The ISIA recognizes the power of new testing methods such as PCR in their ability to detect DNA sequences of interest. The Association also believes that PCR does not provide any evidence that the detection of those DNA sequences gives any indication of the presence of live virus.

In this regard ISIA is aligned with many regulatory bodies who require viral isolation as proof that there is live virus present. For example, in their paper “A PCR detection method for testing mycoplasma contamination of veterinary vaccines and biological products”, Ingebritson et al. (2014), working at the USDA laboratories in Ames Iowa, concluded that “DNA cannot distinguish viable and nonviable contamination; conformation of viability must be made using an additional method”. USDA agrees with the WHO and US FDA that PCR results be followed up by virus isolation assays in order to prove the presence of live virus.

Based on the data discussed above ISIA recognizes, when performed by a reputable testing lab, that viral isolation is the definitive test for live BVDV even in the face of a positive PCR result. Based on the nature of the disease as discussed in the paper, it is essentially impossible to obtain serum that is PCR negative and BVDV antibody negative. ISIA recommends gamma irradiation of serum as a method of risk minimization based on the high susceptibility of BVDV to this treatment.

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