Animal and Plant Health Agency
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Mr. Roger Meacock

Sent via email to: roger@naturalhealingsolutions.co.uk

11th December 2024

Dear Mr Meacock

The use of PCR for diagnostic testing is used widely throughout medical and veterinary testing – it is a routine, accepted technology in mainstream medicine that provides accurate results when run correctly. The WOAH Terrestrial Manual Online Access - WOAH - World Organisation for Animal Health provides a useful overview of the laboratory tests currently used for most diseases of veterinary interest, including PCR.

Like any laboratory test, PCR needs to be run by experienced staff and with appropriate controls. APHA , respectfully, does not agree with your comment “leaves me in no doubt that you don't understand PCR testing properly at all.” APHA staff are highly trained, with extensive expertise in application of PCR. APHA staff lead national and international reference laboratories for many of the diseases you specifically mention which requires a state-of-the-art understanding of the tests currently used in their diagnosis. APHA laboratory testing is independently audited by UKAS (UK Accreditation Service) against the ISO17025 laboratory testing standard. APHA laboratory practices, and how we use PCR, mirror similar accredited laboratories throughout the UK and internationally.

The test validation process provides the data to demonstrate the performance characteristics of a test and demonstrates how it compares to other tests that can be used for the same pathogen or disease. PCRs can be used as the primary test for a particular disease or diagnostic situation, but this is only after the validation process had demonstrated it produces the correct result compared to other tests.

The test validation process also determines the number of cycles used in the PCR and, in turn, what constitutes a positive test result based on Ct value. The exact number of cycles used varies between PCR tests (again determined by the test development and validation process) but are typically between 30 and 40 cycles. Positive results are typically when Ct values are 30-35 or below. But to re-emphasise again – the exact value is determined by the validation process which demonstrates these results are correct.

Yours sincerely

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The Animal and Plant Health Agency is an Executive Agency of the Department for Environment, Food and Rural Affairs working to safeguard animal and plant health for the benefit of people, the environment, and the economy.