



Investigating porcine abortions, stillbirths and mummified piglets

Guidance for veterinarians submitting samples to APHA

Background

Several factors may be involved in porcine abortions and stillbirths, including environment, nutrition, genetics, and toxic and infectious agents. Full investigation of cases requires a complete and accurate history to include herd background details, clinical signs (including those in sows), stage of gestation affected, parity affected, vaccination, group social history, pig management and nutrition, and examination of breeding records.

Diagnostic investigation for involvement of infectious agents

To investigate the involvement of infectious agents, veterinary practitioners should examine fetuses or stillborn piglets and placentas.

For pigs on premises in England and Wales, where possible, veterinary practitioners should submit freshly expelled whole litters, ideally with individual placentas, [to an APHA Veterinary Investigation Centre or surveillance pathology partner](#). Submit each litter in a separate bag or container with a completed [porcine submission form](#). Where possible, you should submit litters from several affected sows, especially if there are high abortion or stillbirth rates.

If you suspect notifiable disease, do not submit samples to APHA's diagnostic service. You must report suspicion of notifiable disease to Defra Rural Services Helpline on 03000 200 301 in England and 0300 303 8268 in Wales. In Scotland, contact your local Field Services Office.

If you do not suspect notifiable disease and whole fetuses or stillborn piglets and placentas cannot be submitted to an APHA Veterinary Investigation Centre or surveillance pathology partner, veterinary practitioners can examine and collect samples from abortion or stillbirth material and submit these to APHA as detailed below.

Guidance for vets collecting and submitting samples from abortions and stillbirths

Following this guidance enables APHA to carry out the appropriate diagnostic testing. If these steps are followed, the diagnostic tests mentioned will be included under the subsidised charge for abortion and stillbirth investigation (test code TC0011, one charged for each litter submitted).

You should:

- examine the whole litter and complete Table 1 below
- examine in detail and collect samples as per Table 2 from three piglets per litter – ideally sample one small, one medium and one large piglet, avoiding very autolysed or mummified piglets (except for heart samples for porcine parvovirus – see Table 2)
- place fresh tissues into small individual containers (e.g. 5ml bijoux) – do not pool samples
- place all fixed tissues from one piglet into one container (1:10 with formalin)
- ensure all containers are labelled to indicate sample type, litter and piglet identity
- complete one set of tables for each litter and send with the samples
- send samples with a completed [porcine submission form](#) requesting test code TC0011 – include a thorough clinical history as detailed above
- package samples according to the requirements for [sending pathological material](#)
- submit samples by post to: APHA Starcross: APHA Veterinary Investigation Centre, Staplake Mount, Starcross, Exeter, EX6 8PE

Table 2: Complete one copy of this table for each litter sampled and send with submission

Please include all samples (where possible to collect) to access the subsidised test code (TC0011).

Tissue or sample type	Collect fresh for culture	Collect fresh (into separate pots)	Collect fixed (plus any lesions)	Number of samples and sampled pig references e.g. 3 – pigs 1, 2 and 3	Comments – please mark any samples not able to be collected
Fetal stomach contents	One sample per piglet (use a vacutainer)	-	-		
Heart	-	Two sections per piglet	One section per piglet		If there are mummified piglets, also collect fresh heart from up to three mummified piglets per litter for porcine parvovirus PCR.
Fetal fluid, preferably pleural	-	One sample per piglet	-		
Kidney	-	Two sections per piglet	One section per piglet		
Thymus (if identifiable)	-	One section per piglet	One section per piglet		Asterisk pig number if not found.
Spleen	-	Two sections per piglet	One section per piglet		
Lung	-	Two sections per piglet	One section per piglet		
Placenta	If placentitis or no fetal stomach contents	One section per piglet	One section per piglet		
Liver	If no fetal stomach contents	One section per piglet	One section per piglet		
Proximal umbilicus	-	One section per piglet	One section per piglet		
Brain	-	One section per piglet	One hemisphere per piglet - not essential unless deformities present		