

Performance improvement in pigs after using Ingelvac® PRRS MLV in a Chinese farrow-finish PRRSV positive farm



S. Fang¹, C. Sun¹, W. He², J.R. Kolb¹, L. Zhu¹

¹Boehringer Ingelheim Int'l Trading (Shanghai) Co. Ltd., Shanghai, PR China; ²JiangXi Wufeng Animal Husbandry Co., Ltd. China, Jiangxi province, PR China

INTRODUCTION

Porcine reproductive and respiratory syndrome (PRRS) is an infectious disease mainly affecting the reproductive and respiratory systems of pigs. It is transmitted by the PRRS virus (PRRSV) and has a major economic impact on pig production around the world¹. This is a field experience that using Ingelvac® PRRS MLV can improve the production performance in growing pigs and reduce the shedding of sows.

The study was conducted in a 2,900-sow farrow-to-finish farm in JiangXi province of China. Pigs were all-in-all-out at farrowing and nursery house, and weaned at 25 days of age. Half of nursery pigs were moved to finishing site. 120 gilts with weight of 50 kg will be introduced from a PRRS stable breeding farm every month. Sow herd and growing pigs were all PRRS positive unstable before the control project, and there was HP PRRS virus in herds. The mortality and culling rate of nursery pigs was about 10% with PMWS before this control project.

MATERIALS AND METHODS

Since June of 2016, the farm started to control PRRS by changing pig flow, improving biosecurity and using Ingelvac® PRRS MLV. The vaccination program adjusted as below:

Gilts: twice doses with intervals of one month after introduction; A boost injection will be given if it is PCR positive after one month to make sure gilts are PRRSV PCR negative before entering sow herd;

Sows: twice mass vaccination with intervals of one month, then mass vaccination every three months;

Piglets: intramuscular vaccination at 14 days and 35 days of age at the beginning of control project; only given one injection at 14 days age sine Dec. 2016.

Several parameters were recorded and analyzed by I-Chart of individuals in SPC to monitor the success: weekly total born alive, number of pigs died and culled at nursery stage and finishing stage from 2015 to Feb. 2017; 60 umbilical cord blood/litters were collected quarterly, one from each litter; 5 serums were mixed into 1 pool for HP PRRSV real-time PCR test to monitor the shedding status of sows.

RESULTS

Average weekly total born alive were improved from 1090.3 to 1189.9 compare with that of before and after adjustment (figure 1). Great improvement showed in deaths and culls at nursery stage and finishing stage after using Ingelvac® PRRS MLV from figure 2 to 5. The PCR positive rate of umbilical cord blood reduced from 66.7% in May 2016 to 0% in Dec. 2016, see table 1.

DISCUSSION AND CONCLUSION

Holistic PRRS control approach including change of pig flow, increase of internal biosecurity and strategic use of Ingelvac® PRRS MLV successfully controlled PRRSV in sows and post weaning pigs.

Sows were not shedding field virus after mass vaccination strategy and HP-PRRSV was not tested, and the production performance in growing pigs showed great improvement, which also demonstrated that Ingelvac® PRRS MLV has good efficacy in cross protection.

Figure 1: Weekly total born alive from 2015 to Feb. 2017

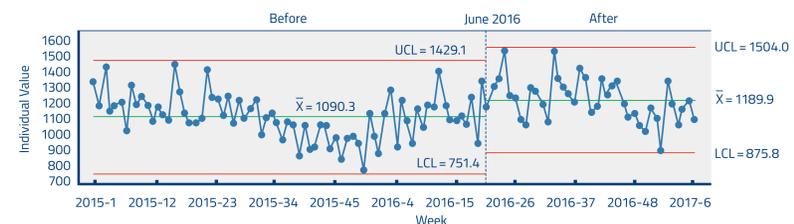


Figure 2: Weekly numbers of pigs died at nursery house from 2015 to Feb. 2017

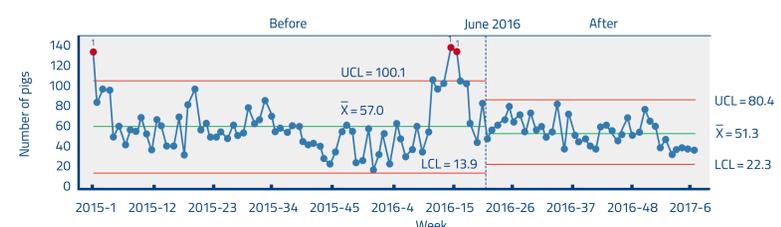


Figure 3: Weekly numbers of pigs culled at nursery house from 2015 to Feb. 2017

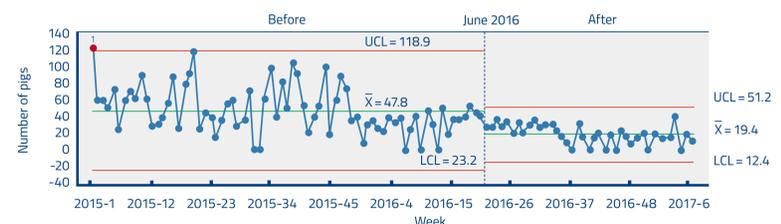


Figure 4: Weekly numbers of finishing pigs died from 2015 to Feb. 2017

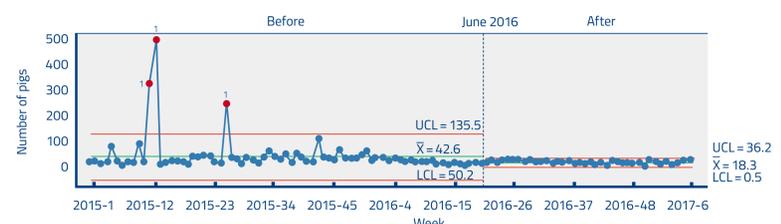


Figure 5: Weekly numbers of finishing pigs culled from 2015 to Feb. 2017

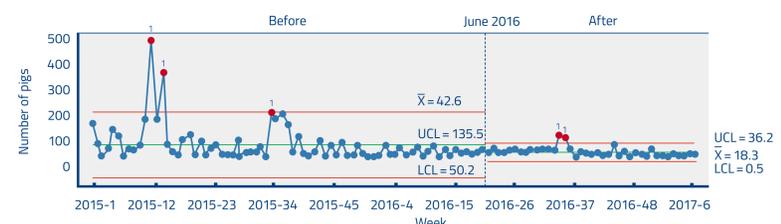


Table 1: Quantity of HP PRRSV positive and negative in umbilical cord

Date	Quantity	Quantity of HP PRRSV positive	Positive rate
2016/5/26	60 (5:1)	8 pools	66.70%
2016/9/22	60 (5:1)	1 pool	8.33%
2016/12/17	60 (5:1)	0 pool	0.00%

REFERENCES

1. Kegong Tian, 2007, PLO

