

7TH INTERNATIONAL VETERINARY CONGRESS

September 04-05, 2017 | Paris, France

Singleplex real-time RT-PCR assay of porcine epidemic diarrhea virus (pedv) viral load in pampanga, philippines

Jacob Anderson C. Sanchez¹, Tambalo Gerald O², Alili, Rubigilda P³, Domingo and Clarissa Yvonne J.⁴

¹Pampanga State Agricultural University

²AFP Medical Center, Philippines

³Central Luzon State University

⁴Central Luzon State University

Pampanga is one of the main sources of pork used for food processing and culinary in Central Luzon, Philippines. Recently, farm owners reported mortality among pigs due to a diarrhea which might be Porcine Epidemic Diarrhea Virus (PEDV). Recent qualitative studies showed the presence or absence of the virus. Here, we aimed to conduct an absolute quantification of the viral load in fecal samples from suspected sucklings and weanlings using a Singleplex Real-time Reverse Transcription Polymerase Chain Reaction (qRT-PCR). We report that the average viral load at the time of collection are Farm S Sucklings, 1.7×10^{-2} copy numbers (cn); Farm S Weanlings, 21×10^{10} cn; Farm R Sucklings, 9.0×10^7 cn; Farm R Weanlings, 1.3×10^6 cn. PEDV was detected at a sensitivity range of 1.89×10^{-7} up to 1.89×10^1 cn. The viral load reference index was as low as 4.44×10^{-21} cn and as high as 9.82×10^{16} cn. Given the positive result for PEDV and 100% mortality among the collected samples, it can be said that PEDV was present in the two farms of the province. These data may serve as a research-based reference for the Department of Agriculture in crafting and implementing policies for the swine industry. Furthermore, it will encourage the industry to prepare management and preventive measures against the virus.

Biography

Jacob Anderson C. Sanchez is a faculty/researcher of the Pampanga State Agricultural University. His main research objective is to contribute to the field of Veterinary Medicine through Molecular Diagnostics. He is passionate in conducting researches that are essential in ensuring the profit of the marginalized sector. He grew up in a family of veterinarians and farming communities.

jacobsanchezphi@gmail.com

Notes: