

種豬輸入重要疾病檢測及 TAF 認證

新興傳染病組

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摘要

近 3 年來自美國、丹麥、加拿大、法國等國家之種豬輸入總計約有 1,347 件檢體，主要使用豬水疱病病毒（SVDV）抗體競爭型酵素連結免疫吸附法（C-ELISA）、豬水疱病中和抗體試驗（VNT）及非洲豬瘟病毒（ASFV）即時聚合酶鏈反應試驗等方法，應用於 SVDV 抗體及 ASFV 核酸之檢測，結果顯示其敏感性和特異性皆可高達 95% 以上。其中 SVDV-C-ELISA 使用作為篩選試驗，SVDV-VNT 則作為最後確認試驗。在參與年度實驗室間(內)能力驗證計畫中發現各項比對結果的一致性、專一性及再現性頗高。因此實驗室目前已有 12 項取得 TAF ISO/IEC 17025：2017；CNS 17025：2018 認證，其中包括非洲豬瘟病毒即時聚合酶鏈反應試驗等。另豬水疱病抗體競爭型酵素連結免疫吸附法、豬水疱病中和抗體試驗、豬假性狂犬病抗體酵素連結免疫吸附法等 3 項為今年致力於 TAF 認證之主要目標，以提升實驗室的檢驗品質，並強化診斷技術，配合防檢疫政策協助種豬輸入之採樣與檢測，共同為我國食品安全及生物安全把關。

Important diseases inspection activity of Emerging Animal

Disease Division for imported breeding pigs and TAF

certification

Tsu-Han Chen

Abstract

In the past three years, a total of 1,347 samples of breeding pigs have been imported from the United States, Denmark, Canada, and France have been submitted to VRI. These samples were tested by the swine vesicular disease virus (SVDV) antibody competitive enzyme-linked immunosorbent assay (C-ELISA), the SVDV neutralizing antibody test (VNT), and the African swine fever virus (ASFV) real-time polymerase chain reaction (qPCR) test. These methods were applied to detect SVDV antibodies and ASFV nucleic acids, with results showing sensitivity and specificity over 95%. The SVDV-C-ELISA was used as a screening test, while the SVDV-VNT served as the final confirmatory test. During participation in the annual inter-laboratory and intra-laboratory proficiency test program, the results demonstrated high levels of consistency, specificity, and reproducibility. As a result, our laboratory currently passed 12 certifications under TAF ISO/IEC 17025:2017 and CNS 17025:2018, including certification for ASFV qPCR. Additionally, we are focusing on achieving TAF certification for three methods this year, including the SVDV-C-ELISA, the SVDV-VNT, and the pseudo-rabies virus antibody ELISA. These efforts aim to enhance the quality assurance of our laboratory, strengthen diagnostic technology, and support prevention and quarantine policies of Taiwan. By integrating these efforts, we contribute to the testing of imported breeding pigs, playing a key role in safeguarding food safety, and strengthening bio-security measures of our country.