



## IMMUNOLOGY & VACCINOLOGY

IMM-O41

### NO INFLUENCE OF MATERNAL ANTIBODIES ON PIGLET SEROLOGICAL IGM RESPONSE TO PCV2 VACCINATION

J. Helmond, Van<sup>1</sup>, M. Zanden, Van Der<sup>1</sup>, M. Steenaert<sup>2</sup>.

<sup>1</sup> Varkensartsen Zuid, Panningen, Netherlands; <sup>2</sup> Boehringer Ingelheim AH Netherlands, Alkmaar, Netherlands.

#### Introduction

Several field cases in the Netherlands showed varying proportions of PCV2-IgM positive piglets at 3-5 weeks post vaccination (pv) with Ingelvac CircoFLEX (CF). A possible explanation for the variation in serological IgM results pv is the level of maternal antibodies (MDA), as in some studies apparently MDA interfered with the humoral immune response pv.

The aim of the study was to have an indication of the percentage of positive IgM results in the first weeks after CF vaccination, comparing high and low MDA, under field conditions.

#### Material and Methods

In a Dutch farm 26 sows parity 1 to 3 were classified according to their serological PCV2 antibody status: IgG positive (high MDA) and IgG negative (low MDA). In every litter 2 piglets of good condition were included and tested serologically at 2, 4 and 9 weeks of age (woa) for PCV2 IgG and IgM (Ingenasa) and by pooled PCR for PCV2. All piglets were vaccinated 1 ml CF at 2.5 woa. After weaning at 4 woa the piglets were placed into one nursery room.

#### Results

IgG response at 2 days before vaccination was seen in 75% of 'high MDA' piglets and in 4% of 'low MDA' piglets.

IgM response at 12 days after vaccination was seen in 50-73% of the piglets and at 50 days after vaccination in 0-4% of the piglets.

All samples were tested negative for PCV2 by PCR.

#### Discussion and conclusion

It has been repeatedly demonstrated that CF vaccination is efficacious also at high levels of MDA.

The IgG results of the piglets before vaccination reflect the sow's IgG status. After vaccination no difference in IgM response was seen between 'MDA high' and 'MDA low' piglets.

In this case we found no influence of level of MDA on the IgM response following Ingelvac CircoFLEX vaccination.