

Investigation on the influence of sow vaccination with Ingelvac CircoFLEX® on reproductive performance in a large production system in Poland



A. Formanowski¹, P. Cybulski², M. Adam¹, R. Langhoff¹

¹Boehringer Ingelheim RCV GmbH & Co KG; ²Poldanor S.A.

Email: rebecca.langhoff@boehringer-ingelheim.com

INTRODUCTION

Sow reproductive performance may be impaired by PCV2 infection¹. Clinical reproductive disease is described as a rare event; however, vaccination against PCV2 has been shown to improve reproductive performance in clinically affected² and unsuspecting sow herds³. This study was conducted to investigate the impact of sow vaccination on reproductive performance of a herd where no PCV2 associated clinical signs were reported.

MATERIALS AND METHODS

The study was conducted at a farrow-to-wean farm with 3,860 sows. Piglets were weaned off-site with approximately four weeks of age. Routine vaccination of replacement gilts against PCV2 at two weeks after weaning and at 26 weeks of age was already implemented before the trial started. Sows were grouped in weekly farrowing batches with a mean size of 130 sows. Data was recorded for twelve consecutive batches; alternately three sow batches were not vaccinated and three sow batches were vaccinated with 2 replicates. Sows of vaccinated groups received 1 ml of Ingelvac CircoFLEX® i.m. the day after weaning (pre-breeding). The number of live born piglets per litter and number of weaned piglets per litter were compared between treatment groups. A general linear model was used to calculate the effect of the treatment on in live born and weaned piglets per litter including the treatment group as main factor and batch size and replicate as covariates. P-values equal or below 0.05 were considered significant.

The aim of the study was to investigate, if Ingelvac CircoFLEX® vaccination before mating could improve reproduction parameters of sows in their subsequent farrowings.

RESULTS AND DISCUSSION

Batches contained 108 to 141 sows farrowing from September to November 2014. The mean results of the two treatment groups are summarized in table 1. No effect of batch size and replicate were measurable for the analysed parameters ($p > 0.05$).

Vaccination of sows led to a numerical improvement of the number of live born piglets per litter. The number of piglets weaned per litter differed significantly between treatments (table 1, figure 1).

The data indicates that also in sow farms with no overt reproductive problems, PCV2 may have a negative impact on reproductive performance and sow vaccination can therefore improve performance.

Table 1: Comparison between treatments including all batches (n = 6/treatment)

parameter	not vaccinated	vaccinated	p-value
live born piglets / litter	14.72	15.35	0.146
weaned piglets / litter	10.95	11.57	0.047

REFERENCES

1. Madson and Opriessnig (2011): *Animal Health Research Reviews* 12: 47 – 65
2. Angulo et al. (2012): *Proc. IPVS*: 907
3. Kostuchenko et al. (2013): *Proc. Leman Conf.*: 204

Figure 1: I-MR chart of weaned piglets per litter split by treatment groups. Mean values of consecutive groups within the treatments are indicated with \bar{x} ; UCL and LCL are indicating the upper and lower control limits

