

Table 1a: Explanatory variables that were examined in the study for porcine circovirus 2 (PCV2)

Variable	Category
Secondary respiratory infection	No/Low
	Medium/High
Farm scale	≤100
	>100
Region	Northern / Central / Western
	Southern
Pool origin	Breeding stock / Finishers
	Weaners
	Growers
PCV2 vaccination in sows	Other*
	Only gilts
	Other**
Vaccination program in sows and/or weaners	PRRSV MLV vaccination in sows & PCV2 vaccination in weaners
Nucleus breeding	No
	Yes
Introduction of replacement gilts	No
	Yes (gilts stock)
Semen introduction	No
	Yes
Biosecurity level	No/Low/Adequate
	High

\*No / Gilts and before every farrowing

\*\* No vaccination / PCV2 and PRRSV MLV (modified live vaccine) vaccination in sows & weaners / PRRSV MLV vaccination in sows & PCV2 and PRRSV MLV vaccination in weaners / PRRSV MLV vaccination in sows / PCV2 vaccination in weaners / PCV2 vaccination in sows and PRRSV KV (killed vaccine) vaccination in sows / PRRSV KV vaccination in sows and PCV2 vaccination in weaners

Table 1b: Explanatory variables that were examined in the study for porcine reproductive and respiratory virus (PRRSV)

\*\*\*(only the differences from PCV2 are mentioned)

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Variable	Category
Pool origin	Breeding stock
	Weaners
	Growers
	Finishers
PRRSV vaccination of sows	Other****
	Mass MLV vaccination until 3 days before farrowing and until 95 days of gestation
Vaccination program of sows and/or weaners	Other**
	PRRSV MLV vaccination in sows, PCV2 and PRRSV MLV vaccination in weaners / PCV2 and PRRSV KV vaccination in sows
Biosecurity level	No/Low/High
	Medium/Adequate

\*\*\*\* No vaccination / PRRSV MLV vaccination on the 60th day of gestation and 6th of lactation / PRRSV KV (killed vaccine) vaccination in sows

<b>Logistic Regression</b>			
<b>Parameter</b>		<b>Estimate (95% CI)</b>	<b>P value</b>
Region	Northern / Southern /Eastern	1	
	Western	0.25 (0.07; 0.71)	0.017
Pool origin	Breeding stock	1	
	Weaners	0.21 (0.09; 0.46)	<0.001
	Growers	0.36 (0.17; 0.75)	0.007
Vaccination program of sows and/or weaners	Other**	1	
	PRRSV MLV vaccination in sows & PCV2 in weaners	0.39 (0.21; 0.74)	0.004
<b>Linear Regression</b>			
<b>Parameter</b>		<b>Estimate (95% CI)</b>	<b>P value</b>
Pool	Breeding stock	1	
	Weaners	-0.2 (-0.34; -0.06)	0.006
	Growers	-0.13 (-0.25; -0.01)	0.04

Table 2a: Estimate and 95% confidence intervals (CIs) for the effect of predictors for the odds part (logistic regression) and intensity part (linear regression) for PCV2

Table 2b: Estimate and 95% confidence intervals (CIs) for the effect of predictors for the odds part (logistic regression) and intensity part (linear regression) for PRRSV

<b>Logistic Regression</b>			
<b>Parameter</b>		<b>Estimate (95% CI)</b>	<b>P value</b>
Secondary respiratory infection	No/Low	1	
	Medium/High	2.30 (1.16; 4.64)	0.018
Pool	Breeding stock	1	
	Weaners	12.03 (4.54; 35.53)	<0.001
	Growers	7.87 (2.96; 23.08)	<0.001
	Finishers	3.91 (1.2; 13.39)	0.025
PRRSV vaccination program of sows	Other****	1	
	Mass MLV vaccination until 3 days before farrowing and until 95 days of gestation	6.27 (3.17; 12.89)	<0.001
Vaccination program of sows and/or weaners	Other**	1	
	PRRSV MLV vaccination in sows, PCV2 and PRRSV MLV vaccination in weaners / PCV2 and PRRSV KV vaccination in sows	7.28 (2.59; 23.36)	<0.001
<b>Linear Regression</b>			
		<b>Estimate (95% CI)</b>	<b>P value</b>
Nucleus breeding	No	1	
	Yes	0.15 (0.07; 0.24)	<0.001
Biosecurity level	No/Low/High	1	
	Medium/Adequate	-0.08 (-0.15; -0.01)	0.019

