

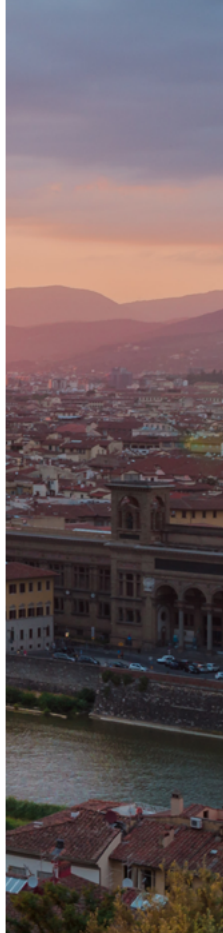
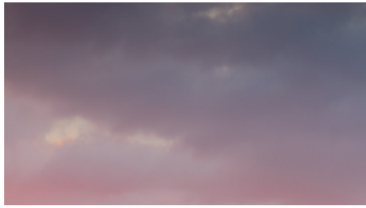


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PROCEEDINGS

May 13-15, 2026
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VIRAL DISEASES

VVD-PP-48

COINFECTION OF PORCINE CIRCOVIRUS (PCV2, PCV3, PCV4) AND PRRSV IN FARMS IN JALISCO, MEXICO.

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Background and Objectives

Porcine circovirus (PCV) is a ubiquitous viral agent in pigs. Currently, the genus *Circovirus* comprises four species: PCV1, PCV2, PCV3, and PCV4. Problems associated with the presence of new *Circovirus* types have recently been described on farms, so the objective of this study was to identify coinfection with PCV2, PCV3, PCV4, and PRRSV in pig farms in the state of Jalisco.

Material and Methods

In Jalisco, 80 commercial farms participated in the study, distributed across four regions according to animal density. A total of 4,207 serum samples were taken from clinically undetected pigs. An average of 35 samples were obtained per farm, distributed by production stage: lactating, weaned, growing, developing, finishing, and pregnant sows. The samples were pooled into groups of 5 serum samples. DNA and RNA were extracted from each pool (n=844) using commercial columns (QIAGEN). The DNA was analyzed by qPCR to detect ORF2 for PCV2 and PCV4, ORF1 for PCV3, and ORF7 for PRRSV, in order to identify positive samples, defined as those with a Ct <35.

Results

The most frequently detected infection was PRRSV with 305 samples (36.13%), followed by PCV2 with 235 (27.28%) and PCV3 with 205 (24.28%). Coinfections involving PCV2 and PCV3 were present in 55 samples analyzed, while triple coinfection (PCV2-PCV3-PRRSV) occurred in 2.72%. The highest proportion of positive samples was found in the weaning stage for PRRSV (61.07%), the development stage for PCV2 (39.47%), and the growth stage for PCV3 (32.91%). The three positive samples for PCV4 were found in each of the aforementioned stages.

Discussion and Conclusion

PCV4 was detected in three serum samples. PCV2-PCV3-PRRSV coinfection is an event identified in low percentages, but present in pigs without clinical signs. Active surveillance is necessary to associate the presence of coinfection with clinical signs related to the presence of these viruses. Acknowledgments: IPVS-Mexico-Association-2014 SIG1520226989.