



PCV2 IN GILTS: VIRUS AND VACCINATION

Lola Kathe Tolstrup¹, Michael Albin Larsen², Lars Erik Larsen³,
Charlotte Kristiane Hjulsager³, Charlotte Sonne Kristensen¹

¹SEGES Danish Pig Research Centre, ²CEVA ANIMAL HEALTH, ³DTU Danish Veterinary Institute

CONCLUSION

The exact time of vaccination differed considerably between herds, but blood samples from 4 vaccinated herds were still virus positive despite being vaccinated twice prior to the first service. This may be due to:

- wrong storage of the vaccine
- human errors during vaccination
- a high viral exposure

A further possibility includes that gilts were infected with PCV2 prior to vaccination and remained positive until the time of sampling.

Background and Objective

Only few sows are vaccinated against PCV2 in Denmark. However, PCV2 is present in most of the Danish herds, and in some herds PCV2 causes health problems. Especially gilts may be prone to PCV2-related disease problems if not vaccinated properly. Therefore, this study aimed at screening gilts for PCV2 and relate it to the herd's PCV2 vaccination status.

Materials and Methods

Blood samples and vaccination protocols were collected from 43 herds in 2014 and 2015. Blood samples were taken from 5 gilts per herd just before the first insemination, pooled per herd and tested for PCV2 by qPCR. PCV2 vaccination protocols were obtained from the herd veterinarian, but specific details about vaccination procedures were not collected. The presence and load of PCV2 were compared to vaccination/no-vaccination.

	Negative	Marginal	Moderate	Massive
PCV2-copies pr. mL serum	$< 1.0 \cdot 10^3$	$1.0 \cdot 10^{3-5}$	$1.0 \cdot 10^{5-7}$	$> 1.0 \cdot 10^7$

Table 1. Quantitative grouping of virus load in blood pools.

Results

In total, 28 herds (65%) vaccinated the gilts before the first insemination, ranging from the time when the gilt arrived at the herd at 30 kg to 3 weeks before service. The herds vaccinated either once or twice.

Five pooled blood samples were positive for PCV2 by qPCR, giving a prevalence of PCV2 positive herds of 12%. None of the 5 samples had a massive PCV2 virus load, 2 samples had a moderate virus load, and 3 samples had a marginal virus load. The serum pools from 4 of the 28 herds that vaccinated the gilts were positive for PCV2, while only 1 of the 5 positive pools came from a non-vaccinated herd.

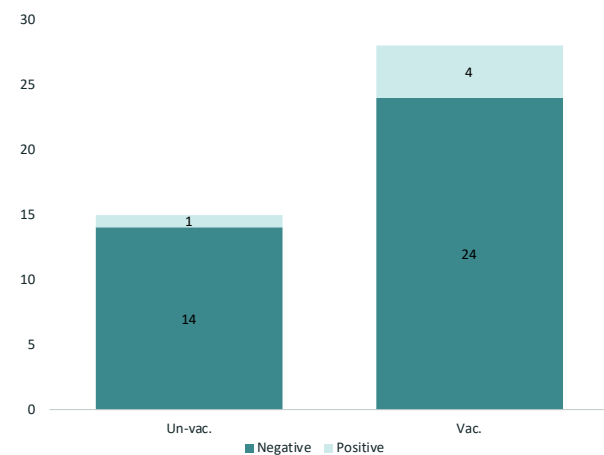


Figure 1. Graphic depiction of the 43 herds vaccination and PCV2 status.

CONTACT
Lola Kathe Tolstrup
Livestock Innovation
T +45 3339 4428
loto@seg.es.dk