The **Reference** in **Prevention** for **Animal Health**

EVALUATION OF THE FIELD SAFETY AND EFFICACY OF THE COMBINATION OF UNISTRAIN® PRRS AND AUSKIPRA® GN IN SOWS

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INTRODUCTION

Breeding sows are repeatedly vaccinated against several agents. To simplify complex immunization schedules, combined administration of vaccines is used. Advantages of combined vaccines are fewer injections, improved animal welfare and less stress to the animals, greater convenience, less work and a reduction in administration costs (1). Recently, the combination of UNISTRAIN® PRRS (MLV PRRSV1 vaccine, HIPRA) and AUSKIPRA® GN (pseudorabies live vaccine, HIPRA) has been licensed for intramuscular and intradermal administration (2 ml and 0.2 ml respectively). A previous study evaluating the field safety and efficacy of the combination has been published (2). However, safety of the vaccine combinations is still a big concern amongst Thai swine farmers. Hence, the aim of this study was to evaluate the safety and efficacy of this combination on commercial swine farms in Thailand.

MATERIALS AND METHODS

This study was carried out in 2018 on a 1,170-sow farrow to finish farm located in western Thailand. A PRRSV2 outbreak was confirmed by RT-PCR (Kasetsart University) and real time PCR (Diagnos HIPRA) positive results in serum. Recent PRRSV circulation in the grower-finisher pigs was also detected by paired serum tests (ELISA kit). The pre-weaning mortality rate in the first weeks of the outbreak was up to 25%. Sows were vaccinated intradermally with the combination (0.2 ml) applied with Hipradermic® following the vaccination schedule of the farm. The safety of the combination was based on the evidence of local and systemic adverse reactions after vaccination, monitoring it daily from day 0 until 14 days post vaccination (pv).The efficacy of the combination in controlling PRRS problems was determined by a 6-month period comparison of the reproductive and productive parameters before and after starting the use of the vaccine combination, (IBM SPSS statistics 22 program).

RESULTS

Regarding the safety, no severe adverse reactions were observed in the vaccinated sows apart from the normal papule observed after the vaccination. Those sows with skin redness returned to normality one or two days pv without medical treatment (Fig.1 and 2). Significant differences were found in all the comparative parameters. (Table 1).

DISCUSSION AND CONCLUSION

The combined administration of UNISTRAIN® PRRS and AUSKIPRA® GN was shown to be a useful tool for the control of PRRSV2 field infections, significantly increasing reproductive and productive parameters.

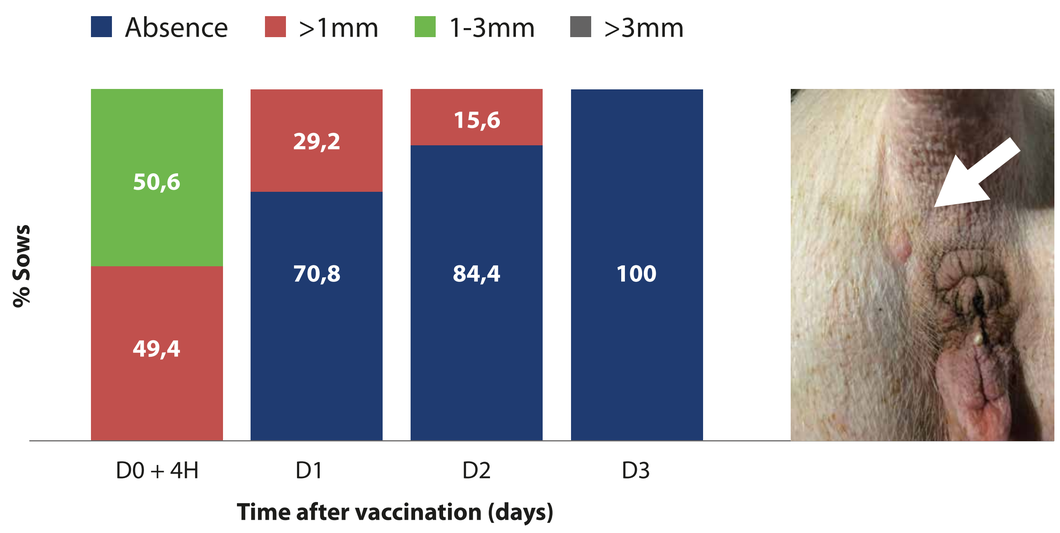

Figure 1 and Figure 2. Local reactions and an observed papule (orange arrow) in the sows after vaccination.

Parameter	Before	After	Diff
Farrowing rate (%)	72.8	91.4	+18.6
Abortion rate (%)	7.2	1.4	-5.8
Still births	2.1	1.1	-1
Mummification	1.9	0.4	-1.5
Live piglets	10.8	13.5	+2.7
ADWLG1 (g/d)	1,687.5	3,026.3	+1,338.8
Pre-weaning mortality (%)	15.6	6.9	-8.7

Table 1. Comparison of a 6 month period before and after using the vaccine combination UNISTRAIN® PRRS and AUSKIPRA® GN.

All the parameters showed significant difference between groups ($p < 0.05$). 1ADWLG: litter average daily weight gain in the lactation period.

Additionally, the combination administered intradermally with Hipradermic® is safe, increasing animal welfare and reducing the farmers' workload.

ACKNOWLEDGMENTS

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