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TITLE
POSSIBLE ASSOCIATION BETWEEN THE USE OF ZINC OXIDE ON PRE-STARTER FEED AND VEROCHECK RESULTS IN EDEMA DISEASE CLINICAL FARMS.

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CONTENT
Background and Objectives
Edema disease (ED) is an enterotoxaemia caused by the Verotoxin 2e (Vt2e) of E. coli. Zinc oxide (ZnO) is an inorganic compound commonly used in piglets feed for the prevention and control of post-weaning diarrhea and ED. VEROCHECK is a new diagnostic tool for Vt2e DNA detection in oral fluids by a quantitative PCR. The aim of this study was to evaluate the association between the use of ZnO as a treatment and the VEROCHECK results in farms with clinical ED.
Material & Methods
Samples from 57 farms with clinical ED from 9 European countries were analyzed. Information about ZnO on feed as a prophylactic treatment, and clinical signs of the disease was provided with the VEROCHECK samples sent by the veterinarians in charge of the farms. A positive-farm diagnostic base on VEROCHECK was considered when at least one of the samples was positive. Possible association between production system type and piglets weaning age, and positive-farm diagnostic was studied by Chi-squared.

Results
From 57 farms, 32 were using ZnO, 56,3% of those farms showed positive results base on VEROCHECK. From the non-using ZnO farms, 25, 88% were diagnosed as ED positive by VEROCHECK, p-value 0.021.
Discussion & Conclusion
Statistical significant differences in the ED diagnosis base on VEROCHECK results were found depending on the use or not-use of zinc oxide. The use of zinc oxide reduces the positivity detection by VEROCHECK in animals with clinical signs of ED.