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TITLE

IMPACT OF MATERNALLY DERIVED ANTIBODIES ON AVERAGE DAILY WEIGHT GAIN IN PIGLETS VACCINATED AGAINST PORCINE CIRCOVIRUS 2 (PCV-2)

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CONTENT

Background and Objectives
High levels of maternally derived antibodies (MDA) partly interfere with the induction of humoral immunity elicited by vaccination against Porcine circovirus 2 (PCV-2). Within this scenario, there is controversy about its interference on vaccine efficacy measured by production parameters.
The purpose of this study was to evaluate the impact of MDA on the average daily weight gain (ADG) from weaning to slaughter in piglets vaccinated at 3 weeks of age with Ingelvac CircoFLEX®.

Materials and Methods
This study summarizes the results of 4 trials carried out in four farms from three different European countries. Overall, the study comprises data from 2,835 piglets. Each piglet (experimental unit) was bleed at weaning (around 21 days of age). All piglets were vaccinated by an intramuscular injection of 1 ml of Ingelvac CircoFLEX® at weaning.
PCV-2 serum antibody titers were assessed by means of the indirect immunofluorescence antibody test (IFAT) at weaning prior to vaccination. Titers were expressed as log10. Piglets were weighted both at weaning and before slaughter at 25 weeks of age; then, ADG was calculated and expressed in kg/d.

Results
IFAT titers ranged from 1 log10 and 4.3 log10, and ADG values varied from 0.279 to 0.932 kg/d. No significant association ($p>0.05$) was found between IFA titer at vaccination and ADG during the rearing period.

Discussion and Conclusions
PCV-2 MDA in piglets at the age of vaccination with Ingelvac CircoFLEX® did not apparently have a negative impact on their subsequent ADG, independently of the IFAT titer at weaning. Therefore, present data support the lack of MDA interference on the growth of piglets vaccinated with this product within the studied range of antibody titers.