

Impact of discontinued PCV2 vaccination in the farm



S. Jamawat, T. Tao, C. Sun, W. Lin
Boehringer Ingelheim Int'l Trading (Shanghai) Ltd.

INTRODUCTION

Porcine circovirus type 2 (PCV2) is small non-envelop virus which can survive in the environment for a long time. PCV2 vaccination can help reducing clinical signs, shedding and prevalence of virus in the farm (Cheryl, 2016). However vaccination alone cannot totally eliminate the virus. From many field observations, we found that even in the farms that have good production performance and no clinical sign of PCVD, once PCV2 vaccination is stopped, clinical sign of PCVD will reoccur rapidly.

MATERIALS AND METHODS

To confirm this hypothesis a single site farrow-finish farm with 1,200 sows in Shandong province China establish a field study to evaluate the impact of discontinued PCV2 vaccination. Routine vaccination program in the farm comprises PRV at 1–3 days of age intranasally, PCV2 and M.hyo vaccination freshly mixed concurrent with PRRS vaccination at 2–3 weeks of age. Pigs in this farm had been vaccinated for PCV2 vaccine for 5 years. Average wean-to-finish mortality rate was 4–5%. To evaluate the impact of discontinuation of PCV2 vaccination, 11 batches of pigs were included in the study, approximately 200 pigs from each batch were left unvaccinated while the rest of the pigs were vaccinated with Ingelvac CircoFLEX® and Ingelvac MycoFLEX® freshly mixed 2 ml at 2–3 week of age.

Production performance such as ADG and mortality rate between vaccinated pigs and non-vaccinated pigs in each batch were compared simultaneously.

RESULTS

In all batches of the study, ADG in pigs vaccinated with Ingelvac CircoFLEX® was higher compared to non-vaccinated animals 23–74 g/day, $P=0.00$ (Table 1) which resulted into 3.8–12.4 kg difference in slaughter weight. The average mortality rate during nursery stage was 2.98% in vaccinated and 4.49% in non-vaccinated ($P=0.08$) and during finishing stage 1.88% and 3.62% respectively ($P=0.01$), Graph 1.

Graph 1: Average mortality in nursery & finisher period

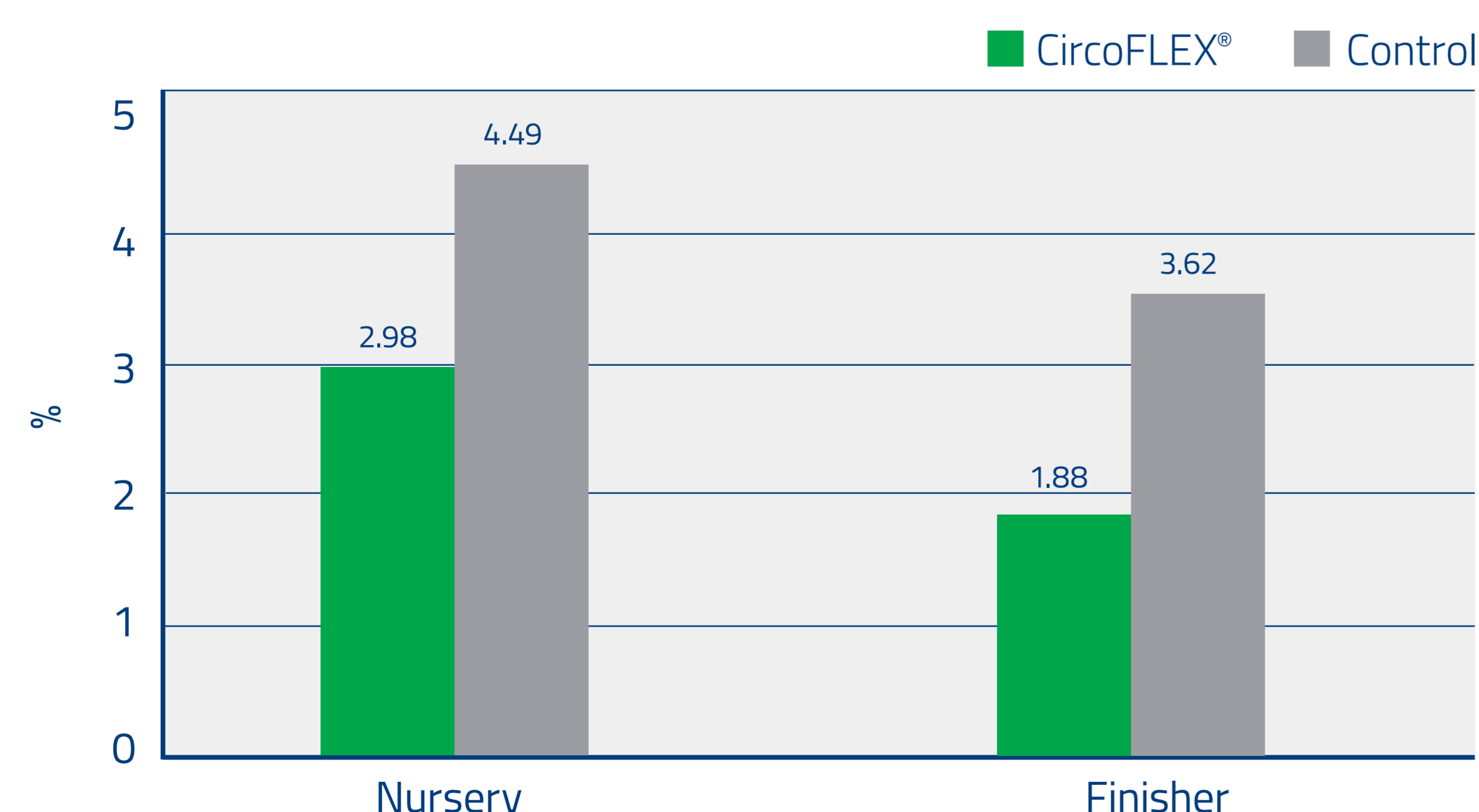


Table 1: ADG of vaccinated and non-vaccinated group in each batch

Batch	Average daily weight gain (g/day)		Diff
	CircoFLEX®	Non vaccinated	
1	827	790	+37
2	842	781	+61
3	853	801	+52
4	819	782	+37
5	850	776	+74
6	840	810	+30
7	808	785	+23
8	842	798	+44
9	808	778	+30
10	810	760	+50
11	799	745	+54

DISCUSSION AND CONCLUSION

PCV2 vaccination can control clinical and subclinical PCVD. Discontinued vaccination, even in farms with a good production performance farm will have a negative impact on ADG and mortality which will result in lower profitability of the farm.

REFERENCES

1. Cheryl, et al. *Veterinary Microbiology*, 189(2016) 86–90

