

Feed or feed transport as the potential route for a porcine epidemic diarrhea outbreak in a 10,000-sow breeding herd in Mexico

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Abstract

Porcine epidemic diarrhea virus (PEDV) produces infection in pigs characterized by vomiting and diarrhea. PEDV is transmitted via oral-fecal and a very low oral dose is enough to infect susceptible pigs, causing devastating consequences in production. A 10,000-sow farrow-to-wean farm located in northwest Mexico was infected with PEDV. After the observation of the first clinical signs, an outbreak investigation take into place to determine the most probably source of infection. A systematic collection of samples including rectal swabs, gestation and lactation feed, surface swabs from the interior or feed bins and many points of the feed truck delivering the implicated feed was performed. Samples were tested for PEDV polymerase chain reaction (PCR). Positive PCR results showed the evidence of PEDV RNA in lactating feed, the interior walls of the feed bins and in the interior of the auger boom of the feed truck. This, connected with the location of first clinical signs point that the most probably incursion of PEDV in to this breeding herd was contaminated feed. This paper shows how feed or feed transport can be a potential source of PEDV infection in farms and highlight the importance of establishing biosecurity programs to mitigate the risk of PEDV infections.

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