

# Vaccination with Ingelvac® PRRS MLV for horizontal transmission control in Korean swine farm



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## INTRODUCTION

PRRS is one of the diseases with the greatest economic impact on the swine industry as a single disease. Various control strategies have been developed to prevent the damage of PRRS, and various methods have been implemented. Numerous methods have been tried and based on various failures and successes, management methods have been established for stabilization or elimination of PRRS virus at the pig farming site.<sup>1</sup>

At present, stabilization of the breeding herd is the first priority of PRRS management, and has always been defined as a concept to be considered for PRRS management. In order to stabilize PRRS in the breeding pig population, the method of mass vaccination with the herd closure of the pig population was implemented.

In fact, when the infected PRRS is stabilized in the breeding population, there are no further problems related to breeding such as abortion, stillbirth and premature birth. In addition, as the vertical transmission does not occur, the naturally infected piglets that have not been infected with PRRS virus. Through breeding herd stabilization, vertical transmission from sows was blocked, but the PRRS virus negative piglets produced were exposed to another PRRS infection. This is because the horizontal transmission of PRRS virus occurs from existed pigs to PRRS virus negative piglets. Especially, there were most of farms which had farrow to finish farm system in Korea swine industry. This is the reason about nursery PRRS virus infection of almost farms in Korea.

The main purpose of this study was to manage effectively the damage caused by PRRS virus infection in early piglets through inoculation of Ingelvac® PRRS MLV.

## MATERIALS AND METHODS

This field study was conducted in a 250 sow farm (farrow to finish) located in South Korea. The sow farm was unstable at study commencement, but efforts were made to stabilize PRRS virus through mass vaccination with herd closure. After PRRS stabilization of the sow herd, the reproductive performance improved rapidly, and the clinical status of suckling piglets in farrowing house also recovered to normal.

However, although healthy at weaning, a proportion of pigs became unthrifty and died at 40 to 70 days of age. Sow herd stabilization was confirmed by PCR negative pigs at weaning. Serum samples from nursery pigs were PCR positive to type 1 and type 2. There continuous circulation of PRRSV in the nursery was due to sub optimal pig-flow and management. Lung examination revealed PRDC with Mycoplasma and Streptococcus infection on top of the PRRSV infection.

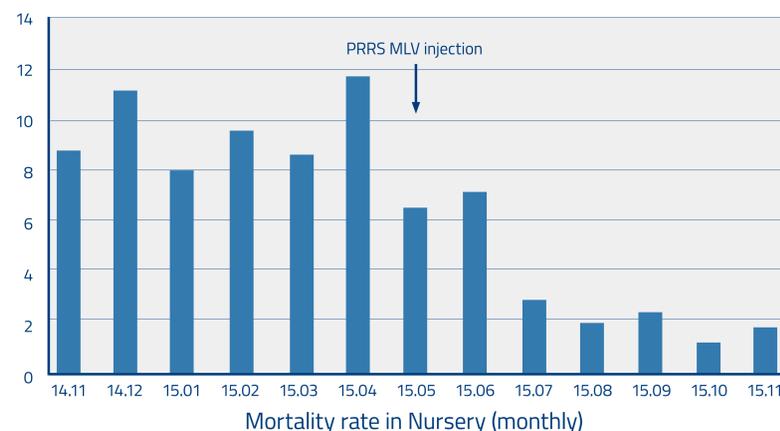
Antibiotic treatment and feed additives given to piglets in nursery did not resolve the PRDC problem. Even with intensive treatment, the mortality rate only decreased temporarily. This led to a decision by the farm manager to vaccinate suckling piglets with Ingelvac® PRRS MLV at 10~14 days of age.

## RESULTS

Before PRRS MLV vaccination for piglets, the mortality after weaning was almost 11 – 12%. Most of the mortality was concentrated in the nursery. After vaccination for piglets, the mortality decreased gradually, and it went down to about 2% after the vaccinated piglets were filled in all nursery barns.

The medication program was changed naturally, and the use of antibiotics also decreased dramatically. The productivity gradually improved in the farm.

**Figure 1: After implementation of PRRS MLV vaccination, mortality rate decreased and was maintained at a low level in nursery .**



## DISCUSSION AND CONCLUSION

In this case of PRDC caused by PRRSV as a primary pathogen, implementation of a PRRS MLV vaccination program in piglets was the main solution to control PRRSV infection and reduce mortality as well as clinical signs. PRRS MLV was the key to improve production performance and plays an important role in PRRS stabilization and reduction of horizontal PRRSV transmission

## REFERENCES

1. Scortti M et al. 2007. *Vet Rec.* 161:809 – 813.

