DEVELOPMENT OF SEROTYPE SPECIFIC RT-qPCR TESTS FOR AFRICAN HORSE SICKNESS

The recent development of PCR testing for African horse sickness virus (AHSV) has shown this method to be quicker, more sensitive and more versatile than the historically used viral isolation (VI) method. The Equine Research Centre team took the PCR tests to the next level, with the aim of developing 9 serotype-specific tests for AHSV.

The serotype specific AHSV RT-PCR tests developed in this study identified the serotype of 99 reference and archived viruses examined for the study. Furthermore, the tests have been applied to more than 250 field samples received from South Africa and other African countries, and have specifically identified the serotype in these viruses. These tests can be completed within 4 hours of receipt of samples, and can be performed on whole blood samples.

The use of these tests in the field has greatly assisted in determining the best vaccine (bottle 1 or bottle 2 of the OBP AHS vaccine) to use, which contains the appropriate serotypes of AHS, thus making it possible to control and manage the outbreaks in the field. The next step is DAFF approval of this test.

Publication : Journal of Equine Veterinary Science 32 (2012) S3-S95 - Development and initials characterization of serotype specific RT-qPCR assays for African horse sickness virus

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