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NPA Breeding Companies Imports Protocol – for the importation of live breeding pigs into Great Britain

This protocol has been developed with the aim of minimising the risk of introducing pathogens into Great Britain (GB) when importing live pigs. Whilst the measures outlined in this document should limit the spread of important known pathogens, it must be acknowledged that complete elimination of risk is virtually impossible and this protocol may not cover every disease situation. Nonetheless, it is incumbent on any individual importing live pigs to undertake reasonable precautions, as outlined in this protocol, to minimise risk to the health status of the national pig herd.

1.0 Legal requirements

Any live pigs entering Britain from **within the EU** (or Switzerland, Liechtenstein, Norway and Iceland) must comply with the requirements of Council Directive 64/432/EEC. The herd of origin should satisfy the statutory health requirements outlined in the Directive.

- All consignments of pigs must be accompanied by an **Intra Trade Animal Health Certificate** (ITAHC) signed by an official veterinarian or inspector of the veterinary authorities of the Member State concerned.
- The importer is also legally required to **notify APHA** at least 24 hours before the consignment is due to arrive in Britain.
- The animals must be taken directly to the place of destination named on the health certificate and livestock must be rested for 48 hours before moving them again.

Any live pigs imported from **outside the EU** should be accompanied by the necessary health certificate required by EU or national law. Importers should contact the **APHA Centre for International Trade Carlisle** to find out what is required.

- Pigs must be transported directly from the Border Inspection Post to the stated destination and must remain there for at least 30 days after they arrive (unless consigned from the holding direct to a slaughterhouse). They should not be brought onto the herd until the veterinarian responsible for the holding has ensured that the animals in question are not likely to jeopardise the health status of the holding.

Importers are reminded that they must also comply with rules on the **welfare of animals during transport**, as outlined in EU legislation Council Regulation (EC) No. 1/2005.

Live animals imported from a third country, or live animals moved from another EU Member State will not trigger a standstill at the first premises in England that they are kept at (after the port or airport of entry itself, to which no standstill will apply either).

2.0 Ferry transport

Any live pigs to be shipped via P&O Ferries must be booked by the National Pig Association (NPA). Please note P&O Ferries will only transport breeding stock. Importers must either complete the booking form on the NPA website or contact the NPA office as early as possible before the intended sailing to allow NPA to book the crossing. Other ferry companies might accept pigs, but do not require NPA to book the crossing.

3.0 Isolation

Imported pigs should be accommodated in clean and disinfected APHA-approved isolation facilities for a minimum of **30 days** (if imported from outside the EU) or **20 days** (if from within the EU), during which time statutory testing for notifiable diseases must be conducted, along with the testing detailed in this protocol under section 4.0.

Detection of any notifiable disease must be reported to APHA. In the event of a positive test result for a non-statutory pathogen a vet must be consulted and an appropriate course of action agreed. Where the pathogen detected is exotic to GB pigs, euthanasia of the pigs is an option which should be considered to prevent spread of the disease from the isolation site.

The following requirements must also be met:

- Personnel involved with the imported pigs at the isolation facility must not have contact with other pigs. A minimum of 72 hours pig freedom should be observed by visitors to the isolation facility before attending other pigs.
- Equipment, clothes and boots used at the isolation facility must not be used on other pig holdings and potentially contaminated items should remain at the facility.
- It must be possible to store all urine and faeces at the isolation facility for the duration of the isolation period.
- All pigs on the isolation unit must be inspected daily for clinical signs. Any disease or mortalities must be investigated thoroughly before deadstock is moved off the unit. There must also be a plan for the secure handling of deadstock on the isolation unit. Deadstock collectors must be informed of the isolation status of the pigs and must not collect from other farms on the same journey after visiting the isolation facility.
- The isolation facility must be operated on an all-in-all-out basis.
- Vehicles used to transport imported pigs to an isolation facility should observe a post-delivery stand down period for a minimum of 48 hours after thorough cleaning and disinfection.

4.0 Supplementary health requirements

Notwithstanding statutory requirements concerning the health of the origin herd, the NPA and the major pig breeding companies operating in Britain have endorsed this protocol which is more stringent than national/EU requirements, in an attempt to further reduce the possibility of introduction of pathogens, pathogen variants or diseases that are believed to be absent from British pigs. The requirements outlined in this section (4.0) are mandatory as part of this protocol.

Herd of origin health requirements

a) Porcine reproductive and respiratory syndrome virus (PRRSV)

PRRSV-2 has never been detected in GB pigs. PRRSV-1 subtype 1 strains differing from UK resident strains, or other PRRSV-1 subtypes (subtype 2 and 3 viruses are reported in eastern Europe) are also a threat.

- Pigs must only be sourced from herds deemed to be free from both PRRSV-1 and PRRSV-2 by routine surveillance and that do not vaccinate against PRRSV.
- Blood samples from a representative sample[*] of pigs destined for export must be tested within 30 days prior to departure. If any samples are deemed virus-positive following testing by PCR the pigs may not be released for transport to Britain. Pigs found to be antibody-positive following ELISA +/- IPMA must test negative by PCR before being released for export.

b) Porcine epidemic diarrhoea virus (PEDV)

The last recorded diagnosis of PED in GB pigs was in 2002. A PEDV seroprevalence study in 2013 indicated a high degree of naivety in the national pig herd. Enhanced surveillance by PCR at APHA and SAC CVS since 2013 has not detected PED in GB pigs.

- Pigs must only be sourced from herds deemed to be free from PEDV.
- Clinical, pathological or serological evidence of PEDV should not have been identified in the herd within the past two years.
- The herd should not be using PED vaccination.
- Pooled faecal samples from a representative sample* of pigs destined for export must be tested by PCR within 30 days prior to departure. Following testing by PCR, the herd must be deemed free from PEDV before being released for export.

c) Senecavirus A (SVA)

Vesicular disease outbreaks caused by SVA in the Americas have not been reported in the UK or Europe and there are no reports of SVA detection.

- Pigs must not be sourced from herds that have tested positive for SVA at any time or herds with any links to others which have been affected at any time with SVA.
- The herd must have experienced no evidence of clinical signs of Porcine Idiopathic Vesicular Disease (PIVD) or Epidemic Transient Neonatal Losses (ETNL).
- In countries where the vesicular presentation of Senecavirus A infection has been detected and where antibody testing is available, the breeding pigs destined for

[*] Ensuring 95% confidence, 5% prevalence

export should be individually tested and found to be antibody-negative before transport to Britain.

d) *Leptospira* serovars (*L*. Pomona, *L*. Grippotyphosa and *L*. Tarassovi)

L*. Grippotyphosa,* L*. Tarassovi and pig-adapted* L*. Pomona have not been reported in GB pigs and are the cause of significant reproductive disease elsewhere.*

- Clinical, pathological or serological evidence of leptospirosis due to these serovars should never have been identified in the herd.
- The herd should not be vaccinated for these serovars.

Testing on arrival at destination holding

a) Porcine reproductive and respiratory syndrome virus (PRRSV)

- Blood samples must be collected from at least a representative sample* of pigs, or all pigs if the group size is 30 or less, while in isolation 2-3 weeks after arrival. Any samples deemed antibody-positive following testing by ELISA must be followed up with both IPMA and PCR to determine whether it is PRRSV-1 or -2.
- If PRRSV-2 is detected the pigs must be euthanised on site and carcases and manure disposed of in a biosecure manner.
- If PRRSV-1 is detected consider euthanasia, in case the strain is different to existing PRRSV-1 strains present in GB.

b) Porcine epidemic diarrhoea virus (PEDV)

- Individual faecal samples must be collected from all pigs in the isolation facility as soon as possible after arrival (within 72 hours). Following PCR testing, the faeces must prove negative for PEDV otherwise the pigs may not be released from isolation.
- In addition, serological testing must be performed on blood samples from a representative sample* of pigs, or all pigs if the group size is 30 or less, while in isolation at least 1 week, but ideally 2-3 weeks, after their arrival to detect if pigs were infected before or during transit.
- There must be daily inspection of pigs to ensure freedom from clinical signs.
- PED is a notifiable disease in England and Scotland, meaning it is a legal requirement to notify APHA of suspect and confirmed cases of PED in pigs.

c) Senecavirus A (SVA)

- Pigs must be inspected for clinical signs daily during isolation. Any vesicular disease in pigs must anyway be reported to APHA for suspect notifiable disease investigation.

e) *Leptospira* spp

- If no serological testing to detect antibody to the exotic *Leptospira* serovars is performed, all imported pigs must be injected with dihydro-streptomycin at a dose rate of 25mg/kg bodyweight, within 72 hours of arrival to treat against leptospirosis. This treatment should be repeated 14 days later.

*Ensuring 95% confidence, 5% prevalence

5.0 Risk assessment

In addition to the supplementary health requirements and associated testing detailed in the previous section, the importer and their veterinarian must take all necessary measures to ensure the risk of introducing other undesirable pathogens, pathogen strains and diseases with the incoming pigs is minimised.

The veterinarian should conduct a risk assessment based on evidence from the origin herd regarding its health status and taking into account the health status of the country of origin and information in the literature. Evidence from the donor herd may include clinical or pathological signs or results of diagnostic testing. Where there is insufficient evidence with which to conduct a reasonable assessment of risk, the veterinarian should seek to obtain further evidence. It is worth noting that not all pathogens will necessarily cause clinical signs in pigs.

Consideration should be given to other pathogens and variants of pathogens which have not been detected in GB pigs and pathogens with antimicrobial resistance profiles that would pose a high risk to pig and/or public health.

The following pathogens/conditions should be considered as part of the risk assessment. Specific queries about any of these should be discussed with veterinary and other colleagues, including those involved in pig disease surveillance.

Pathogen/condition	**Presence in GB pigs (as on January 2019)**
Transmissible gastroenteritis (TGE) coronavirus	Last diagnosis recorded in 1999.
Porcine deltacoronavirus	Not known to be present in Europe including GB.
Livestock-associated MRSA particularly CC398 *spa* type t899	Few detections reported - see VMD updates in Vet Record. Testing recommended to prevent entry of LA-MRSA in breeding pigs as dissemination occurs readily through pyramids. Need to prevent entry of novel LA-MRSA strains with wider AMR and/or enhanced ability to infect humans.
Brachyspira hyodysenteriae	Present. Priority disease for control in GB. Pleuromutilin-resistant strains are uncommon in GB isolates.
Brachyspira hampsonii and *B. suanatina*	Not detected.
Swine influenza virus	H3N2 strain not detected in GB pigs since 1997. Strains present – pH1N109, H1N2, avian-like H1N1 and their reassortants.
Salmonella Choleraesuis	Last isolation recorded in 2009.
Salmonella – various serotypes	Particularly need to prevent introduction of *Salmonella* not present in GB pigs • Unusual pig-adapted Salmonellae, e.g. Enteritidis and

	Infantis • Significant new or rare emerging antimicrobial resistances with human health implications, e.g. ESBL resistant; multidrug resistant *S.* Rissen; various serotypes (Newport, Typhimurium, Derby, and Heidelberg) in North America carrying 3rd generation cephalosporin resistance; carbapenem resistance in *S.* Infantis or other
Actinobacillus pleuropneumoniae	Those bearing Apx1 toxin gene are very rare in GB pigs. Serotype 8 (Apx2 and 3 toxin genes) predominant in GB. Betalactamase (amoxicillin) resistance is uncommon in GB isolates, but prevalent in some pig-producing countries.
Trichinella spiralis	Not detected in UK pigs.
Mycobacterium bovis	Present as spill-over in GB pigs.
Taenia solium	Not detected in UK pigs.
Encephalomyocarditis virus	Considered endemic (no recent surveillance) – but no diagnoses made. Case reports of virulent strains elsewhere.
Hepatitis E virus (HEV) genotype 3 group 2	2013 abattoir survey showed predominant HEV in UK pigs to belong to genotype 3 group 1. Genotype 3 group 2 is causing majority of non-travel associated human HEV cases.
Streptococcus suis serotypes	Predominant *S. suis* serotypes causing primary disease in GB pigs are 1, ½, 2, 14 (and occasionally 7). Other countries may have different dominant *S. suis* serotypes e.g. 7 in Denmark. Penicillin resistance is rare in clinical *S. suis* isolates in GB.
Periweaning failure to thrive syndrome	Not described in GB pigs. Infectious cause not identified. https://www.aasv.org/shap/issues/v19n6/v19n6p340.pdf

Whilst every care has been taken in the preparation of this Imports Protocol, no responsibility whatsoever can be taken by the National Pig Association, or those providing advice during development of this protocol, for any loss or damage howsoever arising, whether directly or indirectly out of this Imports Protocol, the use of any part of it, or the recommendations contained therein.