## Samples used in Vetqas PT

Vetqas use samples from a range of sources for PT schemes. Some samples are from experimentally infected animals, some from confirmed field infections and some from vaccinated animals.

Samples for bacteriology are, wherever possible, representative of field samples with host material (e.g. faeces or tissue) and regularly encountered contaminants.

We try to use samples that are negative, strongly positive, mid-range and low positive, without going too close to the cut-off point for routinely used tests. This is to replicate the situation with real samples submitted to diagnostic laboratories. For real samples infection or vaccination may have been recent resulting in a rising antibody (or antigen) concentration, or late where they are high or falling. The samples used help our customers assure the quality of their testing over the full range of clinical samples.

It is recognised that in some testing situations (e.g. monitoring of poultry flocks post vaccination) low antibody concentrations are very rarely seen and here the sensitivity of the test methodology is not of primary importance. It is also recognised that some testing methodologies are inherently less sensitive than others. Where tests of lower sensitivity are used there are occasions when customers report a negative result for samples with an intended low positive result. When this happens customers are advised to evaluate if this result has significance for the test method they are using and the reason for testing. In some cases the false negative finding will have no impact on the quality of the routine results issued by the laboratory and at other times the customer should undertake a full investigation as to why a low positive sample was categorised as negative.

The samples provided in the PT schemes should not be considered as reference samples. The analytical performance of a serological test will, in some cases, depend upon the individual serum tested. Therefore it is not possible to evaluate the diagnostic sensitivity or specificity of a method or kit based on the limited range of samples in proficiency testing panels.

For any particular analysis Vetqas customers use test kits from a wide range of sources. These may be in-house developed methods or commercial kits. Also customers use a range of methodologies for testing (e.g. ELISA, CFT, AGIDT etc). It is not possible for Vetqas to check all samples using all kits and methodologies available. Vetqas reports inform customers of the kits used to confirm the status and conformity of the samples. This should be taken into account when customers are investigating a non-intended result.