VIRAL DISEASES

VVD-039

CHARACTERIZATION OF PRRS VIRUS AND EPIDEMIOLOGICAL ASPECTS IN SWINE FARMS IN COSTA RICA

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The Porcine Reproductive and Respiratory Syndrome (PRRS) was firstly recognized clinically in the EU in 1987 and spreaded through Europe and America. This virus has two genotypes: with type 1 predominating in Europe and type 2 in North America and Asia. The aim of this study was to identify and to characterize the PRRS virus circulating and to estimate the prevalence in pig farms in Costa Rica. In a first stage, in 2015, a total of 260 pigs from 9 highly infection-suspected with PRRS virus were intentionally sampled. For the characterization of the virus, the samples that were positive to a commercial ELISA were assayed by a final point PCR and RFLP. In a second stage, a population random sampling all over the country was done in 2016, with a final sampling size of 1278 pigs from 25 farms. A third sampling in 21 farms included in the second sampling was carried out a year after. ELISA and PCR were performed to all samples in these two last surveys. In the first sampling, 5 out 9 farms resulted positive, with 64 (27.82%) positive to ELISA. The prevailing genotype in PRRS-positive farms was the American type or virus (genotype II). In the national serological survey, 12 farms distributed all over the country, with exception of the pacific coast, were positive (48%); with 171/1278 (13.38%) samples positives to PCR. In the third sampling, was done in 2017 in 21 pig farms, from which 14 farms were positive and 7 were negative. From a total of 605 samples (ELISA), 216 were positive (36%) and 389 were negative (64%). From these results we can state that PRRS type II virus is circulating in Costa Rican pig farms with a wide geographical distribution, affecting animals of different ages.