

EFFICACY COMPARISON IN THE FIELD BETWEEN TWO PCV2 VACCINES: INGELVAC CIRCOFLEX® AND PORCILIS® PCV

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Introduction

In a farrow-to-finish farm, suffering from clinical PCV2 in the fattening phase, two PCV2 vaccines were compared: Ingelvac CircoFLEX® (Boehringer Ingelheim Vetmedica GMBH) and Porcilis PCV® (Intervet International BV).

Materials and Methods

In this side by side trial, a total of 1458 piglets were included, in two successive batches (733 in batch 1, 725 in batch 2), from weaning (day of inclusion, at 3 weeks of age) to slaughter. Piglets were randomly assigned to one vaccine or the other at weaning (identification with individual ear-tags); vaccination was made 2 days after inclusion. The piglets of the 2 treatment groups were allocated in separate pens but in the same buildings. In total, 730 piglets were vaccinated with Ingelvac CircoFLEX® (group C) and 728 piglets with Porcilis® PCV (group P). Blood samples were collected at weaning, beginning, middle and end of fattening. Individual data were collected at the slaughterhouse, so that to assess individual growth parameters from weaning to slaughter.

Table 1: Summary of the different trial phases per batch

Event	Age of pig (weeks)				
		Inclusion	Vaccination	Blood sampling	Slaughterhouse data collection
Weaning	3	X		X	
Weaning + 2 days	3		X		
End of flatdeck	10			X	
Middle of fattening	17			X	
End of fattening	24			X	
Slaughter	23-26				X

Results

Serological PCV2 quantitative PCR investigations confirmed PCV2 circulation in the 2 batches. At the end of the study, due to the difficulty to collect data at slaughterhouse (individual ear-tag losses, pigs slaughtered before or after scheduled data collection

sessions...), but also due to an unpredictable event (pig suffocation around 90 days of age on batch 1), we managed in collecting 1213 individual data (604 in group C, 609 in group P); table 2 gives the results of both vaccines on growth parameters. Statistics: Statistica®, T-Tests.

Table 2: Comparison of growth parameters following vaccination with Ingelvac CircoFLEX® or Porcilis PCV®

Batches 1 and 2	Ingelvac CircoFLEX®	Porcilis PCV®	Δ	Statistics P-value
Total individual data collected at slaughter	604	609	- 5	
Average weight at inclusion (kg)	5,6	5,5	+ 0,1	0,26 ns
Average carcass weight (kg)	89,1	87,2	+ 1,9	P<0.001
ADG from weaning to slaughter (g/day)	650,5	624,5	+ 26,0	P<0.001
Age at slaughter (day)	191,7	194,8	- 3,1	P<0.001

Discussion and conclusion

Results demonstrated a better efficacy of Ingelvac CircoFLEX® compared to Porcilis® PCV in this farm. Indeed, piglets vaccinated with Ingelvac CircoFLEX® grew faster (ADG from weaning to slaughter (g/day): group C = 650.5 vs group P = 624.5, Δ = + 26 g, p<0.001), leading to heavier carcass weights (Carcass weight (kg): group C = 89.1 vs group P = 87.2, Δ = + 1.9 kg, p<0.001), despite a younger age at slaughter (Age at slaughter (days of age): group C = 191.7 vs group P = 194.8, Δ = - 3.1 days of age, p<0.001). Difference in mortality rate was not significant (Group C = 5.9 vs Group P = 7.5, Δ = - 1.6 %, ns).

Following this trial, the farmer decided to vaccinate with Ingelvac CircoFLEX®, not only because of its better efficacy in comparison with Porcilis PCV®, leading to a better return on investment of PCV2 vaccination in his farm, but also because he observed more safety issues on piglets vaccinated with Porcilis PCV® (mortality due to shocks and/or decrease in feed consumption after vaccination).