

Efficacy of Ingelvac® PRRS MLV piglet vaccination in a large Korean farm



GJ Kang

Boehringer Ingelheim Vetmedica Korea Ltd
gjjong.kang@boehringer-ingelheim.com

INTRODUCTION

Recently most of the Korean swine farms use PRRS vaccine as a tool for sow herd stabilization against PRRS. When swine farmers want to acclimatize their gilts and to solve reproductive problems caused by PRRS, Ingelvac® PRRS MLV has played an important role. However, perception to piglet vaccination is lacking so that infection by PRRSV and subsequent secondary bacterial infection still remains a problem especially after weaning. Moreover, in this 2-site managed farm, there are many economics losses in the fattener farm caused by PRRSV reinfection. PRRSV infected pigs usually show poor growth performance and are highly susceptible to bacteria and other viruses resulting in high mortality¹. In this study, we evaluated the efficacy of PRRS vaccination in piglets by measuring post weaning mortality and performance in nursery and fattening pigs.

MATERIALS AND METHODS

This study was conducted in a 2,500 sow farm with a 2-site system. Piglets are moved to the fattener farm at about 70 days of age. Every week around 1,200 piglets of 28 days of age are weaned and over 1,100 piglets of 70 days of age are transferred to the fattener farm. Mortality rate in the nursery is usually 1 ~ 2%, but shortly after arrival in the fattening farm, piglets are showing respiratory symptoms with reduced feed intake. In September 2014, when the farmers did diagnostical herd monitoring, type 1 PRRS antigen was detected by PCR blood samples of 6 weeks old piglets. Starting in October 2014, piglets showed neurological signs subsequently leading to death. In order to solve these problems, the farmer decided to vaccinate piglets at the age of 18 days with Ingelvac® PRRS MLV using 3FLEX® which is a licensed mixture of Ingelvac CircoFLEX®, Ingelvac MycoFLEX® and Ingelvac® PRRS MLV. This farm already used FLEXcombo®, the licensed mixture of Ingelvac CircoFLEX® and Ingelvac MycoFLEX®. Within this study, 13 batches with 3FLEX® vaccination (group "vaccinates") were compared to 13 batches with the original FLEXcombo® vaccination only (group "controls"). Monitored parameters were mortality in the nursery and performance of pigs in the fattening farm.

RESULTS

From Aug to Oct 2014, 15,800 pigs (controls) were weaned from which 449 pigs died in the nursery. So in this period mortality rate was 2.84%. From Nov '14 to Jan '15, 14,507 pigs (vaccinates) were weaned from which 143 died in nursery so that in this period mortality rate decreased to 0.99% (Table1.)

Table 1: Mortality rate in nursery of controls and vaccinates

	Controls (Aug-Oct'14)	Vaccinates (Nov'14-Jan'15)
No of batches	13	13
No of weaned pigs	15,800	14,507
No of dead pigs	449	143
Mortality (%)	2.84	0.99

In addition, we found that after 3 months of PRRS MLV vaccination the PRRSV infection age was delayed from 6weeks age to 9weeks age (Table 2).

Table 2: PCR result conducted on Apr'15

	PRRS PCR	
	Type 2	Type 1
6 weeks	Neg.	Neg.
9 weeks	Neg.	Pos.

Performance parameters from the fattening farm included mortality, average daily weight gain (ADWG), feed conversion rate (FCR), Antibiotics cost and average market days between 2 groups (Table 3).

Table 3: Performance parameters

	Controls	Vaccinates
No of pigs	15,351	14,406
No of dead/culled pigs	1,074	532
Mortality (%)	6.99	3.69
ADWG (g)	744	777
FCR	3.02	2.94
Antibiotics cost (USD)	23,173	10,635
Average market days	190.4	186.3

CONCLUSION

In this trial, we were able to demonstrate that PRRS virus and secondary bacterial infection can be controlled by PRRS piglet vaccination. In addition we could demonstrate that Ingelvac® PRRS MLV provided cross protection against type 1 virus and with continuous vaccination we could delay infection age of wild type virus. Finally we could achieve much better production performance and economic benefit in fattener.

REFERENCES

1. Lunney, J.K. et al. *Virus Res.* 2010;154:1-6.

