

# Results of PRRS control in Dutch finisher farm after outbreak of PRRS

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## Introduction

PRRS infections can have a significant effect on the technical performance in pigs in the nursery and finisher farm. PRRS-positive farms were associated with a significantly higher risk for pneumonia and lower growth<sup>1</sup>. The impact in the finishing phase in the Netherlands is calculated on a growth loss around 60 gram/day and a 0,15 FCR increase<sup>2</sup>. The objective of this study was to evaluate the effect of a PRRS vaccination under field conditions at a PRRS positive farm with finisher pigs.

## Materials and Methods

This case study was performed in a finishing farm of 3500 finishing places. The farm received since years the piglets from a 400 sow farm (T20 x Talent), which had a long proven history of selling PRRS negative piglets. The piglets were vaccinated at 3 weeks of age against PCV2 (CircoFLEX<sup>®</sup>, Boehringer Ingelheim) for years; in January 2016 this was combined with MycoFLEX in a 2ml 1 shot at 3 weeks of age. Due to an acute outbreak of PRRS in February 2016 in the sow farm (resulting in significant reproductive losses and weakborn piglets for months), the finishing farm received shortly afterwards PRRS positive pigs. PRRS was diagnosed by PCR on 10 week old piglets. The PRRS strain had an 86% homology on ORF 5 compared with Lelystad PRRS virus. The problems in the finishing barn consisted of increased respiratory problems, higher use of antibiotics due to secondary bacterial infections, decreased growth, less uniform pigs and higher feed conversion rate. In August 2016 the sow farmer started with a piglet vaccination against PRRS (PRRSFLEX<sup>®</sup> EU, Boehringer Ingelheim) at 3 weeks of age, applied in a 2ml triple combination with the FLEXcombo<sup>®</sup> mixture (off label).

The economical relevant production parameters were used for evaluation. Monthly close out data records from the finishing barns were retrospectively collected from June 2015 until August 2017 for the 3 different periods (before PRRS outbreak – outbreak pigs non-vaccinated – PRRS vaccinated pigs). For evaluation and comparison of the antibiotic use, the standardized method of Defined Daily Dosages (DDD) of antibiotics used per animal year was applied<sup>3,4</sup>.

## Results

The PRRS outbreak had a negative effect on all the economical relevant parameters of the pigs on this farm. In the time frame with the added PRRS vaccination the general health improved resulting

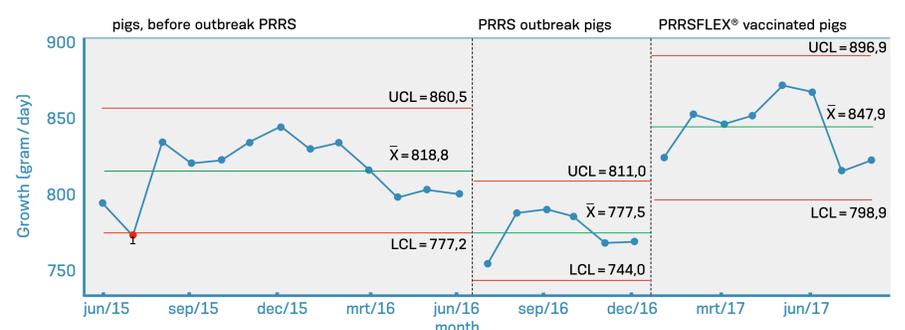
in less coughing, better uniform pigs, and less losses until slaughter. All the major production parameters improved (see table 1 and figure 1). Also the DDD decreased below the legal target threshold.

Table 1: Technical results of finisher pigs for the 3 different period

	before	PRRS outbreak pigs	PRRSFLEX pigs
slaughter periods	june 15 – 16	july – dec 2016	jan – aug 2017
vaccination protocol piglet	circo (myco)	circo - myco	circo - myco - prrs
mortality %	1,22	1,55	1,34
growth/day (g)*	819	778	848
FCR*	2,53	2,55	2,38
mm fat	12,99	12,79	12,83
mm muscle	64,29	63,38	65,97
DDD	10,95	17,55	7,70
average days at finishing	117	122	113

\* corrected data for 25 – 112 kg

Figure 1: Average daily growth (gram/day) for the 3 different periods in time



## Discussion and Conclusion

This retrospective analysis of a Dutch pig farm confirms that the PRRS vaccine in combination with vaccination against Mycoplasma hyopneumonia and PCV2 improved not only the clinical symptoms but also the technical performance of the pigs. This is in line with other reports<sup>5-7</sup>. The biggest improvements in clinical and technical results are visible from January 2017 due to the PRRS vaccination. A new feed supplier was implemented in the finishing phase in the beginning of 2017. The possible effects of this on technical results are visible in the figures from May 2017 onwards. SPC-charting of production data is a useful way to follow changes in performance in a before after setting.

## References

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