

禽流感 H5 亞型及 H7 亞型不活化疫苗檢驗結果

動物用藥品檢定分所

陳炳義 助理研究員

摘要

禽流感可分為高病原性及低病原性，尤其高病原性禽流感會造成禽類高死亡率及高發病率，其病原是甲型流感病毒中的禽流感病毒。根據流感病毒特性可分為許多亞型，其中 H5 及 H7 亞型在禽類是屬於高致病性的病毒。世界上控制禽流感疫情方式分為感染雞隻被撲殺或健康雞隻免疫禽流感疫苗。2005 年至 2016 年配合政府家禽流行性感冒防疫政策，本分所執行禽流感 H5 亞型及 H7 亞型不活化儲備疫苗與疫苗銀行樣品檢驗業務。H5 亞型疫苗送檢 23 批，H7 亞型疫苗送檢 18 批，其特性試驗、無菌試驗、防腐劑含量試驗、安全試驗、力價試驗、不活化試驗皆符合疫苗採購規格。比較國際間的檢驗標準得知，力價試驗之檢驗結果之判定標準，若參考美國農業部動植物檢疫局獸醫服務處獸醫生物藥品中心 (USDA-APHIS-VS-CVB) 規定，由免疫雞隻 3 週後，有 80% 雞隻血清抗體力價達 16 倍變更為 32 倍，約 22% (9/41) 批次疫苗，需採集免疫雞隻 4 週後之血清才能達到。

An inspection of inactivated H7/H5 avian influenza vaccines

Bing-Yi Chen

Abstract

Avian influenza (AI) viral strains are usually classified into two categories: low pathogenic strains (LPAI), which typically cause few or no clinical signs in poultry, and highly pathogenic strains (HPAI), which can cause severe clinical signs and potentially high mortality rates among poultry. Avian influenza viruses are divided into many subtypes, with the highly pathogenic H5 and H7 subtypes mostly affecting birds and poultry. Strategies to control AI outbreaks on poultry farms consist primarily of culling infected chickens or immunizing healthy chickens with an AI vaccine. From 2005 to 2016, in line with the Taiwanese government's poultry influenza prevention policy, our branch implemented inspections of inactivated avian influenza H5 subtype and H7 subtype vaccine reserves with 23 H5 subtype batches and 18 H7 subtype batches inspected. Tests for characteristic, sterility, preservative content, safety test, titer count and for inactivation, all conformed to standard requirements. It was analysing inspection results and comparing with USDA-APHIS-VS-CVB among the international . If titer standard changed from 16x titer of 80%vaccinated chicken serums to 32x titer of that, 21 days after immunization. About 22% (9/41) batchs needed to collect serum from immunized chickens 4 weeks later to achieve.