

# The use of a modified live PED vaccine in the Philippines



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## INTRODUCTION

Porcine Epidemic Diarrhea (PED) is a Coronavirus infecting pigs globally but most especially in Asia.<sup>1,2,3</sup> The outbreaks have been causing problems in Philippine commercial farms. This field trial was conducted to confirm the efficacy of a Modified Live PED Vaccine (Enterisol® PED) in a commercial farm under field conditions.

## MATERIALS AND METHODS

The trial was conducted in a 500-sow farrow to finish farm in the North part of the Philippines, in a pig-dense area. The farm had historical PED-like breaks in 2006 and then again in 2008. Despite vaccination, the farm was still having poor performance especially high mortalities (32% per month on a 12-month average) and low weaning weights.

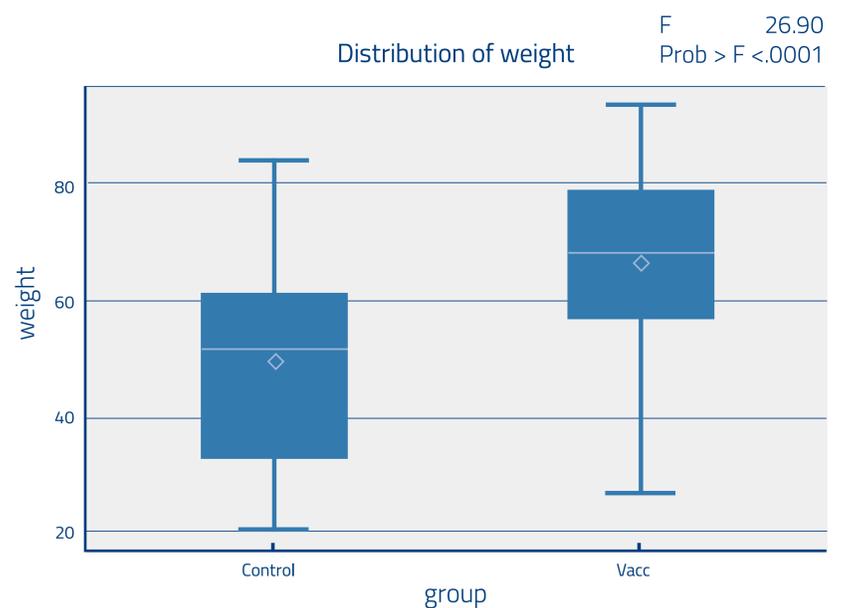
After being confirmed positive for PED by PCR in January 2013, the farm decided to evaluate a modified live PED vaccine (Enterisol PED MLV) in August 2013 given parenterally, twice at 6 weeks and then again at 2 weeks pre-farrow in sows and gilts.

Using the chi-square and using Student's t-test (SAS 9.4), the results of the vaccinates were compared with historical batch performances. Both local and systemic reactions were observed. The pre-weaning mortality and weaning weight results were compared. Results were considered significant, if  $p \leq 0.05$ .

## RESULTS

There was neither local nor systemic reaction observed in the vaccinated group following the two immunizations. A total of 86 sows (42 controls, 46 vaccinates) with a total of 968 piglets (450 controls, 518 vaccinates) were included into the trial. Vaccination yielded a significantly lower pre-weaning mortality (30% for control and 18% for vaccinates).

Figure 1: Litter weaning weights (kg)



## CONCLUSION AND DISCUSSION

The modified live vaccine used in this study proved to be efficacious in reducing the clinical impact of a PED infection. Vaccination of sows is beneficial with regard to pre-weaning mortality and weaning weight of the litter. Successful control of PED needs to include appropriate biosecurity measures, cleaning and disinfection and movement restrictions. Further studies are under way to confirm the efficacy of Enterisol PED MLV under different conditions. Meanwhile, PED remains a challenge for the SE Asian pig industry.



Picture 1: Intramuscular vaccination of the PED Modified Live Vaccine

## REFERENCES

1. Song, DS et al. (2012). Proc of the 22<sup>nd</sup> IPVS, p. 256
2. Tuanthapap, S et al, (2012). Proc of the 22<sup>nd</sup> IPVS, p. 397
3. He, Q et al, (2013). Proc of the 6<sup>th</sup> APVS. Pp. C1 – C3

