

IMPROVEMENT OF PRODUCTIVE PARAMETERS AFTER PIGLET PRRS VACCINATION

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INTRODUCTION

PRRS is an endemic swine disease causing significant productive and economic losses in pig farms¹. Spain is one of the main global pig producers and, although sows' vaccination is consolidated, piglet's vaccination remains doubtful. However, it has been demonstrated that to vaccinate piglets against PRRS brings some important benefits, like an improvement of productive parameters and a reduction of mortality². The objective of this trial was to analyse how a PRRS positive farm improves its parameters after vaccination of piglets against PRRS.

MATERIALS AND METHODS

During December 2018-March 2019, a Site1+Site2 farm of 1.600 sows, located in Spain, experimented a huge mortality until the end of nursery (from 10 to 22%). PRRS positivity was confirmed on March 2019 through PCR on blood (2 pools/age, 5 animals/pool) at 4, 6, and 9 weeks of age (DIAGNOS, HIPRA, Spain). On April 2019, it was decided to start the piglet vaccination with UNISTRAIN[®] PRRS (HIPRA) with one intradermal shot at 2 weeks of age.

Animals were tested 8, 16 and 24 weeks after vaccination. 3 pools (5 animals/pool) at weaning and at the end of nursery were analysed by PCR on DIAGNOS (HIPRA, Spain). Additionally, at the end of nursery, the PRRS strain was also sequenced.

RESULTS AND DISCUSSION

On the one hand, after starting vaccination, all PCRs (at 8, 16 and 24 weeks) were negative at weaning, but positive at the end of the nursery. The sequencing confirmed that the strain detected after nursery was that corresponding to UNISTRAIN[®] PRRS. These results confirm that vaccination succeeded in reducing the virus circulation at weaning and also succeeded in replacing PRRS field strains.

On the other hand, mortality was statistically significant reduced from 16% to 4% (figure 1) and treatments were also reduced after UNISTRAIN[®] PRRS vaccination (figure 2).

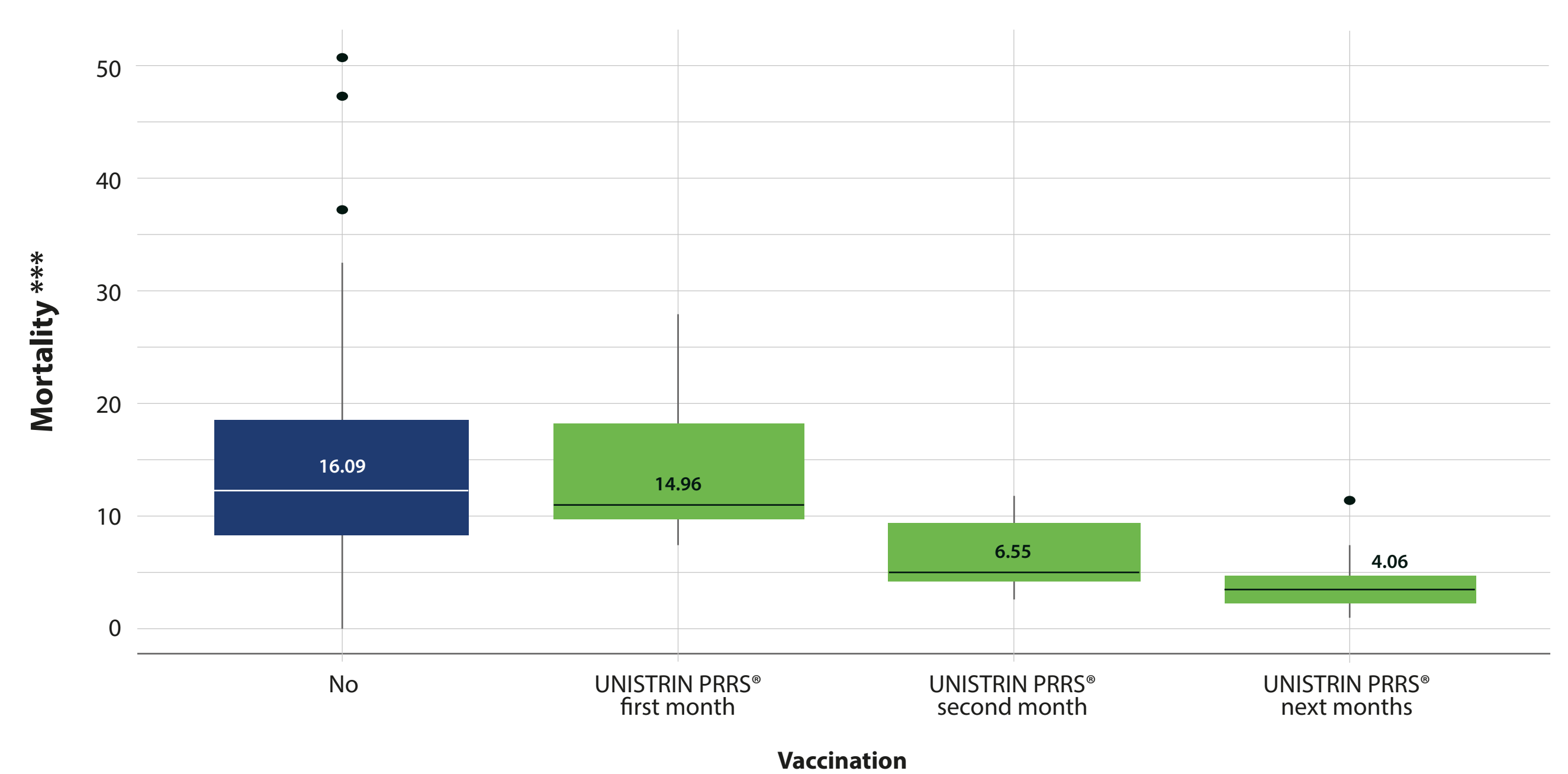


Figure 1. Mortality reduction after vaccination with UNISTRAIN[®] PRRS.
***Significant differences (Wilcoxon test, p-value<0.001)

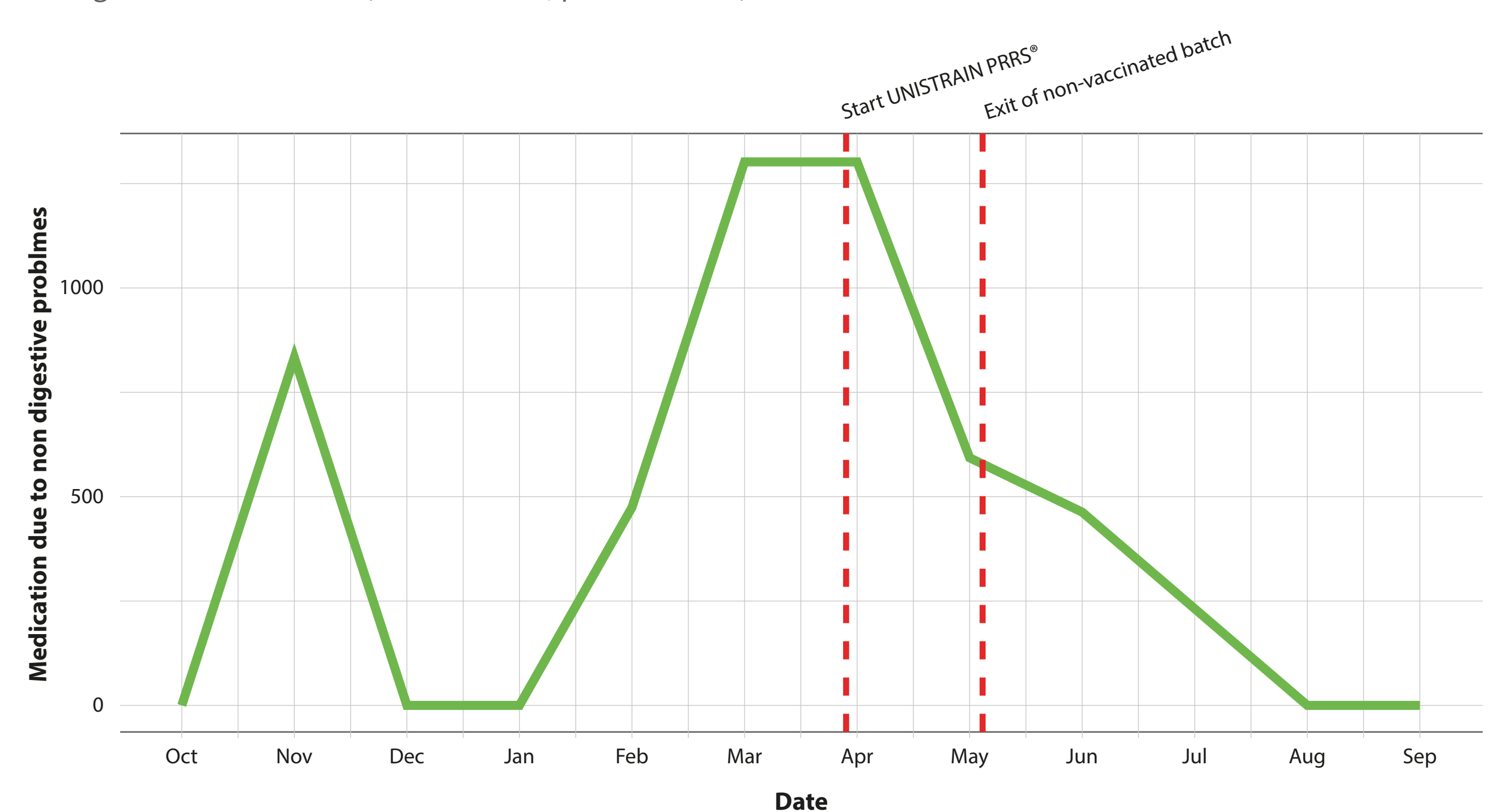


Figure 1. Antibiotic+anti-inflammatory reduction after vaccination with UNISTRAIN[®] PRRS.

CONCLUSIONS

Piglet's vaccination helps to reduce PRRSV circulation in the farm, therefore improving performance and reducing economic losses during nursery.

REFERENCES

1. Diseases of swine. 10th edition. 2012.
2. Miranda et al. 2020. Efficacy of a type 1 MLV PRRSV vaccine when applied intradermally in 2-week-old piglets under field conditions. AASV 2020. Atlanta (USA)