

Average daily gain in finishing herds increased 34g following Porcilis® PCV M Hyo vaccination

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INTRODUCTION

In practice, evaluation of vaccine efficacy is often based on development in production parameters following implementation of a vaccination program.

The study objective was to evaluate mortality, average daily gain and feed conversion rate in commercial Danish finishing herds following Porcilis® PCV M Hyo vaccination.

MATERIAL & METHODS

In 23 Danish finishing herds initiating Porcilis® PCV M Hyo vaccination in 2015 or 2016, production data from one year before and one year after fully implemented vaccination (whole herd vaccinated) were compared (Figure 1). Out of the 23 herds, 18 also previously vaccinated against PCV2 and *M. hyopneumoniae*.

The development in production data was calculated by subtracting the 'before' from the 'after' data, and Student's one-sample t-tests were used to determine if the developments significantly differed from zero.

To account for previous vaccination strategies concerning PCV2 and *M. hyopneumoniae*, year of initiated vaccination, difference in start/arrival weights between the periods and shared ownership for some herds, a linear mixed model was built for each production parameter.

RESULTS

The 23 Danish finishing herds included in the data set totally produced 180,000 finishers per year. Figure 2 shows the individual-herd development in production data following initiated Porcilis® PCV M Hyo vaccination.

On average, mortality was reduced by 0.5% point ($p=0.002$), average daily gain increased 36 g ($p=0.001$) and feed conversion rate decreased 0.03 FU/kg ($p=0.095$). When shared ownership and difference in start/arrival weights were accounted for using linear mixed models, the improvements following Porcilis® PCV M Hyo vaccination were -0.5% point mortality ($p=0.01$), +34 g average daily gain ($p<0.001$) and -0.04 FU/kg ($p=0.13$).

Previous vaccination strategy and year of vaccination were not significant in any of the models.

Figure 1. Study design for the evaluation of Porcilis® PCV M Hyo vaccination in Danish finishers

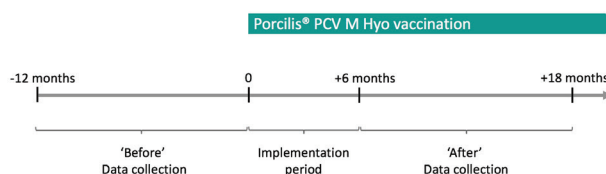
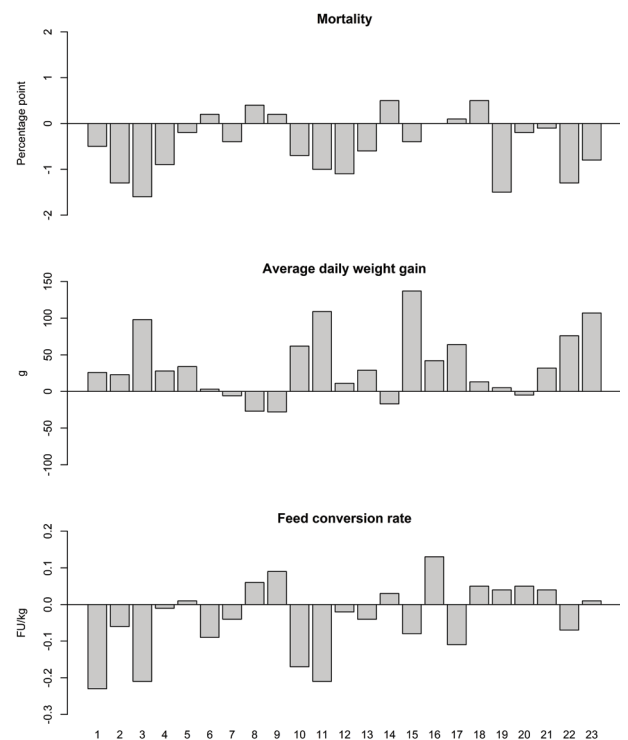


Figure 2. Development in production data for each of the 23 finishing herds following Porcilis® PCV M Hyo vaccination



DISCUSSION & CONCLUSION

In these 23 finishing herds, mortality and average daily gain significantly improved following Porcilis® PCV M Hyo vaccination. Totally, the enhanced productivity in the finishing period corresponded to ~€ .5 per finisher produced.

During the same period, the average national development concerning the same parameters corresponded to only ~€ .5.

The improved productivity following vaccination was found regardless of whether a previous vaccination strategy against PCV2 and/or *M. hyopneumoniae* existed.

REFERENCE

Nielsen GB, Haugegaard J, Jolie R (2018): Field evaluation of a ready-to-use combined Porcine circovirus type 2 and Mycoplasma hyopneumoniae vaccine in Denmark – a historical comparison of productivity parameters in 20 nursery and 23 finishing herds. *Porcine Health Management*, 4:29, <https://doi.org/10.1186/s40813-018-0104-7>.