

Comparison of PRRS MLV type2 vaccine efficacy of Pre-farrow vaccination program and Mass vaccination program in Thai swine farm



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INTRODUCTION

PRRSv continues to challenge pig producers in Thailand and many countries. Herd closure associated with exposure to live attenuated vaccine to stabilize herd is the common practice¹. The aim of this study was to investigate the 2 different PRRS control strategies and its impact on sow performance in the breeding herd.

MATERIALS AND METHODS

The observation of this retrospective study was conducted in 3,500 sow, farrow to finish herd in a high density area. The herd applied VR2332- based vaccine as part of a PRRSv control strategies. During 2012 – 2013 P0-P2 Unit implement PRRS MLV vaccine as Pre-farrow program at 10 week of pregnancy stage. At the end of 2013, the P0 – P2 Unit had a high percentage of illness sows during gestation and farrowing period. In December of 2013, PRRS virus was detected in the samples that taken from late term pregnancy sows by PCR method. After that, the P0 – P2 Unit changed to the quarterly mass vaccination program through year 2015. The P3 – P6 Unit has been on a quarterly mass vaccination program throughout the study. The sow performance of Unit P0 – P2 were evaluated by SPC individual chart (Minitab 16.2.3, State collage PA USA)

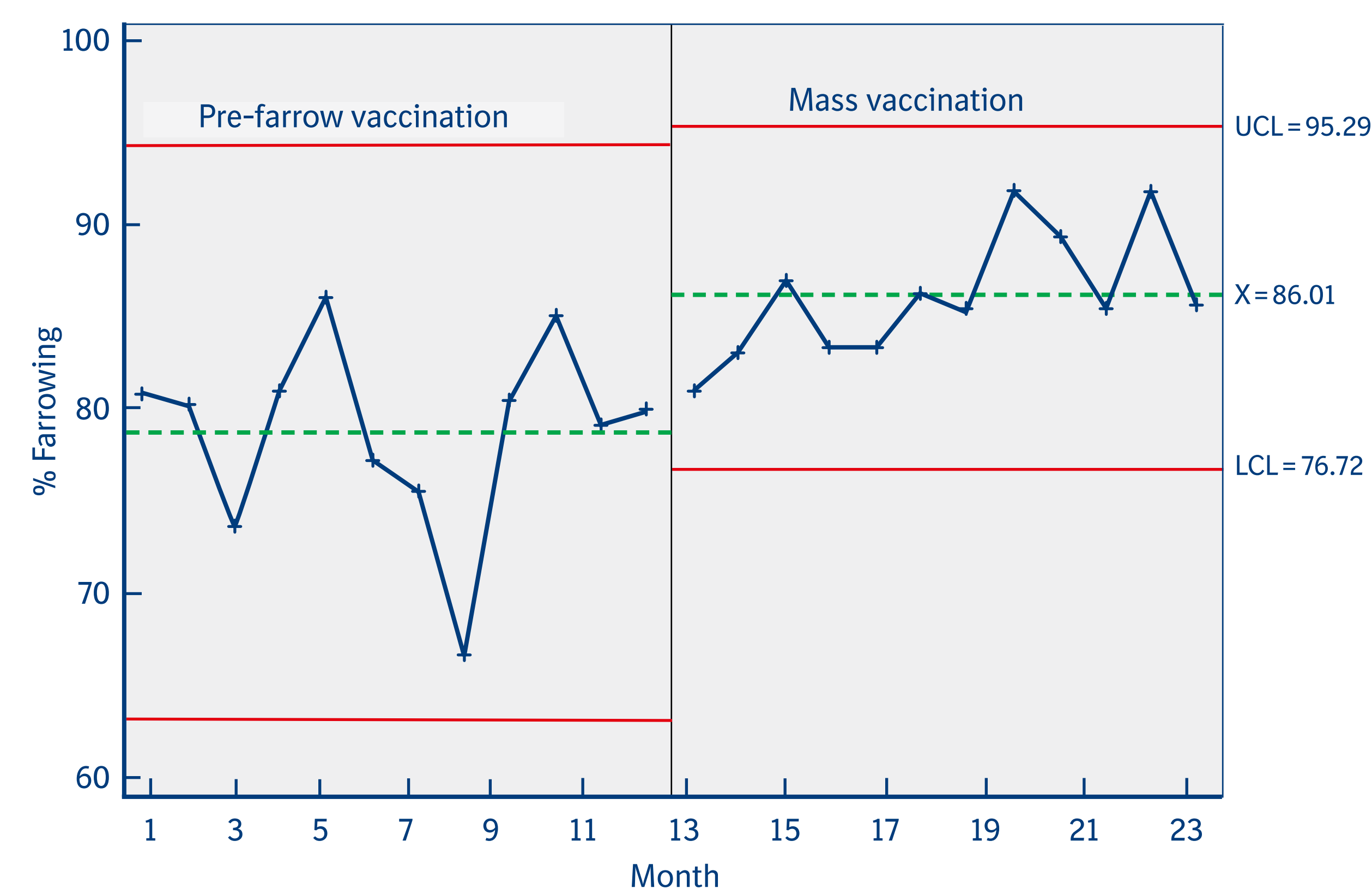
RESULTS

The overall sow performances have increased in the mass vaccination method period, %farrowing rate and weaning weight. The % mummified, % Pre-weaning mortality has decreased respectively as in table1. The trend of farrowing rate show is in figure1.

Table 1: Evaluation of sow performance with two different PRRS vaccine strategies.

	P0 – 2Unit Pre-farVx 2013	P3 – 7Unit MassVx 2013	P0 – 2Unit MassVx 2014
% Stillborn	9.58	11.69	6.96
% Mummy	2.75	2.1	0.95
% Farrowing	78	84.12	86
% PWM	17.3	11.6	10.5

Figure 1: SPC I charts for the farrowing rate of Unit P0-P2 year 2013-2014.



DISCUSSION

Consistent implementation of strategic sow herd mass vaccination program using Ingelvac PRRS[®] MLV vaccine for control of PRRSv infections was effective in improving sow performance and reducing pre-weaning mortality. When vaccinating at day 80 of pregnancy, there is a high risk of creating subpopulations of sows that has different duration between vaccinations. All sows that have returned to oestrus would have longer time between vaccinations. In addition to the vaccination at day 80 of pregnancy could be a risky strategy. With mass vaccination, it is ensured that all sows have equal immunity in the breeding herd, at all time points. This has shown to be the most optimal strategy to ensure the most beneficial reproductive performance.

REFERENCES

1. A. Oropeza et. al., A methodical approach to PRRS management, a success story of production improvements, IPVS 2012.

