豬流行性下痢不活化疫苗研發

豬瘟研究組

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摘要

於 2013 至 2014 年間全球發生豬流行下痢（PED）大流行，臺灣也於 2013 年底陸續傳出相關疫情，於 2014 年初引發全臺大流行並導致哺乳仔豬大量死亡。從此次的大流行後，台灣 PED 的疫情已從 2014 年的大流行轉變為地方流行性之疾病，至今，每年仍有少部份豬場會零星發生 PED 疫情，且從本所的病例統計報告也指出，PEDV 仍然是引發台灣豬隻消化道疾病的主要病原，顯示此病毒對於整體豬隻產業影響甚鉅。而為了防治 PED 的發生，本所也進行 PEDV 不活化疫苗的開發，並已完成病毒株與細胞株選取、不活化方法確立、佐劑試驗、抗原含有量與效力試驗等研發工作，未來將持續進行試製與田間委託試等相關工作。

Development of An Inactivated Porcine Epidemic Diarrhea Virus Vaccine

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Abstract

A global pandemic of porcine epidemic diarrhea (PED) occurred from 2013 to 2014. This outbreak reached Taiwan in late 2013 and led to the death of numerous suckling pigs. After the 2013-2014 outbreak, PEDV became endemic in Taiwan and sporadic outbreaks currently occur every year in a number of small hog farms. Animal Health Research Institute (AHRI) analyses indicate that PED is currently the major cause of enteric disease in Taiwanese hogs. In order to prevent and control PED, an inactivated PEDV vaccine was developed by AHRI. Research and development activities on the inactivated PEDV vaccine, have included the selection of cell and strain lines, methods for inactivating PEDV, adjuvant selection, as well as antigen titer and vaccine efficacy tests. Next major steps include production of the prototype PEDV vaccine and the start of field trials.