

禽場環境病原分布調查模式建立及分析

疾病診斷組

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摘要

畜禽是糧食安全中重要的一環，部分禽場缺乏生物安全硬體設施及良好管理作業規範，飼養的禽隻存在罹病風險高及生產效率低的問題，如何降低生產風險，穩定雛禽、禽蛋供應品質則相當重要。禽場環境病原分布調查是利用即時定量聚合酶鏈鎖反應檢測禽場環境於消毒前、後重要禽類病毒性疾病。種雞場檢測馬立克病毒、傳染性華氏囊病病毒、傳染性支氣管炎病毒及傳染性貧血病毒。種鴨、鵝場檢測鴨源小病毒、鵝源小病毒、鴨環狀病毒、鵝環狀病毒等。112 年採樣結果於環境檢出馬立克病毒、傳染性支氣管炎病毒、傳染性貧血病毒、鴨環狀病毒、鵝環狀病毒。經清潔消毒後可明顯降低種禽場、孵化場環境之落菌數及特定病毒。本工作亦對經產白羅曼母鵝評估水禽小病毒疫苗抗體力價評估，結果施打兩劑疫苗之母鵝，於產季初期、中期、後期生產之 1 日齡雛鵝具有保護移行抗體的比例分別為 100%、88% 及 75%。建議產蛋前完成兩劑疫苗施打。

The establishment and analysis of a pathogen distribution survey model in poultry farms.

Yu-Hua Shih

Abstract

Livestock and poultry are an important part for food security. Some poultry farms lack biosecurity infrastructure and proper management protocols, resulting in a high risk of disease and low production efficiency of the raised poultry. Reducing production risks and stabilizing the quality of chick and egg supply are crucial. The poultry farm environment pathogen distribution survey utilizes real-time quantitative polymerase chain reaction to detect important avian viral diseases in the farm environment before and after disinfection. In breeder chicken farms, tests are conducted for Marek's disease virus, infectious bursal disease virus, infectious bronchitis virus, and avian anemia virus. In breeder duck and goose farms, tests are conducted for Muscovy duck parvovirus, goose parvovirus, duck circovirus and goose circovirus. The results from 2023 showed the presence of Marek's disease virus, infectious bronchitis virus, avian anemia virus, duck circovirus, and goose circovirus in the environment. After cleaning and disinfection, the number of bacteria and specific viruses in the breeder farms and hatchery environments was significantly reduced. This study also assessed the antibody titers of waterfowl circovirus vaccines in laying female Roman geese. The results showed that geese vaccinated with two doses of the vaccine had protective transitory antibodies in their 1-day-old goslings at the beginning, middle, and end of the production season, with proportions of 100%, 88%, and 75%, respectively. It is recommended to complete two doses of vaccination before the start of egg-laying.