

# LONG TERM AND SUSTAINABLE PROTECTION AGAINST PRRSV IN A COMMERCIAL FARM IN VIETNAM USING INGELVAC® PRRS MLV

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## Introduction

Modified live vaccine has been used in United States since 1994, and other countries including Vietnam for Porcine Reproductive and Respiratory Syndrome (PRRS) control. From 2010 Vietnam Animal Health Department has confirmed the highly pathogenic Porcine Reproductive and Respiratory Syndrome (HP-PRRS) strain and its variants as frequent findings in pig farms causing PRRS outbreaks similar to that occurring in China<sup>1</sup>. There are several reports on successful PRRSV controlling by using Ingelvac® PRRS MLV vaccine (Boehringer Ingelheim)<sup>3,4,5</sup>. The aim of this study was to evaluate the field safety and efficacy of Ingelvac® PRRS MLV in improving and maintaining reproductive performance during a 3 years period on a pig farm in Vietnam.

## Materials and Methods

The study was conducted on a 600 sow farm located in the South of Vietnam. An evaluation of Key Performance Indicators (KPI) from the farm during the period of 2009 to 2012 was implemented in order to determine the long term impact and efficacy of PRRS control strategy with a Modified Live Vaccine as a primary tool. The implementation of a whole herd vaccination with Ingelvac® PRRS MLV started in September 2010. The protocol was: a mass vaccination of the breeding herd, followed by a second mass vaccination 30 days apart, then a routine mass vaccination in a quarterly (every 3 months) basis. Gilts were acclimated with 2 doses of Ingelvac® PRRS MLV before being introduced into the breeding herd. An ongoing vaccination of piglets on a weekly basis starting at 10 days of age was implemented.

The KPI primary parameter was the number of weaned piglets per sow per year. The farrowing rate, the number of piglets per sow (total born), and the number of piglets alive per sow (born alive) were analyzed as secondary parameters. Statistical analyses were performed to compare the KPIs over years.

## Results

The reproductive performance during a 4-year period from 2009 to 2012 is showed in Table 1. An HP-PRRS broke out on the farm in 2010. Right after this outbreak, the vaccination protocol was implemented, which led to clear stabilization process and statistically significant improvement of reproductive performance thereafter. Figure 1 shows the increase in the number of weaned piglets per sow per year in 2011 and 2012. This sustainable improvement represented 1.68 more weaned piglets per sow.

## Conclusions

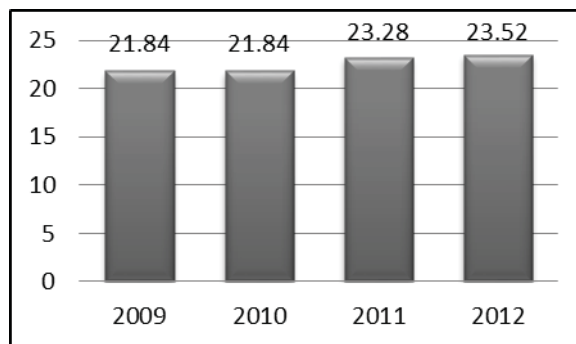
These results confirmed the efficacy of Ingelvac® PRRS MLV in preventing HP-PRRS negative impact under Vietnam conditions in a sustainable manner. Using this vaccine as a primary tool along with secondary management methods to control PRRS is a useful methodology not only in America but also in Asia.

**Table 1.** KPI monitoring through a 4 years period

Year	Farrowing Rate (%)	Piglets/Sow (total Born)	Piglets alive/sow (born alive)
	mean (StDev)	mean (StDev)	mean (StDev)
2009	89,22 <sup>a</sup> (9,54)	11,05 <sup>a</sup> (0,33)	10,15 <sup>a</sup> (0,37)
2010	85,78 <sup>a</sup> (5,03)	11,29 <sup>ab</sup> (0,33)	10,03 <sup>a</sup> (0,33)
2011*	88,84 <sup>a</sup> (5,11)	11,48 <sup>b</sup> (0,34)	10,10 <sup>a</sup> (0,25)
2012	90,26 <sup>a</sup> (3,56)	11,78 <sup>bc</sup> (0,28)	10,62 <sup>b</sup> (0,23)

\*Full implementation of Ingelvac PRRS MLV in a whole herd fashion.

Subscripts with different letters represent statistically differences.



**Figure 1.** Pigs weaned per sow per year

## Literature cited

1. Yun S. K. Proceeding of 5<sup>th</sup> APVS Congress, p. 84.
2. Tien N. N. 2011. Vietnam Vet Magazine
3. Angulo et al. 2007. Leman Conference. Abstract 18.
4. Polson et al. 2008. IPVS Proceedings, p205
5. Sopon K et al. 2010. IPVS Proceedings, p 113