

豬瘟疫苗不同免疫狀態豬群中野外豬瘟病毒之活動

豬瘟研究組

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摘要

豬瘟是一個高傳染性與高致死性的出血性疾病，在國內與世界動物衛生組織（WOAH）均被列為豬隻重要的傳染病。而國內也已經10年以上未出現豬瘟臨床病例，豬瘟之撲滅，也將繼口蹄疫撲滅後，下一個將撲滅之目標，目前國內仍以使用豬瘟疫苗免疫作為豬場防範豬瘟的主要措施，因此，疫苗免疫所產生的保護效力將直接影響豬場防範豬瘟的能力，本試驗利用動物試驗進行評估，結果發現在高CSFV-SN狀況下免疫活毒豬瘟疫苗免疫後，其並無法提供完全保護，仍有部分豬隻會受到野外豬瘟病毒感染並呈現短暫CSFV病毒血症，並排出少量的CSFV；而於具有CSFV移行抗體但未進行豬瘟疫苗免疫的豬隻接觸到CSFV帶源豬後，其依然會受到野外豬瘟病毒的感染。綜合以上，豬瘟疫苗免疫對於有豬瘟野外病毒活動的區域仍是必要的措施。

Activity of wild type classical swine fever virus in swine herds subjected to varying vaccine regimens

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Abstract

Classical swine fever (CSF) is a highly contagious and hemorrhagic disease which is listed as an important infectious diseases affecting pigs worldwide, by the World Organization for Animal Health (WOAH). There has not been a single CSF case during the past 10 years in Taiwan. Therefore, following FMD elimination in Taiwan, CSF is the next disease planned for elimination. Currently, the administration of a CSF vaccine is the primary method for CSF prevention on Taiwanese pig farms. The protective efficacy of vaccine immunization, will therefore directly affect the successful prevention of CSF in in the commercial pig herds. To understand the protection conferred to pigs vaccinated under varying dosage regimens, we monitored live animals with varying levels of maternally-derived antibodies (MDA) subjected to the attenuated CSF vaccine or without the vaccine. Attenuated CSFV vaccines were administered to pigs exhibiting high MDA, and after the parity pigs came into contact with CSFV-infected pigs, they displayed a short period of viremia and shedding of CSFV. On the other hand, pigs exhibiting high MDA but which were not administered the CSFV vaccine, demonstrated severe clinical signs, viremia, shedding of CSFV and were able to transmit CSFV to the other pigs. In conclusion, CSFV vaccination should be administered to herds exhibiting CSFV activity in the form of MDAs.