the Contingency Plan focuses on the control and elimination of PED virus a broadly similar approach could be adopted to tackle other significant new and emerging diseases or pathogen strains, which are exotic to GB, e.g., PRRSV-2.

4. This document outlines the elements of the Contingency Plan. It should be read in conjunction with a series of Standard Operating Procedures (SOP) which provide detailed guidance on a range of topics. The SOPs are shown in the relevant section of the Plan and also listed at Appendix 1. The Contingency Plan does not include tactical activity as this will be contingent on the specifics of the unit, timings and emerging knowledge. The Outbreak Steering Group and the PED Control Centre will determine the action to be taken.

5. The approach to the control of PED is based on an initial strategy which may change depending on the number of outbreaks and the spread of the disease

Initial Strategy: Pig Unit Specific Containment and Elimination. This will be the initial strategy based on an outbreak infecting up to a limited number of individual pig units with targeted intensive epidemiological investigation, interventions and monitoring

Secondary Strategy: Industry Containment and Elimination. This strategy will be adopted following confirmation that an outbreak has occurred on a significant number of individual pig units with evidence of wide spread of infection. It is considered that at this point a broader approach to PED control and elimination will be necessary as it is highly likely outbreaks of PED will become more widespread.

6. The effectiveness of the PED Contingency Plan is reliant on the support and commitment from the industry and supply chain. Unlike other notifiable disease in pigs, there is no legislative requirement for official testing, culling, movement controls or other restrictions and control of disease will be industry-led. A voluntary commitment made by producers and the industry to control the spread of PEDv is important with emphasis on:

- Open sharing of information from the outset
- Responsible attitude of affected units both to containing the infection and minimising the risk to others
- A responsible attitude by all along the supply chain
- Respect for confidentiality of information which is shared

7. AHDB will be responsible for managing an outbreak and communications to producers and the wider industry

2. Maintaining disease freedom and surveillance

2.1 Prevention of PEDV introduction into GB

8. Managing exotic disease is primarily concerned with managing risk. By definition, exotic diseases are not normally present in Great Britain (GB) and therefore the associated risks can be managed in two ways (i) Taking day to day measures to reduce the likelihood of an outbreak of PEDv in GB by implementing practices to prevent its entry and detect it quickly in the event that it did enter the country and (ii) being prepared to act quickly to reduce the impact of an incursion of PEDv if it has been detected in GB

9. The NPA Import Protocol for the importation of live breeding pigs into Great Britain aims to minimise the risk of introducing exotic pathogens, or exotic pathogen strains, into GB when importing live pigs. The protocol specifies the herd of origin health requirements, the testing required on arrival at the holding of destination and the isolation facilities and period isolation needed on arrival.

Details at <http://www.npa-uk.org.uk/hres/NPA%20imports%20protocol%20Feb%202019>

10. The Red Tractor standard for assured pig farms specifies that imported stock and semen must be tested in line with the NPA Imports Protocol for non-statutory diseases and records kept. Details at

https://assurance.redtractor.org.uk/contentfiles/Farmers-7059.pdf?_=637049436511354082

2.2 Enhanced Surveillance for PEDV infection in England

11. Diagnostic samples submitted to APHA from non-PED suspect incidents of diarrhoea in pigs in England and Wales are currently tested for PEDv by PCR on a weekly batch basis under an AHDB Pork contract. This enhanced PEDv surveillance can also be used to test for PED virus in samples from diarrhoeic pigs which are not having other diagnostic tests performed at APHA i.e. are submitted to APHA solely to rule out PEDv.

12. APHA and SRUC Veterinary Services offer a diagnostic PCR for PEDv and, should a positive result be obtained, sequencing would be performed at APHA Virology to identify the strain of PEDv involved, and determine whether the PEDv detected is a virulent strain.


2.3 Early identification of PED outbreaks

13. Porcine Epidemic Diarrhoea virus can spread very easily by direct contact with infected pigs or contact with faeces from infected pigs, with material contaminated with faeces from infected pigs, or with manure/slurry from infected pigs. With robust national and farm-gate biosecurity, PEDv can be prevented from infecting pigs on British farms.

14. However if infection gains entry into GB, the early detection and testing of pigs affected or suspected to be affected by PEDv is critical to the success of any strategy to contain, control and eliminate the virus from GB. Delays in diagnosis increase the risk of undetected spread of the virus. Normal: This style should be used for all main body content etc. Normal: This style should be used for all main body content etc. Normal: This style should be used for all main body content etc. Normal: This style should be used for all main body content etc. Normal: This style should be used for all main body content etc. Normal: This style should be used for all main body content etc.

3. Disease suspicion and reporting

15. This chapter should be read in conjunction with SOP2 the “Detailed Guidance to pig keepers and vets on reporting suspect PED” which is available from AHDB Pork at

 [PED SOP 2 Reporting suspect PED outbreaks](#)

3.1 Clinical signs of PED

16. Pig keepers (farmers, stockpersons, pig owners) and their veterinary surgeons are the frontline for detection of diarrhoea in pigs. It is important that they are aware of the signs of the disease and need to consider

the possibility of PEDv in diarrhoeic pigs. Pig keepers should contact their veterinary surgeon as soon as possible to discuss diarrhoea cases and outbreaks. Features which may raise suspicion of PED include the following

- diarrhoea affecting any age of pig
- diarrhoea which spreads quickly to affect many pigs in a group over a few days
- death of 30 to 100% of young suckling piglets if the virus is a severe strain
- diarrhoea in older pigs is temporary and they recover
- diarrhoea tends to be watery
- pigs may have a reduced appetite, be lethargic and may vomit

17. Further details of signs of disease the can are found on the gov.uk PED page at <https://www.gov.uk/guidance/porcine-epidemic-diarrhoea-how-to-spot-and-report-the-disease#if-you-suspect-ped>

3.2 Requirement to notify suspect disease

18. In December 2015 PED was made Notifiable in England and from March 2016 in Scotland. It is a legal requirement in England and Scotland that producers or vets report any suspicion of PED. This applies to owners of pet pigs, smallholdings and commercial pig farms. This means that if a pig keeper and/or their veterinary surgeon suspect that pigs have an outbreak of PED they are now legally required to report this to the APHA in England

3.3 Action by APHA on receipt of a suspect PED case

19. A report is received by APHA indicating suspicion of disease. The call is passed to the APHA duty Vet who speaks to the person making the PED report. The duty Vet will collect further information and include it in the PED Standardised Investigation Questionnaire (see appendix 7). If the duty Vet concludes that there is a strong suspicion of PED, a disease reference number will be issued which must be used on the APHA submission form sent with samples for the rapid PED testing that is instigated. Samples will be collected and submitted by the veterinary practitioner to APHA for analysis. (See SOP 2 and SOP 2.1)

 [PED SOP 2 Reporting suspect PED outbreaks](#)

 [PED SOP 2.1 Suspect PED outbreaks – samples for testing](#)

20. Prompt diagnostic testing is essential to confirm the diagnosis or rule it out. While waiting for the results of diagnostic testing, it is vital that control measures are instituted on the affected pig unit to prevent the spread of PEDv if the outbreak is confirmed as PED.

3.4 Sharing information on suspect cases by APHA

21. The legislation allows APHA to share owner and premises details of a suspect (or confirmed) PED case with AHDB Pork, together with other information such as the clinical signs, age of pigs affected and type of unit. This information is collected by APHA at the time of reporting. Sharing information about the PED-affected premises beyond AHDB Pork itself, could present AHDB Pork with confidentiality issues. In response to the data sharing issues, AHDB Pork re-launched the Significant Diseases Charter. This was an extension of the original successful Swine Dysentery Charter, where the aim is to get the voluntary sign-up of producers to share

information with other Charter members quickly which will, in turn, make the control of disease faster and more effective.

22. Currently this covers PED and Swine Dysentery, although there is scope in the future to extend this to other exotic and emerging diseases as the pig industry considers necessary.

3.5 Action by AHDB when a suspect case has been reported by APHA

23. If suspicion of disease is strong and its presence cannot be ruled out on clinical grounds, a PED Control centre will be established by AHDB and will coordinate the preliminary response from AHDB. (Details of the PED Control Centre at Section 8).

24. AHDB will contact the Farm Vet and Producer to introduce themselves and outline the PED Contingency plan in broad terms. The vet and producer will be invited to join the Strategic Operations Team telephone conference. The farm vet will be asked to confirm if the producer has given permission for details of the outbreak to be shared with the steering group and for the involvement of the Pig Veterinary Society (PVS) before sending an invitation to PVS. (Details of the Strategic Operations Team at Section 8)

25. The PED Control centre will organise a teleconference with the Strategic Operations Team after receipt of information from APHA to inform them of the suspect PED case. The purpose of the initial teleconference is to: i) review and discuss the emerging situation, ii) assess the risks iii) determine the next steps and iv) agree on communications if the case is confirmed. At this stage the information must be kept in confidence and not passed on any further apart from paragraph 26 below.

26. AHDB may provide advice about the disease to the person in possession of the suspect pigs and/or their veterinarian. AHDB may also advise any pig keepers whose pigs are suspected of having contact with the suspect premises and other pig keepers in the vicinity of the suspect premises, to take appropriate precautions to protect their pigs from porcine epidemic diarrhoea. See appendix 5 for the Specified Diseases (Notification) (Amendment) (England) Order 2015. If suspicion is not strong, this may be delayed until after PED test results are available.

27. A flow chart for dealing with suspect cases of PED is at appendix 2

4. Confirmation of PED

4.1 Reporting positive results to AHDB

28. Rapid PCR testing is carried by APHA on samples submitted from the suspected outbreak. APHA reports the PEDv PCR result to the submitting farm vet in the usual manner to pass to the farmer. APHA also reports the PEDv test results to AHDB. The legislation does not include powers to introduce statutory movement controls, restriction on trade or culling of pigs. When the test results are negative no further action is taken apart from notifying the submitting farm vet.

4.2 Check the Significant Disease Charter

29. AHDB will have checked to see if the producer is signed up to the Significant Diseases Charter during the suspect phase. In the event that PEDv has been confirmed on a premises where the producer is not a member of the Significant Diseases Charter AHDB must initially seek permission from the producer to share the out-code information more widely with other Charter members than is allowed by the Specified Diseases (Notification) (Amendment) (England) Order 2015.

30. If the producer refuses to share the information the Specified Diseases (Notification) (Amendment) (England) Order 2015 states that AHDB may share the information where faecal samples tests positive for PEDv to 'any persons appearing to it to be representative of the interests of those in the pig industry.' AHDB may also advise any pig keeper whose pigs are suspected of having contact with the suspect premises and other pig keepers in the vicinity.

4.3 PED Control Centre

31. During the first 24 hours of the outbreak being confirmed the actions below will be a priority for the PED Control Centre:

- Organising a telephone conference with Outbreak Steering Group
- Instructing the AHDB Epidemiology team
- Identifying movements and high-risk farms
- Issuing communications to industry
- Receiving report data- via the Standardised Questionnaire Investigation and then the detailed epidemiology report

4.4 Further action following confirmation of PED

32. Immediately on confirmation of a positive case the Outbreak Steering Group will be established. This is a Government /Industry Group, and it will incorporate the Strategic Operations Team with the addition of industry partners as shown in Section 8

33. If agreed the telephone conference will confirm the next steps of the action plan. This includes requirement for further laboratory analysis, additional communications, and implementation of epidemiological investigations and confirmation of support roles from allied industries. At this point the AHDB will prepare the Epidemiological Investigations Team to begin their investigation enquiries. The teleconference will also agree plans for future actions and communications based on the emerging situation.

34. One of the major roles for the Outbreak Steering Group is the implementation of the initial disease containment and elimination strategy focused on the first 5 infected herds. The Group would at that point review the risk of onward spread. If the risk was high that the disease had spread more widely there would need to be a review to change the emphasis to more general support rather than detailed containment, control and elimination.

35. AHDB will cascade guidance to pig keepers and the industry in an attempt to control the spread of disease.

36. A flow chart for dealing with suspect cases of PED is at appendix 3

5. Control measures at the infected premises

5.1 Overall actions

37. The main sources of PEDv are infected pigs and infected faeces; the latter can be spread by pigs, people, vehicles, wildlife (rodents, birds, foxes, flies, pets), equipment and via contaminated bedding, feed and water. PEDv can also be spread in a more limited manner through the air and via semen. Currently under paragraph FW.4.1.b of the Red Tractor Assurance Pig Standards 2021 Blood products and pig-derived nutritional products are not to be used.





38. The aim on the infected farm is to contain, control and eliminate the virus with full details shown in SOP 8

 [PED SOP 8 Contain, control, eliminate](#)

39. The following actions are required on the infected premises: -
- Enhanced biosecurity
 - Controlled movements from PEDv infected sites
 - Identification of the source of infection and potential spread of infection.
 - Development of a tailored disease control and virus elimination strategy for each infected herd
 - Intensive cleaning and disinfection
 - Manure management
 - Fallen stock disposal
 - Monitoring of virus circulation within herd
 - Confirmation of 'free' status

5.2 Biosecurity

40. Anything which is contaminated with even minute amounts of PEDv-infected pig faeces can be a source of infection for other pigs. If PEDv is confirmed on premises it is vital to focus on keeping the virus on the premise (Biocontainment) and implementing measures to prevent spread from the infected farm. Intensified precautions should be adopted when the disease is confirmed on a farm. A number of SOPs provide detailed guidance on the measures necessary to prevent spread of the virus by people and vehicles.

-  [PED SOP 3 Biosecurity principles](#)
-  [PED SOP 4 Farmgate biosecurity – People](#)
-  [PED SOP 5 Farmgate biosecurity – Vehicles](#)
-  [PED SOP 6 Line of separation and loading pigs](#)

5.3 Controlled movements from PED infected sites

41. PED is a notifiable disease, and whilst movement restrictions will not be imposed on infected premises, in the event of a pig unit being diagnosed with PEDv, voluntary movement controls and enhanced vehicle C&D would benefit the whole industry by limiting spread.

42. A responsible voluntary approach to movement controls is critical. The success of the Charter in the East of England in controlling the outbreak of Swine Dysentery was in part due to sensible controls on movements and by stepping up cleaning and disinfection of vehicles in contact with the unit or pigs from the unit

43. In the initial stages there should be no movement of pigs or pig faeces or other species of animals that may move to a holding with pigs from a PEDv infected farm until plans have been put in place to control the risk of virus spread. Ideally these might include identifying bio-secure locations to which weaners could be moved with appropriate intensive cleaning and disinfection of vehicles involved in the movement. Alternatives, such as temporary weaner accommodation on the site could also be considered

44. As PEDv is not a food safety risk finished pigs could move to abattoir for processing. Ideally this should be at the end of the week with more intensive cleaning and disinfection of vehicles, the lairage and of the washing facilities at the abattoir.
45. Any movements would require a joint commitment from the farm, haulier and destination (farm or abattoir only) and would need to be planned in advance with agreement from all parties and all risks assessed. The lorry driver in particular is key to success.
46. Any movement will be coordinated by the PED Control Centre. See SOP 10 for further guidance

 [PED SOP 10 Movements from PED-infected sites](#)

5.4 Identification of the source of infection and potential spread of infection.

47. Identifying the probable source and potential for spread of infection will be critical to identifying other farms which may be infected or are at potential risk. There will be a particular focus on all movements of animals, animal products, animal by-products, people, feed, bedding, equipment and anything else which may have been in contact with pig faeces.
48. A PED Standardised Investigation Questionnaire is to be used on all positive farms. A full copy of the Standardised Investigation Questionnaire (SIQ) with all the questions is available from AHDB. Appendix 7 provides the main detail of how and why the SIQ is used. Information from the SIQ will be entered into the PED Epi Database by AHDB Pork and shared with APHA. This will enable searches, and trend and risk analyses.
49. The AHDB Epidemiology Team comprises a cadre of specifically trained veterinary surgeons formed to carry out a detailed epidemiological investigation when a disease outbreak is confirmed. A trained epidemiologist from the AHDB epidemiology team will be allocated to investigate the case and will work closely with the PED Control Centre to begin rapid epidemiological investigations. The Outbreak Steering group will be kept apprised of the findings. Full details of the role of the epidemiology team at Appendix 6.

5.5 Development of a tailored disease control and virus elimination strategy for each infected herd


50. The overall goals of the strategy for affected units would be to:
- Contain infection within the unit
 - Reduce any risk of spread to other units
 - Eliminate PEDv from affected farm
51. In order to return the unit to producing virus-free weaners as quickly as possible the control options include
- Controlled exposure of the herd to the virus
 - Partial depopulation: repopulation
 - Depopulation: repopulation
52. Depopulation of a unit would be evaluated based on the circumstances of the first outbreaks. It is only likely to be economically realistic if there is reasonable certainty that only 1-5 units have been affected at the time of first identification of the virus.

53. The PED Control Centre would assist the farmer and farm vet in making an initial assessment of the options for containment, control and elimination of PEDv from an affected farm. International consultants with previous experience of managing the disease may also prove useful.

5.6 Intensive cleaning and disinfection

54. The effective elimination of PEDv is reliant on high quality cleansing and disinfection. It is essential to eliminate PEDv from the farm once all animals have been rapidly exposed to the virus. Strict cleansing and disinfection protocols must be followed to return farm to negative status.


55. Cleaning and disinfection is critical to any disease elimination strategy, not just PEDv. The 5 basic steps of cleaning and disinfection are: 1. Remove organic matter 2. Soak with detergent 3. Clean and dry 4. Disinfect 5. Dry. Detailed guidance on intensive cleaning and disinfection following a PEDV infection is available in SOP 11 at

 [PED SOP 11 Intensive cleaning and disinfection following PEDv breakdown](#)

5.7 Manure management

56. PEDv transfers via faeces and survives in manure for extended periods of time. Any object that becomes contaminated with pig manure can be a source of infection for pigs. Even the smallest trace of infected pig faeces has the potential to spread the disease if it comes into contact with a pig. It is critical to prevent PEDv from being moved from farm to farm during manure spreading and this may impact on the timing of application and where manure should be spread.


57. Detailed guidance on management of all farm waste, e.g. manures, slurries, dirty water, wash water, feed and other organic materials which may have been in contact with livestock or be potentially contaminated by PED virus is contained in SOP 12 available at

 [PED SOP 12 Considerations for manure management](#)

5.8 Fallen stock disposal

58. Disposal of fallen stock is an important consideration in managing unit biosecurity in all circumstances, but especially if PEDv enters the country. The risk of PEDv transmission between farms is very high and it is critical to keep this highly infectious virus out. Mortality records should be routinely kept, along with records of all fallen stock disposal.

59. There are a number of important points to consider regarding fallen stock storage whether an incinerator or deadstock collector is used. The best practice for fallen stock disposal is detailed in SOP 9 available at

 [PED SOP 9 Considerations for fallen stock disposal](#)

5.9 Monitoring of virus circulation within herd

60. Monitoring of virus circulation within the positive herd will be necessary to assess when the target of virus free weaner production has been achieved. Sampling and testing for monitoring of virus circulation in herds is included in SOP 2.2, taking into account experience from North America. This document may be updated as more information/experience is acquired.

5.10 Confirmation of 'free' status

61. Following return of farms to production of virus-free weaners ongoing monitoring for clinical signs and testing for virus should be planned for at least 6 months to check that the virus has been eliminated or that re-emergence of the virus is detected as quickly as possible.

62. The PED Control Centre would be responsible for keeping updated records of farms now considered 'negative'.

6. Control measures by allied industries

6.1 Hauliers

63. Drivers of vehicles which enter farms are responsible for preventing:

- Contamination of the farm by the vehicle
- Contamination of the vehicle by the farm

64. Work with your customers to establish robust biosecurity protocols which are practical and can be followed to protect their pigs against new and established disease threats. More details in the following SOPs.

- ↓ [PED SOP 1b Introduction to PEDv for hauliers](#)
- ↓ [PED SOP 3 Biosecurity principles](#)
- ↓ [PED SOP 4 Farmgate biosecurity – People](#)
- ↓ [PED SOP 5 Farmgate biosecurity – Vehicles](#)
- ↓ [PED SOP 6 Line of separation and loading pigs](#)
- ↓ [PED SOP 7 Cleaning and disinfection of vehicles](#)

6.2 Allied industries

65. A number of biosecurity protocols must be implemented when entering the farm to minimise the risk of spreading all diseases. Further details in SOP 14. Producers, abattoirs and processors must be aware of the risk of PED and all businesses to be highly vigilant and report any unusual symptoms in pigs. See SOP 13, 14 and 15

- ↓ [PED SOP 13 Advice for processors](#)
- ↓ [PED SOP 14 Biosecurity briefing for the allied pig industry](#)
- ↓ [PED SOP 15 Biosecurity briefing for processors](#)

7. Wider control measures

7.1 Mapping

66. The PED Control Centre will utilise eAML2 database and mapping programs to collect:
- Farm location
 - All pig movements on and off farm in last 21 days
 - Details of supplying farms or markets
 - Details of destination farms, markets, collection centres or abattoirs
 - Details of pig hauliers
 - Details of all pig holdings within 3 miles of affected farm (including markets, abattoirs, collection centres).
67. The PED Control Centre will initiate the epidemiological assessment to assess the extent of lateral spread from the Infected Premises. Surveillance will be assisted by movement data from eAML2 and documents kept by producers involved which will be used for tracings and the containment strategy. This will include identifying all the movements on and off the infected premises in the previous 21 days and biosecurity risk mapping of all farms within 5km of the infected farm. Following risk assessment more intensive monitoring for signs of disease and of the more intensive containment biosecurity could also be put in place on any higher-risk farms
68. AHDB will contact producers identified as being in the high-risk areas from mapping. They will be encouraged to contact their vet for advice and to be additionally vigilant for signs of disease. Information collected at this time will be useful for disease modelling and future contingency planning.

7.2 Enhanced surveillance to detect any wider spread






69. On confirmation of the identification of PED in the GB all producers and wider industry will need to increase their surveillance for clinical signs of PED. This is highlighted in SOP1a. Suspect PED cases must be reported to APHA

 [PED SOP 1a Introduction to PEDv for producers](#)

70. On pig units identified as being at high risk of spread of PED, or identified as the possible source of infection, PED testing of diarrhoeic pigs is likely to be recommended even if clinical signs are not typical of suspect PED. Sampling will only be indicated where there are suspicious clinical signs or a history of exposure. See SOP2. Experience from other countries indicates that diarrhoea in pigs is a very useful indicator of PED.

7.3 Enhanced general industry biosecurity

71. On confirmation of identification of PED, one of the key messages to the pig industry will be to enhance biosecurity. Measures should be reviewed and weaknesses prioritised and addressed.
72. Guidance is available for different parts of the industry. This is contained in the following SOPs

-  [PED SOP 3 Biosecurity principles](#)
-  [PED SOP 4 Farmgate biosecurity – People](#)
-  [PED SOP 5 Farmgate biosecurity – Vehicles](#)
-  [PED SOP 6 Line of separation and loading pigs](#)
-  [PED SOP 7 Cleaning and disinfection of vehicles](#)

8. Command, control and communication structures

8.1 Introduction

73. Delivery of the proposed contingency plan will require considerable investment in manpower, testing and diagnostic resources and data collection and analysis. On suspicion, a PED Control Centre will be established in AHDB to prepare reactive communications should the case be confirmed. The Strategic Operations team will be activated and notified by teleconference to prepare for potential action in the event that PED is confirmed.

74. If an outbreak is confirmed the PED Control Centre will coordinate the response and trigger the Significant Diseases Charter. On confirmation of a positive case a government/industry Disease Outbreak Steering Group would be established and would incorporate the Strategic Operations Team. As part of this a teleconference with the Outbreak Steering Group will be held to confirm details of the outbreak and the wider contingency plan. The group will continue to communicate daily until five outbreaks have been confirmed in which case the resource and procedure will be refined.

8.2 Operational partners and stakeholders

75. The operational partners and stakeholders in the contingency plan include: AHDB, AIMS, APHA, BMPA, BPA, Defra, NPA, PVS, Red Tractor, National Fallen Stock Company. Some will be actively involved in operational control whilst others will act as stakeholders providing information to and feedback from the industry.

8.3 PED Control Centre

76. A PED Control centre is to be set up with AHDB Pork. The role of the centre is as follows:

- Set policy for outbreak and coordinates response according to the contingency plan
- Provide direction for prioritisation of work
- Sets the overall objectives for outbreak control as per the contingency plan
- Act as a coordinator for enquiries from industry and the general public
- Act as an information hub to retrieve and record outbreak information as part of the investigation

77. Detailed responsibilities of the Centre would broadly include:

- Utilising the eAML2 database and mapping programs to collect information for mapping and risk assessment
- Mapping infected units.
- Provide immediate support and advice to
 - The positive farm and its vet
 - Hauliers involved with any movements on/off farm
 - Any pig holdings associated with movements of any species on/off positive farm (including their vets)
 - Feed company supplying the farm
 - Abattoir processing pigs from the farm
 - Any pig holdings within 3 miles of positive farm (including their vets)
- Communicate key information to industry
- Provide protocols/guidance on approaches to PED prevention, containment, control and elimination
- Assist farmers in developing tailored control and elimination plans for their farm.
- Assist with organising movements of infected pigs
- Provide advice to abattoirs, hauliers, feed companies and fallen stock collectors on preventing spread of PED

- Liaise with Red Tractor to discuss possible temporary suspension of assurance visits in infected areas
- Record all farms being declared PED free after an outbreak.

8.4 Strategic Operations Team

78. Responsibility from suspicion to confirmation and negation is that of APHA with the vet/pig producer. The Strategic Operations Team is responsible for the immediate management of the response once PED is suspect and until it is confirmed or negated. Membership as follows:

Company	Role
AHDB	Outbreak Director (Chair)
AHDB	PED Epidemiology
APHA	PED investigation and diagnosis
Farm vet	Situation on the farm
Producer	Situation on the farm

8.5 The Outbreak Steering group

79. The group is responsible for implementing the control and elimination strategy focussed on the response to the first 5 herds. The group consists of the members of the Strategic Operations Team with the following additions:

Company	Role
Pig Health and Welfare Council	Chair of Pig Health Subgroup
National Pig Association	CEO/Senior Policy Advisor
National Pig Association	Nominee from the Allied Industry members of the NPA's Pig Committee
Red Tractor	Technical Manager
National Fallen Stock Company	Representative
BMPA	Representative
PVS	President/representative
AIMS	Representative

80. The group would implement the initial disease containment and elimination strategy focussed on the response to the first 5 infected herds. At this point the group would assess the success of the control strategy. If the disease had spread more widely there may need to be a change in emphasis to general support for containment, control and elimination.

81. The role of the Outbreak Steering group is to:
- Ensure effective communication of the outbreak and ensuring effective representation of the disease control activity to the industry and allied support
 - Ensure industry messaging is consistent and well communicated
 - Report on feedback from the industry to the PED Control Centre
 - Assess the wider impact of the outbreak
82. Specific support would include:
- Tracing of movements and risk assessment of contacts
 - Intensive support for additional costs of containment and elimination of the PED virus on initial (up to 5) outbreak units

- Intensive cleaning and disinfection on farm to eliminate virus
- Monitoring of progress in eliminating PED virus on farm
- Wider industry advice for improving standards of biosecurity
- Temporary suspension of assurance assessments in the infected area

9. Restoration of disease freedom and recovery

9.1 Restocking

83. Following completion of the epidemiological investigation and thorough cleaning and disinfection, restocking with sentinel pigs will begin. This will be subject to continued veterinary monitoring for any clinical signs that may indicate disease. Testing any diarrhoeic pigs and to confirm freedom of PED is essential to the elimination strategy.

Appendix 1

PEDv Standard Operating Procedures (SOPs)

<https://ahdb.org.uk/knowledge-library/porcine-epidemic-diarrhoea-virus-pedv>

AHDB have produced standard operating procedures (SOPs) on behalf of the Pig Health and Welfare Council. In the event of PEDv arriving, the SOPs outline best practice and methods of control.

In the event of PEDv entering the UK, it would be the implementation of good biosecurity and biocontainment measures that would reduce the rate of spread and enable the industry to control the outbreak.

Explore the SOPs below.

- ↓ [PED SOP 1a Introduction to PEDv for producers](#)
- ↓ [PED SOP 1b Introduction to PEDv for hauliers](#)
- ↓ [PED SOP 2 Reporting suspect PED outbreaks](#)
- ↓ [PED SOP 2.1 Suspect PED outbreaks – samples for testing](#)
- ↓ [PED SOP 3 Biosecurity principles](#)
- ↓ [PED SOP 4 Farmgate biosecurity – People](#)
- ↓ [PED SOP 5 Farmgate biosecurity – Vehicles](#)
- ↓ [PED SOP 6 Line of separation and loading pigs](#)
- ↓ [PED SOP 7 Cleaning and disinfection of vehicles](#)
- ↓ [PED SOP 8 Contain, control, eliminate](#)
- ↓ [PED SOP 9 Considerations for fallen stock disposal](#)
- ↓ [PED SOP 10 Movements from PED-infected sites](#)
- ↓ [PED SOP 11 Intensive cleaning and disinfection following PEDv breakdown](#)
- ↓ [PED SOP 12 Considerations for manure management](#)
- ↓ [PED SOP 13 Advice for processors](#)
- ↓ [PED SOP 14 Biosecurity briefing for the allied pig industry](#)
- ↓ [PED SOP 15 Biosecurity briefing for processors](#)

More PEDv resources

- ↓ [Download the PEDv - Be Prepared leaflet](#)
- ↓ [Back to Emerging diseases in pigs](#)

Appendix 2

Suspect PED: Outbreak samples for testing. (SOP2.1)

Report suspect Porcine Epidemic Diarrhoea

If your pig farm is in England and you or your vet suspect that your pigs have an outbreak of Porcine Epidemic Diarrhoea (PED), you are legally required to report this to APHA as detailed in the following information:

See SOP 2 –Reporting suspect PED outbreaks

Disease reference number for testing samples for PED

Once the disease has been reported to APHA, prompt sampling and diagnostic testing is very important to confirm if disease is due to PED. Guidance on sampling, labelling and dispatch to the laboratory is given below. Your veterinary surgeon must be involved and authorise these samples being sent for testing. When the suspect PED is reported to APHA, the Duty Vet will provide the person reporting disease by telephone with a **disease reference number**.

This disease reference number **must** be on the submission form with the farm name, farm address and the veterinary practice with the samples when they are sent (see below).

The samples must be submitted **direct to APHA Weybridge** with a completed APHA porcine submission form found on this link <http://apha.defra.gov.uk/documents/surveillance/forms/vla3-porcine.doc> requesting “**TC0398 PED virus PCR**” in the tests section.

Write the APHA **disease reference number clearly** on this form in the box called clinical history. Rapid testing of samples from reported suspect PED cases in England at APHA is currently performed without charge to the submitting veterinary practitioner and the estimated turnaround time is two working days from arrival at APHA Weybridge.

Samples sent in this manner which have not first been reported as suspect PED cases will not be accepted for this rapid testing. If testing for other causes of diarrhoea is required, the veterinary surgeon should submit diagnostic samples to the APHA laboratory serving your area – see this link <http://apha.defra.gov.uk/vet-gateway/surveillance/diagnostic/testing.htm>. PED testing is undertaken weekly on non-suspect cases when diagnostic samples are submitted from pigs with diarrhoea.

Collect samples for testing:

- Use Leak-proof containers (eg universal of bijoux) with secure tops
- Label containers clearly with the disease reference number and the identities of the groups, litters or individual pigs sampled for each pool
- Collect 3 pooled samples of faeces (or terminal small/large intestinal contents from dead pigs), sample from several affected pens across each age group
- If pre-weaned pigs are affected, collect samples from piglets in different litters for each pool
- Each sample pool can contain freshly passed faeces from up to five pigs with diarrhoea which are early in the course of disease

- If widely differing age groups are affected, eg sucking pigs and finishers; or weaners and dry sows, then submit separate pooled samples from each age group
- Submit a maximum of three pooled samples per age group, or a maximum of six pooled samples from the herd if widely differing age groups are affected as above
- If samples are collected at the weekend, store in the fridge (not used for food) until sending.

Package samples to send

- Samples must be packed to conform with Post Office regulations, including external labelling – please consult your veterinary surgeon for further advice and see details in sections A, B and E in the document here:
<http://apha.defra.gov.uk/documents/surveillance/guid-sub-sample-packing.pdf>
- Minimise contamination of outside of the containers with faeces and do not fill containers to brim (as gas produced during travel may burst them)
- Disinfect the outside of containers, spray or soak and leave for required contact time
- Place sufficient absorbent material (eg tissue paper or absorbent cotton wool) around each container to absorb any spillage during transport
- If ambient temperatures are high, send the samples with ice packs
- Place containers in the plastic bag and then a second bag in case one leaks. Disinfect the outside of outer bag as above.
- Place bags in robust, non-squashable, leak-proof container (eg bio-bottle) to send.
- Include **completed submission form with disease reference number** in the package but outside the container of samples.

Sending package to APHA Weybridge

Send package for next day delivery or earlier to the address below:

**Sample Reception,
APHA Weybridge,
Woodham Lane,
New Haw,
Addlestone,
Surrey KT15 3NB**

Postage or courier costs are the responsibility of the sender.

The PEDv PCR results will be reported to the submitting veterinary practice by APHA in the usual manner for diagnostic tests to veterinary investigation centres. No other chargeable diagnostic testing will be performed on these samples.

If you have other queries about PED, see the AHDB website for more advice:

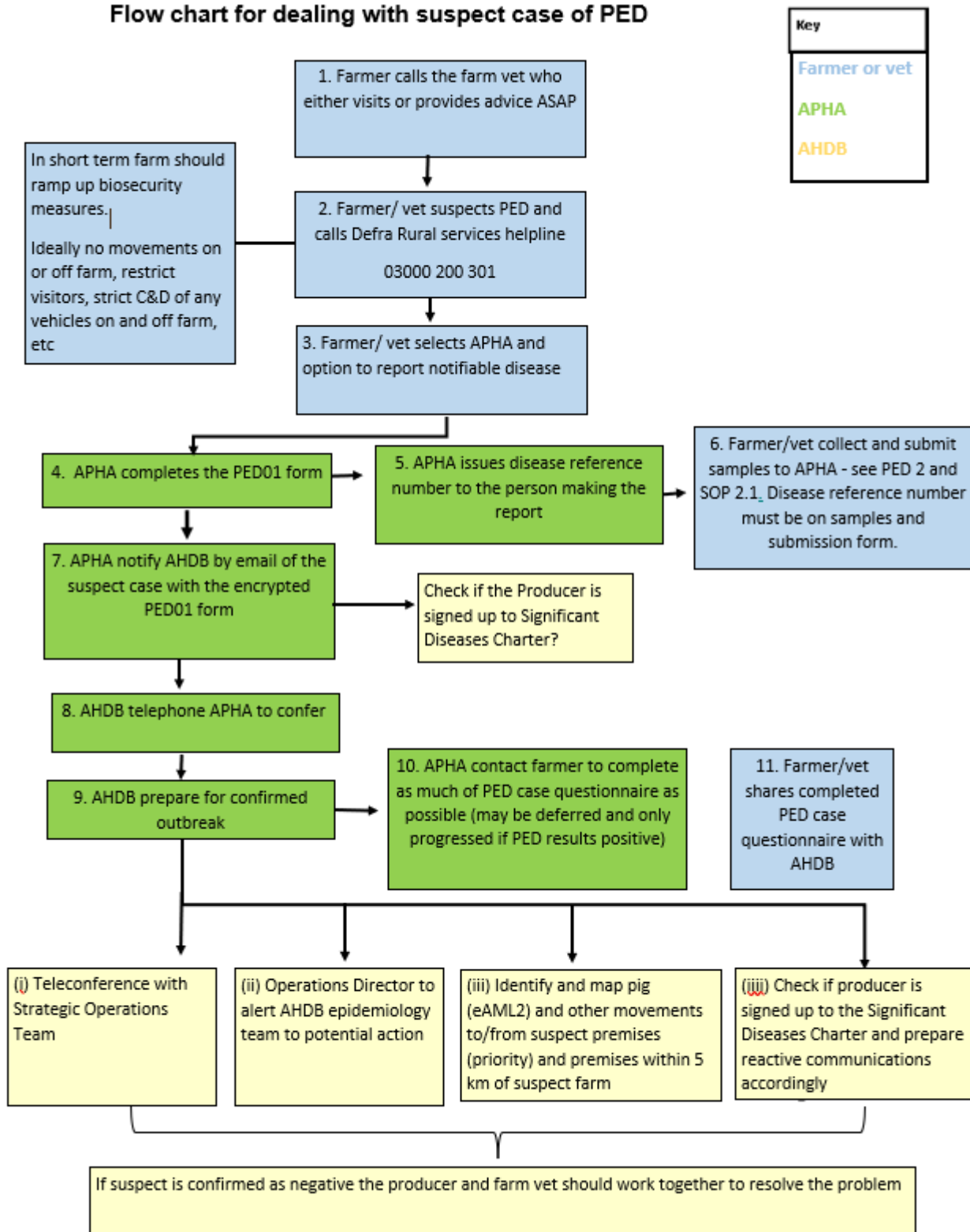
<https://pork.ahdb.org.uk/health-welfare/health/emerging-diseases/pedv/>

If you have other queries about testing for PEDv, contact your local APHA Veterinary Investigation Centre. or one of the following at APHA:

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Appendix 3

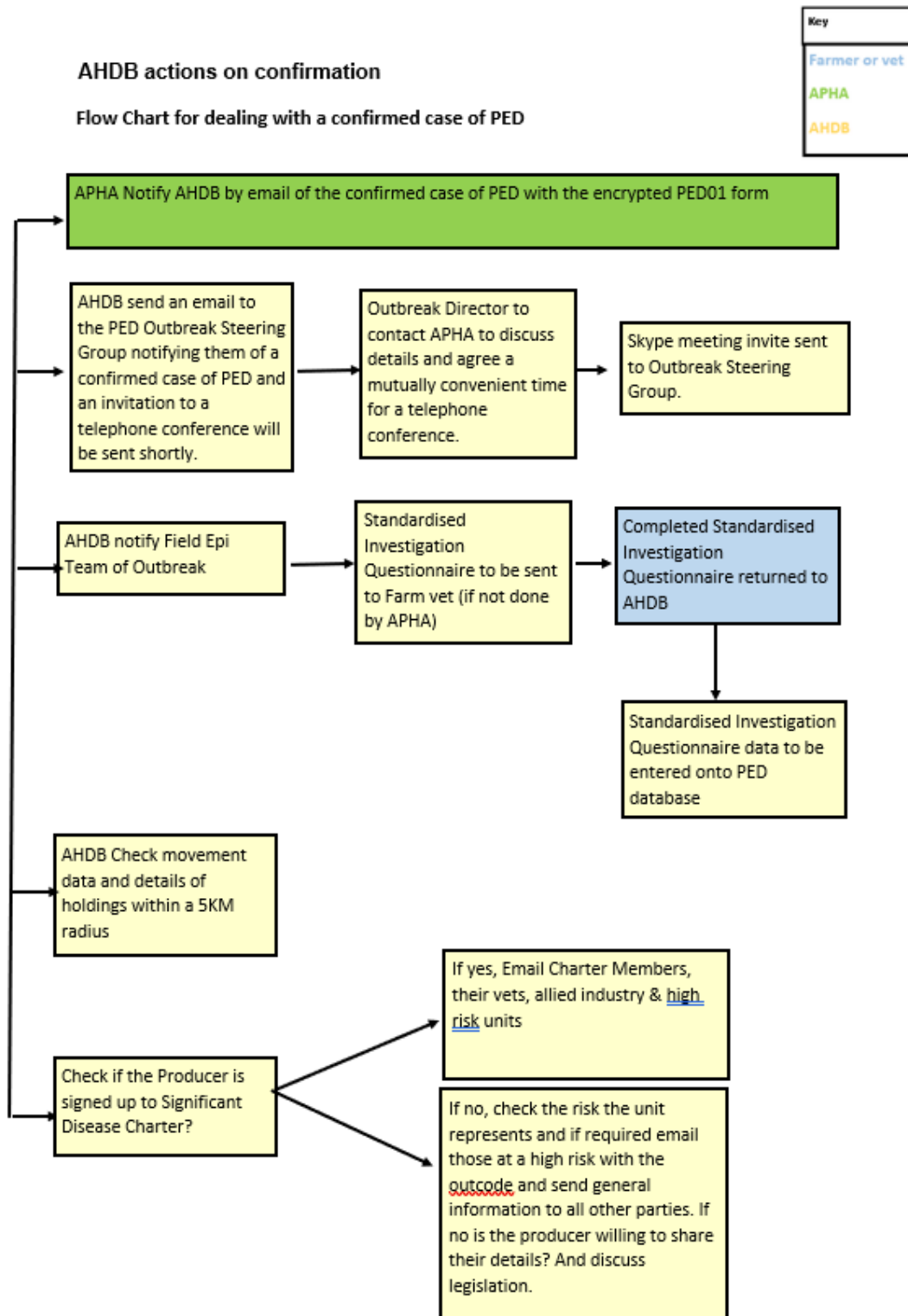
Flow chart for dealing with suspect case of PED



Appendix 4

AHDB actions on confirmation

Flow Chart for dealing with a confirmed case of PED



Appendix 5 Legislation

The Specified Diseases (Notification) (Amendment) (England)
Order 2015.

Made - - - - 10th December 2015 Coming into force - - 18th December 2015

The legislation can be obtained from:-

<https://www.legislation.gov.uk/uksi/2015/2023/contents>

Appendix 6

AHDB Epidemiology Team

The PEDV contingency plan has been developed as part of an industry wide agreement to prepare for the event of a disease outbreak. AHDB coordinate the preparation and response with input from the wider industry.

The main objectives of the epidemiological investigation are to:

- Identify the most likely source(s) of infection
- identify time point or time period during which the virus entered the unit (or first infected pigs)
- Identify possible spread of infection from the unit
- record a description of the clinical characteristics and pattern of spread in the unit
- collect samples to establish infected/exposed groups to inform investigations where appropriate
- obtain standardised epidemiological data

Vets should also exercise their own initiative/discretion in finding out as much as possible about the outbreak on the farm being visited and not be constrained by the investigation questionnaire.

The AHDB Epidemiology Team comprises a cadre of specifically trained veterinary surgeons formed to carry out a detailed epidemiological investigation when a disease outbreak is confirmed. These vets, in the event of an outbreak, would be swiftly deployed to help with the epidemiological investigations and control plans. The vets will be predominantly in pig practice in England and have at least 1 year of pig experience. Veterinary surgeons will be selected from a geographically diverse area with, ideally, no more than one vet per practice. In order to facilitate a rapid response in the event of an outbreak AHDB keeps a database of trained PEDV Epidemiology Team in order to alert the most geographically local team members following outbreak.

AHDB, in partnership with APHA and PVS, will provide an annual training session to update existing vets and recruit others where regional positions have become vacant. The main objective of the Epidemiological training for outbreak investigation is to establish the epidemiology team. The vets will be familiar with pig farms and trained to provide structured support to the industry in the event of an outbreak of PEDV or other new and emerging disease. The training will cover the following key components with a generic approach making it applicable to the future investigation of other new and emerging diseases:

- Understanding of basic epidemiological concepts in disease investigation
- Disease outbreak investigation; to include risk assessment and analysis
- Overview and update on PED (including virus characteristics, clinical signs, pathology, diagnostic tests, global and UK status, transmission and risk pathways, surveillance, global status.)
- Concepts of disease timelines and tracings (source and tracing “windows” and high-risk periods)
- Application of disease timelines and tracings (source and tracing “windows”, high risk periods)
- Hypothesis development in epidemiological investigations
- Legislation relating to different diseases and infections (notifiable, reportable, exotic, endemic, zoonotic, food safety)
- Biosecurity - for farm and for investigating team
- Epidemiological questionnaire completion in partnership with farm vet and producer (this may have been started over the telephone with APHA upon making the report case)
- Communications during and after investigation
- Database and data capture
- Analysis of the data collected to provide detailed recommendations for tracing and action
- Report production

Appendix 7

PED Standardised Investigation Questionnaire

PORCINE EPIDEMIC DIARRHOEA OUTBREAK INVESTIGATION

This questionnaire should be completed as soon as a unit has been identified as infected with porcine epidemic diarrhoea virus (PEDv), or earlier if the clinical signs are very suspicious (e.g. very high pre-weaning mortality with diarrhoea). The objectives of this investigation are to:

- A. Determine possible sources of infection (“source tracings”)
- B. Determine units to which infection may have spread (“spread tracings”)
- C. Record epidemiological details of the outbreak to inform the industry of outbreak characteristics

The results will inform what premises (source and spread tracings) require urgent clinical enquiry and possible sampling to assist prevention of spread and control. Assessment of the overall impact of an outbreak is outside the scope of the questionnaire. Questions should be answered in relation to the suspected/infected premises only. Where there is additional useful information not captured by the questions, please write the information either in the specific comments boxes or on the side of the form.

It is for the farmer and attending veterinarian to decide whether to **share information in this questionnaire with AHDB Pork**. The completed questionnaire should be e-mailed to the farmer/veterinarian by APHA staff (or other individual responsible for questionnaire completion) with a direction that if they consent to share this information with AHDB Pork then please send to the questionnaire to the AHDB Pork PED control centre either by email to pighealth@ahdb.org.uk or by post to Health Administrator, AHDB Pork, Stoneleigh Park, Kenilworth, Warwickshire, CV8 2TL.

This form should be completed by interviewing any individual(s) who can answer the questions in each section.